

DRIVING REAL CHANGE

# Mistra Food Futures

Programme Year Five



# ive



# Driving real change

Mistra Food Futures  
Programme Year Five



# Content

- 4 Chairperson of the board
- 6 Real change requires understanding different perspectives
- 8 A science-based, collaborative platform
- 12 Mistra Food Futures Academy
- 18 Results
- 30 In good company
- 32 One Year of Shaping Sustainable Food Systems with Mistra Food Futures
- 36 Communication/Public affairs
- 38 MFF Year five -Highlights of the year
- 40 What's cooking Year Six?
- 42 Organisation
- 45 Funding
- 46 Appendix

# Chairperson of the board

**One year into phase two, Mistra Food Futures represents a clear step forward, with a continued focus on delivering real change.**

Since its inception, Mistra Food Futures has had a clear ambition: to contribute with new scientific knowledge and, most importantly to actively inspire and enable a transformation towards a more sustainable food system. During its first phase, the programme has established itself as a recognised, scientifically grounded platform in Sweden. - a meeting place where academia, food value chain actors, authorities and regional actors come together for in-depth dialogue, shared learning and collaborative action.

Through targeted activities within the consortium, a focused public affairs effort, and broad dissemination of the programme's results, Mistra Food Futures has actively

worked to bring science-based knowledge into relevant policy processes to create genuine impact. The world continues to change rapidly. Climate crises, geopolitical uncertainty and rising demands for preparedness pose increasingly complex questions for the food system and for society as a whole.

With a clear perspective towards 2045, the programme is now advancing the work on food system preparedness, a strengthened global outlook, and the difficult but crucial trade-offs required to reconcile climate goals and public health with economic viability.

I look forward with great confidence to the programme's continued work. Through knowledge, collaboration and the courage to tackle complex questions, Mistra Food Futures is well positioned to continue contributing to lasting, tangible and positive change – for people, society, and the planet.



**ANNICA SOHLSTRÖM**  
*Chairperson of the Board*  
*Mistra Food Futures*

Mistra Food Futures  
has actively worked  
to bring science-  
based knowledge  
into relevant policy  
processes to create  
genuine impact.

# Real change requires understanding different perspectives

**Societal developments over the last few years clearly highlights that the need for food system transformation towards sustainability and resilience is not a theoretical discussion based on forecasted change in a distant future.**

On the contrary, since the severe drought of 2018 – for Sweden a first experience with extreme weather events in a long time - and the outbreak of the war in Ukraine, which lead to a production cost crisis in agriculture, there is an increasing awareness of the need for action. And that action need to happen now, not in a distant future. We need production side transition towards environmentally, economically and socially sustainable production and changes in food consumption towards healthier diets.

Real change is thus needed. It is about a healthier food consumption, mitigating climate impacts and adverse biodiversity impacts, adaptation to ongoing climate change, improved resilience to ensure the systems robustness, adaptability and if needed – transformability, when next time exposed to severe disruptions. It is about improving competitiveness so farmers and other businesses in the food value chain can make a living from their

incomes. And it is about what each one of us put on the plate: healthy and sustainable foods from sustainable and resilient production systems.

More than five and a half years into its work, Mistra Food Futures now more than ever directs its efforts towards real change.

The vision of our research programme is to actively encourage a transformation of the Swedish food system into one that is sustainable, resilient and that delivers healthy diets. We interpret sustainability in the full breadth of the word, thus covering its environmental, economic and social dimensions. At the core of Mistra Food Futures' activities is a research agenda to develop science-based knowledge that is needed to understand how a sustainable and resilience transition of the Swedish food system can happen. Our peer-reviewed scientific results, published in high-quality international scientific journals are at the centre, and is the solid basis upon which we base discussions and advice about how the Swedish food system can develop in the future into a sustainable and resilient one.

However, to support the development of the food system, researchers cannot leave the scene as soon as the scientific results are accepted for publication. To make real change

scientific results need to be put into context, sometimes adapted to contexts, discussed and synthesised to be useful for action. To do this, we also need to understand how scientific results can be used and how they fit into a larger system. The transdisciplinary collaboration in Mistra Food Futures – the collaboration across different types of organisations including food value chain actors, public authorities, non-governmental organisations and researchers, is a cornerstone to leverage research results into real change. Here, researchers learn from practitioners and vice versa.

We are convinced that a key factor for real change is to understand and reflect on diversity in perspectives. By doing this, research results can more easily be integrated and leveraged into overall solutions for achieving a sustainable food system.

This is not an easy task, and it is unlikely to happen without deliberate planning. Therefore, in Mistra Food Futures' second programme phase, we initiated the Mistra Food Futures academy to increase the understanding of different perspectives in the food system and how specific research results fit into a bigger picture of research and practice.

To make real change scientific results need to be put into context, sometimes adapted to contexts, discussed and synthesised to be useful for action.

In the academy, early career researchers – doctoral students and postdoctoral researchers – from different academic disciplines meet at scientific seminars and with actors across the food system. This triggers discussion and reflection beyond the disciplinary scientific results.

To make results more accessible and ready for real change, we also focus on overarching programme research themes, aiming to integrate and discuss detailed results across work packages to create a bigger picture.

To increase the capabilities to change food system activities to

be more sustainable and resilient and thus help achieve real change, Mistra Food Futures started the Transition Lab activities, dedicated to hands-on workshops.

We take the opportunity to thank everyone in the programme for stimulating and rewarding collaborations! We very much look forward to the coming year, with research results from the second phase starting to emerge and form a solid basis with phase one results to actively encourage a continued transformation of the Swedish food system into a sustainable and resilient one.



Helena Hansson



Per-Anders Hansson

**HELENA HANSSON**

*Professor, Programme Director Mistra Food Futures,  
Department of Economics, SLU*

**PER-ANDERS HANSSON**

*Professor, Programme Director Mistra Food Futures,  
Department of Energy and Technology, SLU*



## A science-based, collaborative platform

Mistra Food Futures is an established, science-based knowledge platform working to support the transformation of the Swedish food system towards economic, environmental, and social sustainability, resilience, and the delivery of healthy food, within a global perspective.

The programme is built around a 21-partner consortium that brings together universities, research institutes, public authorities, companies, and organisations. It takes a holistic approach to the entire food system, from primary production to consumption, with a long-term outlook towards 2045.

**1** Identification and synthesis of on-going research on how to achieve net-zero greenhouse gas and sustainable agricultural systems as well as sustainable food value chains.

**2** Research into actions to fill key knowledge gaps for achieving sustainable transformation at all levels in the food system.

**3** An encompassing approach to sustainable development, covering its environmental, economic, and social dimensions.

**4** Initiation of a transformation process, together with societal actors.

### Our four main strategies:

The programme's strategies are designed to drive both gradual progress in the near term and a broader, long-term transformation of the food system. As the importance of resilience, international interdependencies, and global sustainability challenges continues to grow, the programme has expanded its focus to include food

system preparedness within a global context. A further key focus is the analysis of societal trade-offs, particularly where achieving a net-zero greenhouse gas food system may involve economic or social consequences that are unacceptable to society.

---

### The work packages (WP)

The work packages form the core of the programme, summarising its main planned activities. They are embedded within an organisational structure centred around the Mistra Food Futures Academy and are designed to integrate with one another to efficiently build on and advance the results from phase one in the

most effective way. At least one work package has primary responsibility for each fundamental research aim, while many other work packages contribute by supporting its achievement or building on its results within their own activities. No fundamental research aim is the responsibility of a single work package alone.

## The fundamental research aims:

- **Identify** what a sustainable food and agricultural system can look like and entail in practice. Continued from phase one.
  - **Identify** how the food system can transition towards sustainability and improved preparedness and resilience at the same time.
  - **Identify** refined pathways to future sustainable food systems, by further developing Mistra Food Futures' scenarios and a model of the Swedish agricultural sector developed in the first phase. Continued from phase one.
  - **Identify** and apply a set of overarching and holistic sustainability indicators for actors in the food system to follow and monitor progress. Identify key determinants for a sustainable food system and for individual food system actors and the role of indicators in encouraging transformation. Continued from phase one.
  - **Identify** levers, barriers and solutions for barriers, for transitioning the food system into one that is sustainable, resilient and that delivers healthy diets. Special emphasis will be put on the organisation of the food system as such and on the impact of national and international policies.
  - **Identify** and explore goal conflicts and trade-offs with other societal systems that are interlinked with the food system.
  - **Strengthen** the transition capability among food system partners and beyond. Continued from phase one.
  - **Analyse** how the food system can be developed in a more just way, including distributional, recognition and representational justice in both outcomes and processes.
- 
- During programme year five, we have started a specific focus on the following fundamental research aims:
- Identify what a sustainable food and agricultural system can look like and entail in practice.
  - Identify levers, barriers and solutions for barriers, for transitioning the food system into one that is sustainable, resilient and that delivers healthy diets.

## Mistra Food Futures Academy

Mistra Food Futures is organized around a group of doctoral students and postdoctoral researchers, who, with guidance from both academic mentors and partner mentors in the food system, carry out their doctoral or postdoctoral training within the program. In this way, we

are training the next generation of food system researchers with the necessary interdisciplinary skills and competencies, which helps ensure the availability of qualified researchers in sustainable food systems.





# Mistra Food Futures Academy

During its first year, the Mistra Food Futures (MFF) Academy has focused on establishing a strong foundation for learning, collaboration, and reflection. Guided by a shared ambition, the Academy was created as a space where research and practice meet through structured dialogue. Its primary aim is to support early career researchers in food systems research while strengthening connections between academia and actors across the food system. After one year, this approach has proven both relevant and necessary.

**The Academy is built around** its participants and a structured programme designed to address the complexity of food systems through scientific rigor combined with openness to diverse perspectives, experiences, and forms of knowledge. Over its first year, Mistra Food Futures Academy has fostered an environment characterised by trust, curiosity, and shared learning, demonstrating the value of inclusive spaces where researchers and food system actors can meet on equal terms.

---

### **Seminars**

The seminar programme combines academic seminars focused on ongoing food systems research with partner seminars where consortium organisations share practical experiences and sustainability challenges. Together, these seminars strengthen dialogue between research and practice and help identify real-world knowledge needs.

### **Study Visits**

Study visits connect research to practice by providing the academy members with first-hand insight into everyday challenges, decision-making processes, and practical constraints across the food system. These visits deepen understanding of how research relates to real operational contexts.

### **Mentorship**

Mentorship has been a central component from the outset. Each doctoral student is matched with an external mentor who provides guidance beyond the academic context. The mentorship programme strengthens links between research and real-world application and reinforces the relevance of food systems research.





It feels like a luxury to gain insight into the latest research and to follow how new knowledge emerges. I hope that I can contribute through networks and by providing examples of questions that are important in agriculture.

*Markus Hoffman, Sustainability Specialist, LRF,  
Mentor to Maja Lindblad*

---

"It is very valuable to have a mentor that gives recommendations and insights in relevant things beyond the academic sphere. The mentorship programme is also a fun way to get to know a colleague in another part of the food system."

*Maja Lindbland,  
PhD student*

---

"The mix of academic and non-academic partner seminars gave me the chance to learn more about ongoing research in our program, as well as the work of other partners across the food supply chain. These seminars help me better understand how my research connects to wider food system challenges and how sustainability issues are addressed in practice."

*Md Rezanual Islam,  
PhD student*

---

"The best thing about the MFF academy seminars is that they give us insights and important perspectives from the real world, reminding us that sustainability is a societal issue and the purpose of our research is to contribute with knowledge for solving real world problems and not to become an academic product of little use."

*Helena Robling,  
PhD student*



# Mistra Food Futures in brief

The programme is structured around eight interconnected work packages, each contributing to a set of the overarching research aims.



**WP Coordination** is responsible for overarching programme coordination and management, dissemination and public affairs. The aim of the coordination and management WP is to ensure an efficient and transparent management of the

programme, to ensure scientific rigour as well as knowledge transfer, uptake and exploitation of results.

**WP leaders:** Helena Hansson and Per-Anders Hansson (shared)



**WP Indicators** adapts the overall model of food system sustainability developed in phase one to different food system actors. The WP further investigates food system actors' preferences for sustainability and resilience indicators, and how these indicators are utilised in decision-making to foster transformation towards sustainability. The WP also examines the synergies and trade-offs between sustainability impacts.

the model, together with relevant indicators are scaled down to the level of individual food system actors. Furthermore, WP Indicators conducts novel analyses of the interrelations between sustainability indicators, with a specific focus on the farm level. This provides new insights into the interrelationship of indicators and highlights potential synergies or trade-offs. Lastly, WP Indicators explores actors' preferences for indicators in decision-making and investigates how the use of indicators can support the actual transformation of the food system.

WP Indicators takes as its starting point the conceptual model of overall food system sustainability - the Food System Sustainability House - developed in phase one to explain at a theoretical level what a sustainable food system entails. In phase two,

**WP leader:** Helena Hansson (main), Malin Jonell (deputy)



**WP Measures** collaborates with different research projects focusing on specific measures to achieve net-zero greenhouse gas agricultural systems. WP Measures synthesises and leverages their results, by using a system and life cycle perspective on individual measures. The collaboration projects in WP Measures make it possible to present unique knowledge related to several exciting measures aimed at decreasing the

environmental impacts of the food system. Their full potential is expected to be developed around the year 2045 or later. The capacity of the life cycle methodology and time dynamic climate metric contribute to assessments that are methodologically more advanced than previously presented.

**WP leaders:** Hanna Karlsson Potter (main), Per-Anders Hansson (deputy)



**WP Organisation** looks at the fundamental industrial organisation of major food value chains in Sweden and evaluates the existence of market power and how market power might affect sustainability and resilience, particularly in the agricultural component of the food system. WP Organisation investigates the organisational structure of the food supply chain, asking fundamental and new questions about how food value is created (from farm to fork) and how market power is distributed across the food value chain.

This WP investigates novel questions regarding how food value chain organisation relate to the uptake of sustainable practices, particularly in agriculture. It also examines how different types of supply chain organisation (e.g. short vs. long) can impact the capacity of actors to withstand severe shocks such as extended drought or supply chain interruptions.

**WP leaders:** Vivian (Wei) Huang (main), Helena Hansson (deputy)

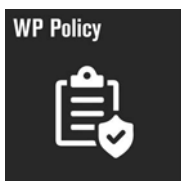


**WP Pathways** Pathways focuses on exploring four alternative pathways toward achieving a sustainable Swedish food system. Building on the pathway development from earlier programme phases, the work refines these future pathways and assesses their potential to meet environmental, economic, and social sustainability goals.

WP Pathways evaluates the impacts of the four scenarios on the sustainability indicators developed by the programme. The WP examines the four food futures from various social, environmental, and health dimensions. In particular focus are the social foundations of the Swedish food system, such as right to healthy food, meaningful

livelihoods, secure and healthy food environments, and social equity and freedom. Analyses of how these social dimensions interact with, and are affected by, the four food futures deepens the assessment of how different transition pathways perform in relation to both ecological limits and societal wellbeing. Furthermore, WP Pathways examines the potential effects of globally interconnected crises and events, assessing the risks in terms of shocks and creeping trends that could fundamentally affect Sweden's food system resilience.

**WP leader:** Line Gordon (main),  
Martin Persson and Elin Rööös (deputy)



**WP Policy** focuses on national and international policy leverages and barriers for food system transformation and suggests ways to address policy-related challenges. WP Policy explores the feasibility and effectiveness of different policy options and the potential trade-offs between these two features. This is critical to designing robust policy interventions that take both the urgency of the situation into account and the need

for long-lasting change. This moves us beyond the current state of the art, where the focus has typically been on one or the other of the two features. Moreover, by taking potential future scenarios into account in policy evaluation, as well as a resilience perspective, this WP further advances the research field.

**WP leaders:** Therese Lindahl (main),  
Sarah Säll (deputy)



**WP Systems** is based on input from Measures, Pathways, and Indicators, and quantitatively evaluates multiple indicators of sustainability in the Swedish agri-food system under different future scenarios. WP Systems develops and uses CIBUSmod for its analysis, a computational mass-flow model of the Swedish agri-food system

with high spatial and process-detail resolution. It is capable of calculating multiple sustainability indicators, including time-dynamic climate effects, while ensuring internally consistent and agronomically feasible scenarios.

**WP leaders:** Per-Anders Hansson (main),  
Johan Karlsson (deputy)



**WP Transition Labs** takes science-based results to strengthen the transition capability among food system actors. This WP builds new transition capabilities in both individuals and organisations to enhance the understanding of what a system transition entails and how to enact a transition of the food system. This is combined with concrete case studies where pathways, strategies, policy interventions, etc. are explored together with stakeholders and relevant decision-makers. A ho-

listic approach to systems transitions, integrating capabilities with implementation, takes the work beyond the state of the art, where, in most cases, one aspect is explored. Conducting research on how to run a transition lab and the conditions needed to initiate a transition further generates new scientific knowledge on systems transitions.

**WP leaders:** Björn Persson (main),  
Fredric Norefjäll (deputy)

# Results

Emerging risks and  
social changes in  
Sweden's food system



**In 2025, Mistra Food Futures** deepened its understanding of how Sweden's food system is shaped by emerging risks and evolving social conditions. The food system risk landscape was mapped using a so called two round Delphi process with experts from food production and public authorities with expertise in preparedness and sustainability. The results show that climate related and geopolitical shocks are seen as the most disruptive threats to Sweden's food system, with climate events considered slightly more likely.

**Key risk insights were:**

- Climate shocks: highest perceived likelihood and impact
- Geopolitical disruptions: major vulnerability due to import dependence
- Slow burn trends (e.g., low farm profitability): undermine resilience over time

Experts rated nearly all shocks as at least moderately likely. Climate and weather related shocks, geopolitical tensions, and input shortages were the risks perceived to have both high likelihood and high impact. Some lower likelihood events, such as large scale pollution or war, were seen as extremely impactful if they were to occur.

Trends with the greatest negative impact on resilience were climate change, low profitability in food production, and loss of ecosystem services. Additional high impact concerns included biodiversity loss, regulatory burdens, lack of investment, and political polarization.

**When asked to prioritize areas for action, experts consistently highlighted:**

1. Climate change
2. Low profitability in food production
3. Loss of biodiversity
4. Regulatory burdens
5. Lack of investment in the food system

Across both Delphi rounds, agreement generally increased, especially on the severity of impacts. While perceptions converged for many shocks, assessments of long term trends remained more diverse, reflecting different expert perspectives on slower, structural changes. Together, these results offer a detailed picture of the pressures shaping the resilience of Sweden's food system—clarifying where vulnerabilities lie and where future action is most urgently needed.

Looking ahead, the rapidly evolving global context underscores the importance of revisiting these findings; escalating trade tensions, shifting geopolitical alliances, and increasing political polarization since the survey suggests that expert perceptions of risk may already have and will continue to shift.

## Differences in quantity, scope, and target connection in food system companies' reporting of sustainability indicators

**To achieve sustainable food systems,** we need to be able to track the developments in key areas. Quantitative sustainability indicators are numerical measures of issues like energy use, emissions, human and animal health etc., which can be used to monitor progress towards food system sustainability. We already know that food system actors differ in their views on sustainability challenges and solutions, but we don't know whether this difference in views is reflected in the way that companies use sustainability indicators to monitor sustainability in their supply chains. Since monitoring sustainability indicators is an important basis for sustainable action, in the spirit of "what gets measured gets done", these questions require research. Therefore, we investigated food industry and retail companies in Sweden over 5 years to see what and how they monitor and report food system sustainability by using quantitative indicators, and whether there are differences in reporting based on size, sector and multinational connections of the company.

We used 340 sustainability reports from 2017-2021, by 92 food and beverage industry, wholesale and retail companies active in the Swedish market. From these reports we manually collected a "raw indicator catalogue" of ~6000 indicators and their respective target when applicable.

We constructed variables describing three aspects of sustainability indicator monitoring and reporting

1. the indicator amount, i.e. how many quantitative indicator that are reported,
2. the scope, i.e. how broadly the indicators capture sustainability topics and dimensions,
3. the target connection i.e. to what extent the reported sustainability indicators are related to internal sustainability targets.

The results show that there are notable differences between the companies in sustainability indicator reporting. 90% of the companies monitor emissions, and 75% report on waste while much fewer (<5%) report on soil health or climate adaptation and resilience. Biodiversity indicators were dominated by proxies that monitor organic production or sales of organic products. 75% of companies reported indicators related to employment practices, occupational health and safety, and non-discrimination and equal opportunities while much less (<10%) reported on forced and compulsory labour, land and resource rights, rights of indigenous peoples, freedom of association, and child labour.

# The results show that there are notable differences between the companies in sustainability indicator reporting.

In general, topics related to the maintenance of natural capital and economic enablers were underreported in terms of quantitative sustainability indicators. The average sustainability report contains around 20 quantitative indicators and monitors around 10 sustainability topics in 5 dimensions over the years while the average share of target connected indicators increase from 30% in 2017 to 50% in 2021. The larger the company is in terms of turnover, the more indicators it reports, with a wider scope and more target connected indicators. Further, multinational companies on a global and European level tend to report more, wider and more target connected indicators while wholesale companies tend to report fewer, less wide and less target connected indicators in comparison to food industry, in lower and higher ranges of reporting.

With this study, we have shown how sustainability monitoring and reporting of sustainability indicators was done in the food sector before the Corporate Sustainability Reporting Directive (CSRD) legislation came into force. The study thus functions as a benchmark which can be used in comparisons with future sustainability reports, to evaluate the effects of the legislation in terms of sustainability indicators. Such benchmarking is also useful for internal assessment, comparison and innovation within the companies. Our detailed overview of sustainability indicator use thereby provides valuable insights to all actors in the food system who wish to understand and influence how companies use sustainability indicators as a tool for a sustainable food system transformation.

## Environmental impacts of future dietary patterns in four food system scenarios

**The environmental impacts** of the four future scenarios, Food as Industry, Food as Food Tech, Food as Culture and Food Forgotten from programme phase one, were assessed. Diets<sup>1</sup> were developed for each of the four scenarios, reflecting the differences between the scenarios in the scenario narratives, and the dietary changes suggested reflect four realistic future diets which respect the national food culture, including meat and dairy products. In all scenarios significantly more vegetables are consumed to reach health targets and fewer animal foods to reduce climate and global biodiversity impacts.

The study found that dietary changes alone could reduce environmental impacts, such as land use, freshwater use, and biodiversity loss, around 30% compared

to current diets. Despite the differences between the scenarios, each of the four futures showed possible pathways for reducing land use and biodiversity impacts and, combined with reducing food waste and phase out of fossil fuels, can meet climate goals by 2045.

Within the Swedish food system, although food consumption plays a substantial role, improvements in food production and waste reduction are also required to meet targets. Regardless of scenario, changing food consumption will not be enough. The study estimates that combining dietary changes with phasing out fossil fuels in the food chain could further reduce climate impact by 50-60%. If food waste were cut by half, it would reduce climate, land use, and biodiversity impacts by an additional 8-10%.

<sup>1</sup> The four diets are, briefly, Food as Industry: In Food as Industry, diets are similar to current diets, but with substantial reductions in animal products for climate reasons and major increases in fruit, vegetables, and legumes for health reasons. Food as Food Tech: The Food as Food Tech scenario diet more closely reflects the EAT-Lancet reference diet with reductions in dairy, meat, and fish, but animal source foods were replaced by higher-tech alternative foods (e.g., cultured meat, fish, and dairy, microbial fats and eggs). Food as Culture: The Food as Culture scenario diet focused on locally produced and diverse foods, reclaiming food as central to life and culture. An increase in the diversity of food items consumed, in particular those with local origin, was assumed. Food Forgotten: The diet reflects the fact that people are eating the same types of food as in current diets, but with other ingredients that are generally from places with the most resource-efficient production systems, with the lowest climate impact. All scenario diets are nutritionally adequate, while substantially reducing animal-based foods to meet environmental targets and increasing the intake of fruits, vegetables, and whole grain products to meet health targets.

# Regardless of scenario, changing food consumption will not be enough.

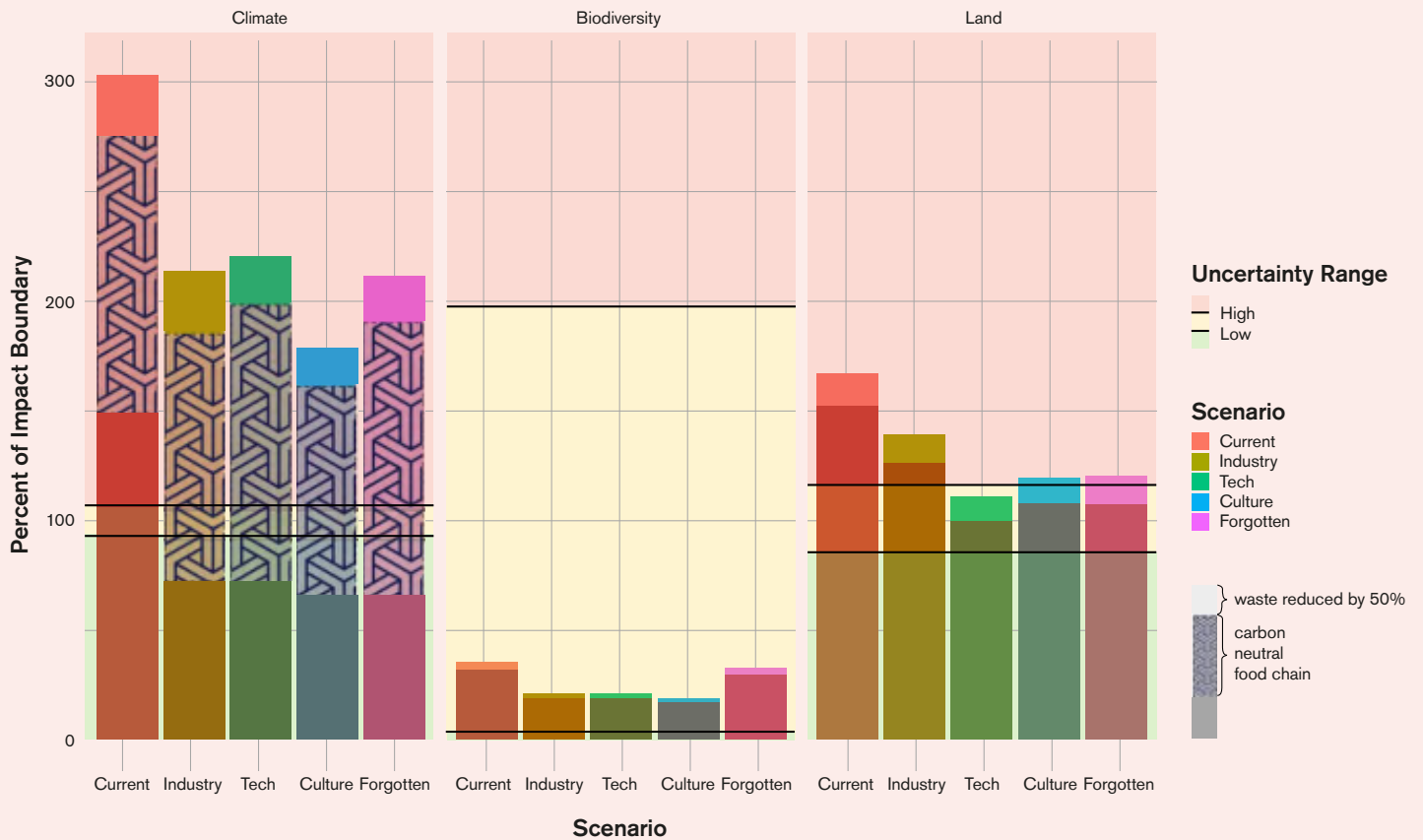


Illustration of impacts of the current and the four scenario diets, expressed as percentages relative to the average of each of the three environmental impact boundaries (Climate Impact, Biodiversity, and Cropland Use). The uncertainty ranges of the boundaries are shown between horizontal lines for high (green), middle (yellow), and low (green). On each bar, the top segment in a lighter colour shade shows the impact that could be reduced by a 50% reduction in waste across the food system production, retail, and consumer waste. On each climate impact bar, the middle, patterned segment shows the climate impact reduction due to the phase out of energy-related emissions.

## CIBUSmod: A flexible food systems modelling framework

**One of the key outputs** of Mistra Food Futures is CIBUSmod), a modelling framework for quantitatively evaluating mass-flows and environmental impacts in future scenarios of national food systems.

In its core, CIBUSmod is a mass-flow model that balances demand, calculated from supplied diets as well as data on imports and exports, with agricultural production. The model ensures that crop nutrient requirements and animal feed demand are covered and distributes agricultural production regionally. It also adheres to constraints, such as regional suitability for different crops and crop rotation frequency, to ensure that scenarios are agronomically feasible.

CIBUSmod was designed to be flexible and adaptable in response to different research questions. It consists of several modules that calculate different aspects such as crop nutrient requirements, emissions in manure management, and energy use in machinery and animal housing. This allows for maintaining and adapting the model by adding new modules or revising existing ones.

The model has been applied in several contexts during the programme. For example, it was used to provide decision support for the Swedish Food Agency during revision of the Swedish dietary guidelines. It has also been used as a pedagogical tool in two PhD courses where participants constructed their own future scenarios and analysed model output. CIBUSmod was also the basis for a master's thesis where the modelling framework was extended to allow for optimising animal feed rations based on available feed resources and animal requirements.

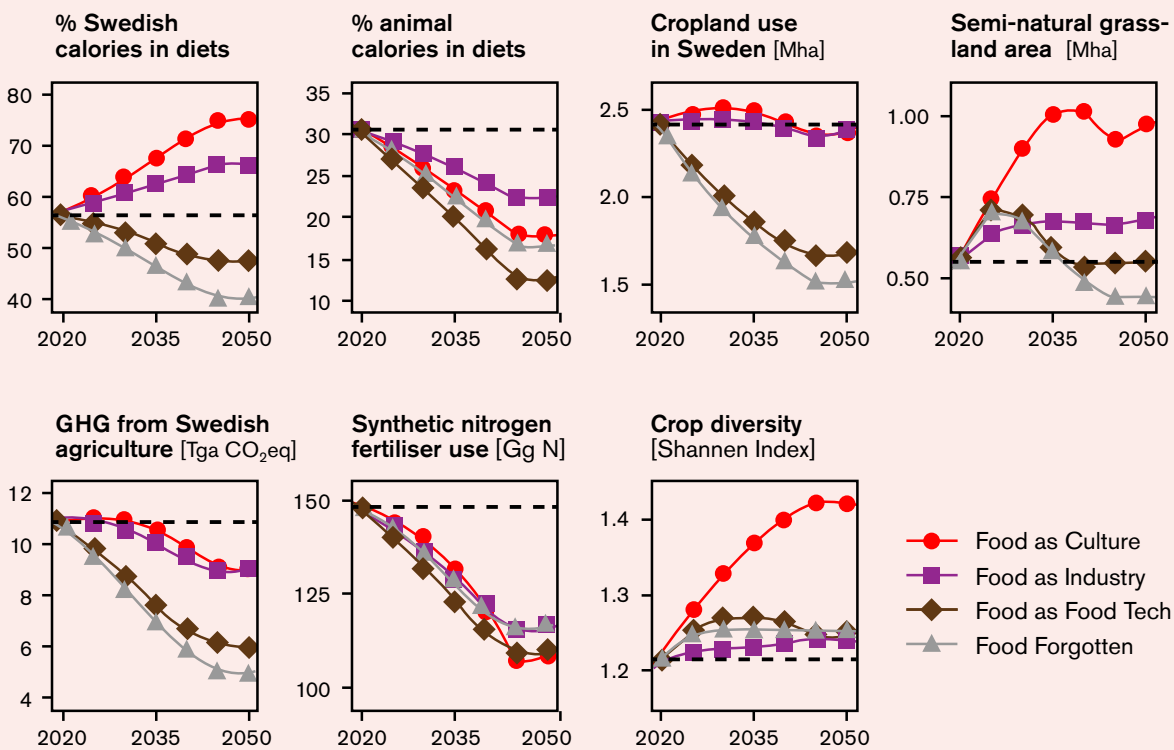
This work contributed to a successful grant application with the Research Council of Norway for a project where CIBUSmod is applied to study pathways for Norwegian livestock and aquaculture that make better use of local resources. Finally, the model has been used to quantitatively describe and assess the four future food system scenario narratives developed within the Mistra Food Futures Programme (Figure, page 27).

The ambition is to continuously maintain and further develop the modelling framework for it to be a valuable resource in research and education around sustainable food systems for the remainder of the programme and afterwards.

Results show that the Food as Food Tech and Food Forgotten scenarios reduce demand for Swedish agricultural production and thereby also cropland use and greenhouse gas (GHG) emissions associated with Swedish agriculture. Conversely, in Food as Industry and Food as Culture the share of Swedish-produced calories in diets increase considerably, but changes in diets and agricultural production systems still allow for reduced GHG emissions and synthetic nitrogen fertiliser use in Sweden. Food as Culture also allow for a considerable increase in semi-natural grasslands and a higher diversity of crops.

The ambition is to continuously maintain and further develop the modelling framework for it to be a valuable resource in research and education around sustainable food systems for the remainder of the programme and afterwards.

### Box 1



Through expert workshops and interviews the four future food system narratives developed within Mistra Food Futures have been translated into quantitative scenarios of how consumption and agricultural production systems may change in the future. The figure shows the effects of these scenarios on selected key indicators as modelled using CIBUSmod.

## Policies for changing consumption

Without a change in food consumption the societal costs of Swedish food consumption in the form of environmental damages and poor health will continue to rise. But how do we enable a dietary change? Doing nothing doesn't seem to work, but should we rely on interventions like information, regulations, taxes and subsidies, or something else? And who should intervene? Recent studies from Mistra Food Futures explore which measures work best and which are most likely to be implemented with less resistance.

### On the effectiveness of policies

We conducted a systematic literature review to assess the effectiveness of public policies aimed at promoting environmentally sustainable food consumption. The findings suggest that several cost-effective and low-risk measures can reduce the food system's environmental impact, including menu restructuring, tailored information campaigns, educational programs, and smaller

portion sizes. Price-based incentives such as taxes and subsidies also appear effective, supported by many simulation studies.

### On the acceptability of policies

But what does the public think of these different types of interventions and what influences acceptability? A study using Swedish survey data examines how support varies across different policy instruments. The results show that more stringent interventions are generally less accepted, but also that perceived social norms is a strong predictor of policy support. This highlights the importance of policy design and the social context when developing and evaluating measures in the food policy sector. In another survey based study we ask the question: can policies be designed to garner more support? We explore public support for policy packages including taxes and subsidies used either in isolation or in combination in different ways. We find that support varies in relation to how they are perceived to affect citizen's living

costs. In another study we explored consumer acceptability of interventions promoted by food retailers. Results show that strategies based on information, social norms, and choice architecture are generally well accepted, while price-based measures and choice restrictions face more resistance. Acceptance is primarily influenced by perceived effectiveness, and fairness.

### Take away points

Implementing stringent measures may be politically difficult unless policy design takes effects on living costs into account. At the same time, there is strong evidence for low-cost measures that could be implemented immediately at a low risk of backlash. Supporting private-sector actors to adopt effective measures may also be a feasible near-term pathway, as these interventions may be perceived as less intrusive and face less resistance.

## Cost efficiency and economic viability in Swedish dairy and wheat farms

We examined what drives farm production price markups - an indicator of cost efficiency and economic viability - at a time when the number of farms in Sweden is steadily declining. Using farm-level data spanning 2007 to 2022, we estimated a production function to derive output elasticities and calculated price markups. Using milk from dairy farms and wheat from crop farms, we analysed the factors influencing the price markups of these products and examined how these markups vary across different farm sizes and along the markup distribution.

For dairy farms, scale is the dominant determinant of markups. Herd size is positively associated with markups, although the gains diminish as farms expand. Results show that the scale effect is strongest among low-markup farms and weakens toward the upper end of the farm size distribution. Local market structure also matters: higher farm-level concentration increases markups. In contrast, cost-related factors systematically reduce markups. Greater reliance on farm-grown feed, forage, and

rented land is associated with lower markups, while improved liquidity modestly increases them.

For wheat farms, land size is the dominant determinant of markups. Larger operated areas are associated with lower markups across the entire distribution, pointing to land-related diseconomies of scale. By contrast, liquidity and family labour intensity consistently increase markups. Size-specific patterns indicate that medium-sized farms benefit most from increased family labour intensity, while liquidity improvements are more relevant for large farms.

Overall, the study demonstrates that farm mark-ups are not uniformly enhanced by expansion. Instead, factors associated with price mark-ups vary across production systems and along the markup distribution. The findings have important implications for agricultural policy, suggesting that support measures should account for sector-specific scale dynamics and local market structures. In doing so, the analysis offers evidence-based guidance for policies aimed at strengthening long-term farm resilience.

Overall, the study demonstrates that farm mark-ups are not uniformly enhanced by expansion.

# The goal is to utilise methods and learnings from networked business models to create a shared understanding among food system actors

## **Collaboration to strengthen the transition capability of food system actors**

The Transition Lab continued to build on the methodology developed in phase one on networked business models. A project titled Regenerative Value Chain was initiated in collaboration with Regenerator, a Vinnova-funded initiative focused on establishing a regenerative food system in Sweden. The purpose of the project is to explore the emerging paradigm of regenerative agriculture, the various narratives surrounding the practice, and to begin identifying the systemic changes needed to increase the practice of regenerative agriculture in the Swedish food system.

The goal is to utilise methods and learnings from networked business models to create a shared understanding among food system actors as to what a regenerative

value chain could entail, identify the necessary changes needed for a regenerative value chain to scale, and find areas in which actors can begin to collaborate.

During 2025 digital workshops were conducted, with participants from across the food system. The meetings provided a space to explore the narrative of a regenerative value chain and how it can be a niche in a sustainable transition. The participants contributed to the collective intelligence by providing different perspectives and insights on the topic. Focusing on who can do what strengthened the transition capacity among food system partners, while using the Mistra Food Futures scenarios highlighted alternative transition pathways towards a regenerative value chain.



# In good company

By fostering collaboration between academia, food value chain actors and public authorities, the MISTRA Food Futures research programme addresses the complex challenges facing the food system and develops solutions for a more resilient and sustainable future. This groundbreaking initiative is dedicated to promoting sustainability and innovation within the food system, and through close collaboration between research and society, it has laid the foundation for long-term learning while actively driving real change.

**Many thanks to all partners for your valuable input and continued contributions.**

Academic and research institute partners of Mistra Food Futures phase two include the core consortium partners:



Societal partners in Mistra Food Futures:





# One Year of Shaping Sustainable Food Systems with Mistra Food Futures

ICA, Agronod and Oatly joined as new partners ahead of Phase Two. One year on, here is what they say about their first year in the programme.

As a partner, Agronod can contribute both expertise and digital infrastructure that support farmers in the transformation the programme seeks to achieve.



**What led Agronod to enter into a partnership with Mistra Food Futures?**

Agronod's mission is to strengthen sustainability and competitiveness in Swedish agriculture. We do this by providing a neutral digital platform for Swedish agricultural data. Through Agronod, data can be shared and reused securely, while farmers retain ownership and control of their data.

This aligns with Mistra Food Futures' work to drive a knowledge-based transition of the Swedish food system. As a partner, Agronod can

contribute both expertise and digital infrastructure that support farmers in the transformation the programme seeks to achieve.

A concrete example is Mistra Food Futures' development of indicators and measurement methods. This aligns with Agronod's climate calculation tool, Agrosfär. In the long term, the ambition is for Agrosfär to cover additional aspects of sustainability beyond climate impact.

**VERA SÖDERBERG**

*Head of Sustainability, Agronod*

# Seeing and feeling the engagement for sustainable food systems across sectors is also a great source of inspiration!



**JENNY LÖNN**

*Senior Sustainability Manager, ICA*

## **What challenges do you see when it comes to making food systems more sustainable and resilient?**

One big challenge is to get the measures we know must be taken to work in a very commercial context. Many of the solutions already exist but scaling them up to become mainstream rather than niche is where we often get stuck. It also has to do with combining a relatively short-term commercial mindset with systemic changes that take much longer and don't necessarily offer immediate payback.

## **Looking back over the past year, how has your collaboration with Mistra Food Futures influenced your perspective or your work on sustainable food systems?**

Our collaboration with Mistra Food Futures helps ensuring that our strategic work is always grounded in the latest scientific insights. I also appreciate how the programme brings together academia, commercial actors like ourselves, and government agencies, which really creates opportunities for interesting interactions and perspectives. Seeing and feeling the engagement for sustainable food systems across sectors is also a great source of inspiration!

## **What is the most important insight or lesson from 2025 that you will carry forward into future projects?**

The importance of making research actionable – I think Mistra Food Futures does a great job of translating research into policy recommendations – but perhaps above all, the importance of breaking down silos between disciplines, or in our case, within our own organisations and ways of working. I'm more convinced than ever that sustainable transformation must be integrated with other societal processes and commercial strategies to succeed.

## **Looking ahead, what are you looking forward to the most in the work to make food systems more sustainable and resilient?**

I hope we can find a way to make more sustainable and resilient food systems part of a positive narrative about the future, where the Swedish agricultural sector and food system are at the core of the transformation, and where we have business models that ensure sustainability is also the more economically rational option across all parts of the value chain.

# No single actor can drive the transition alone — we need to join forces.



**KARIN LEVALL**

*Public Affairs Manager, Oatly*

## **What challenges do you see when it comes to making food systems more sustainable and resilient?**

We've come to a point where none of the most urgent challenges can wait. The transition of the food system must be steered in a way that simultaneously strengthens public health, delivers environmental and climate benefits while increasing resilience to crises. Policymakers need to take responsibility for all these dimensions and fully acknowledge how interconnected they are. To achieve this, policies need to be more firmly grounded in scientific evidence.

## **Looking back over the past year, how has your collaboration with Mistra Food Futures influenced your perspective or your work on sustainable food systems?**

The collaboration has given us direct access to relevant research which strengthens our ability to drive the transition, both in our own operations as well as in our contribution to shaping policies for sustainable food systems. Within Mistra Food Futures, we can contribute with our experiences and perspectives to support further research. The mutual benefit of the partnership is highly valuable.

## **What is the most important insight or lesson from 2025 that you will carry forward into future projects?**

The project highlights the importance of collaboration. No single actor can drive the transition alone — we need to join forces. Research is essential for setting direction, and actors across the value chain are needed to apply scientific insights in practice and help identify the next research needs.

## **Looking ahead, what are you looking forward to the most in the work to make food systems more sustainable and resilient?**

Our mission has always been to make it easy for people to eat healthier without taxing our planet's resources. We look forward to continuing to do our very best every day to contribute to a sustainable, robust, and nutritious food system — one oat drink at a time.

# Communication/ Public affairs

Mistra Food Futures aims to strengthen its position as Sweden's leading source of science-based knowledge on food system transformation. Through high-quality research and close collaboration with societal actors, the programme provides robust evidence to support policy development, business transition, and public debate, while actively positioning itself as a leading actor in the transition at both national and EU levels.

We strengthen programme public affairs and communication activities to disseminate research findings, raise awareness of sustainable and resilient food systems, and engage a wider range of decision-makers—particularly within the new European Parliament after the June 2024 elections, the European Commission, and research bodies such as the Joint Research Centre (JRC).

During 2025 we have developed a policy brief linked to the EU's Vision for Agriculture and Food, scheduled for publication in early 2026. These initiatives aim to communicate research effectively and influence policy on food systems, sustainability, resilience, and sustainable preparedness.

Mistra Food Futures increases visibility, stimulates interest in sustainable food systems, and builds long-term relationships through newsletters, dialogues, roundtable discussions, seminars, conferences, and social media. LinkedIn remains the programme's main platform, with more than 3,000 followers, serving as a key channel for sharing research, fostering dialogue, and supporting change.

Increasing visibility

Stimulating interest

Building long-term relationships

# MFF Year five - Highlights of the year

Mistra Food Futures is more than a research programme – it is an inter- and transdisciplinary, science-based platform driving real change. Our work combines cutting-edge research with active collaboration across academia, industry, authorities, and society. Through dialogues, webinars, and policy engagement, we provide knowledge that supports sustainable, resilient, and healthy food systems.



**LinkedIn  
reached  
3,000  
followers**



## **Real Change**

Annual MFF Consortium Meeting – showed how cross-sector collaboration turns research into political impact, accelerating the transition to a resilient and sustainable food system while strengthening the link between research and policymaking.



## **Roundtable on Financing the Transition to a Sustainable Food**

**System:** Managing investments and financial risks, and addressing not only who should pay, but the cost of inaction.



## **Participation at Mistra's 30th anniversary seminar in Brussels**

"Sustainability and Democracy:  
The Role of Research in an Era of Climate  
Change and Geopolitical Instability."



**Participation in Food Supply  
in Difficult Times** – A Forum on  
Preparedness and Food Security,  
organized by ICA and the Red Cross.



**Webinar on Sustainable Food Preparedness for local and regional policymakers**, organized by Klimatkommunerna – an association of municipalities and regions with ambitious climate goals.



**Contributed to the Swedish Food Agency's Government inquiry on the latest dietary guidelines:** Assessing the impacts of recommendations on red and processed meat for public health, food production, climate, biodiversity, and food security.



**The CIBUSmod model, developed in Work Package 5, phase 1**, is now applied in Norway to assess the agricultural sector's climate and environmental impacts and propose changes adapted to Norwegian data.



**Mistra Food Futures and the Swedish Agency for Economic and Regional Growth developed** a cross-sector model to support a fossil-free food system and allocate transition costs along the value chain.



**Contribution to the Climate Policy Council's annual report**, emphasizing agriculture's role in the climate transition.



**Co-organizers of NFN2025 Food Policy Forum, Helsinki:** Highlighting the dual challenge of building preparedness while driving the transition to sustainable food systems.



**Participation in FoU Days:**  
"Forty Years of Research – Science Driving Organic Farming Forward."

# What's cooking Year Six?

## WP Pathways



### WP Pathways

WP Pathways will advance key strands of work supporting Sweden's Food Futures scenarios. A central outcome will see the publication of the Risk Landscape study, providing an updated foundation for understanding shocks

and longterm pressures on the Swedish food system. Work will also continue on collecting and analysing arguments for responsibility for a sustainable Swedish food system, and planning of future papers as part of the doctoral project on Swedish food system pathways.

The social foundations work will be completed, translating global indicators to national level outcomes and preparing assessments of how different Mistra Food Futures scenarios may shape social wellbeing, including potential synergies and trade-offs between environmental and social outcomes. Finally, WP Pathways will contribute to a perspective describing and classifying novel and alternative foods to support future research and policymaking.

## WP Measures



### WP Measures

The PhD students working within WP Measures and WP Systems are wrapping up their first case studies. These case studies focus on the potential for climate mitigation through carbon storage in agroforestry systems,

improved manure management to reduce greenhouse gas emissions, and the environmental effects of producing a protein-rich food from side-streams of oat drink production.

In addition, two collaborative studies are under way. One focuses on the climate mitigation potential of regenerative seafood practices. The second studies the environmental effects of redirecting food waste to animal feed through novel technologies that upgrade food waste.

Together, these studies will contribute knowledge to WP Systems, where the environmental effects of these measures can be assessed at the national scale and in combination with other measures.

## WP Indicators



### WP Indicators

In ongoing work, we evaluate which sustainability indicators are the more useful to predict sustainability patterns in food consumption. We also down-scale and adapt the conceptual framework from phase one - the

Food System Sustainability House - to the level of individual businesses, taking farms as an example. Doing so, we develop a conceptual framework which highlights what is a sustainable farm, what sustainability dimensions need to be considered to understand sustainability at the farm and how dimensions are interlinked. We consider sustainability in the broad sense of the concept and take off from its economic, environmental and social dimensions. We also suggest indicators to follow-up and monitor progress across the dimensions at the level of a farm. Continuing to use agriculture as a case study, we will in future work investigate the interrelations between sustainability indicators over time, to gain insights into trade-offs and synergies.

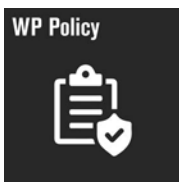
In ongoing indicator work, we also investigate food system actors' uptake of sustainability indicators and analyse how it relates to their economic performance. We also investigate attribution of responsibility to act when indicators highlight a need for action. In another ongoing Indicator WP study, we map key tools and initiatives for measuring sustainability in the Swedish food system, focusing on their interconnections, transparency, and underlying assumptions, as well as how farmers, manufacturers, and retailers use data to support more sustainable practices and product choices. Finally, we assess whether food companies' Double Materiality Assessments under the EU's sustainability reporting framework overlook scientifically established environmental impacts by comparing reported material topics with science-based benchmarks.



### WP Systems

The work focused on incorporating impacts of post-farm gate processing and of imports and exports into the CIBUSmod modelling framework is continuing. We will also initiate work on incorporating changes in carbon stocks

due to land use changes in the model, which will be led by one of the MFF Academy PhD students. In addition, we are looking forward to continued and upcoming collaboration with research in PLATE, SustAnimal, and FeedLoop (Norway), where CIBUSmod will be used.



### WP Policy

WP Policy focuses on an empirical analysis of the diversity in Swedish citizens' food related identities, motivations, and intentions, particularly when dietary identity and behaviour misalign. With this we aim to contribute to a better

understanding of what keeps people from acting on their intentions, and thus being better able to identify levers, hurdles and potential interventions for contributing to supporting a dietary transition.

In another empirical investigation, we focus on the discrepancies and similarities in the understanding of food system transformation across key societal stakeholders, namely the academic community, policy makers, and the general public. The empirical analysis will use text mining algorithms and consists of sub-analyses which each assess individual stakeholders' understanding.

Finally, an empirical comparison of consumption-based policy and production-based policy, where abatement costs and welfare changes among actors are assessed in relation to mitigation efficiency. The study covers the European food system and includes trade with other world regions.

We also aim to start a study assessing trade-offs in sustainability indicators, such as between domestically produced and organic products. The assessment will be based on previously modelled elasticity estimations, where consumers' willingness to change between different food products is highlighted.



### WP Organisation

In 2026, we will analyse how economic value is distributed along the Swedish food supply chain—from farm to fork—using an economic welfare framework. The analysis will examine price transmission along the chain and assess its

susceptibility to price volatility arising from severe supply and demand impacts, world market disturbances, and supply chain disruptions related to the COVID-19 pandemic and increased geopolitical tensions. We will also assess how sustainability practices affect price transmission in the Swedish food value chain, with a particular focus on farmers' adoption of practices such as intercropping, organic farming, and fossil-free production. Building on theory linking market power to price transmission, we will develop indicators of market power for different product types and for short versus long value chains and examine their relationship with price transmission and price volatility. Finally, we will assess the extent of market marginalisation in the Swedish food market and identify potential policy measures to mitigate it.



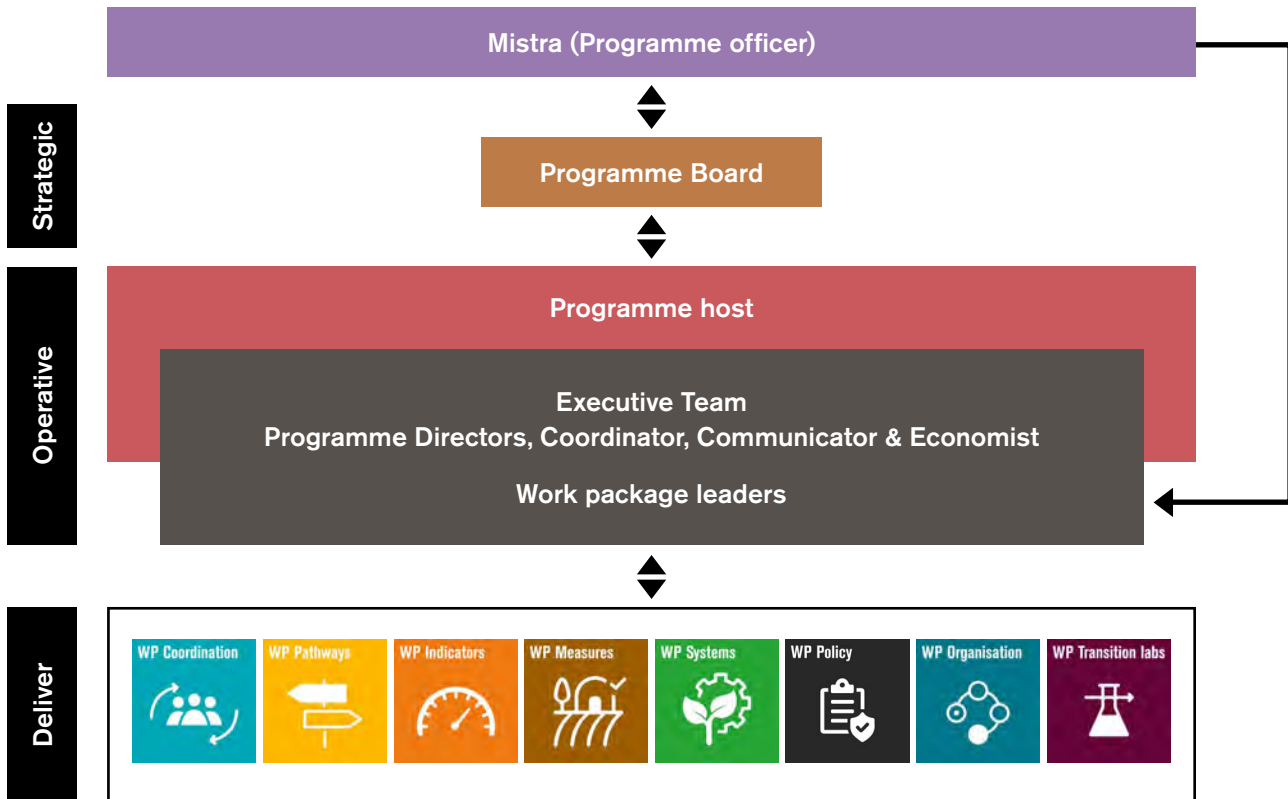
### WP Transition labs

The Regenerative Value Chain project will continue in 2026. The work will subsequently be synthesised and written up for further communication and dissemination. Continued dialogues will be held with participants and the co-organisers

in Regenerator to find ways in which the results can be utilised.

We will also plan the next transition lab. Dialogues will be held with programme partners, and actors outside the programme to identify new relevant areas to bring into a transition lab. We will further explore new approaches that reduces the need for commitment from stakeholders, focusing more on shorter forms of engagement combining interviews, surveys, and workshops. One theme that will be explored is how we can build capacity in sustainable transitions and foresight, aiding in the transition towards a sustainable and resilient food system.

# Organisation



## Programme Board

### Annica Sohlström

Chairperson, Swedish Food Agency (SLV)

### Bo Jellesmark Thorsen

Faculty of Science, University of Copenhagen

### Minna Kaljonen

Finnish Environment Institute (SYKE)

### Elisabet Rytter

The Swedish Food Federation (LI),  
Partner coordinator Mistra Food Futures Academy

### Anna Richert

The World Wide Fund for Nature Inc. (WWF)

### Kristina Yngwe

Enhetschef, Kunskapsnav animalieproduktion, RISE

## Programme host

Swedish University of Agricultural Sciences, SLU

## Executive Team

### Programme Directors

Helena Hansson and Per-Anders Hansson

### Economy

Lena Karlsson

### Communication/Public Affairs /Coordination

Anne Lennartsson

### Coordinator Mistra Food Futures Academy

Nina Lind Ranneberg

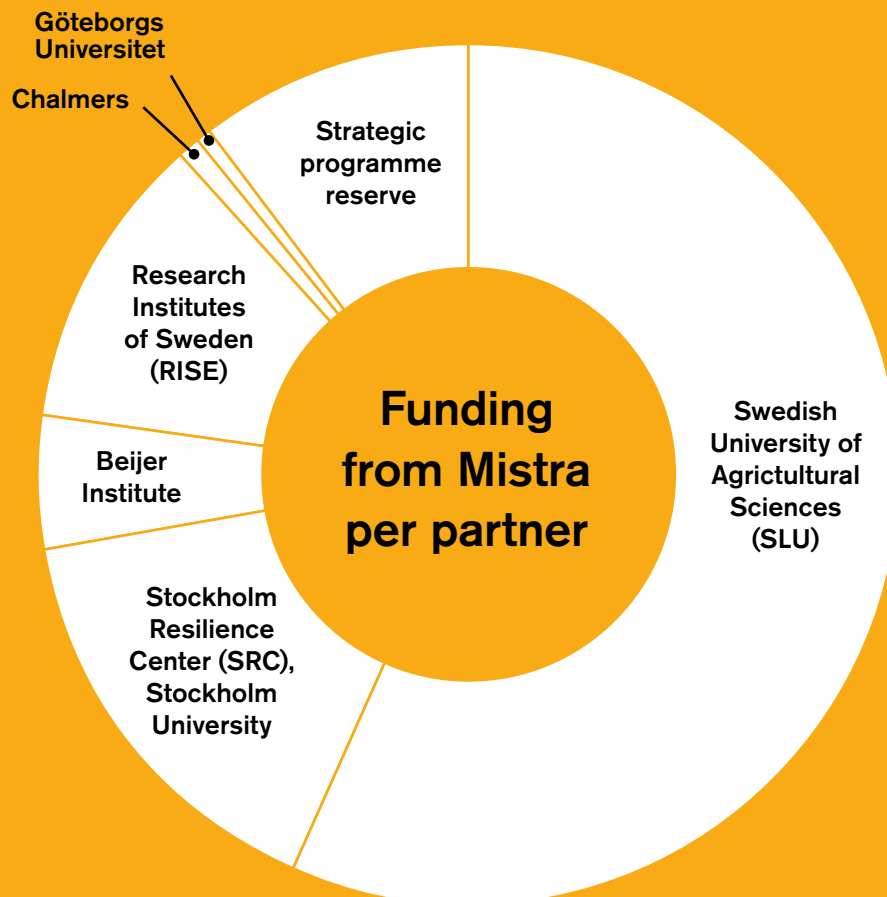
# WP-leaders

<b>WP Coordination</b> 	 	<b>WP Coordination</b> Helena Hansson (shared) Per-Anders Hansson (shared)
<b>WP Pathways</b> 	  	<b>WP Pathways</b> Line Gordon (main) Martin Persson (deputy) Elin Röö (deputy)
<b>WP Indicators</b> 	 	<b>WP Indicators</b> Helena Hansson (main) Malin Jonell (deputy)
<b>WP Measures</b> 	 	<b>WP Measures</b> Hanna Karlsson Potter (main) Per-Anders Hansson (deputy)
<b>WP Systems</b> 	 	<b>WP Systems</b> Per-Anders Hansson (main) Johan Karlsson (deputy)
<b>WP Policy</b> 	 	<b>WP Policy</b> Therese Lindahl (main) Sarah Säll (deputy)
<b>WP Organisation</b> 	 	<b>WP Organisation</b> Vivian (Wei) Huang (main) Helena Hansson (deputy)
<b>WP Transition labs</b> 	 	<b>WP Transition labs</b> Björn Persson (main) Fredric Norefjäll (deputy)



# Funding

Funding from Mistra per partner	SEK
Swedish University of Agricultural Sciences (SLU)	36 484 689
Stockholm Resilience Center (SRC)	10 008 047
Beijer Institute	3 151 122
Research Institutes of Sweden (RISE)	6 956 142
Chalmers	600 000
Göteborgs Universitet	400 000
Strategic programme reserve	6 400 000
Total	64 000 000



# Appendix

## Programme outputs during year 5

### Scientific Articles

- Adam, N, Tayebi, A, Wei Huang, V, Manevska-Tasevska, G, Nordberg, Å, Hansson, P-A, Hansson, H. (2025). Economic and climate effects of farm-level biogas adoption: A stochastic partial budget analysis and life cycle assessment for Swedish dairy farming. *Agricultural Systems*, Volume 228. <https://doi.org/10.1016/j.agsy.2025.104358>.
- Bedi, S.M., Oyinbo, O., Manevska-Tasevska, G. and Hansson, H. (2025). Sustainability Effects of the Uptake of More Grass-Based Feeding Practices: Evidence From Sweden. *J Agric Econ*. <https://doi.org/10.1111/1477-9552.70003>.
- Bedi, S.M., Nilsson, P., Hansson, H. (2025). The impact of drought on farm economic performance: evidence from Sweden. *Empirical Economics*. <https://doi.org/10.1007/s00181-025-02787-0>.
- Bedi, M.S., Bommarco, R., Weih, M., Hansson, H. (2025). Intercropping can enhance long-term farm economic performance: Evidence from Swedish agriculture 2001–2018, *European Review of Agricultural Economics*, jbf049, <https://doi.org/10.1093/erae/jbf049>.
- Bunge, A.C., Clark, M. and Gordon, L.J. (2025). “Fika in the Anthropocene”: leveraging food systems transformations through food cultures. *Sustain Sci*. <https://doi.org/10.1007/s11625-025-01680-0>.
- Bunge, A.C., Mazac, R., Clark, M., Gordon, L.J. (2025). Emerging alternatives to coffee, cocoa and palm oil deserve a spot on the research agenda. *Nature Food* 6 (1), 2–5. <https://doi.org/10.1038/s43016-024-01103-w>.
- Bergman, K., Gröndahl, F., Hasselström, L., Strand, Å., Thomas, J. B. E., & Hornborg, S. (2025). Integrating biodiversity impacts into seafood life cycle assessments: pathways for improvement. *The International Journal of Life Cycle Assessment*, 30(3), 477-490. <https://doi.org/10.1007/s11367-024-02414-7>.
- Bromark, E., Sirigina, D. S. S. S., Nazir, S. M., Tidåker, P., Nordberg, Å., and Hansson, P. A. (2025). Reduced life cycle climate impact from manure through catalytic methane conversion and carbon dioxide removal. *Research Square*. <https://doi.org/10.21203/rs.3.rs-6328195/v1>.
- Duluins, O.\*, Cardinaals, R., Potter Karlsson, H., Nájera Espinosa, S., Resare Sahlin, K., Candel, J. J. L., Hornborg, S., Matthews, A and Baret, P V. (2025). A restatement of the protein transition. *Environmental research letters*. 20 084042. <https://doi.org/10.1088/1748-9326/ade86f>.
- Hildersen, S., Bartek, L., Brancoli, P., Eriksson, M., Karlsson Potter, H., Strid, I. (2025). Mapping the climate impact of rye bread production in Sweden: insight into cultivation, packing, and surplus management for sustainable food systems. *Front. Sustain. Food Syst*. <https://doi.org/10.3389/fsufs.2025.1528862>.
- Karlsson, J.O., Karlsson-Potter, H., Lagnelöv, O., Ericsson, N., Einarsson, R. & Hansson, P.A. (2025). CIBUSmod 25.09: A spatially disaggregated biophysical agri-food systems model for studying national-level demand- and production-side intervention scenarios. *Geoscientific Model Development*. <https://doi.org/10.5194/gmd-18-8589-2025>.
- Larsson, J., Månsson, E., Röö, E., Säll, S., Patterson, E., Schäfer Elinder, L., Nässén, J., Ejelöv, E. (2026). Cost-neutral food tax reforms for healthier and more sustainable diets. *Ecological Economics*, Volume 240. <https://doi.org/10.1016/j.ecolecon.2025.108822>.

- Linder, N., Lindahl, T., Wijermans, N. (2025). Psychological barriers for sustainable diets: Unpacking intention-behavior gaps in meat consumption, *Food Quality and Preference*, <https://doi.org/10.1016/j.foodqual.2025.105721>.
- Linder, N., Bergquist, M., Bjälkebring, P., Jonell, M. (2025). (Un)acceptable protein shift: Consumer attitudes toward retail-led interventions promoting sustainable diets, *Food Policy*, Volume 136, <https://doi.org/10.1016/j.foodpol.2025.102971>.
- Mattsson, E., A. K. Edenbrandt, J. Rommel, and S. Säll. (2025). "Swedish Consumers' Willingness-to-Pay for Plant-Based Proteins in Pasta Sauce: Preferences and Policy Scenarios." *Agribusiness* 0: 1–13. <https://doi.org/10.1002/agr.70041>.
- Mazac, R., Karlsson Potter, H., Persson, U.M. et al. (2025). Diet changes in food futures improve Swedish environmental and health outcomes. *Commun Earth Environ* 6, 755. <https://doi.org/10.1038/s43247-025-02679-2>.
- Olsen, H F., Samsonstuen, S., Mogensen, L., Röös, E., Knudsen, M T., Møller, H. (2025). When arable land is the limit: Paths for future livestock production—An example from Norway. *Agricultural Systems* 229, 104446. <https://doi.org/10.1016/j.agsy.2025.104446>.
- Persson, B.M., Andersson, J. and Forsberg, P.B. (2025). Exploring Pathways for Change: A Practice-Oriented Integration of Foresight and Sustainability Transitions. *Futures & Foresight Science*, 7: e209. <https://doi.org/10.1002/ffo2.209>.
- Rydmer, L., Röös, E. (2025). Advancing metrics for animal welfare and antibiotic use in sustainability assessments of diets. *Sustainable production and consumption*. <https://doi.org/10.1016/j.spc.2025.08.020>.
- Ran, Y., Persson, U. M., Lindahl, T., Jonell, M., Brons, A., Macura, B., Candel, J., Abu Hatab, A. and Röös, E. (2025). Are interventions for environmentally sustainable dietary behaviours effective? A review. *Environmental Research: Food Systems*. <https://doi.org/10.1088/2976-601X/adda4e>.
- Röös, E., Jacobsen, M., Karlsson, L., Waneczek, W., Spångberg, J., Mazac, R et al. (2025). Introducing a comprehensive and configurable tool for calculating environmental and social footprints for use in dietary assessments *Journal of Cleaner Production* 519, 146002. <https://doi.org/10.1016/j.jclepro.2025.146002>.
- Sigtrygsson, C., Kalita, S., Karlsson Potter, H., Passoth, V., Hansson, P-A. (2025). Climate impact of yeast oil from fast-growing perennial biomass (willow). *Journal of cleaner production*. 494(4):144881. DOI: 10.1016/j.jclepro.2025.144881.
- Sundin, N., Citro, E., & Eriksson, M. (2025). From waste to value? Balancing climate and social outcomes in social supermarkets. *Journal of Cleaner Production*, 531, 146950. <https://doi.org/10.1016/j.jclepro.2025.146950>.
- West, C., Rabeschini, G., Singh, C., Kastner, T., Bastos Lima, M., Dermawan, A., Dermawan, A., Croft, S., Persson, U. M. (2025). The global deforestation footprint of agriculture and forestry. *Nature Reviews Earth & Environment*, 1-17. <https://doi.org/10.1038/s43017-025-00660-3>.
- Öborn, I., El Khorst, F. F., Bergkvist, G., Dahlin, A. S., Watson, C. A., Forkman, J., Nilsson, J. (2025). Rotational grass-legume leys increase arable crop yields, particularly at low N fertiliser rates. *Field Crops Research*. Volume 326, 109835. <https://doi.org/10.1016/j.fcr.2025.109835>.

## Reports

Dybeck, E., Hamberg, L., Pousette, S., Sonesson, U. (2025). #31-Rapport-Hallbara-livsmedelskedjor-fran-gard-till-bord-Fallstudie-Brod.-pdf.pdf.

Johansson, R. (2025). Master Thesis s (DIA 2018/24 #8): Public Acceptability of Food Policies Implications of Instrument Type and Social Norm: Evidence from Swedish Survey Data on Sustainable Consumption.

Einarsson, R., Costa, A., Bommarco, R., MacLaren, C., Vico, G. (2025). #30-Report-Modeling-crop-yield-response-to-nitrogen-inputs-in-different-crop-rotations-.pdf.

Stenberg, E., Arvidsson, Segerkvist, K., Sonesson, U. (2025). #29-Rapport-Hallbara-leveranskedjor-fran-gard-till-bord-Fallstudie-TACKA.pdf.

Karlsson. Potter, H., Astner, H., Karlsson, J. O, Slijper, T., Säll, S. (2025). #28-Report-Evaluating-the-Impact-of-the-Proposed-Dietary-Guideline-on-Red-and-Processed-Meat-Agricultural-Environmental-and-Economic-Perspectives-3.pdf.

Persson, B., Norefjäll, F., Misaghi, M., Persson, M. (2025). #27-Rapport-Affarssamverkan-for-systemforandring.pdf.

Höglund, E., Naseri, M., Olsson, M., Sonesson, U., Östergren, K. (2025). 26-Report-Sustainable-supply-chains-from-farm-to-table.pdf.

## Media appearance

Statens klimatomställning går för långsamt (Land Lantbruk, 23/10)

Forskaren: Mindre kött ett måste för klimatet – bonus är bättre hälsa och beredskap - Supermiljöbloggen (16/10)

Artikel ang. Riksrevisionens granskning av statens insatser för klimatomställningen inom jordbruket. Kommentar av Rasmus Einarsson. (SvD 14/10)

<https://www.icagruppen.se/aktuellt/framtidens-mat/> (24/9)

Nytt poddavsnitt om framtidens skog och mat - Mistra Digital Forest

<https://www.tv4play.se/klipp/f573c54ecf1982531f3a/video-matpriserna-har-okat-med-cirka-25-procent-pa-bara-tre-ar> (2/6)

'Fika has become more expensive': rising coffee prices affect a Swedish tradition | Sweden | The Guardian. LG et al. (12/4)

Matpriserna kommer inte sjunka 3 april 2025 - Meny | Sveriges Radio (HH)

Ledare: Röstade någon för skenande matpriser i senaste riksdagsvalet? - Dagens Nyheter - Premium (HH citeras)

Forskare: Regeringen sviker våra barn

<https://www.altinget.se/artikel/forskare-gor-det-billigare-for-svenskar-att-valja-ratt-i-mataffaren>

Expert sågar bojkotter i livsmedelshandeln: "Handlar om externa faktorer" | Tidningen Näringslivet

Matpriserna kommer att fortsätta stiga: "Ett smakprov"

Chockprognosen: Skyhöga matpriserna kommer ligga kvar

Tre matjättar dominerar – förklarar delvis höga priser

Varför är maten så dyr – och kommer det vara så här nu?

Svårt att hitta syndabock i livsmedelskedjan - DN.se

Land Lantbruk 11: Lantmännen i täten för fossilfri värdekedja. Forskaren: Staten bör ta kostnaden (7/3)

Regeringen ger bakläxa till Livsmedelsverket – ska ompröva kostråden - Studio Ett | Sveriges Radio

Bernesson, S. (2025). Precisionsjordbruk. Del 8 i serien om lantbrukets energieffektivisering. Förnybar Energi Nr. 1 – 2025. Tidskrift för energieffektivisering, vatten- och vindkraft, solenergi, bioenergi och geoenergi. SERO-Medlemstidning. Halmstad. S. 18–20. Energieffektivisering i lantbruket |

Eborn, M., Bernesson, S. (2025). 30 smarta sätt att spara energi vid bevattning. Lantmannen Nr 3 – 2025. LRF Media AB, Stockholm. S. 44–45. Energieffektivisering i lantbruket |

Bernesson, S. (2025). Skiftning av jordbruksmark för bättre arrondering. Del 9 i serien om lantbrukets energieffektivisering. Förnybar Energi Nr. 2 – 2025. Tidskrift för energieffektivisering, vatten- och vindkraft, solenergi, bioenergi och geoenergi. SERO-Medlemstidning. Halmstad. S. 22. Energieffektivisering i lantbruket |

Bernesson, S. (2025). Energibesparing vid lagring av potatis och grönsaker. Del 10 i serien om lantbrukets energieffektivisering. Förnybar Energi Nr. 3 – 2025. Tidskrift för energieffektivisering, vatten- och vindkraft, solenergi, bioenergi och geoenergi. SERO-Medlemstidning. Halmstad. S. 24–25. Energieffektivisering i lantbruket |

Bernesson, S. (2025). Dubbla vinster med effektiv gödselhantering. Del 11 i serien om lantbrukets energieffektivisering. Förnybar Energi Nr. 4 – 2025. Tidskrift för energieffektivisering, vatten- och vindkraft, solenergi, bioenergi och geoenergi. SERO-Medlemstidning. Halmstad. S. 24–26. Energieffektivisering i lantbruket |

Bernesson, S. (2025). Förnybart bränsle till traktorer, flera möjligheter finns. Förnybar Energi Nr. 4 – 2025. Tidskrift för energieffektivisering, vatten- och vindkraft, solenergi, bioenergi och geoenergi. SERO-Medlemstidning. Halmstad. S. 14–16. Energieffektivisering i lantbruket |

Eborn, M., Bernesson, S. (2025). Så sparas energi i djurstallar. 30 konkreta åtgärder. Lantmannen Nr 8 – 2025. LRF Media AB, Stockholm. S. 38–39. Energieffektivisering i lantbruket |

## Blogs

Persson, M. (2025). Det är dags att sluta ignorera matens stora samhällskostnader - Mistra Food Futures

Sohlström, A. (2025). När viljan finns men besluten uteblir - om obesitas bland unga - Mistra Food Futures

Lindahl, T. (2025). Köttalternativ – möjligheter och utmaningar - Mistra Food Futures

Hansson, H. (2025). <https://mistrafoodfutures.se/bloggar/hallbarhetsindikatorer-for-battare-beslut/>

Norefjäll, F. (2025). <https://mistrafoodfutures.se/bloggar/utforska-framtiden-tillsammans-omstallningslabb-som-verktyg-for-systemforandring/>

Karlsson, J., Karlsson. Potter, H., Röös, E., Einarsson, R. (2025). <https://mistrafoodfutures.se/bloggar/forsorjningsformaga-och-livsmedelsberedskap-i-sverige-en-regional-utmaning/>

Karlsson, J., Karlsson. Potter, H., Röös, E., Einarsson, R. (2025). <https://mistrafoodfutures.se/bloggar/sveriges-forsorjningsformaga-vad-innebar-50-procent/>

Ranneberg, N. (2025). <https://mistrafoodfutures.se/bloggar/framtidens-forskare-med-fokus-pa-ett-hallbart-livsmedelssystem/>

Hansson, H. (2025). <https://mistrafoodfutures.se/bloggar/med-hjalp-av-teoretiska-ramverk-kan-vi-forsta-en-komplex-verklighet/>

## Activities/Events

3 dec: Mjolkveckan (Synlighet – Roll-up)

4 dec: Jordbruksekonomisk konferens (Synlighet – Roll-up)

28 nov: Dialog: Samlad kraft i livsmedelskedjan – för en effektiv implementering av Livsmedelsstrategi 2.0, Tillväxtverket.

26 nov: Seminarium KSLA/Vi konsumenter: Skilda världar – Var finns målkonflikterna kring hållbar svensk livsmedelskonsumtion och hälsosam matkonsumtion?

13 nov: Webinar: Ökad samsyn kring hållbar livsmedelsproduktion, Länsstyrelserna Skåne, Halland och Kalmar.

6 nov: Hållbar livsmedelsberedskap, Klimatkommunerna

5 nov: Fol-dagarna 2025: <https://jordbruksverket.se/om-jordbruksverket/kurser-och-seminarier/arkiv/2025-11-05-fou-dagarna-2025--fyrtio-ar-av-forskning---vetenskapen-driver-ekolantbruket-framat.>

31 okt: Dialog: Analys av skillnader i rapporteringen av hållbarhetsindikatorer inom industri och handel

10 okt: Tillämpad multikriterieanalys – ett effektivt verktyg för att undvika dikeskörningar vid processutveckling och designprocesser. Ulf Sonesson, föredrag på Processteknikmässan Göteborg 2025-10-10

6–7 okt: REAL CHANGE, Annual internal consortium conference, SLU Campus

3 okt: <https://www.wur.nl/en/news-wur/show-1/global-food-systems-are-exceeding-planetary-boundaries.htm>, Wagening University & Research (WUR)

24 sep: Food supply in Difficiult times – ett forum om beredskap och livsmedelsförsörjning, ICA/Röda Korset

18 sep: KSLA-seminarium: Norra Sverige som livsmedelsproducent

29 aug: Dialog: Olika aktörers syn på jordbrukets förmåga att försörja befolkningen med livsmedelsråvara vid en kris

2 juni: X-tra isatt MFF Dialog: Regeringsuppdrag: Fördjupad konsekvensanalys av kostrådet om rött kött och chark - hur det föreslagna svenska kostrådet om rött kött och chark kan antas påverka folkhälsan, livsmedelsproduktionen, klimatet, den biologiska mångfalden och livsmedelsberedskapen

26–28 maj: NFN2025 Food Policy Forum, Helsingfors. Sustainability and preparedness, perspective from Sweden,

23 maj: Dialog: En uppdatering från Axfood.

25 april: Dialog: Vad äter våra yngsta? Aktuella resultat från Riksmaten småbarn

22 april: JRC sustainable food systems

9 april: Mistra 30 år: Sustainability and Democracy – The Role of Research for Navigating in an Era of Climate Change and Geopolitical Instability, Bryssel

4 april: Möte med Jerker Stattin/ Kristina Nordéus, Lantbruksråd vid Sveriges ständiga representation, EU-kommissionen

28 mars: Dialog: Ett inspel från Västra Götalandsregionen (VGR).

27 mars: Forsknings- och utb. Dag med Riksdagens MJU

14 mars: Dialog: Acceptabelt proteinskifte? An update from WP7.

5 mars: Round table discussion: Finansiering av omställningen till ett hållbart livsmedelssystem: hur kan investeringar och finansiella risker hanteras?

28 feb: Dialog: Hur skulle åkermark påverkas av minskad konsumtion av svenskproducerat nötkött?

4 feb: Medverkan i Mistra Geopolitics conference: Geopolitics of Sustainability Conference

31 jan: Dialog: WP8: Aktörssamverkan för Fossilfri Livsmedelskedja

30 jan: Lunchsamtal om Sveriges roll i Europas framtida livsmedelsförsörjning nu på torsdag hos Arla.

22 jan: MFF/partnermöte ang. samarbetsformer

Samtal med veterinärer: Stöd och resurser för färdighetsträning centralt för användning av motiverande samtal i rådgivning.

MISTRA   
**FOOD FUTURES**  




Photo: Jennie Hagman

**The overarching vision of the Mistra Food Futures programme is to create a science-based platform that contributes to enabling transformation of the Swedish food system into a system that is sustainable, resilient and delivers healthy diets. By taking a holistic perspective and addressing issues related to agriculture and food production, as well as to processing, retail and consumption Mistra Food Futures aims to play a key role in initiating an evidence-based transformation of the Swedish food system towards sustainability and resilience.**

FUNDED BY



The Swedish Foundation for  
Strategic Environmental Research