rijnconsult

WHITEPAPER FOOD TRANSITION

Together we succeed: five success factors to speed up the food transition

By Aron Koning, Anneke Bergsma and Rowena Achterkamp

The food transition is a transition to a sustainable food system in which food is produced and consumed in a way that feeds current generations without compromising the economic, social and environmental foundations for the nutrition of future generations. The food transition will drastically change the way we produce and consume our food in the coming decade. The topic is high on the political agendas, encouraged by the Sustainable Development Goals of the UN, the Green Deal of the European Union and the Agri&Food Top Sector Policy of the Dutch government. Consumers are also increasingly critical of companies' sustainability efforts. Three quarters of consumers believe that companies should make a positive contribution to society, the environment and people's well-being. However, only 29% believe that companies actually do this.¹ Companies and organizations are therefore expected to play an active role in urgent sustainability themes. However, there are additional factors that influence the sustainability of the food system. In this white paper, we take a closer look at the food transition and discuss the success factors at system and organizational perspective to accelerate this transition.

Management consulting firm ICG Rijnconsult has been active in the agri & food sector for over 40 years as a frontrunner of cooperation in supply chains and networks, working in the field of strategy formation, process design, sustainability and innovation. More than ever, our change management approach is in line with developments in the food market to a sustainable food system, in other words: the food transition. These developments are so complex that no organization can tackle them alone. ICG Rijnconsult is committed to making a valuable contribution to the food transition. We do this with organizations that share this ambition, with our customers, and with our partners. Together we succeed. Not just for ourselves, but for the next generations.

WHAT IS THE FOOD SYSTEM?

The food system is the collection of all activities associated with the production, processing, distribution, and consumption of food, in addition to the socio-economic and environmental outcomes of these activities. The food system is made up of various sectors and supply chains that are strongly intertwined both nationally and internationally.² In this white paper, the scope is the Dutch food system.³The Netherlands has a highly developed agri-food sector with major economic interests. The Netherlands is the world's second-largest exporter of agricultural products, with an export value of EUR 94.5 billion.4 The sector has 744 thousand jobs, of which 144 thousand are in agrifood tech. The sector thus offers employment to 8% of the working population.⁵ Within the agrifood sector, the domestic turnover of the food sector is good for EU 56.3 billion divided between retail (44 billion) and food service (12.3 billion).⁶ This amounts to about 7% of gross domestic product.

Players in the Dutch food system

The Dutch food system consists of 53,233 farmers and suppliers.⁷ The processing industry consists of about 8,000 companies. 5 purchasing organizations do the purchases for 26 supermarket formulas, which account for a total of 6,368 stores. Other retail channels include web shops, farm shops, and specialty stores.⁸⁻⁹⁻¹⁰ The food service includes restaurants & home delivery, cafes, hotels, and event catering. In 2021 there were 72,000 catering locations in the Netherlands.¹¹ In addition, consumers, governments, knowledge institutes, NGOs (e.g. Fair Trade, Oxfam Novib), industry organizations, and financiers are involved in the Dutch food system. These parties each play a crucial role in the speed at which the food transition occurs.

'The Netherlands is known as a frontrunner in the field of knowledge and innovation of the food system.'

The Netherlands is known as a frontrunner in the field of knowledge and innovation of the food system with leading knowledge institutes such as WUR, Louis Bolk Institute and HAS University of Applied Sciences. The government also actively encourages innovation within agri-food tech.12 This ensures that the agri-food sector is an innovative sector that leads the way in terms of efficiency. They also respond well to the everdeveloping consumer demand. Increasingly strict government quality and sustainability standards, sometimes have far-reaching consequences.13 These may involve relatively minor changes, such as the ban on single-use plastic items, but also larger interventions in which farmers are assessed stricter on their sustainability performance and based on this a subsidy is awarded.14-15

On the one hand, these developments cause pain and resistance, but on the other hand it also creates a myriad of opportunities. Farmers must operate differently, and large companies reposition themselves in the strategic playing field to respond to changes in the sector.¹⁶ Due to the intertwined international trade supply chains, food consumption in the Netherlands is closely connected to the production of other countries. Think of tropical crops such as coffee, chocolate, and bananas.¹⁷

'The Netherlands is the world's secondlargest exporter of agricultural products, with an export value of EUR 94.5 billion.' The Netherlands has the worlds second largest export share.¹⁸ As a result, the behavior of the Dutch sector has consequences worldwide and vice versa. Thus, it is an interdependent global system.

WHY IS THERE A TRANSITION IN THE FOOD SYSTEM?

The food system is very complex and forms a substantial part of the Dutch economy. Due to its size and complexity, everything that happens within the sector has an impact on the Dutch society. However, the current food system is no longer sustainable from an ecological, social, and economic point of view. The following 5 issues illustrate this:

'Every year six billion euros is spent on health care costs as a result of an unhealthy diet in the Netherlands .'

1. Increasing obesity and an unhealthy diet.

Only a quarter of the Dutch population complies with the Health Council's 'Good Food' guidelines.¹⁹ Over the past decades, we have been increasingly eating unhealthy foods, resulting in increased healthcare costs. In 2019, fifty percent of Dutch adults were overweight, fifteen percent were obese. Thirty years ago, this was thirty-five and six percent respectively.²⁰ So it is not surprising that high blood pressure, high blood sugar, overweight and high cholesterol are the largest person-related risk factors for disease burden, as these are strongly correlated with an unhealthy diet. The consequences are significant. Every year, six billion euros is spent on health care costs as a result of an unhealthy diet in the Netherlands. More than eight percent of the total health care costs of the Dutch health care system.²¹ Consequently, after smoking, Unhealthy food is the largest cost item that can be attributed to human behavior.



2. Hunger and unfair supply chains

According to United Nations estimates, there are currently 690 million undernourished people. Two billion people do not have access to safe, nutritious, and sufficient food. People who work on farms in famine-affected countries are most likely to live with hunger. This is often due to the poor working conditions of parties with more power further down the supply chain.²²⁻²³ If current trends continue, an estimated 840 million people will live in famine by 2030, an increase from 8.9 to 9.8 percent of the world population.²⁴

'A third of all food produced for human consumption is wasted and is worth USD 1 trillion every year.'

3. food waste

Despite 2 billion people not having access to good and healthy food, a third of all food produced for human consumption is wasted worth USD 1 trillion every year.²⁵ The hidden costs of food waste goes much further because food that is not consumed has a major ecological impact. America, the world's largest food exporter, throws away approximately thirty to forty percent of its food production with a value of about 160 billion dollars.²⁶ Dutch consumers throw away almost ten percent of their food every year.²⁷ Waste occurs in all phases of the supply chain, from farm to fork.

4. Climate change

In addition to the social and economic costs of the current food system, there are increasing environmental costs. These affect society as a whole and will have profound consequences for future generations. Climate change is arguably the greatest global challenge of our time. The sixth IPCC report 'AR6 Climate Change 2021: The Physical Science Basis' reports that humans have had an immense influence on global warming since the industrial revolution with worrying consequences for the climate. Extreme weather will become more extreme and frequent. Examples include agricultural drought, extreme heat waves, and rainfall.²⁸ Four of the five most important greenhouse gases underlying climate change are strongly related to the food system.²⁹ More than a third of all carbon dioxide emissions are caused by the food system.³⁰ Deforestation also causes less CO₂ conversion to oxygen. Of our national methane emissions, 61 percent come from agriculture.³¹ 61 percent of Dutch nitrogen emissions come from livestock farming, which can be explained by the relatively large size of the sector.32

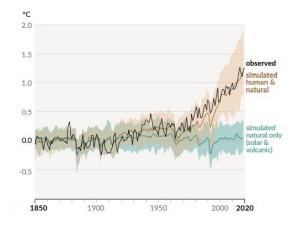


Figure 1: Change in global surface temperature (annual mean) as observed and simulated using human an natural factors and natural factors only (both 1850-2020) (IPCC, 2021)

'The Netherlands only has 15 percent of its original biodiversity left and is a frontrunner in Europe, in a negative sense.'

5. Damage to ecosystems due to loss of biodiversity

In one-fifth of all countries, the functioning of ecosystems on which the local economy is depending is at risk.³³ In the Netherlands, the excessive use of nitrogen has damaged the soil, which means that many plant species can no longer grow. Intensive monoculture depletes our soil. As a result, the Netherlands only has fifteen percent of its original biodiversity left and is a frontrunner in Europe, in a negative sense.³⁴ Furthermore, the quality of our groundwater is affected by chemicals and inorganic waste from the processing industry.³⁵ The oceans are also becoming increasingly acidic. Furthermore, in combination with unsustainable fishing behavior, the ecosystems of the oceans are seriously threatened.³⁶

Climate change threatens potato cultivation

An example of an ecosystem in which the primary production process has come under pressure as a result of climate change is potato cultivation in Europe. A large-scale survey conducted in 2020 by Europatat (a consortium focused on the potato cultivation of the future), shows that 90 percent of the 553 participating European potato growers believe that climate change has harmed cultivation over the past 10 years. 50 percent of growers see climate change as a serious threat to the survival of potato cultivation in their companies.³⁷

All these developments do not give a positive picture of the reality of the global and Dutch food systems. The ecological, social, and ultimately economic consequences of the current food system are simply no longer sustainable. In short: we are stuck. The seriousness of these problems is recognized by the United Nations, which drew up seventeen Sustainable Development Goals in 2015. Nine of the seventeen development goals are directly related to the (global) food system, as can be seen from the figure below.³⁸ Structural changes of the food system, bundled under the heading 'Food transition', are necessary to stay within the current planetary boundaries and to cope with the need to feed the increasing world population.39



Figure 3: The sustainable development goals related to the (global) food system

(United Nations, 2015)

THE FOOD SYSTEM ON THE MOVE

We are gradually seeing some movement in the food system in response to the issues discussed. The increasing awareness among consumers in combination with changing market demand and a changing strategic playing field driven by the government and NGOs results in a number of developments in the food system. We explain the most important ones below.

Circular agriculture and circular economy

The transition to a circular economy, referred to as circular agriculture in the context of agriculture, serves as the rationale of the food transition. It is important here that residual flows that are normally not used, such as residual heat, plastics and food surpluses, are used and returned to the supply chain to prevent waste and pollution to increase efficiency.⁴⁰ The convergence of technological and social innovations is a characteristic of implementing circularity. The transition towards a circular food system is an important aspect of the European Union's Green Deal and the Dutch Agri & Food top sector policy.⁴¹⁻⁴²

Protein transition

To be able to provide the growing world population with sufficient protein within the limits of our planet in the future, a shift from animal to vegetable and alternative protein sources is necessary. Alternative proteins are, for example, aquatic proteins such as seaweed and insects.⁴³ The advantage is that the production of these proteins has less negative ecological implications than the production of animal proteins, in terms of the use of water, land, and raw materials and the emission of greenhouse gases. The advance of sustainable alternative proteins led by NGOs and knowledge institutes such as WUR is called the protein transition.



Healthy food

There is a slow movement in our currently, unhealthy diet. The emphasis is on a decrease in the consumption of unhealthy foods and on an increase in the consumption of healthy foods. This encompasses consuming fewer sugars, saturated and trans fats, and processed foods. Subsequently, more unprocessed foods, vegetables, and superfoods would be consumed. Encouraged by leading NGOs, the government is working with partners on innovative measures to improve health of the public.⁴⁴ The National Prevention Agreement is an example of this. It is an agreement between 70 social organizations, companies, branches, patient organizations, healthcare providers, health insurers, municipalities, funds, sports associations, and educational institutions. It aims to shape a healthier Netherlands by ensuring compliance with the measures drawn up in consultation, whereby a healthy diet and a healthy food living environment are important aspects.⁴⁵

Energy transition

The energy transition is a transition to a structural energy supply that is sustainable. The point is to reduce CO₂ emissions. Energy is needed for every sector, consequently this is an intersectoral transition, which plays a role in the food system as it is a major consumer.46 Livestock farming, for example, is an important cause of the emission of greenhouse gases such as CO₂, methane, and nitrogen. Furthermore, livestock farming takes up a lot of lands and a relatively large amount of feed and water is needed for a kilo of meat. The Dutch energy transition policy has been drawn up under the guidance of the Paris Climate Goals Agreement to achieve a more energy-efficient food system. This is also noticeable in the Netherlands. For example, the Netherlands is in the process of transitioning to a climate-neutral society, where natural gas will no longer be used in the future.⁴⁷

Raw materials transition

An emerging development within the food transition is the raw materials transition. The emphasis is on the recyclability of raw materials. The impact on the environment during mining and the life cycle is also limited as much as possible.⁴⁸ The raw materials transition is closely related to circularity, which means that these two processes reinforce each other.

Reduction of nitrogen and pesticides

Too much nitrogen depositino in nature is harmful to plants and animals. Agriculture is responsible for 61 percent of the total national nitrogen emissions.⁴⁹ The government's policy is aimed at reducing these emissions by, among other things, buying out farmers, subsidizing the building of sustainable stables, and limiting the nitrogen allowance for farmers.⁵⁰ This policy has far-reaching consequences for the primary food chain. Furthermore, organic products are becoming increasingly common, which means that the use of pesticides is decreasing.⁵¹

It is important to point out that the food transition is not the only social development that deserves attention. The food transition, therefore, experiences synergy, but also 'competition' from other developments. Take, for example, the housing problem in the Netherlands. The increasing population in combination with the demand for more houses is putting pressure on the recovery of nature and biodiversity, an important pillar of the food transition. Viewed from the perspective of the food transition, this can lead to dilemmas and can have a delaying effect towards a more sustainable food system. Parallels, as well as dilemmas, will often arise between the various complex social themes.

UNDERSTANDING THE FOOD TRANSITION

If we zoom in further on the food transition, we can say that the food transition is the sum of all kinds of developments and movements that have arisen in response to the social and environmental issues. Different parties are involved in different phases of the developments. The exact consequences of these developments for the current players in the food system depend on several factors: the role of the player in the food system, the nature of development, and its course of the development.

Transition theory as a science

In the past 10-15 years, transition theory has become increasingly popular within the academic world. Although it is a relatively young field from a scientific point of view and therefore still in its infancy, a lot of research is already being done into the course of complex social transition processes. In the book Changing the Game (2021)⁵², professor André Nijhof (Nyenrode) and Lucas Simons (NewForesight) distinguish four transition phases during a sustainable market transformation in which the market players take on different roles per phase. The four phases follow one another and are essential in the transition to a more sustainable market system. The figure below shows the successive four phases. For more information about the different roles click on this link for a more extensive treatment of the transition theory.

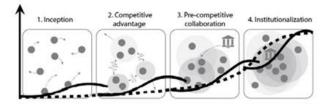


Figure 4. The Sustainable Market Transformation Framework (Nijhof & Simons, 2021)

Phase one

The first phase is always based on a crisis. Think of the five issues discussed : increasing obesity, hunger and unfair supply chains, food waste, climate change, and the degradation of ecosystems. The characteristic of phase one is that players disregard the problems and their consequences. NGOs and knowledge institutes boost the urgency of the problem by disclosing shocking facts. In response, the business community is entering into partnerships with NGOs to prevent damage to their reputation. However, this phase is mainly characterized by a denial of the problem.

Phase two

The food transition is the beginning stage of phase two. In this phase, the problem is often reluctantly recognized by incumbents. With the recognition of the problems, opportunities also arise. Progressive companies want to distinguish themselves to gain a competitive advantage by bringing innovations to the market. Often using labels such as the Nutri-score, Rainforest Alliance, or On The Way To Planetproof. The latter was set up in part by ICG Rijnconsult for the dairy sector. Also, collaborations in the supply chain and rankings, such as the FOOD-100, are common ways for system players to distinguish themselves in this phase. Frontrunners are also rewarded by the financial sector and NGOs. For example, Rabobank pursues a policy of favorable financing products and conditions for organic farming. This is because of the innovative strength and unique perspective that the organic sector gives to circular agriculture. In addition, the government has a clear vision formulated in phase two and stimulates companies to change through subsidies.



Phases three and four

Phase three is known as the critical mass phase. It is a phase where a substantial part of the sector realizes that if they continue this way, they will lose their right to exist. A sector strategy is set up and an environment is created in which a sustainable market transformation is made possible. The critical mass follows the example of the frontrunners and participates in the sustainable behavior. A situation arises in which there are more laggards than frontrunners. In the last phase, phase four, the laggards join in

'Taking into account ecological and social costs provides an effective incentive to bring the food system back into balance.'

FROM PROFIT TO VALUE: BUSINESS-AS-UNUSUAL.

The transition to a sustainable food system. What does that really ask of us? In our view, the greatest transition lies in assigning value to what has hitherto been ignored, namely the social costs. The current food system is mainly based on profit maximization as a yardstick for business operations. This is also called shareholder value maximization or single level value creation. However, if we factor in the social costs of food waste, we can add about 2.6 trillion USD to the global balance sheet, according to the FAO alone. Of this, 700 billion USD can be attributed to untaxed costs for the negative effects on the environment and 900 billion USD to social costs.⁵³

Multiple value creation considers social, environmental, and external economic costs. This facilitates a true cost/true price approach in which the price of the products that are bought and sold represent the 'real' social price. This provides a good incentive to bring the food system back into balance. Including these costs encourages sustainable behavior.

In the book 'Van Winst naar Waard – Naar een duurzame Economie,' Henk Folkerts (retired partner at ICG Rijnconsult) already argued in 2004 for a model in which value creation is based on more than just financial and economic measures. Value, he describes, can also be found in 'intangible assets. It touches on the meaning of entrepreneurship and deals with the integration of economic vitality, talent development, and social respect.⁵⁴

The food transition in relation to value models

It is not surprising that there is a strong connection between the development of the food transition and the adoption of multiple value creation as a leading value model. The aforementioned themes within the food transition arise from the increasing importance of reducing the external social, ecological, and economic costs of the food system. For example, the successful implementation of circularity ensures that the burden on the climate and the environment is reduced. And reducing nitrogen and pesticide use improves ecosystems' survival.

Transparency through reporting standards

At the corporate level, an increasing number of steps are being taken to integrate a multiple value creation model. The International Financial Reporting Standards (IFRS) are standards that more than 140 jurisdictions, which includes all listed companies in the European Union, must comply with. The IFRS is setting up a sustainability reporting board with the aim of creating standards on how to record externalities to allow financiers to have access to this information.55 The European Union is also working on its sustainability reporting standards as part of the Green Deal. scheduled to enter into force in October 2022 under the quidance of the European Financial Reporting Advisory Group (EFRAG). A report published by EFRAG cites the EU's recognition of multiple value creation. In addition to the integration of financial and non-financial information, the report considers the importance of comparable and sector-relevant information as an important success factor for the new standards.⁵⁶ This enables sector-specific problems to be tackled. The purpose of the sustainability standards is to provide transparency to financiers and stakeholders. Perhaps in the future, we will see a generally accepted credit score system in which multiple value creation is integrated.



FIVE SUCCESS FACTORS TO ACCELERATE THE FOOD TRANSITION

In the previous paragraphs, we mentioned five issues that illustrate the need for the food transition and several movements in the food system in response to the issues. Ultimately, the ambition is to move from proposed movements to actual change on a systemic level from profit to value. In other words, to realize a real transition to a sustainable food system. However, due to the complexity of the issues and the different interests of the players involved, there are so many dependencies that it is difficult to predict the course of a transition. In our view, five success factors contribute to a successful food transition. The extent to which these success factors play a role within the food system will determine the success of the food transition.

1. From profit to value:

The biggest transition is hidden in changing the perspective of the current leading value model: from profit to value. From single level value creation to multiple value creation as a leading value model. This ensures that the factors associated with the described issues are included. Vision and meaning are brought back into the system in which economic vitality, talent development, and social respect are integrated. By investing in material, ecological, human, and social capital instead of consuming it, real development towards a sustainable system can arise.



2. Transparency in the food system:

How do we know that food is sustainable, healthy, and safe? How do we create trust? By being transparent. By communicating what is happening in the food supply chain and why. Transparency also provides insights for finding solutions at the sector level. Sustainability standards for financial reports can contribute to insight into the sustainable behavior of companies.



3. Education and information:

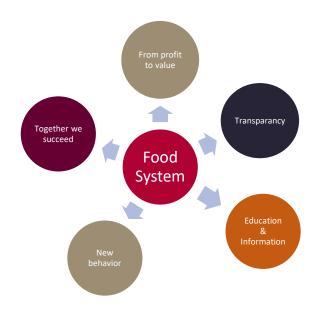
Urgency is the impetus for movement. The more the urgency of the problem is established, the more movement is set in motion within the food system. NGOs, knowledge institutes and formal education systems have an important role to play in this by conducting research and sharing knowledge by clarifying the seriousness of the situation. Reliable information and educating the public make it possible for them to make positive adjustments to the living environment and make responsible choices easier.



valuable collaborations can be created, sustainable innovations are given priority, and space regional supply chains and clusters are strengthened.

5. Together we succeed:

The system players seek connections, therefore it is possible to slowly change the system and allow the food transition to take place. After all, nobody can change a system as complex and extensive as the food system alone. The food system consists of many patterns and understanding the rationale requires a systemic view. Adjusting the system requires an integrated approach in which sectors, dilemmas, and knowledge areas are linked, that initially seem to have no link. Therefore, fundamentally only together we succeed.



4. New behavior:

As a result of different value models, increasing transparency, and good education, the behavior of the system players will also have to change. System players should roll out fewer plans and organically develop more with a clear figurative spot on the horizon. This requires short-term thinking to make way for vision development with a focus on social impact. Organizations will move from competing to co-creating and will learn to share knowledge rather than protect it. From this,

SUCCESS FACTORS AT THE ORGANIZATION LEVEL

If companies want to contribute successfully to the food transition, it requires certain competencies at an organizational level to be able to respond adequately to the challenges they face.

Integrated thinking and acting

An important success factor for organizations involved in the food transition is integral thinking and acting. It requires the organization to view challenges through a systemic lens. The organization is seen in the context of a larger whole and in relation to the history with which it is connected. With an integrated approach, sectors, dilemmas, knowledge areas, networks, supply chains and clusters are linked that initially appear to have no link. The food transition cannot be seen as an isolated movement. For example, the transport sector is influencing the food transition through the emergence of electric cars, resulting in the development of electric tractors for farmers. In addition, the dilemma of housing the growing Dutch population in relation to the decline in biodiversity is a dilemma in which solutions influence each other. Economics, ecology, sociology, and technology are areas of knowledge that will have to come together integrally to arrive at sustainable solutions for the food transition. In short, there is a lot of cohesion in the food transition, and it requires an integrated approach to make a positive social difference.

Integrated approach Foodvalley Regional Deal

ICG Rijnconsult provides insights on developments, dilemmas, and knowledge areas by regularly bringing together the broad expertise of its advisors in different market sectors. Food, domestic governance, and social domain, for example, are interconnected. There is an ambition to positively influence health through healthy food, which in turn is relevant for governments. An example of this is the Food Valley Regio Deal. A public-private partnership has been entered into between the region, the national government, and the insect industry. The collaboration aims to give an impulse to make the food system healthier and more sustainable. by setting up an insect breeding expertise center. Consequently, this will also strengthen the region and the industry. ICG Rijnconsult has carried out a feasibility study, delivered a business plan, and connected parties in the insect sector by setting up a network. This collaboration and positive social impact have been possible through an integrated approach with a focus on co-creation and social value.

More about an integrated approach and the importance of looking at relationships in a different way can be read in the ICG Rijnconsult Business Review <u>Tijd voor een nieuwe Tijd</u>

Valuable collaboration

Valuable collaboration in supply chains and networks combined with the use of clusters is an essential characteristic of successful organizations . This is even more relevant in turbulent times of the food transition. Sustainable transformations of products cover the entire supply chain and often have farreaching implications due to the complexity of these supply chains. A canned vegetable manufacturer that wants to set up a CO₂ neutral production chain faces a complex challenge. It means that all players in the supply chain will probably have to drastically adjust their production process. This requires intensive cooperation from all those involved. Sustainability issues also require the involvement of a strong geographical cluster and the use of networks. A cluster can take place at different levels with different types of parties.

Cluster cooperation in fisheries

The fish cluster in the southwest of the Netherlands is a good example in which the entire cluster is strengthened through cooperation between many different parties with interconnected supply chains. Together with entrepreneurs from 5 sub-sectors, under the guidance of ICG Rijnconsult, the region has set up a strategic innovation agenda with 60 action points/projects to strengthen the region and make the fish cluster more sustainable. The developments that are putting pressure on local fisheries have implications not only for the fishermen themselves but for the entire region. The added value of fishing for the southwest of the Netherlands is very large. The cluster consists of 340 companies and 2200 jobs, 55% of the fishing industry is located in the southwest of the Netherlands. An integrated approach with a focus on multiple value creation was therefore important. The effectiveness of cooperation in supply chains and networks and the extent to which the power of the cluster is used makes the fish cluster future-proof. This was facilitated by ICG Rijnconsult. More about the importance of regional cooperation and cooperation in supply chains and networks can be read in the ICG Rijnconsult Business Review: Regionale samenwerking and the ICG Rijnconsult Business Review: Netwerkorganisatie.

SUCCES FACTORS Resilience Valuable collaboration Integrated approach

Resilience

In an innovative, complex, and extensive sector that is undergoing a transition, organizations must be resilient by being agile. A resilient organization responds quickly and adequately to changes in the environment, acting proactively to adjustments in the environment. In the context of the food transition, this means being able to combine old and recent thinking then translating it into innovative ways of operating.

Strategic Agility

An organization needs direction, but it should not be inflexible either. An antidote to this paradox is organic development as a strategic process. Organic development essentially means that long term goals are set but the road to it is flexible. This requires the competence to have a vision and a systemic overview. In the context of the food transition. The long-term goals are created by setting them in a way they contribute to the sustainability of the food system and the organization.

Stewardship can serve as an orientation aid for this. Organizations that act as Stewards assume a long-term vision of a sustainable future, in which care for the earth is not limited to the here and now, but it extends to the distant future.⁵⁷ They take responsibility in their thinking and acting. In addition to taking the interests of others and future generations into account. As a result, a Stewardship orientation fits in seamlessly with the premise of the food transition.

Operational agility

New ways of producing, new business models, digitization, robotization, new collaborations, and other business operations will be required of companies that want to maintain their right to exist in the food system. Being innovative will increasingly play a crucial role. To deal with this, operational agility is essential. Themes such as circularity and energy-neutral production are evident for the future of organizations in the food system and require innovations.

Organic development at Greenport Gelderland

ICG Rijnconsult guides organizations in the organic development process. ICG Rijnconsult's services focus on the six dimensions of agility and assist in setting a point on the horizon in complex issues. ICG Rijnconsult makes organizations more agile, among other things, by advising on management and its organization, strategy and processes, leadership, and people & team development. Greenport Gelderland is a good example of this. The vision from the region was to accelerate sustainability and the energy transition combined with increasing knowledge sharing to create a powerful Gelderland horticultural sector. First, long term targets were set on the horizon. Based on this, projects have been set up in which (behavioral) innovation is required from the companies involved, such as in the realization of emission-free cultivation of products. By supporting the organic development process, it is possible to make this horticulture future-proof. More information about the agile organization can be found in the ICG Rijnconsult Business Review: Wendbaarheid.

ICG Rijnconsult AS A DIRECTOR

ICG Rijnconsult has proven that it is able and willing to be of great value in the food transition. We have the ambition to create as much of a positive impact as possible through collaboration with others. The food supply chain comprises so many different players and there are different concentrations of players per phase of the supply chain. Therefore, it is important to have a director who organizes fair, valuable, and sustainable supply chains. ICG Rijnconsult believes that the degree of success of a transition largely depends on the extent to which directors can connect parties. That is the role we like to play. In the illustration 'The Wheel', the top half is the cornerstone of ICG Rijnconsult's identity, and the bottom half is the success factor for accelerating the food transition at an organizational level. Both connect seamlessly. Our credo is, therefore 'Together we succeed.'

RIJNCONSULT I THE WHEEL



INFORMATION ABOUT OUR FOOD TRANSITION EXPERTS

Eveline van Westerop

- Director & Partner
- Chairman of the supervisory board of the foundation Milieukeur
- Culture, organisation, management
- Supply chain mapping, process optimalisation and quality
- Collaboration & Team development

Transition and network leadership

Collaboration improvements in

Collaboration methods

Network development

Conflict management

Innovation accompaniment

✓ Active in agri-food since 2009



Rowena Achterkamp

- Consultant
- Member of the supervisory board of
 Fair Trade Nederland
- Strategy, innovation and sustainable entrepreneurship
- Vision, ambition, collaboration
- Networks and bridge builder
- Transition thinking



Ernst Jan Reitsma

Consultant

the food sector

Sparring partner



Anneke Bergsma

- Consultant
- Passion for fresh, passion for food
- Innovation with impact
- Strategy development
- Positioning and professionalising
- Organisation and team development
- Result and people oriented
- Analytical and critical
- Active in agri-food since 2014

200

For more information:

ICG Rijnconsult

Anneke Bergsma: +31 613341677 Rowena Achterkamp: +31 651027506 www.integratedconsulting.nl/food-transition

Orteliuslaan 1000 3528 BD Utrecht www. integratedconsulting.nl

ríjnconsult

USED SOURCES

¹ Piksen, G & Brüggenwirth, B (2019). Dossier Duurzaam 2019 persbericht, SAMR & b-open. Via: persbericht Dossier-Duurzaam-2019-091019.pdf (b-open.nl)

² 'Hoe kunnen we duurzame voeding definiëren?' Het Groene Brein Via: <u>https://kenniskaarten.hetgroenebrein.nl/kenniskaart-voeding-duurzaamheid/definitie-duurzame-voeding/</u>

³ Daarnaast referereren wij ook naar het begrip agrifood sector. Omdat we deze paper vanuit de transitiekunde en het systeemdenken benaderen is in deze context 'voedselsysteem' de voordehand liggende term.

⁴ 'Export landbouwgoederen stijgt naar recordwaarde', *Centraal Bureau voor Statistiek* (17-1-2020). Via: Export landbouwgoederen stijgt naar recordwaarde (cbs.nl)

⁵ 'De sector in één oogopslag'. Via: <u>451233 (wur.nl)</u>

⁶ 'FSIN Beleidsmonitor 2021/2025', Foodservice Instituut (2021). Via: FSIN-publicaties over trends in de foodsector

⁷ 'Landbouw; gewassen, dieren en grondgebruik naar bedrijfstype, nationaal'. (2021) CBS. Via: Landbouw; gewassen, dieren en grondgebruik naar bedrijfstype, nationaal (cbs.nl)

⁸ 'Food, de uitdaging van de verwerkende industrie', *Rijnmond in Zicht* (10-8-2019). Via: <u>RijnmondInZicht - Food, de uitdaging van de verwerkende</u> industrie

⁹ 'Supermarktformules'. Distrifooddynamics (2020). Via: <u>Supermarktformules (distrifooddynamics.nl)</u>

¹⁰ 'Supermarkten'. Retailinsiders (2020). Via: Retail Insiders | Supermarkten

¹¹ 'Toename aantal Horecavestigingen ondanks Corona', *Centraal Bureau Statistiek* (24-6-2021). Via: <u>Toename aantal horecavestigingen ondanks</u> corona (cbs.nl)

¹² 'Mkb-innovatiestimulering Regio en Topsectoren (MIT)'., *Rijksdienst voor Ondernemend Nederland* (2021). Via: <u>Mkb-innovatiestimulering Regio</u> <u>en Topsectoren (MIT) | RVO.nl | Rijksdienst</u>

¹³ 'Rijksoverheid stimuleert duurzame productie voedsel', *Rijksoverheid* (2021). Via: <u>Rijksoverheid stimuleert duurzame productie voedsel</u> <u>Voeding</u> <u>Rijksoverheid.nl</u>

¹⁴ 'Vanaf morgen zijn plastic wegwerpartikelen verboden in de hele EU', *Europese Commisie* (2-7-2021). Via: <u>Vanaf morgen zijn plastic</u> wegwerpartikelen verboden in de hele EU | Nederland (europa.eu)

¹⁵ 'LTO: inkomenssteun daalt voor meeste boeren', Veldpost (30-7-2021). Via: <u>LTO: inkomenssteun daalt voor meeste boeren | Veld-post.nl -</u> Landbouwnieuws voor Noord-Nederland

¹⁶ Lageweg, W. ' COLUMN WILLEM LAGEWEG: LANDBOUWTRANSITIE NIET MEER TE STUITEN', Transitiecoalitie Voedsel. Via: <u>Column Willem Lageweg: landbouwtransitie niet meer te stuiten - Transitiecoalitie Voedsel</u>

¹⁷ 'De sector in één oogopslag'. Via: <u>451233 (wur.nl)</u>

¹⁸ 'Export landbouwgoederen stijgt naar recordwaarde', *Centraal Bureau voor Statistiek* (17-1-2020). Via: Export landbouwgoederen stijgt naar recordwaarde (cbs.nl)

¹⁹ 'Nederland eet onvoldoende groente fruit, fruit en vis', CBS (23-4-2015). Via: Dutch people do not eat enough fruit, vegetables and fish (cbs.nl)

²⁰ 'Overgewicht→Cijfers & Context→Huidige situatie', *Volksgezondheidszorg* (2021). Via: <u>Overgewicht | Cijfers & Context | Huidige situatie |</u> <u>Volksgezondheidenzorg.info</u>

²¹ 'Ziektelast in DALY's', Volksgezondheidszorg (2021). Via: Ziektelast in DALY's | Ziektelast | Volksgezondheidenzorg.info

²² Hooijer, H. (2017). 'De ironie van de arme boer', Oxfam Novib (30-6-2017). Via: De ironie van de arme boer - Oxfam Novib

²³ 'Megawinst voor supermarkten tijdens corona, maar arbeidsters...', Oxfam Novib (22-6-2021). Via: Megawinst voor supermarkten tijdens corona, maar arbeidsters... (oxfamnovib.nl)

²⁴ 'Food', Verenigde Naties. Via: Food | United Nations

²⁵ '8 Facts to Know About Food Waste and Hunger', World Food Program USA (10-8-2021). Via: <u>8 Facts About How Food Waste and Global Hunger</u> <u>Are Connected (wfpusa.org)</u>

²⁶ 'Food Waste FAQs'. USDA. Via: Food Waste FAQs | USDA

27 'Hoeveel voedsel verspillen we?', Milieu Centraal. Via: Hoeveel voedsel verspillen we? | Milieu Centraal

²⁸ 'Climate Change 2021 The Physical Science Basis', Intergovermental panel on climate change (7-8-2021). (SPM 23) Via: <u>Sixth Assessment Report</u> (ipcc.ch)

²⁹ 'Causes of climate change', European Commision (28-6-2017). Via: Causes of climate change | Climate Action (europa.eu)

³⁰ 'Food systems account for over one-third of global greenhouse gas emissions', UN News (11-3-2021). Via: <u>Food systems account for over one-third of global greenhouse gas emissions | UN News</u>

USED SOURCES

³¹ Velliga, T. V. (2011). 'De voetafdruk van de landbouw', Wageningen University en Research (8-6-2011). Via: 170140 (wur.nl)

³² 'Stikstofproblematiek_-_emissies_en_depositie_van_stikstof_in_Nederland', *TNO* (Oktober 2019). Via: <u>Stikstofemissie en -depositie in</u> <u>Nederland | TNO</u>

³³ Carrington, D. (2020). 'Fifth of countries at risk of ecosystem collapse, analysis finds', *The Guardian* (15-10-2020). Via: Fifth of countries at risk of ecosystem collapse, analysis finds | Biodiversity | The Guardian

³⁴ 'Staat van instandhouding EU-soorten en habitattypen', *Planbureau voor de Leefomgeving* (6-9-2014). Via: <u>Staat van instandhouding EU-</u>soorten en habitattypen (2020) - Balans van de Leefomgeving | PBL Planbureau voor de Leefomgeving

³⁵ 'Kwaliteit grondwater', Kennisimpuls Waterkwaliteit (geraadpleegd op 9-8-2021). Via: Kwaliteit grondwater | Kennisimpuls Waterkwaliteit

³⁶ Dean, C. (2009). Rising Acidity Is Threatening Food Web of Oceans, Science Panel Says, The New York Times (31-1-2009). Via: <u>Rising Acidity Is</u> <u>Threatening Food Web of Oceans, Science Panel Says - The New York Times (nytimes.com)</u>

³⁷ 'Klimaatverandering de grootste bedreiging voor Europese aardappelteelt', *AGF* (15-7-2021). Via: <u>Klimaatverandering de grootste bedreiging</u> voor Europese aardappelteelt (agf.nl)

³⁸ 'The 17 Goals', Verenigde Naties (25-8-2021). Via: THE 17 GOALS | Sustainable Development (un.org)

³⁹ 'Food Solution - #MoveTheDate of', Earth Overshoot Day (2-8-2021). Via: Food Solution - #MoveTheDate of Earth Overshoot Day

⁴⁰ 'Kringlooplandbouw' Wageningen University en Research. Via: Kringlooplandbouw - WUR

⁴¹ 'Delivering the European Green Deal', *European Commision* (14-7-2021). Via: <u>Delivering the European Green Deal | European Commission</u> (europa.eu)

⁴² 'KENNIS- EN INNOVATIEAGENDA LANDBOUW, WATER, VOEDSEL 2020 – 2023' *Topsector Agri & Food, Tuinbouw & Uitgangsmaterialen, Water & Maritiem, Rijksoverheid,* (25-5-2021). Via: <u>Home (kia-landbouwwatervoedsel.nl)</u>

⁴³ 'Eiwittransitie', Wageningen University en Research (2021). Via: <u>Eiwittransitie - WUR</u>

⁴⁴ 'Rijksoverheid stimuleert duurzame productie voedsel', *Ministerie van Landbouw, Natuur en Voedselkwaliteit* (23-10-2020). Via: <u>Rijksoverheid</u> stimuleert duurzame productie voedsel | Voeding | Rijksoverheid.nl

⁴⁵ 'Nationaal Preventieakkoord verbetert gezondheid van alle Nederlanders', *Rijksoverheid* (23-11-2018). Via: <u>Nationaal Preventieakkoord</u> verbetert gezondheid van alle Nederlanders | Nieuwsbericht | Rijksoverheid.nl

⁴⁶ 'Energietransitie | RIVM', RIVM. Via: <u>https://www.rivm.nl/onderwerpen/energietransitie</u>

⁴⁷ 'Aardagsvrij', Rijksdienst Voor Ondernemend Nederland (29-7-2021). Via: Aardgasvrij | RVO.nl

⁴⁸ Vooijs, H. (2018). 'Grondstoffentransitie in Nederland: zo ver zijn we', *InnovationQuarter* (4-5-2018). Via: <u>https://www.innovationquarter.nl/8836/</u>

⁴⁹ 'Stikstofproblematiek_-_emissies_en_depositie_van_stikstof_in_Nederland', *TNO* (Oktober 2019). Via: <u>Stikstofemissie en -depositie in</u> <u>Nederland | TNO</u>

⁵⁰ 'Maatregelen om stikstofprobleem op te lossen', Ministerie van Landbouw, Natuur en Voedselkwaliteit (20-7-2021). Via: Maatregelen om stikstofprobleem op te lossen | Aanpak stikstof | Rijksoverheid.nl

⁵¹ Van Hofslot, G. (2020). Vraag naar biologisch voedsel groeit. In 2019 gaven we 1,7 miljard uit aan biologisch eten, Dagblad van het Noorden (19-11-2020). Via: <u>Vraag naar biologisch voedsel groeit. In 2019 gaven we 1,7 miljard uit aan biologisch eten - Dagblad van het Noorden (dvhn.nl)</u>

⁵² Simons, L., & Nijhof, A. (2020). Changing the Game: Sustainable Market Transformation Strategies to Understand and Tackle the Big and Complex Sustainability Challenges of Our Generation. Routledge.

⁵³ 'Food Wastage Footprint: Full-cost accounting', FAO (2014). (P. 7). FAO. E-ISBN 978-92-5-108513-4

⁵⁴ Folkerts, H. & Weijers R. (2004). De winst zit in de opbrengst - Naar een duurzame economie, Assen: Koninklijke van Gorcum. ISBN 9789023240419

⁵⁵ 'Is there a Path to Global sustainability Reporting Standards', International Financial Reporting Standards (29-6-2021). Via: IFRS - Is there a path to global sustainability standards?

⁵⁶ 'PROPOSALS FOR A RELEVANT AND DYNAMIC EU SUSTAINABILITY REPORTING STANDARDSETTING', European Financial Reporting Advisory Group (februari 2021). Via: <u>Proposals for a relevant and dynamic eu sustainability reporting standard setting (europa.eu)</u>

⁵⁷ Wetzels, R. Nijhof, A. & Achterkamp, R. (2020). Stewardship als houvast in turbulente tijden - 10 gidsende principes om bij te dragen aan duurzame ontwikkeling, (p. 7).