

By Denmark

WHITE PAPERS

for solutions of tomorrow

COLLABORATION

THE BUSINESS CULTURE THAT BUILDS
A STRONG FOOD CLUSTER

INSIDE THIS WHITE PAPER:

- Innovation happens where minds meet
- Harvesting the benefits of the digital revolution
- Empowered employees are a business asset



Solutions of tomorrow
By Denmark

Collaboration

The business culture that builds a strong food cluster

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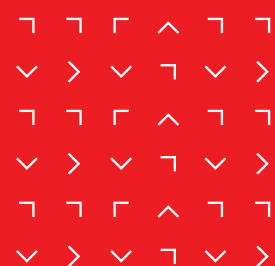
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EXECUTIVE SUMMARY

Sustainable food production is one of today's most important challenges. In Denmark, businesses, academia and research institutes and authorities are all working together to develop innovative solutions that will help feed the growing global population.

Cross-disciplinary collaboration is characteristic of the Danish food cluster, which ranks among the strongest centres for food knowhow and innovation in the world. It is also key to reaching the UN Sustainable Development Goals.

Collaboration is a source of empowerment that sets new ideas free and keeps the wheels of innovation rolling

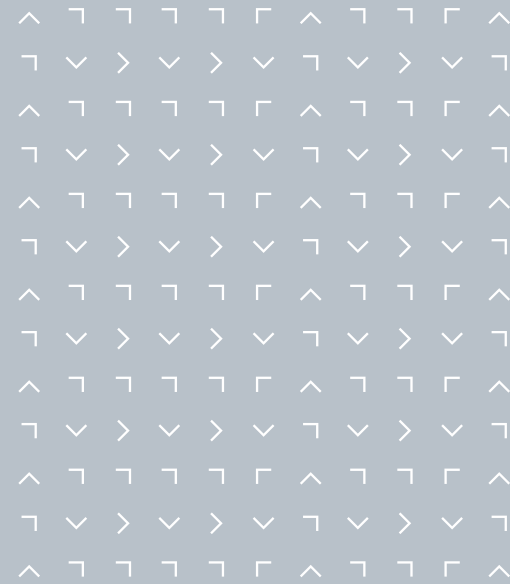
The roots of our collaborative culture lie in the Danish cooperative movement. Starting in the late 19th century, the first farm cooperatives demonstrated the power of pooling resources and knowhow to mutual benefit. Trust, openness and a willingness to share are still fundamental values. Through collaboration, Danish companies are able to maximise their resources and capabilities and target new opportunities in global markets.

This white paper is all about the Danish approach to collaboration – from its humble origins to the development of an impressive food cluster with a global presence.

By combining knowledge and expertise across the food value chain, Danish companies have developed the highest standards of food safety – influencing the international standards that ensure safe and nutritious food for all. The partnerships behind Denmark's advanced digital technologies are today helping to drive us towards a sustainable future.

For the people working in the Danish food cluster, collaboration is a source of empowerment that sets new ideas free and keeps the wheels of innovation rolling. A proven asset for every business.

We invite you to explore more at www.foodnationindenmark.dk



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Supporting the SDGs – how does Denmark contribute?

The UN's 17 sustainable development goals (SDGs) have become an important topic for companies, organisations and stakeholders within the Danish food cluster. Collaboration will be key to their achievement.

Many have pinpointed how they actively support the goals. At national level, we see the SDGs as a guiding light for establishing best food production practices, prioritising research and development efforts and identifying innovation targets that will drive us towards a sustainable future.

FOREWORD



The Danish food cluster is a living example of what collective minds can achieve. Collaboration creates innovative solutions and new business opportunities.

Denmark is a world-leading food nation. We produce enough food to feed three times our own population. We develop knowledge, ingredients, equipment and solutions that support global food production. And we have a reputation for impeccable food safety, reliable quality and strict controls.

Much of this strength comes from the extensive collaboration that takes place within the Danish food cluster and between businesses, authorities and educational institutions. Through collaboration, we have created one of the most knowledge-intensive and innovative food clusters in the world.

The spirit of collaboration gave birth to our cooperative movement in the mid-19th century. It resulted in the post-war quality revolution, the eradication of major animal diseases and a strong reputation for sustainability in food production. Today, for example, Danish poultry and eggs have achieved a special salmonella-free status in the EU, and we are a global leader in the management of water resources across the food value chain.

High standards and constant innovation

In many ways, our collaborative culture secures the high professional standards demanded by a quality-oriented domestic market – and encourages the constant innovation necessary to help solve the world's major food challenges. Close cooperation with global business partners inspires and influences us at every step.

A high level of employee involvement and responsibility and, through that, a spirit of openness and trust.

We can see that this collaborative mindset shapes the way companies, customers, researchers, public authorities and, even, competitors act.

Denmark has a strong tradition for identifying challenges and enabling the dialogue that leads to solutions. The flat Danish management structure supports this in practice

by inspiring a high level of employee involvement and responsibility and, through that, a spirit of openness and trust.

The benefits of collaboration extend far beyond commercial gains. In our long experience, collaboration is the most effective means to improved innovation, productivity and compliance with standards and legislation. This is also our experience when sharing, for example, our food safety knowledge and sustainable farming expertise across international borders.

This white paper provides deeper insights into the Danish collaborative culture. We are pleased to share it with you – and hope you will be inspired.

A handwritten signature in blue ink, appearing to read 'J. Ellemann-Jensen', written in a cursive style.

Jakob Ellemann-Jensen
Minister for Environment and Food
of Denmark

CHAPTER 1

**TODAY'S COLLABORATION,
TOMORROW'S OPPORTUNITIES**

**FROM FARMER-OWNED COOPERATIVES
TO MULTINATIONAL GROUPS**



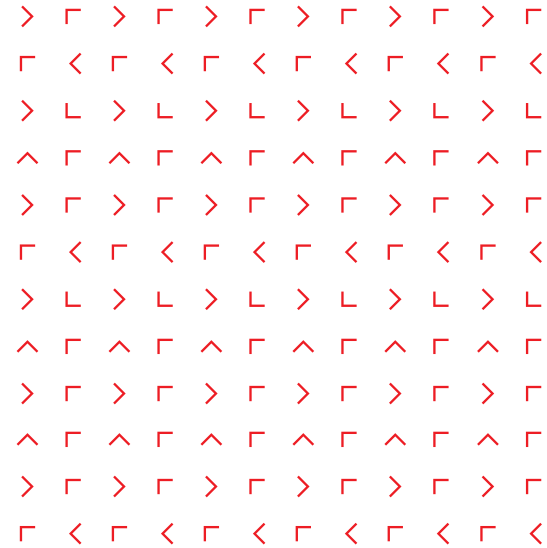


Photo: Peter Larsen

Denmark is the land of cooperatives. Since the first cooperative was founded 150 years ago, collaboration, knowledge sharing and mutual trust have made the Danish food cluster one of the most innovative in the world.

Until the second half of the 19th century, Denmark's agricultural economy was based on small, independent farms, which were facing increasing competition from larger farms in other countries. The answer was the cooperative - farmer-owned enterprises where the members pooled their economic resources and built factories that could produce uniform, high-quality products faster and more efficiently. Profits were shared, and Danish farmers soon experienced that their livelihoods improved.

After the first cooperative dairy was established in 1882, the cooperative movement spread rapidly throughout the country, encompassing slaughterhouses, egg exporters and feed mills.

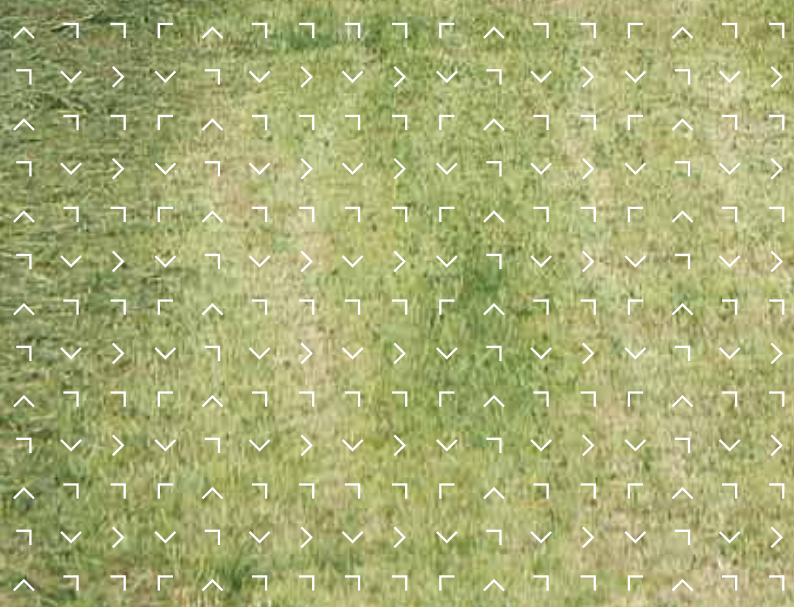
The model completely transformed the Danish farming industry. Before long, bacon, butter and eggs from Denmark enjoyed significant market shares abroad.

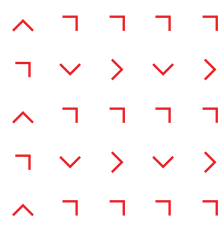
Production methods and technology have changed radically since, but the culture for collaboration remains. Denmark's strong reputation on many export markets still depends on knowledge sharing, continuous innovation and mutual trust across the food sector.

Knowledge sharing, continuous innovation and mutual trust across the food sector

Visionary food technology

Today, the farmer-owned cooperatives are powerful multinational companies with global reach. Visionary Danish enterprises support them by delivering a constant stream of innovative technology to produce world-class foods - advanced knowhow that has become a valuable export commodity itself.





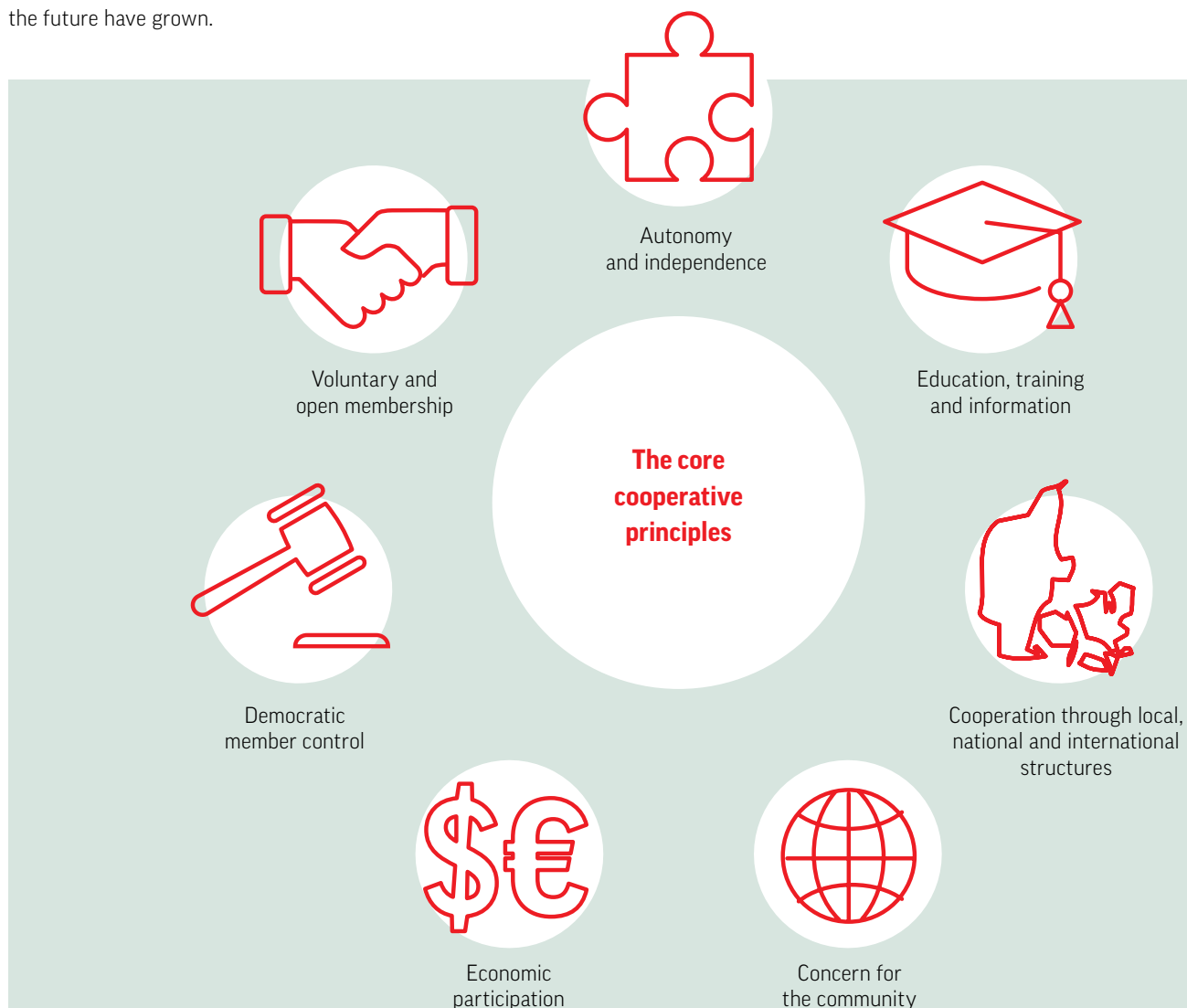
To ensure high standards of environmental protection, quality and traceability, the food cluster has invested further in cross-sector alliances between farmers, industry, trade unions and research institutions, both national and international.

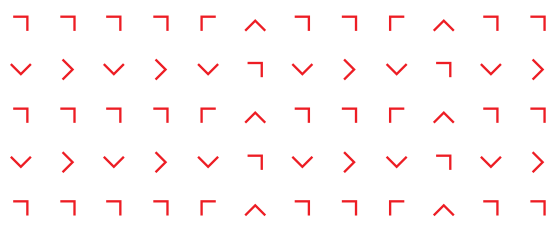
Along with the soil, talented people are Denmark's most important natural resource

The goal is to secure a well-trained and highly competent workforce - on farms, in factories and in laboratories. Along with the soil, talented people are Denmark's most important natural resource.



This farm-to-fork collaboration is behind the constant development and unmatched efficiency of Denmark as a food nation. From the needs of the past, the opportunities of the future have grown.





A PARTNERSHIP TO FEED CHINESE PORK PRODUCTION



Photo: Danish Technological Institute

Expertise in producing and supplying feed to the world's most quality-conscious customers

Pork consumption is on the way up in China, where each citizen now consumes on average 30kg of pork a year. For Chinese pig farmers, the trend has created an urgent need to improve efficiency so they can keep up with demand.

All eyes have been on Denmark to help the Chinese achieve that, drawing on the sustainable agricultural methods that make Danish sows twice as productive and much less prone to disease.

Since 2014, a partnership between the Danish agricultural cooperative DLG and the Chinese feed company PUI has supported China's transition from relatively inefficient, small-scale farms to larger, more productive and climate-friendly businesses.

The partnership combines PUI's in-depth market knowledge and production facilities with DLG's long-standing expertise in producing and supplying feed to the world's most quality-conscious customers: the Danish farmers.

Today, PUI has gained a leading market position through its ability to deliver high-quality compound feed to the large Chinese livestock industry. The Danish-Chinese partners expect to reap even more benefits from their combined strength in the years to come.

COLLECTIVE SKILL MAKES A FAMOUS BUTTER

Lurpak butter is known all over the world for its high quality and delicious taste. It is a prime example of the long-lasting returns on investment that arise when Danish farmers collaborate. In this case, the returns have been coming for more than 100 years.

Founded when farmers pooled their resources and knowledge in the late 19th century, the original Lurpak brand - Lurmærket - was registered in 1901. Since then, fresh Danish milk, craftsmanship, increasingly advanced technology and university collaboration have turned Lurpak into a premium export product, sold in more than 75 countries.

Lurpak was one of the early success stories that showed farmers why cooperation works. Right from the early days, they benefited from mutual innovation, continuous quality and efficiency improvements and higher market share.

Collaboration continues to benefit the Danish food cluster - university-industry collaborations delivering many innovative commercial products. Today, Denmark ranks no. 1 in several European food innovation benchmarks.

**Case by Arla Foods and
Danish Food Cluster**



Photo: Arla Foods

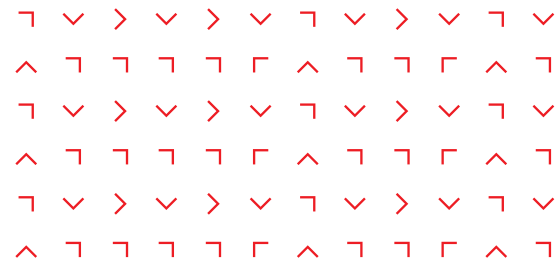
Lurpak was one of the early success stories that showed farmers why cooperation works



CHAPTER 2

INNOVATION HAPPENS WHERE MINDS MEET

**THE TRIPLE HELIX MODEL AT
THE HEART OF THE FOOD VALUE CHAIN**



Knowledge-sharing partnerships between industry, academia and authorities make the route to food innovation smoother and faster.

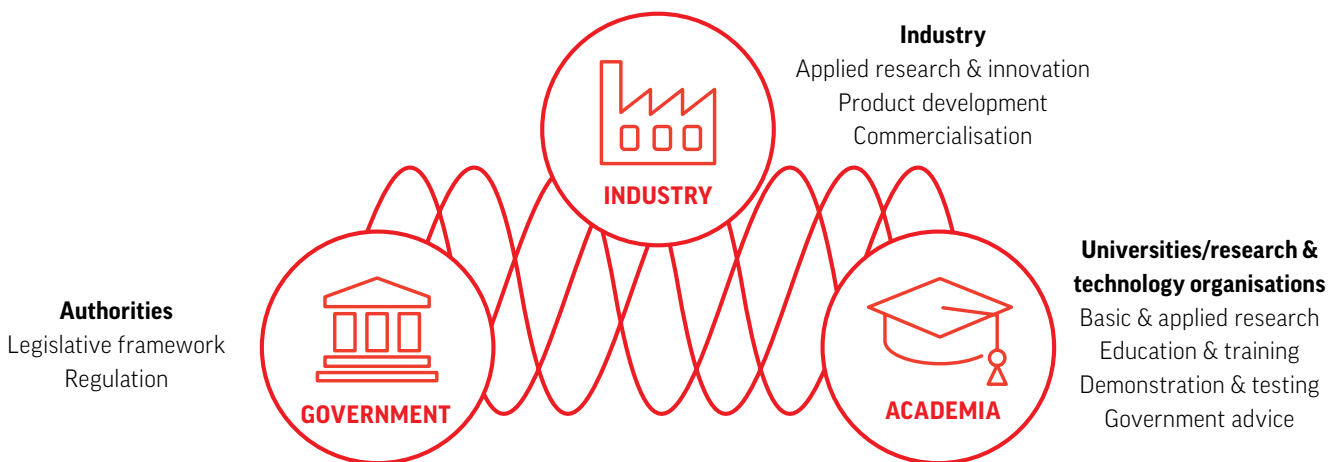
The ability to gather stakeholders around a table is vital to Denmark's success as a food nation – and envied by many. It is through such collaborative meetings of minds that many mutual interests and challenges are uncovered and the wheels of innovation set in motion.

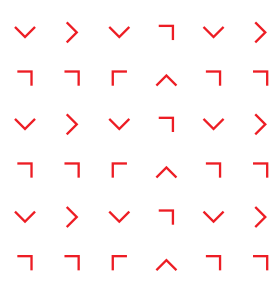
Denmark is the third most concentrated, food-exporting cluster in the world

Between all stakeholders in the food cluster, there exists a durable interdependency where roles and responsibilities are clearly defined. It runs from primary agriculture and fisheries to manufacturers of ingredients, food, technology and equipment, from local to national authorities and among universities and knowledge institutes. This triple helix model – involving industry, academia and government – is the foundation of Denmark's strongly innovative and coherent value chain.

A supply chain in your neighbourhood
Being a small country devoted to food innovation certainly has its advantages. It means that everything is nearby, whether you are looking for a production site, an export partner or a leading consultant for your next project. Internationally, Denmark is recognised as having the third most concentrated, food-exporting cluster in the world, relative to its size.

Companies in Denmark regularly draw on this easily accessible expertise because they know they can achieve far more together than alone. The high level of trust in Danish society fuels this understanding. When you partner with a Danish company, you gain access to an entire ecosystem of knowledge and innovative power. You will soon find that you are not doing business with just another partner. You are partnering with a mindset – one that has proven highly profitable for many generations.





Drivers of an innovative reputation

This concentration of expertise and collaborative mindset are important drivers of Denmark's strong reputation for innovation – and no. 1 ranking in a benchmark study of the food industry in ten European countries. Here, Denmark received top scores for all innovation indicators, including collaboration, research & development, knowledge, business environment, patents and revenue.

Denmark has bilateral cooperation with a multitude of countries

From scientific research to business value

The strong ties between leading universities, research institutes and companies within the Danish food cluster are unrivalled. So when, for example, the food authorities introduce new legislative requirements, this close collaboration across the research value chain ensures practical solutions are found.

Through the universities and research institutes, companies gain knowledge and access to advanced equipment, databases, lab facilities and pilot plants. This is where a lot of scientific discoveries and developments are made.

Experience shows that collaborative clusters of small, medium-sized and large enterprises are often a prerequisite for successful innovation. One of the research institutes' most important roles is to help companies put the latest research findings into use, solving challenges and adding value to their business.

Public-private cooperation on international standards

The close interaction between our public and private sectors speeds up the journey from innovative research to a successful commercial product. Working with farmers and food manufacturers, the Danish authorities ensure strict compliance with relevant national and international rules. This has been a prime factor in eliminating a range of animal and animal-borne diseases among Danish livestock – including the eradication of salmonella in Danish poultry.

When it comes to food and veterinary safety, the national authorities are responsible for policy development and risk management. Universities and research centres provide the independent scientific knowledge and risk assessments required for this purpose.

Involving industry, academia and government is the foundation of Denmark's strongly innovative and coherent value chain

Denmark has bilateral cooperation with a multitude of countries and is an active participant in the work of international standard-setting bodies, such as the World Organisation for Animal Health (OIE) and Codex Alimentarius. Through Strategic Sector Cooperation (SSC) projects, the Danish government deploys sector counsellors at foreign embassies to share experiences, ideas and solutions that can solve specific challenges in a partner country. Food-related SSC projects are currently underway in China, Colombia, Kenya, Mexico and Vietnam, for example.

Top 10 EU Countries based on Index of Innovation



Source: Bank of Ireland 2014.

BISCUITS AND BEER MAKE PERFECT PARTNERS

A good example of how collaboration can create more value with less input and support the circular economy

Spent grain leftovers from beer production can be a tough challenge for a small brewery with sustainable ideals. On the small Danish island of Møn, the local brewery has come up with an innovative solution in collaboration with biscuit producer Bisca.

Instead of sending grain waste to local farms for cow or pig feed, Møn Brewery now sends the by-product of its beer production to its partners at the Bisca factory. The outcome

is a delicious new line of Møn biscuits – great for serving with fine cheese and a glass of the local brew.

The brewery produces 66,000 gallons of beer a year. That provides enough spent grain for Bisca to maintain steady production of its biscuit line, which has rapidly become a hit with consumers. A good example of how collaboration can create more value with less input and support the circular economy.

Case by Bisca

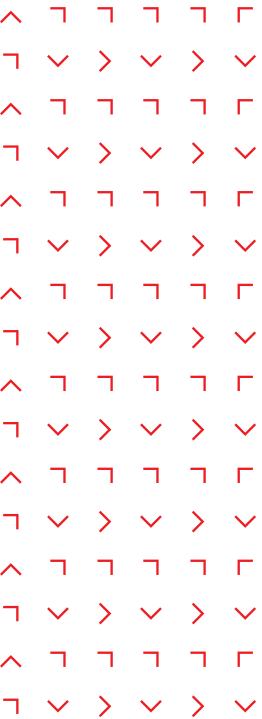
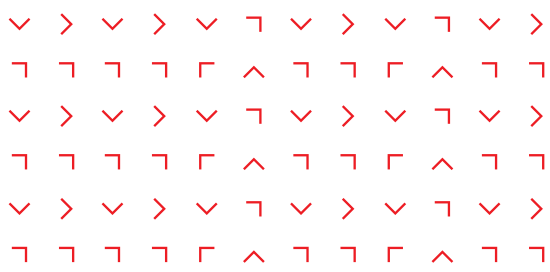


Photo: Bisca



SUSTAINABLE WATER TECHNOLOGY SAVES A VALUABLE RESOURCE



Photo: Food Nation

The food industry consumes a lot of water – both in Denmark and around the world. But perhaps not for much longer. A public-private partnership aims to reduce water consumption by 15 to 30% in Danish food companies.

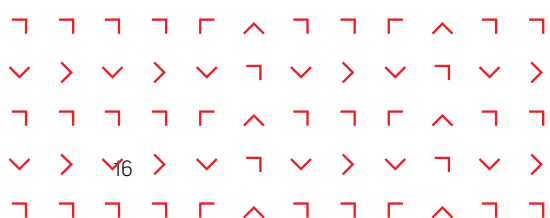
The Danish Partnership for Resource and Water-Efficient Industrial Food Production (DRIP) is developing new sustainable technology to reduce groundwater consumption and increase the use of purified recycled water – without compromising food quality and safety.

All solutions are tested in pilot or full-scale at the food production plants. At the Carlsberg soft drinks plant in Fredericia new water treatment technology has reduced wastewater discharge from 130 million litres a year to almost zero from the water pre-treatment step.

The five-year partnership consists of several food companies and technology suppliers, three universities and an Advanced Technology Group (GTS) institute.

Case by Danish Agriculture & Food Council

A public-private partnership aims to reduce water consumption by 15 to 30%



WHOLE GRAIN PARTNERSHIP COMBINES BUSINESS WITH HEALTH

Danish consumers have increased their intake of whole grain considerably since 31 partners from food authorities, health NGOs and the food industry got together and formed the Whole Grain Partnership in 2008.

Today, 30% of Danes eat the recommended 75 grams of whole grain a day, compared to just 6% when the campaign started. Among children, the figures look even better, with 43% eating the recommended daily intake of 40 to 60 grams - up from 7%.

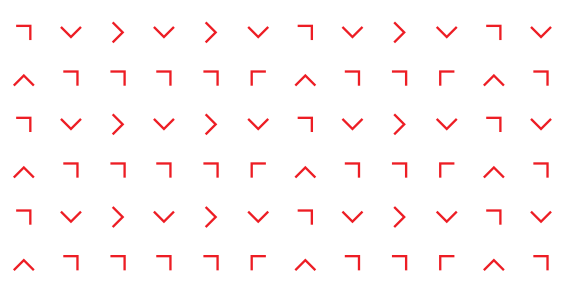
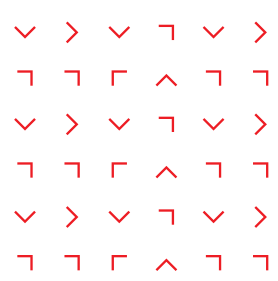
Collaboration gives new opportunities to expand the market for whole grain products

The partnership not only contributes to better public health. For food manufacturers, it has created a new opportunity to expand the market for whole grain products.

In other words, the partners have successfully combined health and business objectives. An inspiration for other organisations to pursue the partnership option.

Case by The Whole Grain Partnership





KITCHENS PUT DENMARK ON THE ORGANIC DINING MAP

Organic food is an attractive selling point for Danish restaurants, canteens, cafés and caterers. Since the introduction of the Organic Cuisine Label, kitchens have taken organic food to new heights.

The turning point came in 2009 when the Danish government presented a new state-controlled labeling programme. This awards professional kitchens with a gold (90-100%), silver (60-90%) or bronze (30-60%) label, according to the percentage of organic products on their menu.

Today, more than 2,500 kitchens have joined the programme, which set out to meet the growing demand for organic food and has encouraged even more consumers and chefs to make organic choices.

Denmark is the country in the world that buys most organic products per capita

For consumers, the labels have made it much easier to find organic restaurants and cafés when eating out. The food service sector has gained a new marketing opportunity and helped Denmark become the country that consumes more organic food per capita than anywhere else in the world.

This success is largely due to close collaboration between wholesalers, the food service sector and the public sector.

Case by The Danish Veterinary and Food Administration

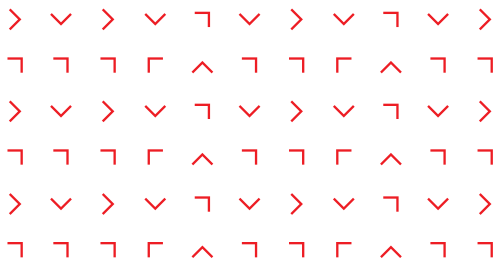


Photo: Niclas Jesen

The Organic Cuisine Label
 The state-controlled Organic Cuisine Label shows the percentage of organic food and beverages used in a professional kitchen

The label has three levels:

90-100% organic 60-90% organic 30-60% organic



VIRTUAL TECHNOLOGY BOOSTS FAIR PORK TRADE

The success of the project is all down to the exchange of experience and data between the international partners involved



Photo: Danish Technological Institute

Fair and transparent trade of pork meat is secure within the European Union, where all carcasses are classified according to their meat content using an EU-approved method. Whenever the classification method needs calibration, a team of butchers is called upon to dissect sample carcasses by hand.

A joint project led by the Danish Technological Institute (DTI) has now developed a way to make the calibration process faster and more precise.

Rather than only drawing on skilled butchers, the authorities can now also rely on a CT scanner to carry out virtual dissections in considerably less time. Computerised phantoms – reference materials – mimic the pig carcasses and ensure a reproducible result regardless of the scanner used.

The success of the project is all down to the exchange of experience and data between the international partners involved. In addition

to DTI, the partners include the Danish Technological University, Max Rubner-Institut in Germany, Teagasc in Ireland and the Institute of Agrifood Research and Technology in Spain.

The research is primarily financed by the Danish Pig Levy Fund and the Danish government.

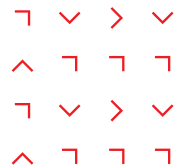
Case by Danish Technological Institute



CHAPTER 3

FOOD SAFETY MADE BY TEAMWORK

INTERNATIONAL STANDARDS WITH
A DANISH HALLMARK



Ensuring the highest standards of food safety and quality is a joint commitment. Danish and international partners work together to minimise foodborne hazards.

Every food manufacturer has an interest in ensuring the highest standards of food safety in their production plant. Therefore, many manufacturers and their customers seek the stamp of approval that international food safety standards provide.

International food safety standards have become more important than ever in an era of growing food imports and exports all over the world. The priority is to prevent, eliminate and control foodborne hazards, from the production plant to the point of consumption. As food safety can be compromised at many stages in a product's lifecycle, it is vital that all companies in the food supply chain work together.

In Denmark, representatives of food safety authorities, the industry, research institutes and consumers all contribute to the effort to keep our global food supply safe

In Denmark, representatives of food safety authorities, the industry, research institutes and consumers all contribute to the effort to keep our global food supply safe. The fact that Danish chicken meat and eggs have a special salmonella-free status in the EU is one example of that. Another is ISO 22000 – the internationally recognised food safety standard that today bears the influence of Danish collaboration.

A new approach to risk

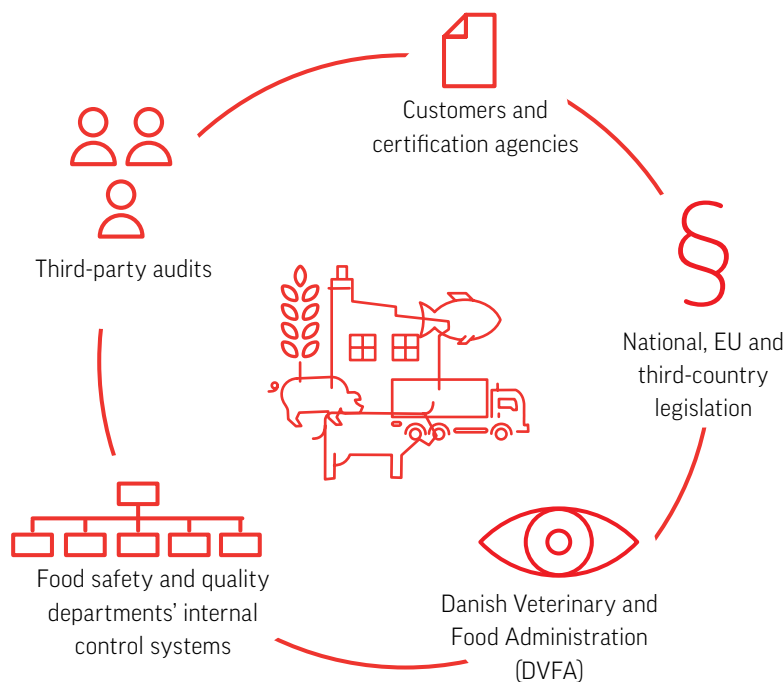
The latest revision – ISO 22000:2018 – sets out the requirements for a food safety management system and how to avoid food safety hazards. It also introduces a new approach to risk, distinguishing between risk at the operational and business levels of the management system. This includes

more dynamic control of food safety hazards by combining interactive communication, systems management, prerequisite programmes (PRPs), and the principles of Hazard Analysis and Critical Control Points (HACCP). ISO 22000:2018 is based on the Codex Alimentarius principles for food hygiene, which help public authorities ensure food safety criteria are met.

Securing a human right

Access to nutritious, wholesome and safe food should be a basic human right. As the global population grows and food supplies come under increasing pressure, the collaboration behind standards like ISO 22000:2018 is essential to ensure the highest standards of food safety and quality.

Core elements of the Danish approach to quality and safety control in food production



SALT PARTNERSHIP REDUCES THE SALT CONTENT IN FOOD



Photo: Visitdenmark Niclas Jessen

The proven link between excessive salt intake and high blood pressure makes salt a global challenge to public health.

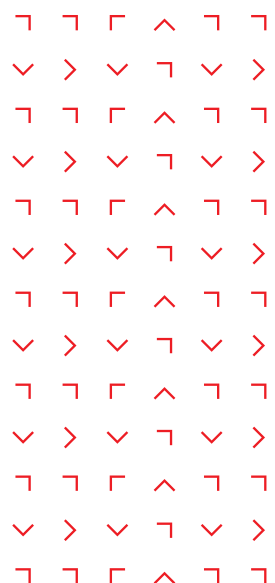
World Health Organization (WHO) dietary guidelines recommend a salt intake of less than 2,000mg sodium, or five grams of salt, a day. As processed foods account for most of a consumer's daily sodium intake, the potential to reduce this level is high.

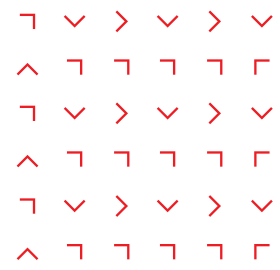
Collaboration with the food industry aims to reduce the salt content in processed food

In Denmark, a partnership between industry, organisations and the Danish Veterinary and Food Administration is helping to reduce the salt in processed foods and salt intake among consumers.

The partnership aims to raise awareness of the link between salt and health in canteens, cafés, restaurants and private households.

Case by The Danish Veterinary and Food Administration





SHARED KNOWLEDGE MAKES CAMEL MILK SAFER

Since the first cooperative dairies were founded in the 19th century, Denmark has been a world leader in safe and efficient dairy production. That expertise is now being shared with Ethiopian partners to improve the production and quality of camel milk.

In Africa, 9% of the continent's total milk production comes from camels. However, as the milk is unpasteurised and has a high level of bacteria, it is a frequent cause of illness when consumed.

The Technical University of Denmark and bioscience company Chr. Hansen are working with Ethiopia's Haramaya University to transfer knowledge about Danish technology and production methods that can make camel milk safe and healthy to consume.

By building local expertise in microbiology and efficient dairy production, the goal is to strengthen businesses in the developing region.

Knowledge about Danish technology and production methods can make camel milk in Ethiopia safe

**Case by Chr. Hansen
and Technical University of Denmark**



Photo: CS

A yellow industrial robotic arm is the central focus of the image. It is mounted on a grey base and has a complex, multi-jointed structure. The arm is positioned in a way that it appears to be reaching towards the camera. The background is a blurred industrial environment with a white wall and a black metal fence in the foreground. The lighting is bright and even, highlighting the metallic surfaces of the robot.

CHAPTER 4

HARVESTING THE BENEFITS OF THE DIGITAL REVOLUTION

DIGITAL PARTNERSHIPS MEET THE DEMAND
FOR TRACEABILITY AND TRUST

Data is a powerful commodity. Cross-sector collaborations are exploring the potential to take efficiency, sustainability and control to the next level in farming and food processing.

Globalisation has created vast opportunities for consumers to buy the food products that best fit their wants and needs. At the same time, demand is growing for traceability, transparency and trust in the supply chain. Digital partnerships are helping to satisfy those expectations.

We are currently in the middle of the fourth industrial revolution – the digital revolution, where the physical and digital world are increasingly merging. A myriad of technologies – drones, satellites, sensors, artificial intelligence and machine learning – produce and process vast amounts of data. This empowers us to make better decisions, produce more smartly and sustainably, and track and control the entire food supply chain.

Pioneering big data

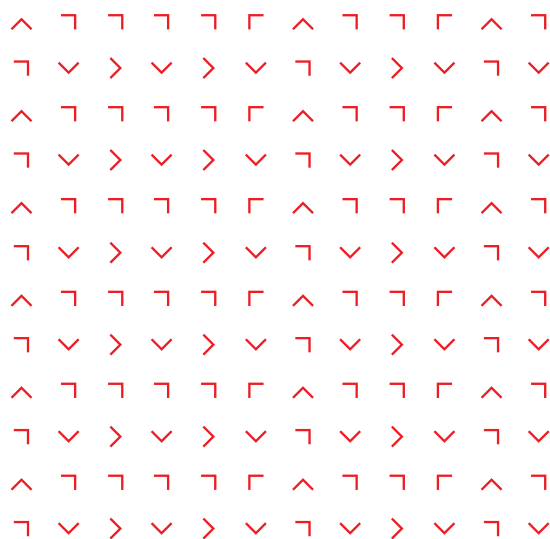
Today, Danish companies are among the most digitalised and automated in the world. To maintain this leading position and continue to offer world-class products, food companies and sectors are discovering new opportunities through data collaboration. One example of this is the Food Supply Chain Data Project under the Danish Centre for Big Data Analytics-driven Innovation (DABAI). Established by Innovation Fund Denmark, the aim of DABAI is to give Denmark a pioneering role in exploiting the potential of big data.

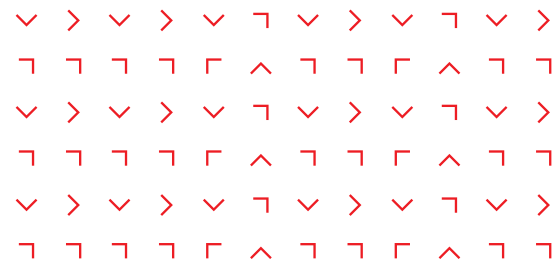
Precision by satellite

On farms, the use of digital technology and automation has grown tremendously in recent years. Today, Danish farmers have satellite pictures at their fingertips to assess the precise need for fertiliser in their fields. Field robots are also available to remove troublesome weeds. These technological advances have paved the way for the Partnership for Precision Agriculture and Smart Regulation – a public-private collaboration that is exploring how technology can optimise production, limit environmental impact and support easier farm inspections by government agencies.

A myriad of technologies produce and process vast amounts of data

The word is that 50 billion devices will be connected to the internet within the next few years. As the world becomes more digital, cross-sector partnerships will support the global need for an efficient and sustainable food supply.





FARM DATA ADDS VALUE TO QUALITY PROGRAMME




Photo: Arla Foods


Responsible production of high-quality milk is important to Arla Foods, where comprehensive quality assurance starts with the farmer.

Ever since 2003, the Arla Farm quality assurance programme has ensured that farmers deliver the highest quality milk by focusing on milk composition, food safety, animal welfare and the environment.


The Arla Farm quality assurance programme ensures farmers deliver the highest quality milk

Arla Farm Plus includes four categories of data which support the farmers and the company


 **Basic farm information**

 **Animal assessments**

 **Herd information**

 **Medicine & health programme**



 **Used by the farmers**
To gain insights for optimising their milk production and herd management

 **Used by Arla Foods**
To ensure transparency and an overview of the milk supply

Following the recent launch of Arla Farm Plus, the programme is now equipped to gather data about farms, herds and individual cows. Using the data, Arla Foods can accommodate requests from consumers, who are increasingly focused on the origin of products, particularly animal feed and welfare. Arla farmers can also use it to benchmark their performance.

Case by Arla Foods

DATA COOPERATION OPTIMISES PIG PRODUCTION

Pig production in Denmark is getting a digital lift, thanks to the Food Supply Chain Data Project which is collating big data from farms, feed companies and slaughterhouses.

Big data and machine learning are providing new insights into sickness in pigs

The Danish Centre for Big Data Analytics-driven Innovation (DABAI) partnership is leading the project, which aims to automate processes, reduce errors and increase production control.

Several projects are on the way. For example, one project is using big data and machine learning to gain new insights into sickness in pigs. The aim is to use data to predict illness and take action in good time - improving animal welfare and cutting costs.

In another project, the authorities are collaborating with a slaughterhouse to share data. Via big data analysis, the objective here is to gain new insights that can help optimise logistics and production planning.

DABAI comprises several companies and three Danish universities - the Technical University of Denmark, University of Aarhus, University of Copenhagen - and the Alexandra Institute. The Danish Agency for Digitisation, the Danish Business Authority and Central Denmark Region are the public authorities involved.

Case by Danish Agriculture & Food Council and Technical University of Denmark



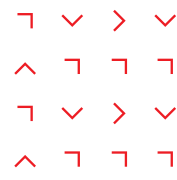
Photo: Danish Agriculture & Food Council

A woman in a white uniform is working on a production line in a factory, handling egg cartons. The background shows other workers and machinery. The text is overlaid on the left side of the image.

CHAPTER 5

EMPOWERED EMPLOYEES ARE A BUSINESS ASSET

THE DANISH MODEL FOR STABLE LABOUR RELATIONS



Collective agreements between employers and employees are an outstanding feature of the Danish labour market – based on trust, collaboration and mutual respect.

Denmark's labour market provides unmatched advantages for all employers and employees in the country, not just within the Danish food cluster. Unlike most other countries where the labour market is regulated by legislation, our trade unions and employer organisations make collective agreements without government involvement. Any disagreements are typically settled through mediation or arbitration. This approach has gained international renown as 'the Danish model'.

Trust, collaboration and a flat structure are key to the Danish model's long-standing success

Today's collective agreements cover 83 percent of all employees in Denmark and

regulate, for example, working hours, pensions, sick pay and overtime. Agreements are reached through negotiation.

An agreement for every workplace

Not every detail is covered by the collective agreements. Employers and employees often work together at local level to translate the national collective agreements into local agreements that apply to a specific workplace. Employees can choose a shop steward to represent them. Most workplaces are characterised by an informal approach to collaboration. Here, negotiations often take place in an ongoing dialogue between the employer and employees or shop steward.

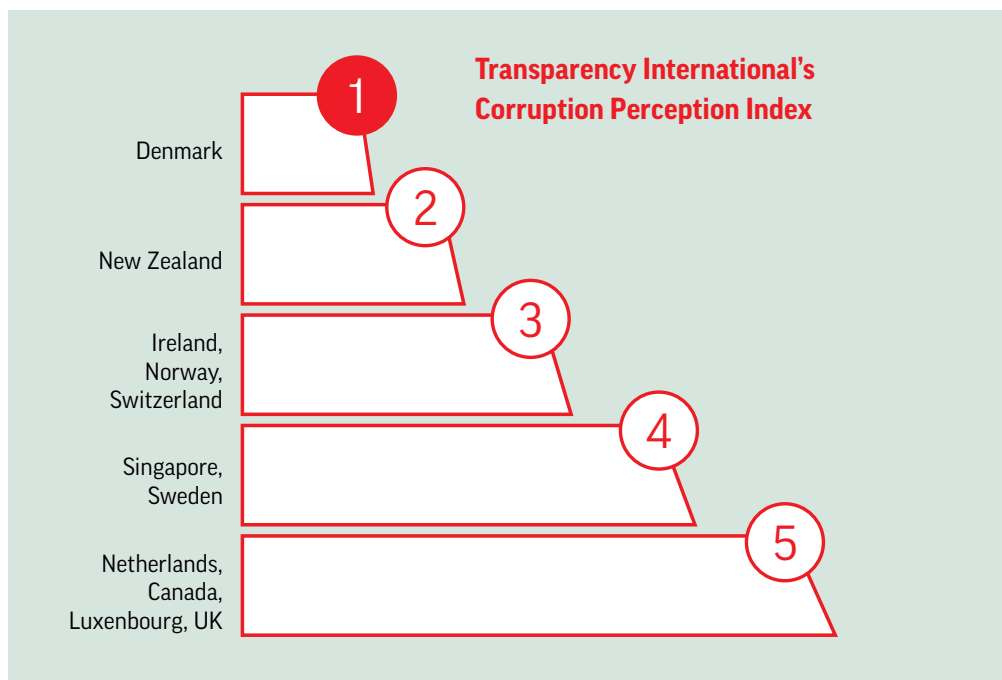
Trust, collaboration and a flat structure are key to the Danish model's long-standing success – and among one of the reasons why Denmark ranks as the least corrupt country

in the world, according to Transparency International's Corruption Perception Index. For more than a century, the model has ensured the rights and interests of all parties.

Employee involvement

Employees are frequently involved in solving important issues. Many sustainable business solutions come about in this way, effectively developing both the company and employees.

This widespread collaboration has created a culture of empowerment that gives employees a sense of ownership. The result is stable and fair relations with few workplace conflicts and a high level of innovation.



Source: Transparency International - the global coalition against corruption. 2018

THE SHORT ROUTE TO THE TOP FOR INNOVATIVE IDEAS



Competent and experienced employees are a rich source of innovative ideas for developing a business. In Denmark's traditionally flat organisations, managers know that. So when an employee comes up with a good proposal, the way to implementation is short.

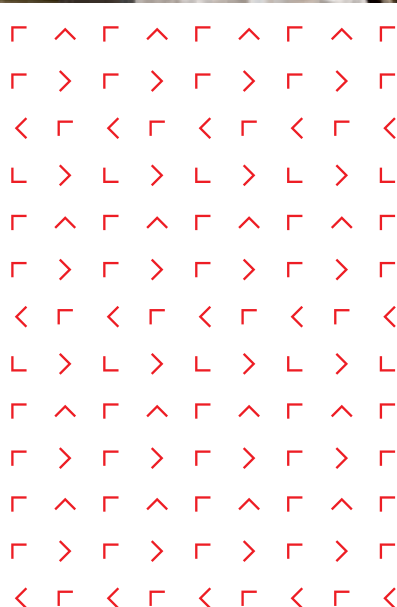
Over the years, the Harvard Business Review has named a number of Danish business leaders in its list of the world's 100 best-performing CEOs. The flat, informal business model is one of the reasons.

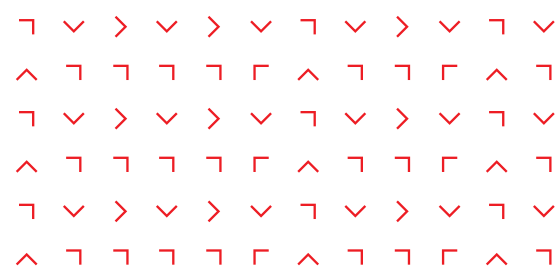
Danish leaders are accustomed to working with creative employees

Danish leaders are accustomed to working with creative employees who are not afraid to share an idea or challenge a decision at all levels of an organisation.

That develops more competent managers and it encourages a high level of motivation among the staff. It is no coincidence that Danish employees are among the most innovative and self-driven in the world.

Case by Food Nation





VISION OF A BETTER WORKING LIFE IN DEVELOPING COUNTRIES

A Danish labour market consortium has come together to support the growth of fair and well-organised labour markets in developing countries.

Comprising the Confederation of Danish Industry (DI), United Federation of Danish Workers and the Danish trade union council for international development cooperation, the consortium aims to improve working life in countries where employer organisations and trade unions are traditional opponents.

Each consortium member has considerable experience of working in developing countries. Kenya Manufacturing Association, for example, has previously benefited from a DI-supported initiative, which united member companies in the struggle for better working conditions and more sustainable forms of production.

The platform for the partnership is the UN's eighth sustainable development goal about creating sustainable growth and decent jobs for everyone.



Case by the Confederation of Danish Industry

The aim is to improve working life in countries where employer organisations and trade unions are traditional opponents

A woman with long brown hair, wearing a red patterned top and dark pants, stands in a hallway and speaks to a group of people. The group consists of several individuals, including a woman in a blue skirt and a man in a dark suit. The hallway has a wooden floor, a grey carpet runner, and white walls. On the right wall, there is a sign that says "WELCOME TO FOOD NATION" and "Colleges of nutrition & dietetics".

CHAPTER 6

THE PROVEN POWER OF STRONG COLLABORATION

GET TO KNOW MORE FROM THE FOOD NATION TEAM

Danish companies are known around the world for their innovative products and solutions. Collaboration is the foundation of their success.

The Danish food arena is built on a strong collaborative mindset. Interdisciplinary, cross-sector partnerships continue to deliver new innovative opportunities and play a leading role in our successful exports to international markets. It has also helped create some of the best international food producers in the world.

The tradition for sharing knowledge and expertise has not only enabled the Danish food arena to take great innovative strides. Guided by the UN sustainable development goals, broad public-private partnerships are taking innovation from Denmark around the world. A growing number of these projects support the development of local food supply chains in countries where safe and healthy food is not yet accessible to all.

Today, it is widely acknowledged that collaboration is the key to securing a safe and reliable global food supply for the future – through the development of sustainable, efficient and increasingly digital solutions. Denmark is at the forefront in all respects.

Food Nation

Food Nation is a non-profit partnership established by the Danish government and leading private organisations and companies. It is your gateway to information about the Danish food cluster and knowhow that can accelerate the growth of international businesses through better solutions, innovative products and trusting cooperation.

The Danish food cluster encompasses everything from primary production in agriculture and the fishing industry to the food products consumers buy in stores. Companies,

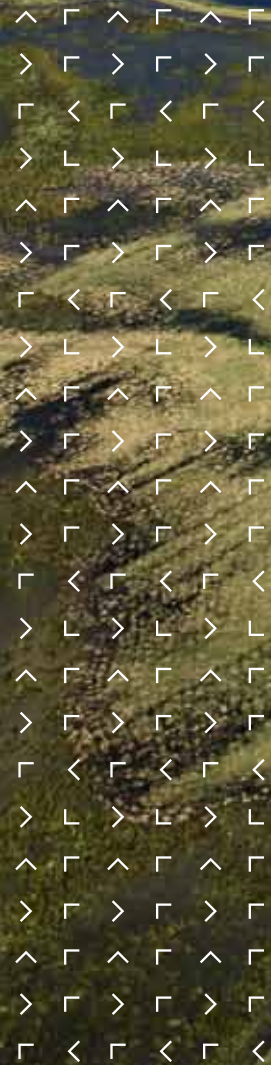
universities, research institutes, local and national authorities and other private and public organisations belong to the extensive, collaborative network. Together, they work hand-in-hand with international partners to maintain and improve food quality and safety along the value chain.

Take an interactive tour

Food Nation's Visitor Centre in central Copenhagen welcomes international delegations, providing them with an introduction to Danish capabilities within food. An interactive installation at the centre gives visitors an up-to-date overview of the food value chain based on their individual interests. It is the ideal starting point before visiting Danish food producers and production facilities.

Food Nation is a great place to start learning about how Denmark can support sustainable development through collaboration. Find out more about our services, the Danish food arena and arranging a visit to the Food Nation visitor centre at foodnationdenmark.dk

Today, it is widely acknowledged that collaboration is the key to securing a safe and reliable global food supply for the future



SUSTAINABLE DEVELOPMENT MAKES BUSINESS STRONGER

Embedding the UN sustainable development goals (SDGs) in everyday business may be easier said than done.

Different tools and guides are developed for making sustainability a natural part of the business value chain

This is why organisations in Denmark, such as the Danish Confederation of Industry and the Danish Agriculture & Food Council, are helping companies use the goals to strengthen their business.

A range of tools and guides have been developed - all aimed at making sustainability a natural part of the business value chain.

Find out more about this work at danskinindustri.dk/sdg and lf.dk/baeredygtighed

Case by Food Nation



**INGREDIENTS
INDUSTRY**

Producers of enzymes,
cultures and other ingredients

**PRIMARY
PRODUCTION**

Agriculture, fishing
& horticulture

**PROCESSING
INDUSTRY**

Producers of food,
beverages & animal feed

The Danish food cluster

Denmark is home to countless large,
medium-sized and small companies,
research institutes and other organi-
sations that make the country a Eu-
ropean hotspot for innovative food
products, services and technology.

**RESEARCH
& INNOVATION**

Research, education
& counselling institutions

**FOOD
TECHNOLOGY**

Producers of machines,
technology & equipment

**GASTRONOMY
& THE CONSUMER**

Retail, consumers, restaurant,
authorities, tourism & other
related industries

READ MORE

FOODNATIONDENMARK.DK

