Nordic Council of Ministers

MARKET ANALYSIS OF ORGANIC FOODS

in the Nordic and Baltic countries

Market analysis of organic foods in the Nordic and Baltic countries

Anna Pekala, Rambøll Management Consulting

TemaNord 2019:540

Market analysis of organic foods in the Nordic and Baltic countries
Anna Pekala, Rambøll Management Consulting

ISBN 978-92-893-6245-0 (PDF)
ISBN 978-92-893-6246-7 (EPUB)
http://dx.doi.org/10.6027/TN2019-540

TemaNord 2019:540
ISSN 0908-6692

Standard: PDF/UA-1
ISO 14289-1

Cover photo: Unsplash.com

Nordic Council of Ministers/Publication Unit
Ved Stranden 18
DK-1061 Copenhagen
Denmark
pub@norden.org

Nordic co-operation
Nordic co-operation is one of the world's most extensive forms of regional collaboration, involving Denmark, Finland, Iceland, Norway, Sweden, and the Faroe Islands, Greenland and Åland.

Nordic co-operation has firm traditions in politics, economics and culture and plays an important role in European and international forums. The Nordic community strives for a strong Nordic Region in a strong Europe.

Nordic co-operation promotes regional interests and values in a global world. The values shared by the Nordic countries help make the region one of the most innovative and competitive in the world.

The Nordic Council of Ministers
Nordens Hus
Ved Stranden 18
DK-1061 Copenhagen
pub@norden.org

Download Nordic publications from **www.norden.org/nordpub**

Contents

Summary

The size of organic farmland, the value of the organic food market and the corresponding organic shares vary across the Nordic and Baltic countries. Although we observe many of the similar drivers across all analysed countries, they have all been impacted by different factors and the organic markets have developed differently accordingly.

In general, consumers have become increasingly focused on a healthy lifestyle and aware of the added value provided by organic food and beverages. This, together with production subsidies and political agendas, has contributed to the substantial growth in organic production and sales in the recent years across both the Nordic and Baltic countries.

Nordic countries, including Denmark, Sweden, Norway, Finland and Iceland are evidently the most developed markets for organic food sales and production, with Denmark and Sweden clearly at the lead. Developments in Norway and Finland have been more moderate. Iceland is significantly behind, and organic food has not yet had a major break-through, challenged by the limited demand and unfavourable climatic conditions for organic production.

Baltic countries, i.e. Estonia, Latvia and Lithuania are still emerging markets for organic food but have seen rapid growth over the past ten years. The organic market in these countries is mostly focused on exports, but also domestic demand is increasing.

Autonomous areas, including the Faroe Islands, Åland Islands and Greenland are very different from their Nordic neighbours, and the organic markets here are still in the maturation phase, especially in terms of production (with the exception for Åland Islands). Consumers here are very fond of the local production, and as they view their countries' production as "almost" organic, they do not necessarily see the need for conversion to certified organic production.

Nordic countries

The total farming area is of similar size in Denmark, Sweden and Finland (albeit slightly lower in Finland). Sweden has the largest organic farm area both in terms of total organic area and the share of organic farmland (576,845 hectares and 19% of farmland certified organic in 2017).

Organic farming has been an increasingly important factor in the Swedish agricultural policy ever since 1990, and the political push continues through national goals and municipal efforts. Together with the overall growth in consumer demand for organic food, the organic farmland has increased by 160% between 2005 and 2017 (total increase of 354,107 hectares).

In Denmark and Finland as well, the organic farmland has increased considerably by 108% (total increase of 145,170 hectares) and 101% (total increase of 149,058 hectares) between 2005 and 2018[1], respectively. This is reportedly driven by increasing consumer demand and high political focus. The governments in both countries have set national goals for organic farming and supported farmers wanting to convert to organic farming.

The development of organic farmland in Norway has followed a different pattern. The overall organic share is much lower than in other Nordic countries (4.7% of the entire farm area in Norway in 2018). Only Iceland has a lower organic farm area share (1.5% in 2017). Furthermore, following a period of increasing organic farmland between 2005 and 2010, the organic farmland started to decline after 2010. This is reportedly driven by ceasing governmental support for farmers wanting to convert to organic. Due to Norway's cold climate, organic production can be recurrently difficult. Norwegian farms are typically small, making them more dependent on a high output per hectare than farms in other countries. This has been one of the main reasons for the decline in the organic farmland.

Iceland is the Nordic country with the lowest organic farmland, challenged by unfavourable climatic conditions for agricultural production. Iceland has no organic exports, and the low local demand gives little incentives for producers to produce organically. This is slowly changing, however, and from 2017, conversion grants have been available to farmers who wish to convert their farmland to organic.

Going forward, the largest increase in organic farmland towards 2030 is expected in Denmark, i.e. almost 480,000 hectares between 2018 (279,300 hectares) and 2030 (760,000 hectares). This is anticipated to be driven by an increasing consumer demand, especially among the newer consumer generations, who grow up in a society highly influenced by greater awareness of individual health, environmental considerations and animal welfare.

Large increases in organic farm area are also expected in Sweden and Finland, driven by the increasing customer demand for organic production and, especially in Sweden, by the political push to increase organic farmland in the individual municipalities.

Norway and Iceland are also expected to experience an increase in organic farmland towards 2030. Even though the total organic agricultural land has been decreasing the past few years in Norway, a slight growth during the next ten years is expected, driven by the increasing trend of organic foods among consumers. This trend is expected to be reflected by Norwegian producers, who in consequence will be more willing to convert to organic production. In Iceland as well, both consumers and domestic farmers are expected to increasingly see the value of organic goods. Organic production is therefore expected to increase, especially after the conversion grants were introduced in 2017.

[1] Note that the most current reference data is 2017 for some countries, while 2018 for others. See the individual country reports for details.

Sweden is the country with the largest total food market (all channels), in terms of absolute value. The relative share of organics of the total food market (all channels), however, is highest in Denmark, at 12%[2] in 2017 (9% in Sweden in 2018; 2% in Norway in 2018; 3% in Finland in 2018; Iceland not possible to estimate).

Danish consumers are the most pro-organic consumers in the world. More than half of Danes (52% in 2018) buy organic food each week. Here, one of the enhancers has been the governmentally certified red Ø-label, that has contributed to building trust to the organic goods.

In all the Nordic countries, most of the organic food and beverages are sold via the retail sector, which is thus the largest organic sales channel across all Nordic countries.

Organic sales within the retail channel are of similar size in Denmark and Sweden (EUR 1,522 million in Denmark in 2017 and EUR 1,638 million in Sweden in 2018), although the organic share within the retail is highest in Denmark (13.3% in 2017[3], while it was 9.3% in Sweden in 2018).

The Swedish retail market has experienced a slowdown in the sales of organic food and beverages, after a period of booming growth. The development in Sweden was to a large degree driven by a shift in focus from the organic to other alternatives, such as locally/sustainably produced products and vegetarian/vegan goods. Large retail chains in Sweden put these on their store shelves, providing customers with many new alternatives. Based on held interviews, it is clearly our impression that the trend of slower growth in organic sales in Sweden, is not driven by a decreased consumer demand, but rather that consumers are uncertain of what constitutes a sustainable food product choice, as organic is not always the given option anymore. Furthermore, Swedish retailers focus less on organic profiling than before, and recently there have only been a few purely organic marketing campaigns. Despite this development, most retailers in Sweden have reported slightly increasing growth rates of organic sales in 2018.

The organic retail market in Norway is much smaller than its Scandinavian neighbours', and only around 2% of the total food retail sales are organic. Still, this is a sector that is growing steadily.

Likewise, in Finland, the organic food sales within the retail sector are around 2%, but also here the market has been growing steadily since 2015. In both Norway and Finland, the growth has been driven by increased awareness of organic products and their benefits, as well as a wider selection and more advertising of organic food products.

---

[2] Note that 12% in 2017 is Ramboll's estimate for the total organic sales across all markets. The same regards 9% in Sweden, 2% in Norway and 3% in Finland. It was not possible to estimate 2018 for Denmark as data are not available for all sectors. Furthermore, please note that the Statistics Denmark has changed assumptions and method for the calculation of organic shares within the retail sector during 2019, resulting in slightly different (lower) numbers for the retail and thus also total food sales (across all channels) in 2017 and before. This change is not incorporated in the report, and it is our understanding that it is not an indication of declining sales of organic foods, but solely a change in underlying assumptions for the calculation (e.g. which product groups are included). See Figure 10 for more details.

[3] Note that the basis of calculation and underlying method was changed in Denmark from 2017 to 2018, which resulted in a decrease in percentage, but probably not an indication of declining sales of organic foods.

The foodservice sector is another important sales channel of organic food in the Nordic countries. Foodservice typically accounts for a much smaller share of the total organic food sales than the retail sector but has a relatively high share of organic within its sector, especially in Sweden and Denmark. Organic food sales to the foodservice sector amounted to EUR 507 million and 16% (2018) and EUR 275 million and 9% (2017) in Sweden and Denmark, respectively.

Organic food sales within the foodservice sector in Sweden are mainly driven by purchases in the public sector. Sweden has the highest proportion of public purchases of organic food in the world (37% in 2018), and the national goal states 60% by 2030.

Organic food sales to foodservice in Denmark has increased six-fold since 2005, mainly due to an increase in the number of eating places that focus on organic and growing volumes in eateries already certified. The anticipated growth was among both private and public actors and organic seems to be an important selection criterion when buying food and beverages in this sector. Similar to Sweden, the Danish Government has had a political objective of achieving a 60% share of organic purchases in the public sector (by 2020). The Danish government has promoted the organic purchases among municipalities and regions, and hereby driven the surge in organic purchases within the public part of the sector.

Organic food sales to the foodservice sector are significantly lower in Finland and Norway (EUR 176 million and 3% and EUR 27 million and 1%, respectively in 2018), but have also increased significantly over the last 10 years. Especially in Finland, growth has been mainly driven by the public sector.

Another important channel for sales of organic products in the Nordic region is the government-owned exclusive sellers of alcoholic beverages, (Vinmonopolet in Norway, Alko in Finland and Systembolaget in Sweden). They are of similar size to or even larger than the foodservice market in the respective countries and are of great importance as their position as a monopoly within the alcohol sales enables them to effectively impact the range and type of the products that consumers purchase. Large increases in organic sales have been anticipated within these channels across the three countries, and organic shares here were at between 7 and 13% in 2018.

Going forward, the Nordic countries are expected to grow their organic food sales across all channels between 2017/2018 and 2030.

The largest increase is expected in Denmark, which will triple its total organic food market (all channels) between 2017 (EUR 1,797 million) and 2030 (EUR 6,091 million) and land at an organic food sale share of 34% of total food sales in Denmark. Denmark will thus surpass Sweden in the total value of the organic food market. The increase is expected across all channels.

In Sweden, the growth of the total organic food market (across all channels) will be slightly lower, however, it is still expected to double between 2018 and 2030 (EUR 5,552 million in 2030), increasing across all channels. The organic share of the total food market will increase from the current 9% to 15%. Despite the trend shifts, customer demand for organic food is still expected to grow, as organic food is already well-positioned in Swedish households. Swedish consumers prefer products that are

processed as little as possible, healthy and produced in an environmentally friendly way. Especially locally produced organic food is expected to gain in popularity.

Norway is expected to more than double its total organic food market between 2018 and 2030 from EUR 420 million (2% organic share) to EUR 1,053 million (5%). The main driver of the future growth will be the continued increase in the consumer demand for organic products across the three main distribution channels of retail, Vinmonopolet and foodservice.

In Finland as well, the development is expected to be similar to that of Norway, and the total organic food market is expected to somewhat more than double between 2018 and 2030, from EUR 606 million (~3% organic share) to EUR 1,546 million (~6%). In Finland, the growth is expected to be driven by an increase in consumer demand for organic goods, pushing private foodservice operators to supply more organic food, and the governmental push for more organic, increasing the organic share in the public foodservice sector. However, the growth depends on each municipality's prioritisation of organic food, as they control their own spending in public foodservice.

Autonomous areas

Organic food as a concept is not as well-developed in the Faroe Islands as it is in the other Nordic countries. There is no certified organic farmland in the Faroe Islands. Furthermore, there is a widespread belief that purchasing organic gives no added value, as conventional Faroese products are viewed as being "almost organic". However, despite the fairly limited availability of data, both in form of quantitative and qualitative information, there is an indication of strong growth within the organic food sales since 2010 at least within the retail sector, driven by the increasing popularity of organic products among customers. The foodservice sector in the Faroe Islands does not exhibit particular interest in organic food, with the exception of high-end restaurants.

Similar to the Faroe Islands, data availability for the Åland Islands is very poor. The concept of organic food is still relatively new in the Åland Islands but demand has been increasing for the past years, according to production data and interviews with retailers. For consumers in the Åland Islands, the environment plays an increasingly large role when purchasing food, and consumers are willing to pay price premiums.

In 2016, 3,769 hectares of land in the Åland Islands was certified organic (a 65% increase in the total organic land since 2005). This amounted to 27.5% of the total farm area in the Åland Islands.

82% of organic production in the Åland Islands is sold within the Åland Islands. The rest, about 18% is exported to Finland. Most of the organic goods are imported from Finland.

In Greenland, the market for organic food is very different from other Nordic countries. Although organic food exists in retail shops, there is a very strong trust among consumers towards locally produced food, which is considered to be "almost organic".

A large part of sales happens through marketplaces, where producers and consumers come together to purchase farmed, hunted and fished food products. Although these products come directly from the producers and reportedly contain little pesticides, they are not certified organic.

There is no certified organic production in Greenland, and most of the organic goods are imported from Denmark.

Baltic countries

In the Baltic countries, organic production is currently growing rapidly. Even though the organic markets in these countries are still relatively small (between EUR 40-50 million, corresponding to 1-3% of the retail market in 2017[4]), the organic shares of sales in the retail sector have reportedly doubled for each of the Baltic countries during the past ten years, and are expected to continue to grow in the future. With increasing disposable household income and higher education levels, citizens across the Baltic countries have clearly become more interested in organic food.

There is a vast selection of organic goods available through different distribution channels. Most of the sales take place through the retail trade. Maxima and Rimi Baltic (owned by Swedish ICA Group) dominate the retail market. Although supermarkets are the most important sellers within the organic retail sector, the concept of organic started in speciality stores already in the 1990s. These are still popular today in each of the countries.

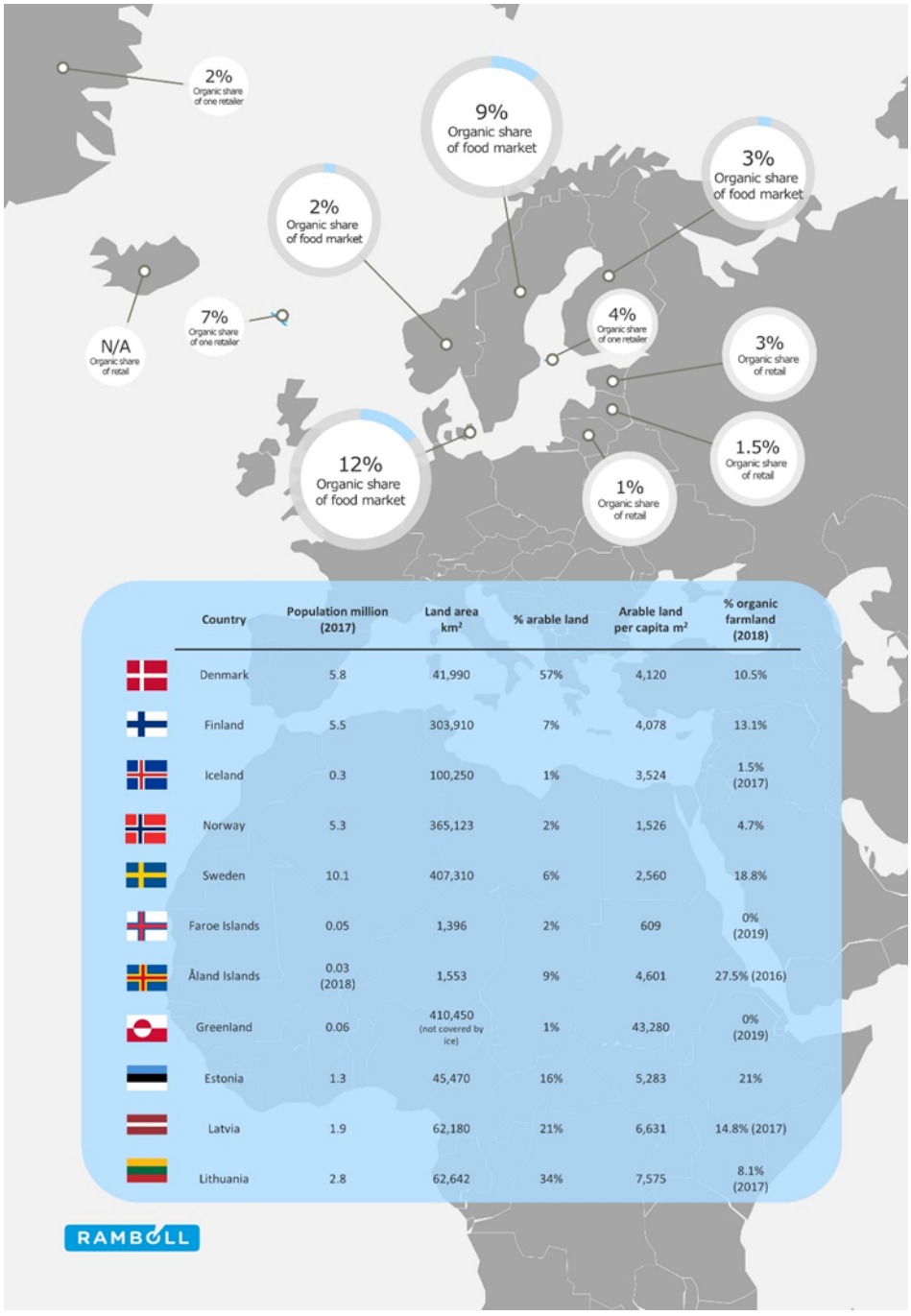
Organic foodservice is not as well-developed in any of the Baltic countries as in the Nordic countries. Organic foodservice is still in its developing phase and plays a minor role in the Estonian, Latvian and Lithuanian organic food market. Growth in organic foodservice is expected for the future.

What is common for Estonia, Latvia and Lithuania, is their export-focused agricultural strategy. The domestic demand is not sufficient for the organic domestic production, and the majority of the organic food produced in the Baltic countries is sold abroad (mainly to the EU and US).

With the push for exports from the local governments and significant support from the EU's Rural Development Programme, the organic farmland has nearly tripled for each of the Baltic countries since 2005.

[4] We have not been able to obtain data for other sales channels than retail in the Baltic countries. However, this channel is anticipated to account for the largest share of the organic food sales in the Baltic region.

Figure 1: Overview of organic market in the Nordic and Baltic countries



Country	Population million (2017)	Land area km²	% arable land	Arable land per capita m²	% organic farmland (2018)
Denmark	5.8	41,990	57%	4,120	10.5%
Finland	5.5	303,910	7%	4,078	13.1%
Iceland	0.3	100,250	1%	3,524	1.5% (2017)
Norway	5.3	365,123	2%	1,526	4.7%
Sweden	10.1	407,310	6%	2,560	18.8%
Faroe Islands	0.05	1,396	2%	609	0% (2019)
Åland Islands	0.03 (2018)	1,553	9%	4,601	27.5% (2016)
Greenland	0.06	410,450 (not covered by ice)	1%	43,280	0% (2019)
Estonia	1.3	45,470	16%	5,283	21%
Latvia	1.9	62,180	21%	6,631	14.8% (2017)
Lithuania	2.8	62,642	34%	7,575	8.1% (2017)

Source: Ramboll calculations and estimates.

1. Introduction and background for this report

The project was initiated in March 2019, deriving from a request from The Danish Veterinary and Food Administration who handles the project management on the Nordic-Baltic project "Nordic Nutrition the Green Way". The project is funded by the Nordic Working Group for Diet, Food & Toxicology (NKMT) under the Nordic Council of Ministers.

The purpose of this report is to provide an overall picture of the organic food and beverage market in the Nordic and Baltic countries. This includes a review of historical developments within the sales of organic foods and beverages across the main sales channels, imports/exports and organic agricultural production. Furthermore, we give an overview of political incentives in the area of organic food, consumer profiles and attitudes, and provide an outlook on the future trends and expected developments within the Nordic countries. The report also includes an outlook for the Nordic region and globally towards 2030. Lastly, the report includes a link between organic food and the UN's 2030 sustainability agenda and how the individual countries incorporate organic into their national strategies towards 2030.

The market analysis covers the following countries:

- Nordic countries: Denmark, Sweden, Norway, Finland and Iceland
- Autonomous areas: The Faroe Islands, Åland Islands and Greenland
- Baltic countries: Estonia, Latvia and Lithuania

The market analysis is part of the project "Nordic Nutrition the Green Way", which aims at bringing together the Nordic and Baltic authorities and relevant private stakeholders in the field of organic production and consumption. The project addresses the idea of a sustainable and healthy diet for the population and strengthening the Nordic-Baltic identity on sustainability and branding of a greener and more organic Nordic-Baltic region.

2. Organic market in the Nordic and Baltic countries

2.1 Introduction and methodology

Data shown in the report and used for the analysis is obtained via both quantitative and qualitative data sources.

Quantitative data sources include Research Institute of Organic Agriculture (FiBL), national statistics, available market reports, retailers, wholesalers and various organic food associations. This data is used for calculating organic area, sales within the different channels and respective organic market shares, i.e. the background for the analysis.

To complement available quantitative data and fill the gaps, in which no quantitative data was available, expert interviews and market knowledge have been applied. This qualitative data provided insights into drivers for the historical developments, current market size and growth outlook, mapping of different market players and important channels, product groups, drivers of the developments, understanding of the political landscape and attitudes towards organic. People interviewed in connection with the report include local authorities, organic organisations and major market players (e.g. retailers).

Furthermore, expert interviews have been used for triangulation of data and validation of findings.

Future developments are estimated by Ramboll based on historical developments, our expert insights and estimates derived through interviews with external market experts.

It is important to note that some of the estimates are based on fractional data, e.g. not all channels are included due to limited data available for individual countries. This is particularly the case for the estimation of the total organic food market.

National statistics organisations tend to regard organic production as of insufficient importance to be reported separately.

The data therfore derives from various quantitative and qualitative sources, both across data types and countries, but also within single categories (e.g. the same variable for different countries). There may, therefore, be slight discrepancies between the data sources and basis for comparison. In other words, calculations are not necessarily made based on identical product groups.

Although an exact size of the discrepancies and the differences they may cause has not been studied, it is our assessment that the numbers provide a fairly accurate indication of the current market situation and the various trends in the individual countries.

2.2 Denmark

Basic economy indicators

- Population: 5,764,980 (2017)
- Population density: 137.3 (2017)
- Area: 41,990 km² (2017)
- GDP: EUR 297,634 million (2018)
- GDP per capita: EUR 51,400 (2018)

Source: World Bank, Eurostat, FAOSTAT.

Denmark has been a member of the EU since 1973. The Kingdom of Denmark consists of Denmark and also comprises two autonomous constituent countries, the Faroe Islands and Greenland. Denmark consists of a peninsula, Jutland, and an archipelago of 443 named islands, with the largest being Zealand, Funen and the North Jutlandic Island. The islands are characterised by flat, arable land and sandy coasts, low elevation and a temperate climate.

The standard of living in Denmark is among the highest in the world, and society is characterised by minimal economic differences.

Agriculture, shipping and trade have traditionally been vital for the Danish economy. Similar to other industrialised countries in the 2000s, the service industry accounts for the vast majority of employment and economy today.

Denmark has an open economy and trade with the abroad is important. About 70% of the trade takes place with other EU countries, while the rest is distributed among a large number of trading partners, where Norway and the USA constitute the two most important.

2.2.1 Overview organic market

Denmark was the first country in the world to set rules for organic production, to develop national organic standards and to launch an organic label. It was also the first country in the world to introduce a target for 60% organic products in public sector kitchens[5].

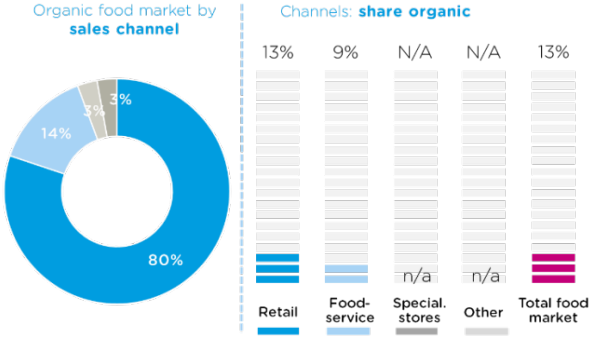
The very high confidence in Danish organic food among Danes is also one of the reasons why Danes are highly supportive of organic food. It is built through Denmark's unique organic control system, where organic inspection and the issuing of organic certificates are carried out by inspectors who are employed by the Danish government and are completely independent of organic farmers and companies.

Most organic sales (~80%) takes place through the retail sector and online purchases. Online purchases are becoming increasingly popular and there is particularly strong and growing interest in meal boxes, which provide consumers with the ingredients and recipes for their main meal of the day. This is a popular solution for busy families.

[5] Danish Agriculture and Food Council.

Almost 15% of organic food is sold via the foodservice sector, which is rapidly increasing. Sales to restaurants, hotels and public sector kitchens have increased by 20% from 2015 to 2017. Sales from markets and farm shops account for only a small percentage of total organic sales.

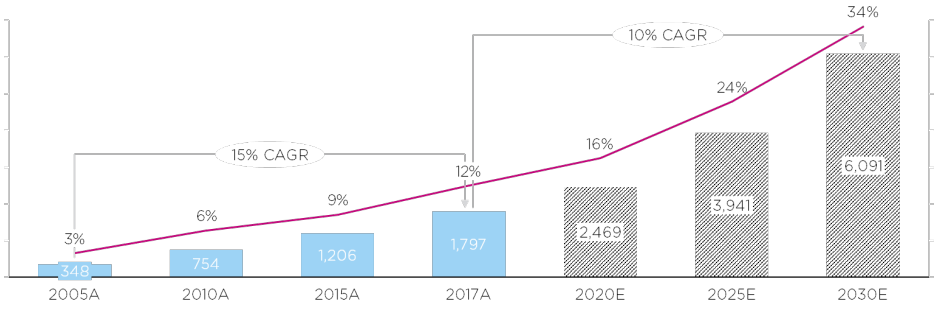
Figure 2: Overview organic food market (2017)



Note: Food service was 10.9% in 2018 according to Statistics Denmark.

Source: Ramboll calculations and estimates.

Figure 3: Development of organic food market (EUR million) and organic share of total food sales (%)



Note: Historical and the future estimations of the entire food market are based on individual estimations for the largest channels, i.e. retail and foodservice, that amount for approximately 94% of the total market in Denmark in 2017. The channels specialised stores and others are excluded because there is not sufficient data needed to forecast sales and organic shares for these channels. Numbers in this figure should, therefore, be treated with some degree of uncertainty. It is, however, our opinion that they provide an overall accurate picture of the organic food market in Denmark. Note that the Statistics Denmark has changed assumptions and method for the calculation of organic shares within the retail sector during 2019, resulting in slightly different (lower) numbers for the retail and thus also total food sales (across all channels) in 2017 and before. This change is not incorporated in this report, and it is our understanding that it is neither an indication of declining sales of organic foods, but solely change in underlying assumptions for the calculation (e.g. which product groups are included). See Figure 11 for more details.

Source: FiBL Statistics, Landbrugsstyrelsen, Ramboll calculations and estimates. CAGR6: Compound Annual Growth Rate, A: actual, E: estimate.

Danes prefer organic dairy products, eggs, oatmeal, wheat flour, carrots and bananas. One in three litres of milk bought by Danish consumers is organic and every other litre of milk consumed by pupils in Danish schools carries the red organic label. Consumers' appetite for organic fruit and vegetables has also grown over the last years[7].

Organic food was roughly 12% of the total food market in 2017 (EUR 1,797 million). Organic food sales are estimated to reach 34% in 2030 (EUR 6,091 million), driven by continuously increasing demand for organic food.

2.2.2 *Organic farmland*

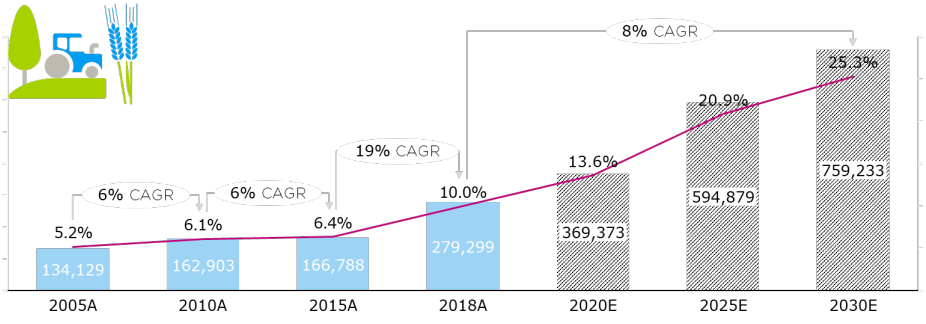
The organic farming area was 279,299 hectares in 2018, an increase of 34,140 from the previous year, and an increase of 112,511 hectares from 2015. This represents an expansion of the organic farming area by 67% from 2015. In 2018, organic farmland constituted 10.5% of the total reported agricultural production area in Denmark.

> "We see that farmers across the country, want to convert to organic farming, and this development is driven by consumer demand (..) consumers put more and more organic products in their shopping carts."
> – Kirsten Lund Jensen, Danish Agriculture and Food Council, (sourced from lf.dk).

The organic farming area was in 2018 divided into 197,774 hectares organically cultivated land, 72,883 hectares land under organic conversion, and 8,642 hectares scheduled for conversion but not started yet[8].

Organic farmland had a steady growth at around 6% per year from 2005 to 2015, followed by a rapid increase between 2015 – 2018. This was driven by an increasing customer demand due to the growing interest in organic products.

Figure 4: Development of organic farmland (hectares) and share organic (%)



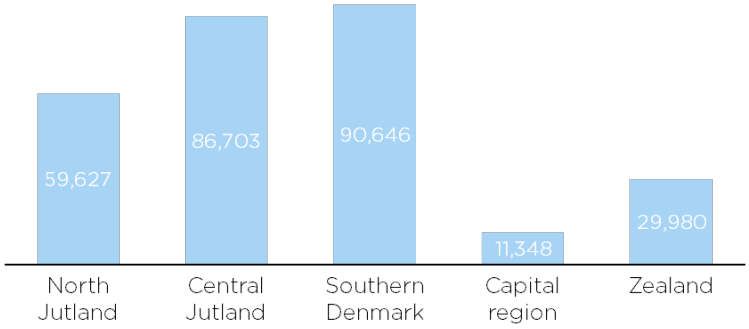
[6] Historical growth is accessed at an average annual growth (CAGR), and is used to claculate future growth, which is a typical practice when estimating future developments.
[7] Danish Agriculture and Food Council.
[8] Danish Agriculture and Food Council.

Source: FiBL Statistics, Landbrugsstyrelsen, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

Distribution of the organic farming area between the five geographic regions in Denmark is shown in the table below. The majority of the area was in 2018 in the regions of Central Jutland and Southern Denmark with a total of 177,349 hectares. The other three regions had just over 102,000 hectares combined.

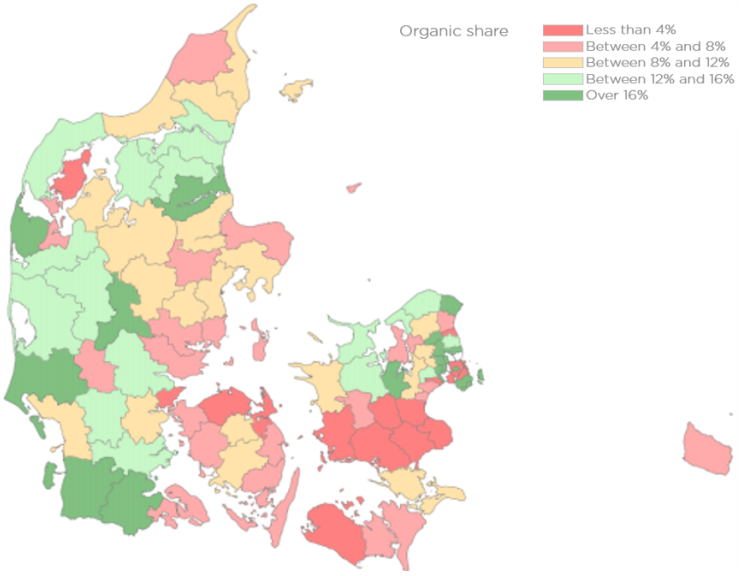
The greatest growth has taken place in the region of Zealand, where the organic area grew by 20% and was 24,055 hectares in 2018[9].

Figure 5: Organic farmland hectares by geographic region (2018)



Source: Landbrugsstyrelsen / "Statistik over økologiske jordbrugsbedrifter 2018".

Figure 6: Proportion of organic cultivated area to the total agricultural area per municipality (2018)



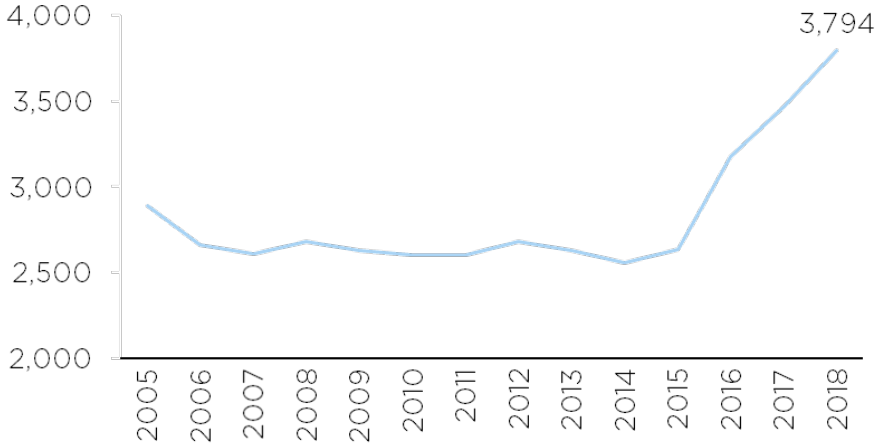
[9] Danish Agriculture and Food Council

Note: Municipalities with an organic share larger than the national average are green, and correspondingly, municipalities with an organic share less than the national average are red. The greater the intensity of the colour green/red, the longer the municipalities' organic share from the national average.

Source: Landbrugsstyrelsen / "Statistik over økologiske jordbrugsbedrifter 2018".

After a period with a rather constant number of organic farms between 2005 and 2015, there has been a significant increase in the years 2016 to 2018. In 2018, 3,794 farms were authorised or had applied for authorisation to conduct organic agricultural production.

Figure 7: Development in the number of organic producers



Source: Statistics Denmark.

Organic farmland is expected to continue to increase toward 2030, driven by the increasing consumer demand, especially among the newer customer generations, who grew up in a society highly influenced by environmental and health considerations. The growth can become even higher than estimated if the political attitudes toward organic food become even more favourable (they have been relatively neutral during the last years).

"Organic is now booming in Denmark, and the supermarkets have a world record in selling organic products. In many other countries as well, the consumption of organic products is growing rapidly. I am pleased that so many Danish farmers are responding to the demand and restructuring production."
– Former Danish Minister for Environment and Food of Denmark, Jakob Ellemann-Jensen (sourced from finans.dk, 2018)

"The new government will raise the ambitions for more organic in Denmark, based on the goals of doubling the organic area, the export of organic and the Danes' consumption of organic in 2030."
– Mogens Jensen, Minister for Food, Agriculture and Fisheries, and Nordic Cooperation
"Regeringens Forståelsespapir" of 27 June 2019

Organic farmland is estimated to reach 369,373 hectares in 2020, 594,879 in 2025 and 759,233 in 2030. This corresponds to organic shares of total farmland of 14%, 21% and 25% in 2020, 2025 and 2030 respectively.

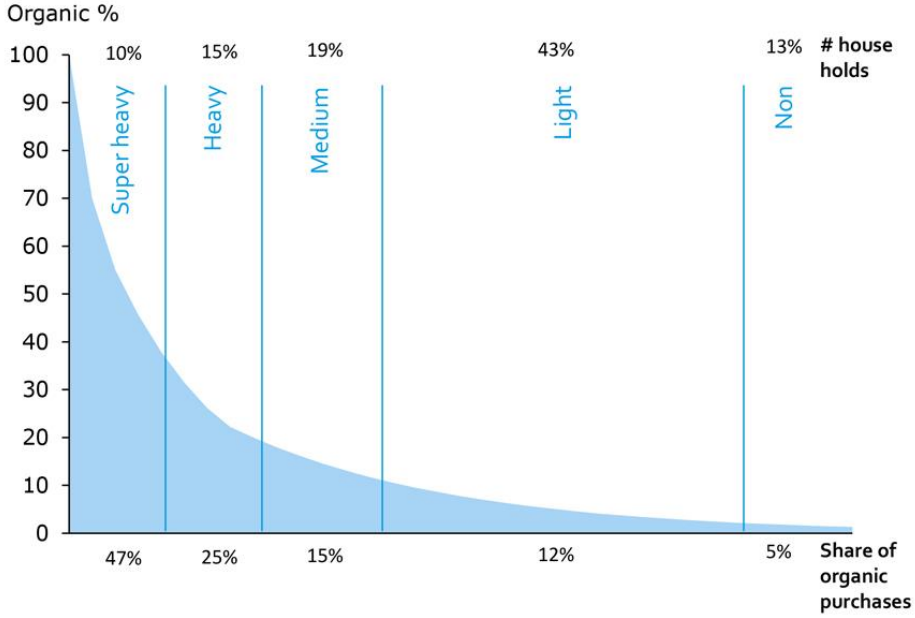
2.2.3 Organic users' profile and attitudes

Danish consumers are the most pro-organic consumers in the world. More than half of Danes (52% in 2018) buy organic food every week[10].

The most typical reasons given by the Danish consumers to buy organic food rather than conventional food are health-based coupled with a wish to contribute to a better environment and higher animal welfare standards.

There is a great deal of variation in the consumption of organic food by Danes, and according to GfK, Danish consumers can be divided into five segments based on their share of organic food in the household, as shown in the figure below.

Figure 8: Organic users (2018)



Source: Ramboll, Økologisk Landsforening, GfK.

The super heavy organic consumers are the ones with the highest organic share of their purchases (47% in 2018). They typically spend more than 25% of their food budget on organic food (average for Danes is 13.3% in 2017 for purchases via the retail channel)[11].

[10] GfK.

[11] Økologisk Landsforening and GfK.

- Households with a total income of more than EUR 80,000;
- People with a higher education;
- The population in the metropolitan area and in larger cities.

The typical customer groups putting more than average organic food in their shopping carts are[12]:

- Females
- Families with children under 7 years
- Age group 30–49 years.

2.2.4 *Organic labels*

In Denmark, organic food is easily identified by the red Ø-label. It was created in 1989 and indicates that the product is grown and processed according to the organic rules laid down by the EU and that the Danish authorities have ensured compliance with organic regulations throughout the entire food chain.

Goods from abroad can also have the red Ø-label if the last processing or repacking has taken place under the Danish organic control. The red Ø-label can also be applied to certain organic non-food products, such as grass seed or dog and cat food, when produced under organic control in Denmark.

It is voluntary to use the red Ø-label. Regardless, organic foods must, as a minimum, comply with the EU organic rules (represented by the EU organic green leaf).

Governmental control was a crucial success factor for convincing Danish consumers about organics. Almost all Danes (98%) are familiar with the red-Ø label and 81% have great confidence in it, which makes it the best-known label in the whole of Denmark[13].

[12] Organic Denmark.
[13] Organic Denmark.

In foodservice, there are three different labels for the marketing of organic food in large-scale kitchens, restaurants, cafés, hospitals, schools and larger businesses. It is called Organic Cuisine Label and shows how much organic raw materials are used in restaurant/kitchen's food production. The share of organic food and food products is given in percentage intervals: 30–60% (Bronze), 60–90% (Silver) or 90–100% (Gold).

Since the introduction of the Organic Cuisine Label in 2009, more than 3000 eating places such as cafés, restaurants and public kitchens have been awarded the Organic Cuisine Label and this number is expected to grow rapidly.

The Organic Cuisine Labels have a good premise for being well known in Denmark as the labels are visually related to the "Danish red Ø-label" used for organic products in the retail sector and recognised by 98% of the Danes[14].

Denmark has a long tradition of having a public food control system – from "farm to fork". This is important for the high confidence that consumers have in the organic control system and organic products.

2.2.5 Export and import of organic food

Consumer demand for a broad range of organic products has resulted in Danish imports of organic products exceeding exports.

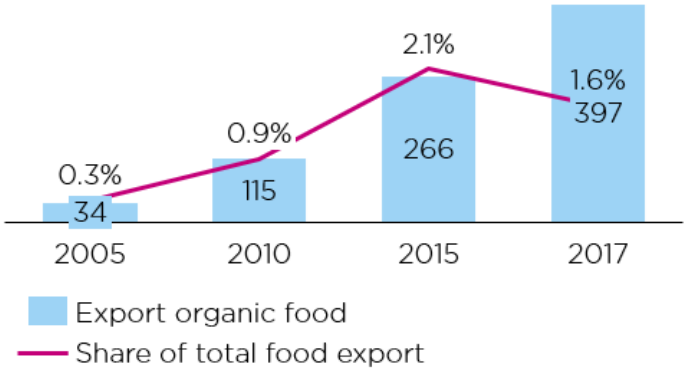
Export

Organic food exports in Denmark have increased considerably during the last decade.

Foreign demand for organic products from Denmark is very high, and exports of Danish organic products amounted to EUR 397 million in 2017, which corresponds to 1.6% share of the total food exports in Denmark.

[14] Organic Denmark.

Figure 9: Development of export of organic goods in EUR million and organic share of total food exports (%)



Note: Organic foreign trade concerns food and drink as well as feed for animal production which is organically certified. The organic share is calculated based on identical product groups in the total foreign trade for 2017. Product groups are not fully comparable for the previous years, and some differences may occur. Numbers for years 2005–2015 should, therefore, be treated with some degree of uncertainty. It is, however, our opinion that they provide an overall accurate picture of the organic food exports in Denmark.

Source: Statistics Denmark, Ramboll calculations and estimates.

Organic food is considered to be the driver of the overall food exports and has reportedly accounted for up to 20% increase in the total food exports in 2015[15]. A high standard of food safety, healthy quality food and a unique organic control system are the main reasons why exports of organic food products have increased year by year[16].

Germany is still the largest export market for Danish organic enterprises and represents 42% of total exports. This is followed by Sweden (16%), China (10%) and France (7%)[17].

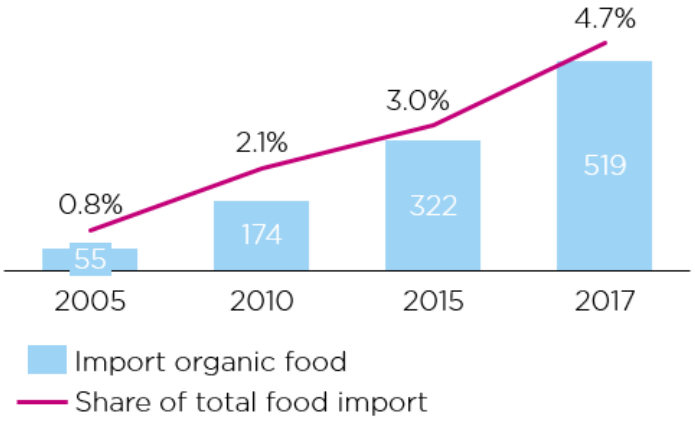
The most popular exported organic products categories are dairy products and eggs, with a total combined export rate of 42%. In general, most organic product categories have experienced an increase in exports.[18]

[15] Nina N Sørensen, Inge Tetens, Hanne Løje and Anne D Lassen, 2016.
[16] Danish Agriculture and Food Council.
[17] Organic Denmark.
[18] Organic Denmark.

Import

Denmark has a high consumption of organic food and consequently imports significant quantities. Consumer demand for a broad range of organic products has resulted in Danish imports of organic products exceeding exports.
Imports of foreign organic products amounted to EUR 519 million in 2017 (an increase of 61% since 2005)[19], which corresponds to 4.7% of the total food imports.

Figure 10: Development of import of organic goods in EUR million and organic share of total food imports (%)



Note: Organic foreign trade concerns food and drink as well as feed for animal production which is organically certified. The organic share is calculated based on identical product groups in the total foreign trade for 2017. Product groups are not fully comparable for the previous years, and some differences may occur. Numbers for years 2005–2015 should, therefore, be treated with some degree of uncertainty. It is, however, our opinion that they provide an overall accurate picture of the organic food imports.

Source: Statistics Denmark, Ramboll calculations and estimates.

The most significant imports are fruit and vegetables because, for climatic reasons, there is a substantial amount of fruit and vegetables that cannot be grown in Denmark. Coffee, tea, chocolate and wine are other important import products that cannot be produced in Denmark. Grain and feedstuffs are also imported, some of which are re-exported.

2.2.6 Retail sector

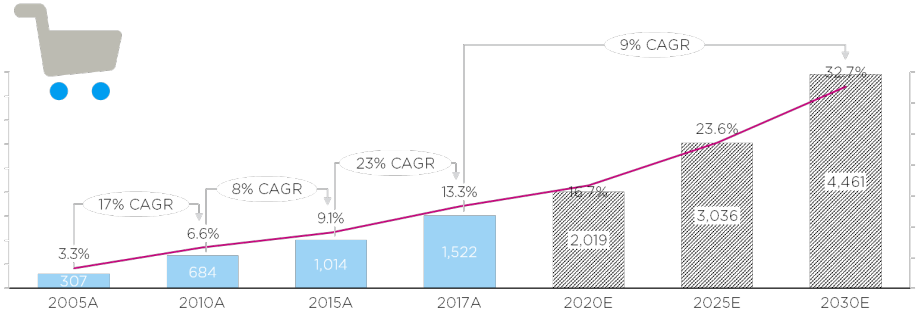
An increasing number of organic products are sold in Denmark. Proportionally, the organic market in Denmark is the biggest in the world, with organic food making up roughly 13% per cent of the total retail food market in 2017. Organic sales amounted to EUR 1,522 million in 2017, an increase of EUR 1,014 million from 2015.

[19] Statistics Denmark.

The overall consumer demand is spurred by increasing focus on healthy lifestyle and consciousness. These have been some of the major drivers of the organic sales increase during the past ten years. Here, one of the enhancers has been the governmentally certified red Ø-label, that has contributed to building trust to the value-added of organic goods.

> "We can see a generation of young people who are all committed to organic. They buy not only carrots and milk, but seek the whole palette."
> – Henrik Hindborg, Organic Denmark

Figure 11: Development of organic food and beverages sales within the retail sector (EUR million) and organic share of total food sales within the sector (%)



Note: 1) Statistics Denmark has changed assumptions for the calculation of organic shares within the retail sector in 2019, resulting in slightly different numbers for 2017 (recalculated 10% vs. 13% above). Numbers for years 2005–2017 should, therefore, be treated with some degree of uncertainty, it is, however, our opinion that they provide an overall accurate picture of the organic food sales in Denmark. 2) From 2017, companies that exclusively sell online (including subscription sales) are included in the statistics but not in earlier years. Prior to 2017, sales for stores that both have physical stores an online sale are reportedly included in the data. Exclusively online sales make up only a minor share of organic sales in years 2005–2015, and any deviations due to not having this channel included before are not considered to have any significant impact on the numbers.

Source: Statistics Denmark, FiBL Statistics, Organic Denmark, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

The increase between 2015 and 2017 may be partly due to sales from exclusively online shops being included in the numbers from 2017[20]. Online purchasing of groceries is becoming increasingly popular, especially meal boxes providing customers with ingredients and recipes for larger meals. It is an especially popular solution among busy families. However, even without the online figures, the increase has been considerable, according to Organic Denmark.

Supermarket chains have also had an important role in the growth of organic retail sales and have embraced organics each in their own way to help the market. Organic Denmark has had an important role in this process, as they offer to counsel on marketing organic

[20] Online sales have been to some degree included before, as all sales for shops having both in store and online sales (e.g. COOP) were accounted for. From 2017 numbers include sales from exclusively online stores, e.g. nemlig.com). Exclusively online sales make up only a minor share of organic sales in years 2005–2015, and any deviations due to not having this channel included before are not considered to have any significant impact on the numbers.

products. This has introduced competition between different stores and increased focus on this area. This includes discounts and campaigns, signing in new producers, and providing attractive shelf placements to organically labelled products at stores. Showcasing organic has become a deliberate part of most Danish supermarkets' branding strategy. One example is Coop, which was the first to start organic products sales in Denmark in 1981. In 2016 they rolled out a campaign, including lowering their prices, increasing the product offer and made organics more visible under a slogan that everyone should afford organic. Many other chains, including Netto, Irma and Rema 1000, followed this trend[21].

> "Organic has become a competitive parameter and is used both for getting customers into the store and profiling as a supermarket."
> – Thomas Roland, Coop (sourced from www.Politiken.dk)

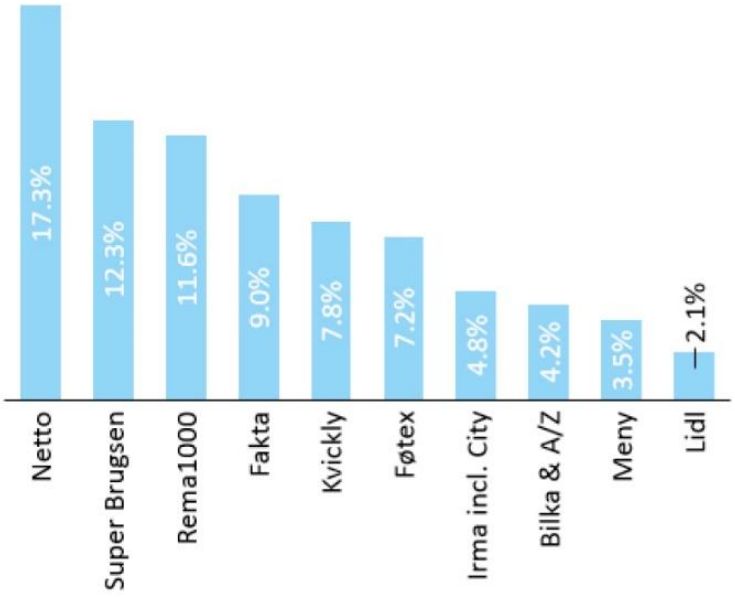
Organic campaigns are widely used and include special discounts on all organic products or certain organic product groups. This is one of the methods to attract one of the most important customer groups for retail chains: families with small children. Moreover, discounts inspire interest in other organic products. Consumers of organic products typically start by buying basic foods such as milk, eggs and vegetables before moving on to other, often more luxurious product groups (e.g. organic wine, chocolate etc)[22]. Organic oatmeal accounts for the largest market share (52%), followed by carrots (42%), eggs (33%) and milk (32%). Drinks such as fruit juice, beer and wine are a fast-growing category[23].

> "The stores are acting strategically when they reach out to families to sell organic goods. Especially young couples with children are prone to adopting an organic lifestyle."
> – Henrik Hindborg, Organic Denmark

The majority of the organic products is sold in supermarkets (including hypermarkets) and discount stores, while still only a smaller share is sold via online sales channels. Netto, Rema 1000, Super Brugsen, Fakta and Føtex (all among stores having their own organic labels or offering organic membership programs) have the highest shares of organic products[24].

[21] Organic Denmark and Danish Agriculture and Food Council.
[22] Organic Denmark/ Aarhus University research.
[23] GfK ConsumerScan.
[24] GfK.

Figure 12: Retail chains share of the organic retail sales in 2017 (%)



Source: GfK.

More than half of Danes buy organic food every single week[25].

Organic sales are forecasted to continue to increase by 10% per year until 2020, which is in line with Organic Denmark's expectations. In the long term until 2030, an average annual growth rate of between 8% and 9% is expected. The overall increasing demand is due to customers' focus on a healthy lifestyle and the environment. Strong expected growth within the online sales channel is also of high importance.

Top organic products in retail

Sorted by value of product category in 2017

1. Dairy (milk, cheese, eggs etc) (27%)
2. Vegetables (21%)
3. Fruit (12%)
4. Rice, bread, pasta, flour, groats (10%)
5. Meat, cold cuts and meat remains (8%)
6. Spices, supplements etc. (5%)
7. Fats, cooking oils (4%)
8. Sugar, jam, chocolate, sweets (4%)
9. Coffee, tea, cocoa etc. (3%)
10. Juice, fruit extract (3%)

Source: Statistics Denmark.

Organic sales within the retail sector are estimated to reach EUR 2,019 million in 2020, EUR 3,036 million in 2025 and EUR 4,461 million in 2030, with organic shares of the total food retail sales of 17%, 24% and 33% in 2020, 2025 and 2030, respectively.

[25] Danish Agriculture and Food Council.

"We have Denmark's largest online selection of organic food, and our sales of organic products grew significantly in 2017 across all categories, both these with already high organic shares (e.g. fruit and vegetables), but also others, e.g. wine and fresh meat. Our customers appreciate food that helps them create a healthier life, and we expect steadily increasing organic sales."
– Stefan Plenge, CEO www.nemlig.com (Markedsnotat by Økologisk Landsforening)

2.2.7 Foodservice sector

Organic food in the foodservice sector has increased by on average ~20% per year between 2013 and 2017. In 2017, the organic food sales in foodservice amounted to EUR 275 million, corresponding to 9.3% of the total foodservice sector. The organic share in the foodservice sector is thus close to catching up with that in retail trade in Denmark.

The increase in organic food in foodservice is due, among other things, to an increase in eating places that focus on organic food. There has been a large increase in the number of eateries marked with the Organic Cuisine Label mentioned earlier. Restaurants and dining places which already serve organic dishes have also experienced increased sales of organic food. The capital region in Denmark accounts for over half of the professional kitchens with the organic label, however, it also houses one-third of the Danish population.

In 2017, the whole private foodservice sector traded close to EUR 5,915 million and has been growing for the seventh consecutive year. In 2017, the private sector accounted for ~72% of the food sales while the public sector had a share of ~28%[26].

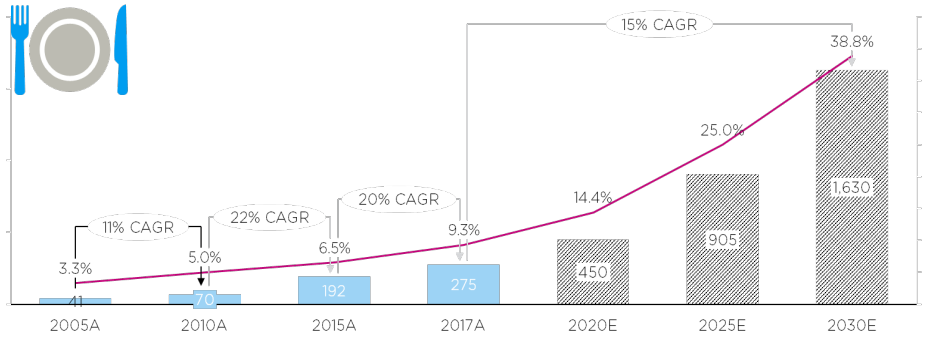
These proportions are slightly different when it comes to organic goods. The private sector accounted for 56% of organic sales to the foodservice, corresponding to approx. EUR 155 million in 2017 (53% increase from 2015). Of these, hotels, restaurants, cafés etc. accounted for 29% and canteens at private workplaces were 19%. Finally, other forms of foodservice (e.g. diner transportable and take-away), made up 9% of the sales[27].

The public sector accounted for 44% of organic sales in foodservice in 2017, corresponding to approximately EUR 120 million (40% increase since 2015). The majority of the public sector's organic procurement went to public institutions (hospitals, kindergartens, educational institutions etc.), which amounted to 36% of organic sales in foodservice. Another 8% went to canteens in public workplaces.

Sales of the long-lasting goods increased by EUR 33 million since 2015 and accounted for 35% of the total food sales to the foodservice sector in 2017. Public kitchens and private canteens have been among the drivers for the organics' growth, as an increasing number of hotels have begun to introduce organic food to their menus. More than 3000 (2019) kitchens in Denmark have been awarded the Organic Cuisine Label, with the following breakdown: Gold: 19%, Silver: 41%, Bronze: 40%[28].

[26] Danish Agriculture and Food Council.
[27] Statistics Denmark.
[28] The Danish Veterinary and Food Administration.

Figure 13: Development of organic food and beverages sales to the foodservice sector (EUR million) and organic share of total food sales within the sector (%)



Note: Please note that the figures for organic foodservice in Denmark for 2018 have been published on 18 September 2019. The figures show a growth of 15% from 2017 and 2018. The public sector is estimated to have an average consumption of 21% organic and the organic market share for foodservice was 10.9% in 2018. These number were published after the report's conclusion and are therefore not included in the estimates. It is, however, our opinion that this development highly supports Ramboll's estimates.

Source: Statistics Denmark, FiBL Statistics, Organic Denmark, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

The long-lasting products group (e.g. flour, sugar or grains) accounted for 35% of total sales of organic goods to foodservice in 2017.

> "In recent years we have seen a marked increase in demand for organic products from the private market (..) but also from public kitchens that are working from a municipal goal of 60%. We expect that organic will continue to become more and more interesting for our customers."
> – AB Catering (sourced from Økologisk Markedsnotat by Økologisk Landsforening)

Vegetables, fruits and dairy products were driving the growth in organic sales between 2015 and 2017.

The overall foodservice market is expected to continue to grow towards 2030. According to the Danish Agriculture and Food Council, this will be driven by a growing number of single households which is expected to result in an increasing demand for easy meals from the private foodservice sector, such as take-away food.

Top organic products in foodservice

Sorted by value of product category in 2017

1. Long-lasting goods (35%)
2. Dairy (31%)
3. Fruit and vegetables (19%)
4. Milk and cream (14%)
5. Frozen goods (11%)
6. Cheese and butter (10%)
7. Other vegetables (nuts, lentils etc.) (9%)
8. Other long-lasting goods (preserves, oil/fats, sugar, chocolate, dressings etc.) (9%)
9. Other dairy (eggs, sour milk etc.) (7%)
10. Flour, groats and cereal (6%)

Source: Statistics Denmark.

The ageing population is another development that is expected to positively affect the foodservice sector's revenue[29]. Forecasts made by Statistics Denmark, show that over the next approx. 40 years, it is expected that the number of Danes over 80 years old will increase from 249,721 in 2017 to 653,961 in 2060. This means that this share will increase from 4.3% to about 10% of the total population in 2060. All things being equal, the growing number of elderly people must mean an increasing number of potential users of elderly institutions. These are public institutions that are already at the forefront when it comes to serving organic meals.

The high demand of organic products among customers is the main driving factor for the organic goods within the foodservice sector. Increasing interest in food quality is one of the major demand drivers. The health trend that has characterised the Danish consumers in recent years is also expected to affect the foodservice sector in the future. The organic foodservice market will, therefore, continue to grow by ~15% yearly during the next 10 years, which is in line with Organic Denmark's estimates. Sales of organic food within foodservice will reach EUR 450 million in 2020, EUR 905 million in 2025 and EUR 1,630 million in 2030, corresponding to organic shares of the total foodservice market of 14%, 25% and 39% in 2020, 2025 and 2030, respectively.

2.2.8 Political agendas towards organic food

Denmark is characterised by prominent political support for organic farming across the spectrum of political parties and changing governments. An important feature of the Danish model is a high degree of involvement of different stakeholders in discussions of different incentives for the development of the organic sector and the creation of organic food policy in Denmark. Danish organic policy aims at stimulating the demand side of the market through supporting consumer awareness campaigns, the marketing of the organic sector and public procurement of organics. At the same time, the supply side is encouraged through supporting farm conversion, farmer training, and the development of new organic farm practices that improve quality, yields, animal welfare and climate performance. Policies, such as innovative on-farm research and free conversion plans for farmers, are examples of supportive initiatives.

In 2018, Denmark received the UN's Future Policy Award for an effective and innovative organic policy[30].

Danish Organic Action Plan 2020 was introduced by the Danish government in 2012, and outlined approximately 20 focus areas to further develop and enlarge the organic production. The plan was updated in 2015.The focus areas include support for exports of Danish organic products, strengthening sales in the Danish market, eco-converting public kitchens, converting more of the state's areas into organic, supporting eco-promoting activities within the municipalities and in the education area and spreading organic in the EU.

[29] Danish Agriculture and Food Council.
[30] Danish Agriculture and Food Council.

Danish Organic Action Plan 2020

- 60% organic in public sector kitchens by 2020.
- Increased organic conversion of public land.
- More organic on the schedule in food education.
- Increase in organic fruits at schools.
- Development of a more targeted subsidy model.
- More flexible environmental approvals.
- Targeted investment support for organic companies.
- Land distribution for ecologists.
- Promotion of organic biogas and nutrient recycling.
- Increased harmonization of EU eco-regulations and control.
- Investment aid for the processing of organic products.
- New partnerships and network innovation.
- More focused and coordinated export efforts.
- Increased focus on the impact of grants for information and marketing.
- Increased marketing of organic aquaculture.
- Research and development in organic.
- Strengthened cooperation on the importance of plant variety legislation for organic and conventional agriculture.
- Better protein crops to replace imported soy.

Source: Ministry of Environment and Food of Denmark.

The aim of these initiatives is to create more sustainable growth, improve meal composition in public kitchens, reduce food waste, protect nature and groundwater and improve animal welfare in line with the ambition at EU level.

Lately, Organic Denmark, an NGO working closely with the Danish Government on promoting and enhancing organic food in Denmark, has set their own goals for organic farmland and organic food consumption.

Organic Denmark's goals (NGO)

- 30% organic farmland in 2030
- 30% organic in food consumption by 2030
- 60% organic food in public canteens by 2030

Source: Organic Denmark.

In 2019, the Danish Government has announced that they aim to double the organic land area, i.e. a goal of 20% by 2030.

2.3 Finland

Basic economy indicators

- Population: 5,508,214 (2017)
- Population density: 18.1 (2017)
- Area: 303,910 km2
- GDP: EUR 233,555 million (2018)
- GDP per capita: EUR 42,300 (2018)

Source: World Bank, Eurostat, FAOSTAT.

Finland has a highly developed mixed economy and is a modern welfare state with a high average living standard. In 1999, it joined the EU's monetary union and it is increasingly economically integrated with the other EU member states.

Finland is the easternmost Nordic country. About a third of Finland's area lies north of the Arctic Circle. Finland has many forests and waterways, lakes and marshes. It is called the land of a thousand lakes.

Finland's northern position makes agriculture relatively challenging. The best agricultural farming areas are in the west and south-west, as well as the middle parts of the country.

On average, one must be reckoned with bad crop years due to frost damage every 40 years; significant crop failure every 10 years; and some form of frost damage every 4 years. There have been efforts to grow crops that better endure the cold winters in an attempt to remedy the effect of the cold climate.

On average, the cultivated area comprises 8% of Finland's total land area. This varies, however, from 30% in the south-west, to under 1% in Lapland. Meadows and pastures comprise 0.3% of Finland's total land area.

Finland's climate, with cool and wet summers, is most appropriate for certain cereals. The most important cereals are barley, oats, wheat and rye. Sugar beets, mangold, rape and other oilseeds are cultivated mostly in the south-western areas, while fruit and vegetables are important around the larger cities. The cold climate also limits the need for pesticides.

> "Cold winters limit crop production potential, but also create hard conditions for pests and weeds. Pesticides are not needed as much as elsewhere in Europe."
> – Pro Luomu, 2018 report

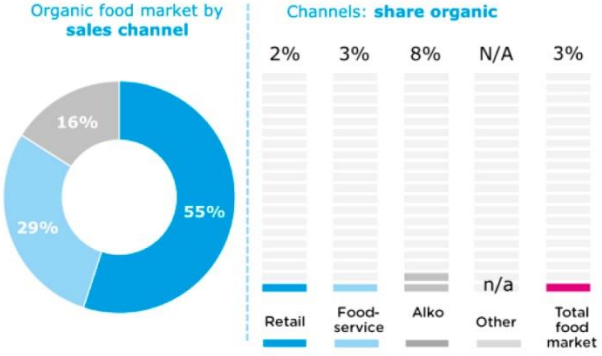
2.3.1 Overview of organic market

Retail is the most significant distribution channel of organic food sales in Finland, accounting for 55% of the entire organic food market. The organic share in the retail sector is 2%. The second largest distribution channel for organic food in Finland is the foodservice sector. This accounts for 29% of the organic food market. 3% of the entire

foodservice market is organic. This value is relatively high as Finland's public foodservice sector has a 12% share of organic food, boosting the share of organic in the entire foodservice market. The third most important distribution channel for organic food in Finland, is Alko, Finland's state monopoly shop for wine and spirits. Numbers from their reports indicate that they distribute 16% of all the organic food and beverage products in Finland. The share of organic sales in Alko was 8% in 2018.

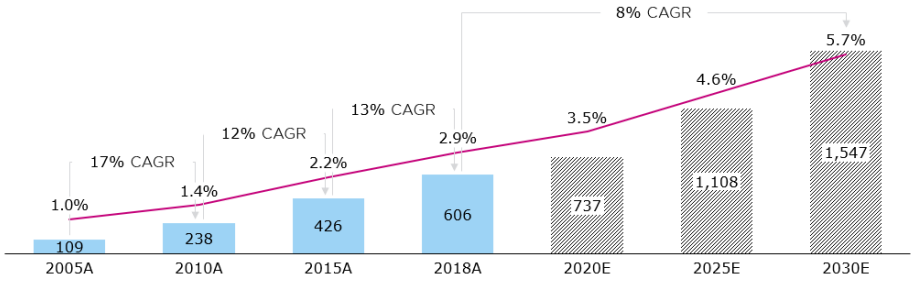
Several other distribution channels exist in Finland. These are small and heterogeneous, and data to estimate their size or organic shares does not exist. Examples of these other channels include farmers' markets, REKO-rings[31], and e-commerce.

Figure 14: Overview of organic food market (2018)



Source: Pro Luomu, Alko, Finnish Hospitality Association, Ramboll calculations and estimates.

Figure 15: Development of organic food market (EUR million) and organic share of total food sales (%)



Note: Historical and future estimations of the entire food market are based on individual estimations for the largest channels, i.e. retail, foodservice and Alko. Specialised stores and other channels are excluded because there is not a sufficient amount of data needed to forecast sales and organic shares for these channels. Numbers in this figure should, therefore, be treated with some degree of uncertainty, it is, however, our opinion that they provide an overall accurate picture of the organic food market in Finland.

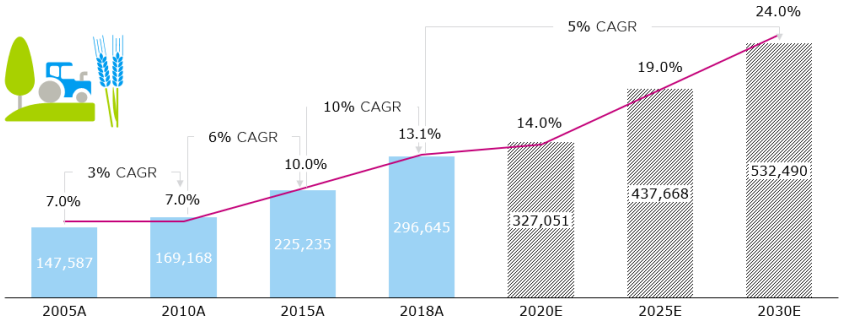
[31] REKO stands for Rejäl Konsumtion, in english "fair consumption". The REKO is a Finish concept for the producer and consumer to meet and at the same time creating a network and logistical system for locally produced food. Typically managed through social media with quick deliveries.

Source: Pro Luomu, Alko, Finnish Hospitality Association, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

The total organic food market in Finland is estimated to be EUR 606 million in 2018 or 2.9% of the entire food market. Looking at the total organic food market as a whole, we see that 3% of the market is organic[32]. This estimate is based on the three main channels for organic food: Retail sales, the foodservice industry and Alko, Finland's state alcohol monopoly shop.

The development of the Finnish organic food market has been positive in recent years. Between 2015 and 2018, the market grew, on average, by 13% every year. Looking forward, this growth is expected to continue. It is estimated that the total organic food market will reach EUR 737 million by 2020, EUR 1,108 million by 2025 and EUR 1,547 million by 2030. The organic share of the total food market is expected to reach 3.5% by 2020, 4.6% by 2025 and 5.7% by 2030. Between 2018 and 2030, an average annual growth of 8% is expected. The drivers of this expected growth are mainly a greater demand among consumers, who become more conscious about their health and well-being. All three main distribution channels have reported an increase in the popularity of organic goods. Farmers expect, on average, an increase in production amounts, and it is expected that organic imports will increase as a result of growing demand.

Figure 16: Development of organic farmland (hectares) and share organic (%)



Source: FiBL and Ministry of Agriculture and Forestry, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

2.3.2 *Organic farmland*

More than half of the total organic farm area in Finland is grassland, according to the Ministry of Forestry and Agriculture. The most important crop is oats, accounting for more than 60% of organic crops in 2018.

The average organic farm in Finland has a size of 58.9 hectares, which is nearly 10 hectares more than the average conventional farm. Organic farms make up 10.6% of all farms in Finland[33].

[32] For more information about the estimations of each distribution channel, see each individual section.
[33] Ministry of Agriculture and Forestry.

Finland has a large area of certified wild areas, which come in addition to its certified farmland. These certified wild areas amount to 12 million hectares and correspond to approximately one-third of all organic wild collecting areas in the world. The most important products from these areas are bilberries, lingonberries and birch sap.

In 2018, organic farmland in Finland was 296,645 hectares, which constitutes 13.1% of the total Finnish farm area. Organic farmland in Finland has been growing at a solid rate for several years. Between 2015 and 2018, the total organic farm area has grown more than 30% at an average annual rate of 10% per year.

Looking forward, the total organic farm area and organic share of total farm area are expected to increase. It is estimated that the total organic farm area will reach 327,051 hectares in 2020, 437,668 hectares in 2025 and 532,490 hectares in 2030. The organic share of total farm area is estimated to be 14% in 2020, 19% in 2025 and 24% in 2030.

The Finnish government has a goal to reach 20% organic farmland by 2020, whereas the share of organic farm area in 2018 was 13.1%. To reach 20% by 2020, an annual growth of over 20% is needed. The average annual growth between 2015 and 2018 was 10%, indicating that a 20% annual growth is slightly ambitious. Finland received funds for organic farming from the EU Rural Development Programme. These funds have been depleted, however, Finland cannot apply for new funds from this programme until 2021, further indicating towards a lower growth rate. When asking Finnish organic farmers about the prospects for organic farming in the future, their responses could be translated into an average annual growth of 3% until 2020[34]. The estimates for the future are therefore a 5% annual growth from 2018 to 2020, a 6% annual growth between 2020 and 2025, as more funds from the Rural Development Programme become available, and a 4% annual growth between 2025 and 2030, as the market for organic production becomes satiated.

2.3.3 Organic users' profile and attitudes

More and more Finnish consumers are buying organic goods. More than half of Finnish consumers buy organic foods at least once a month and the popularity of organic products is particularly evident with women aged 30–49 years. In recent years, also the share of men buying organic food has been growing[35].

> "Families with young children are particularly active consumers of organic products."
> – Marja-Ritta Kottila, Pro Luomu

The most common retail channel for consumers purchasing organic food products is in grocery stores. There are also speciality stores, farmers' markets and REKO-rings that sell organic products, but these account for a much smaller portion of total retail sales and data is not available.

[34] Organic Production now and in 2020, Helsinki University.
[35] Ministry of Agriculture and Forestry.

In terms of geography, organic food is more popular in the vicinity of larger cities[36]. The Helsinki area was first to register the trend of organic food. Recently, however, consumption of organic food has increased also in smaller towns, which have universities.

> "People who go to university are more aware of benefits of organic, like health and climate change. Organic is more and more in everyday life."
> – Leena Seppä, Ministry of Agriculture and Forestry

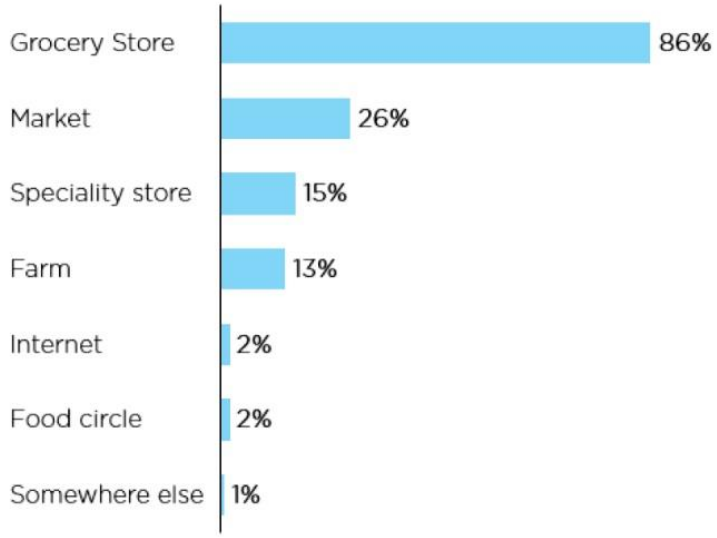
More than 50% of Finnish consumers purchase organic either weekly or monthly, according to a survey[37]. Half of the consumers also estimated that their own consumption of organic goods would increase in the near future.

Most important reasons for purchasing organic

- The product is pure, there are no artificial additives
- Tasty product
- Health, higher nutritional value
- Organic production, more environmentally friendly

Source: Organic barometer, Kantar.

Figure 17: Where consumers have purchased organic products



Source: Pro Luomu.

[36] Leena Seppä from the Ministry of Agriculture and Forestry.
[37] Organic barometer carried out by Kantar TNS – data published by Pro Luomu.

Although organic food is becoming increasingly popular among Finnish consumers, a survey revealed that the domestic origin of is the most important trait when buying food products. This is more important than food being organic, which was rated as the sixth most important trait.

> "Having more information about fair prices for producers and a wider selection of products would also help increase consumption."
> – Pro Luomu 2018 report

In terms of barriers to organic consumption, the most important hinder is the price premium for organic products[38]. There is a significant price premium on organic products, which limits some consumers' organic purchases. According to Pro Luomu, this issue could be partially solved by having more information available about the organic production process and why the price premium exists.

2.3.4 Organic labels

Several organic labels are used in Finland, the EU organic green leaf, the Finnish sun label, the Finnish ladybug label and the Swedish KRAV label.

The EU organic green leaf is mandatory for all pre-packaged organic foods manufactured in the EU. The Finnish green sun label tells the consumer that the product is under control of a Finnish control authority but does not imply anything about production location. It is a voluntary label, which may be used also for imported products. The Finnish ladybug label indicates that the product is an organic product produced in Finland. This label is stricter than the EU organic green leaf when it comes to animal welfare and the environment. As there are a lot of organic imports from Sweden in Finland, the Swedish Krav label is also found on several products.

The EU organic green leaf label is growing in popularity in Finland, slowly replacing the domestic green sun label. Big players on the Finnish organic market prefer to not have multiple labels, as it increases complexity and the number of requirements they have to adhere to. According to Pro Luomu, there is a general willingness among organic producers and processors in Finland to move towards using only the EU organic green leaf label. For exporters, this is also far more relevant than any domestic label.

> "Finland is in a transition period, where the EU green leaf is becoming increasingly common."
> – Marja-Ritta Kottila, Pro Luomu

[38] Pro Luomu.

2.3.5 *Export and import of organic food*

No official statistics exist for imports and exports of organic goods, as goods for import and export are not differentiated according to their organic status. Estimates in this section are based on interviews with Pro Luomu.

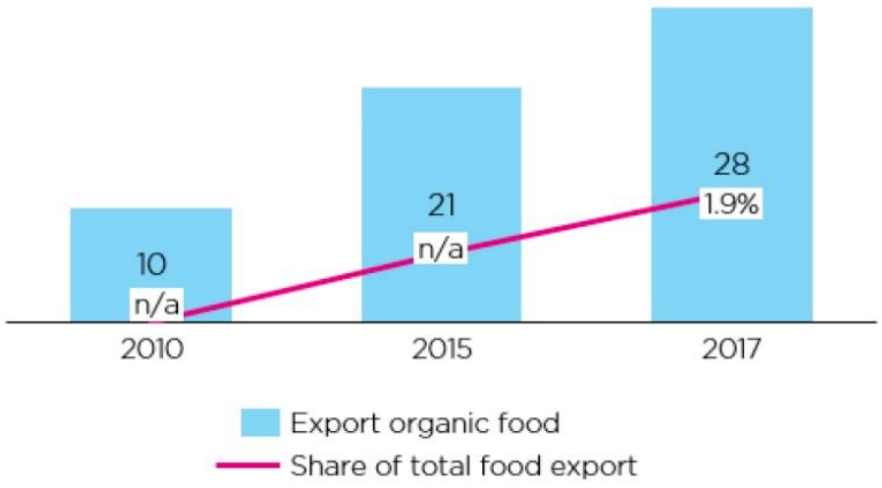
Export

Finland exports organic oats and processed oats, such as oatmeal. There is also exports of berries, such as lingonberries and blueberries, as well as bread, potato flour and liquorice. Finland's main export partners for organic products are Sweden, Denmark, Germany and France[39].

Organic exports are estimated to be EUR 10 million in 2010 and between EUR 25–30 million in 2017. In 2017, organic exports constituted 1.9% of total food exports from Finland. Data on the organic percentage of total food exports is not available for other years. Based on available estimates, it appears clear that organic exports have grown significantly. The average annual growth rate of organic exports between 2010 and 2017 is 15%.

Pro Luomu has not published official estimates for the future but expects that the growth will be positive[40].

Figure 18: Development of organic exports (EUR million) and organic share of total food exports (%)



Source: Pro Luomu, Ramboll calculations and estimates.

[39] Ekoweb report.
[40] Pro Luomu.

Import

No historical data for imports exists. Estimates are only available for the year 2018, in which organic imports are estimated at EUR 140 million. This number is derived from the share of imports in organic retail, which is 40%–45%.

Although no historical data exists, Pro Luomu has stated that organic imports have increased significantly since 2005 and 2010. Also, the portion of retail sales, which are imported, has increased since 2010. This is because much of the growth in organic goods have come from fruit and vegetables, which are often imported.

Looking to the future, organic imports are expected to continue to increase. This will be driven by continued consumer demand for consumer products, particularly for organic products that cannot be produced in Finland, such as certain fruit and vegetables.

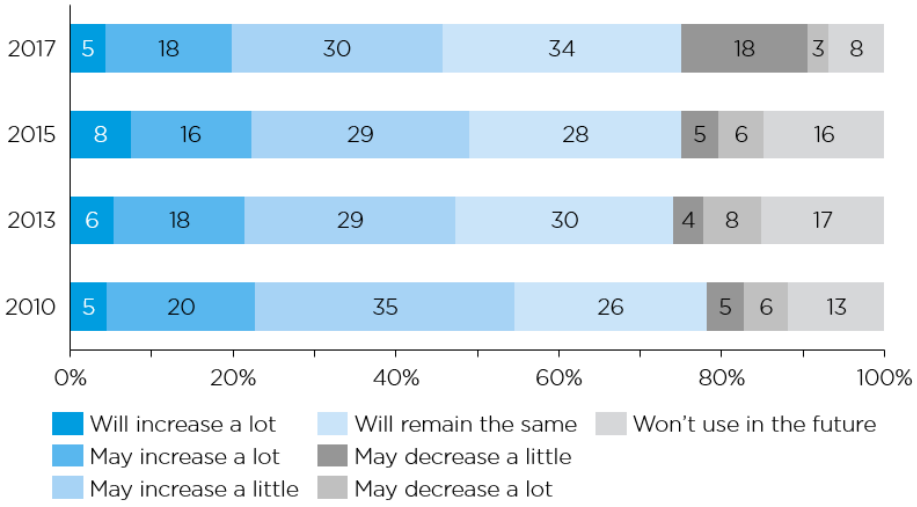
2.3.6 Retail sector

In 2018, organic retail sales amounted to EUR 336 million, or 2.4% of the entire food market. Sales of organic foods in retail have increased by 40% since 2015, increasing on average by almost 12% every year between 2015 and 2018. This growth has been driven by consumers' increased awareness of organic products and their benefits, as well as a wider selection of organic products, and more advertising of organic products.

Looking forward, the growth in organic retail is expected to continue. It is expected that sales of organic food in retail will reach EUR 407 million in 2020, EUR 597 million in 2025 and EUR 762 million in 2030. The organic share of the entire food market is estimated to be 2.8% in 2020, 4% in 2025 and 4.8% in 2030.

The drivers of this growth are increased popularity of organic goods among consumers, and retail outlets stocking a wider and larger selection of organic products. According to a survey of Finnish consumers, more than 50% responded that they would increase their organic consumption in the future.

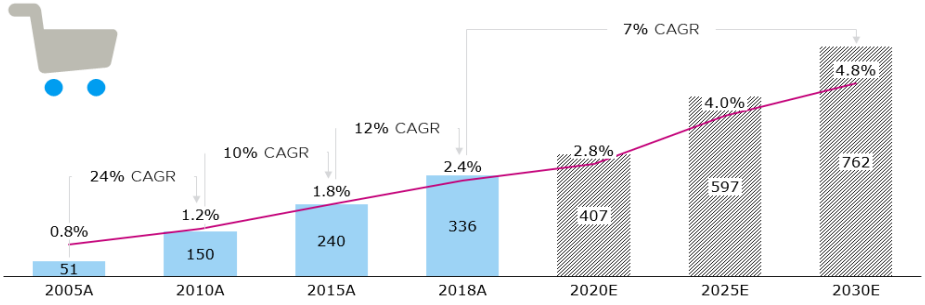
Figure 19: Survey on how consumers think their organic consumption will change in the future



Source: Organic barometer, Kantar TNS.

Of all organic products sold in the retail sector, approximately 55% are domestically produced. The most important organic product is milk, which accounts for 15% of all organic retail sales[41]. Other important categories are fruits and vegetables, coffee and tea and eggs.

Figure 20: Organic retail sales and organic share of total retail sales in Finland, EUR million and %



Source: Pro Luomu. Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

Most popular organic products

Not sorted by popularity

- Milk
- Fruit
- Vegetable oil
- Baby food
- Eggs
- Cereals
- Flour
- Vegetable drinks
- Coffee and tea

Source: Ministry of Forestry and Agriculture.

Looking forward, one aspect, which may be a challenge for the growth of organic retail sales, is the selection of organic products. According to Pro Luomu, if the selection of organic products in retail was wider, this would facilitate the growth in organic retail sales and increase it considerably.

2.3.7 *Alko – state monopoly for alcohol*

Alko is Finland's state monopoly outlet for alcoholic beverages. In 2018, Alko sold 6,953 thousand litres of organic alcoholic beverages, which was 8% of its total sales.

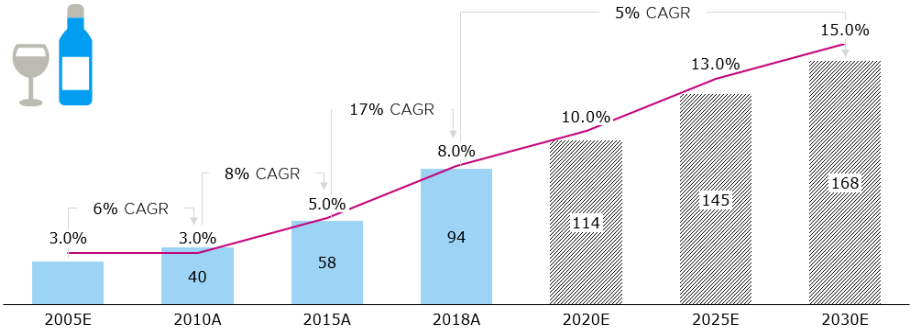
Between 2015 and 2018, organic sales at Alko grew from EUR 58 million to EUR 94 million, or 5% of all sales to 8% of all sales.

Looking towards the future, it is expected that organic sales of alcoholic beverages will reach EUR 114 million in 2020, EUR 145 million in 2025 and EUR 168 million in 2030.

[41] Ekoweb.

In terms of the organic share of total sales, we expect that 10% of all sales are organic in 2020, 13% of all sales are organic in 2025 and 15% are organic in 2030. The average annual growth rate between 2018 and 2030 is expected to be 5%.

Figure 21: Organic sales in Alko (EUR million) and share of sales that are organic



Note: There are no official numbers for organic shares in terms of value for Alko, and they have been estimated by Ramboll. These numbers should, therefore, be treated with some degree of uncertainty, but it is our opinion that they give an accurate picture of the organic market within this sector.

Source: Alko annual reports, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

2.3.8 Foodservice sector

The organic foodservice industry in Finland was estimated to be 3.2% of the total foodservice market in 2018. The organic foodservice market was estimated to have a total value of EUR 176 million in 2018. This constitutes an estimated growth of 38% since 2015, or an average annual growth rate of 11% in this period.

Looking forward, the organic foodservice market is expected to grow by on average 11% per year between 2018 and 2030. It is expected to reach EUR 217 million in 2020, EUR 365 million in 2925 and EUR 616 million in 2030. The organic shares of total foodservice are expected to be 3.8% in 2020, 4.7% in 2025 and 6% in 2030. This growth is expected to be partly driven by an increase in consumer demand for organic goods, pushing private foodservice operators to supply more organic food. On the other side it si expected to be driven by the governmental push for more organic, increasing the organic share in the public foodservice sector. This growth depends on each municipality's prioritisation of organic food, as they control their own spending in public foodservice.

The foodservice sector in Finland is divided between public foodservice and private foodservice. According to Pro Luomu, the organic share of public foodservice was 6% in 2016 and 12% in 2018. Public foodservice includes among others milk for school children and food in elderly peoples' homes.

Numbers from the Finnish Hospitality Association indicate that 20% of the total foodservice market is public and 80% is private.

According to Pro Luomu, about 40% of the professional kitchens use organics at least once a week. The most commonly used organics are cereal products, vegetables,

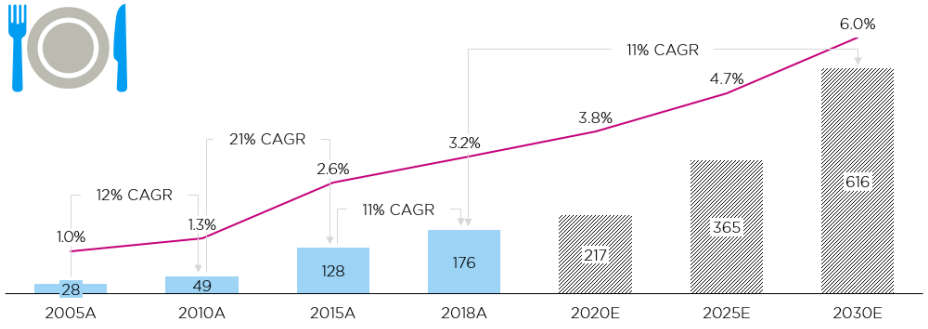
fruits and berries. The most common reasons for using organics in the professional kitchens are environment, taste and ethics.

There is a national aim of 20% organic food in public kitchens by 2020. This official goal might be updated. There is EU support for school food/milk schemes, and in Finland, they focus on milk. Milk is used in all schools, and it is the individual municipality that chooses whether to serve conventional or organic milk.

The most common organic products in foodservice kitchens are milk, porridge flakes, vegetables and root vegetables and some fruits.

The challenge for organic products in the foodservice sector is that kitchens often prefer local products to organic products.

Figure 22: Organic foodservice in Finland



Note: There are no official numbers for organic shares in the foodservice industry in Finland, and they have been estimated by Ramboll. These numbers should, therefore, be treated with some degree of uncertainty, but it is our opinion that they give an accurate picture of the organic market within this sector.

Source: Finnish Hospitality Association, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

"If they don't get the Finnish organic product, they rather use conventional Finnish product than imported organic product."
– Anu Arolaakso, EkoCentria

2.3.9 *Political agendas towards organic food*

Finland has its own government development programme for the organic product sector with specific objectives and targets. This includes that 20% of all agricultural farmland shall be organic by 2020, greater diversity in the supply of organic goods and improving access to organic food through trade and institutional (public sector) kitchens.

According to the Ministry of Agriculture and Forestry, an evaluation of the action plan was made last year. It was decided that more effort was needed on: Securing finance for farmers, supporting more food enterprises and more product development, improving co-operation for organic in foodservices, focusing on exports besides more finance to research and innovation. The updating of the action plan is still ongoing.

Finland receives funds for organic production from the EU's Rural Development Programme (RDP). Farmers can apply for grants to facilitate the transfer to an ongoing

organic production. Recently, these funds (allocated to Finland) were depleted and farmers are no longer able to apply for support. In 2021, Finland may apply to the RDP again, but until then, support for organic farming is progressing slowly, according to Leena Seppä in the Ministry of Agriculture and Forestry.

Individual municipalities in Finland are influential when it comes to food choices in public kitchens. Several municipalities have set their own targets for organic shares in public kitchens and are increasing this organic share by serving organic food in caring homes and organic school milk for children.

2.4 Iceland

Basic economy indicators

- Population: 343,400 (2017)
- Population density: 3.4 per km²
- Area: 100,250 km²
- GDP: EUR 21,918 million (2018)
- GDP per capita: EUR 63,200 (2017)

Source: World Bank, Eurostat, FAOSTAT.

Iceland is an island republic in the North of Europe. Fishery is the most important sector in the Icelandic economy, constituting approximately 12% of GDP. Agriculture is also an important sector and accounted for 10.8% of Iceland's GDP in 2015. Only 0.1% of Iceland's land area is cultivated. Hay, potatoes and root vegetables are important crops. Sheep is the most important livestock animal in Iceland.

Iceland is mostly self-sufficient with meat and dairy products, as well as the production of various vegetables, such as cucumber, bell pepper and tomatoes. This is due to the mass building of naturally heated greenhouses, using Iceland's natural warm sources to cultivate food.

2.4.1 Overview of organic market

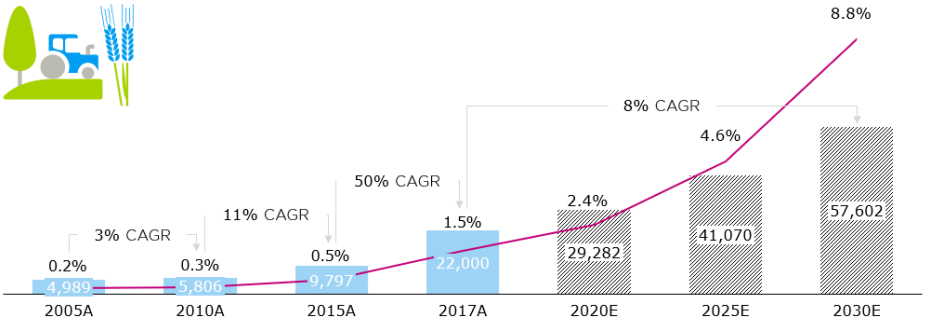
The concept of organic food is not as well-developed as it is in the other Nordic countries. Few statistics exist over the different spheres of the organic market, and qualitative data, gathered from interviews and other sources, indicates that there is not the great consumer push for organic as observed in the other Nordic countries.

According to the data available, the market for organic food is growing, both in terms of production and consumption, but data is not available to accurately estimate a growth rate or the total size of the organic market.

In terms of what is driving the organic market's growth, this is not so much from domestic organic producers, but rather from consumers and imports[42]. Organic production does exist in Iceland, but most of the organic food consumed derives from imports.
The domestic organic production consists mostly of vegetables and lamb. There are also three dairy producers and one large farm that produces organic eggs. There is no production of organic chicken, pork or beef.

[42] Farmers' Association.

Figure 23: Development of organic farmland (hectares) and share organic (%)



Note: Data includes natural collection lands for herbs and mushrooms, but the exact share of this is unknown.

Source: FiBL, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

2.4.2 *Organic farmland*

In 2017, 22,000 hectares of cultivated land in Iceland was certified organic. This constitutes 1.5% of the total agricultural land in Iceland. Between 2015 and 2017, organically certified land more than doubled, with an average annual growth rate of 50%. The historical development shows that while the organic farm area has been increasing, total farm area in Iceland has been decreasing.

Looking forward, it is expected that the organic farmland in Iceland will increase, reaching 29,282 hectares in 2020, 41,070 hectares in 2025 and 57,602 hectares in 2030. The share of farm area that is organic is expected to increase to 2.4% in 2020, 4.6% in 2025 and 8.8% in 2030. As the total farmland in Iceland is expected to continue to decrease, while the organic farm area is expected to increase, we expect the organic share of farm area to increase with an average annual growth of 8% between 2017 and 2030.

Both consumers and domestic farmers are increasingly seeing the value of organic goods[43], and its production is expected to increase[44].

Organic production in Iceland faces several challenges. Unfavourable climatic conditions are perhaps the most significant. Although Iceland benefits of its natural heating, which facilitates greenhouse farming, the natural climate is too cold for many agricultural crops.

According to TUN, the Icelandic certification body, organic food has been unable to show its true value in Iceland, especially when it comes to the producers and the government. Producers and farmers prefer to use modern farming techniques. This is slowly changing, however. Since 2017, conversion grants have been available to farmers, who wish to convert their farmland to organic.

[43] TUN.

[44] TUN and Farmers' Association.

Consumers are not aware of the benefits of organic food, creating less demand for domestic organic products and fewer incentives for producers to produce organically.

2.4.3 *Organic users' profile and attitudes*

According to TUN, more and more consumers are buying organic products. A typical organic consumer is a person who is environmentally conscious and aware of his/her health.
Although the impression is that organic is increasing in popularity, there are still several challenges for the organic market in Iceland that are related to consumers.

Consumers are not well-informed of the benefits of organic food. Due to the cold climate, there is less need for pesticides in Iceland, so food is naturally clean, and the idea of clean, pure Icelandic food is widespread. There is little public discussion on the benefits and importance of organic food.

> "Consumers are not very aware of why they should be choosing organic. A lot of work remains to show people why organic is good."
> – Rannveig Guðleifsdóttir, TUN

Much of the food produced in Iceland is viewed as "technically organic", according to the Farmers' Association. There is not a lot of use of pesticides, and apart from some fertilisers, which are not entirely organic, so consumers believe Icelandic food to be "as good as organic"[45].

> "The view is that organic is not necessary, because the Icelandic food is so clean and natural."
> – Rannveig Guðleifsdóttir, TUN

Additionally, the price premium for organic products is high. For some domestic products, the price difference between organic and conventional foods can be as much as 100%. For imported organic products, the price difference is lower. This further creates a barrier to consumption of domestic organic products.

2.4.4 *Organic labels*

Iceland imports most of its organic goods from the EU, so most of the organic products already carry the EU organic green leaf label. Iceland also has its own certification body called TUN. TUN is for organic goods produced in Iceland.

Organic food products produced domestically receive the TUN label. In 2017, EU regulation regarding organic food was adopted in Iceland, meaning that the TUN label requirements now fulfil the EU organic green leaf requirements. This means that any Icelandic product, which qualifies for the TUN label, is also automatically qualified for the EU organic green leaf.

[45] Farmers' Association.

TUN has its own standards for catering, which are not covered by EU regulation. TUN has a voluntary scheme for organic catering, which encompasses restaurants and hotels. According to TUN, the only places certified according to this scheme is one hotel breakfast buffet and one coffee house.

2.4.5 Export and import of organic food

No official statistics for export or import exist and our analysis is, therefore, based on insights gained from qualitative interviews.

Export

According to the Farmer's Association, there are no significant organic exports from Iceland, with the exception of seaweed meal, which is increasing in importance. It is possible that this may change in the future, as Icelandic producers now have the possibility to easily certify their products according to EU standards. Iceland's total exports mainly consist of fish, which is certified according to a different labelling system than organic foods. There is a hope among some farmers that there will be the possibility to export organic to other European countries soon, as organic farmers can now become certified according to the same standards as the EU organic green leaf.

> "The sheep farmers want to export because the market here is very difficult for them. Consumers don't see a difference between organic and non-organic and aren't willing to pay a price premium."
> – Rannveig Guðleifsdóttir, TUN

Not all producers are interested in exporting their goods to third countries. Production of vegetables and dairy products is more domestic, and producers do not want to produce for export, as they cannot even satisfy domestic demand.

Import

Import is important for the organic food market, as this is the source of most organic food sold in Iceland. Iceland's challenging growth possibilities make domestic production difficult, and most of the organic food is therefore imported, mostly from Western Europe, but also increasingly from the United States.

According to the Farmers' Association, 10% of all food imports are organic. Since the retail channel is the most significant channel for organic food, we expect that retail is the main driver of organic imports. Given that organic retail sales are expected to increase, we also expect an increase in organic imports in the future.

2.4.6 Retail sector

The main distribution channel for organic food in Iceland is retail which accounts for almost the entire organic food market[46]. Most supermarkets have an organic section. We have not been able to obtain any accurate data for organic sales within the retail sector.

Most of the organic products in retail outlets are imported products from Western Europe and increasingly from the USA. There are also some direct sales from farmers, as well as REKO-rings[47], but these are very small and limited to the summer months.

2.4.7 Foodservice sector

We have not been able to obtain any accurate data for organic sales within the foodservice sector.

2.4.8 Political agendas towards organic food

There are no specific goals related to either organic production or consumption in Iceland.

Iceland has an agricultural policy in place, and within this policy, there are available grants for producers, who want to convert their farmland to organic. The total amount available is approximately EUR 300,000 per year. This scheme was started in 2017 and is only in its third year now. In 2017, there were not many applications to this programme, according to the Farmers' Association.

A similar fund for conversion support was tried in 2011, which was supposed to last for five years. The programme was not a success, as the funds were quickly depleted and farmers, who applied for funding after 2011, did not receive any[48].

In Iceland's progress report in reaching the UN's Sustainable Development Goals, it states that the government will carry out activities to develop the bio-economy, green solutions and reduce the environmental impact of food production. In order to reach this goal, the report states that organic production must be further developed. According to TUN, however, in the discussion of the Sustainable Development Goals in Iceland, there is very little focus on the importance of organic.

[46] Farmers' Association.

[47] REKO stands for Rejäl Konsumtion, in english "fair consumption". The REKO is a Finish concept for the producer and consumer to meet and at the same time creating a network and logistical system for locally produced food. Typically managed through social media with quick deliveries.

[48] Farmers' Association.

2.5 Norway

Basic economy indicators

- Population: 5,276,968 (2017)
- Population density: 14.5 (2017)
- Area: 365,123 km²
- GDP: EUR 368,389 million
- GDP per capita: EUR 69,300

Source: World Bank, Eurostat, FAOSTAT.

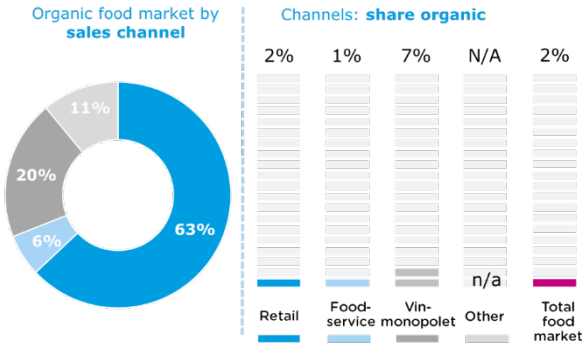
With mainland land area of 365,123 km² and a relatively small population of just over five million, Norway has a low population density of only 14.5 people per square kilometre. A large part of Northernmost Norway is largely uninhabited, and a large portion of the population lives in the warmer south. 3% of Norway's total land area is used for agriculture, and around two-thirds of this are meadows and forage crops, according to the Norwegian Agricultural Purchasing and Marketing Co-op. Norway has, with its state oil fund, a total GDP of over EUR 350,000 million, which translates into almost EUR 70,000 per capita.

2.5.1 Overview of organic market

Retail is by far the most important distribution channel for organic food in Norway. It accounted for 63% of the entire organic food market in 2017, and the share of organic within this sector is 2%. The second largest distribution channel is Vinmonopolet, the state's monopoly retailer for wine and spirits. Vinmonopolet accounted for 20% of the entire organic market in 2017 and 7% of Vinmonopolet's sales are organic[49]. The third significant channel in the organic food market is the foodservice sector. This accounted for roughly 6% of the entire organic food market in 2017. Approximately, 1% of the foodservice market was organic in 2018.

[49] This is an estimate based on data for 2017.

Figure 24: Overview of organic food market (2018)



Note: The sales channels estimates are based on 2017 data. In the calculation of the organic share of the total food market, the channel "other" (including health shops and speciality shops, bakeries, REKO rings[50], etc.) is excluded because data to calculate the organic share is unavailable. These numbers should, therefore, be treated with some degree of uncertainty, but it is our opinion that they give an accurate picture of the organic market in Norway.

Source: Norwegian Agricultural Agency, Ramboll calculations and estimates.

In 2018, 2.2% of the entire food market in Norway was organic. This corresponds to EUR 420 million. The organic food market has seen positive growth in recent years and has grown by almost 40% since 2015, with an annual growth of 15% on average between 2015 and 2018. The main driver of this growth is the popularity of organic food among consumers, which is increasing every year. This is evident from the rising amounts of organic food in retail, foodservice, Vinmonopolet and other distribution channels.

Figure 25: Development of organic food market (EUR million) and organic share of total food sales (%)

Note: In calculating the entire organic food market in Norway, data from the three largest distribution channels has been used. These are retail, Vinmonopolet (the state alcohol monopoly shop) and foodservice. In the calculation of the organic share of the total food market, the channel "other" (including health shops and speciality shops, bakeries, REKO rings, etc.) is excluded because data to calculate the organic share is unavailable. These numbers should, therefore, be treated with some degree of uncertainty, but it is our opinion that they give an accurate picture of the organic market in Norway.

Source: Norwegian Agricultural Agency, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

[50] REKO stands for Rejäl Konsumtion, in english "fair consumption". The REKO is a Finish concept for the producer and consumer to meet and at the same time creating a network and logistical system for locally produced food. Typically managed through social media with quick deliveries.

Looking forward, the total market for organic food in Norway is expected to reach EUR 507 million in 2020, EUR 795 million in 2025 and EUR 1,053 in 2023. This corresponds to an organic share of the total food market of 2.6% in 2020, 3.8% in 2025 and 4.7% in 2030. The average annual growth rate between 2018 and 2030 is forecasted to be 8% on average. The main driver of the future growth will be the continued increase in consumer demand for organic products in the three main distribution channels of retail, Vinmonopolet and foodservice.

Despite a positive outlook towards 2030, there are some factors that may have a negative impact on the development of the organic food market in Norway. One of them is that support for organic farmers does not appear sufficient in order to convince farmers to convert conventional farmland into organic. The transition to organic is expensive, and the Norwegian authorities are not facilitating this transition[51], which is stated to be one of the major hindrances for future developments.

Another reason is diverging interests from the various large farmers' associations. These associations are influential in Norway and have the potential to affect the political agricultural agenda. Interest tends to be more focused on locally sourced products, rather than organic goods[52].

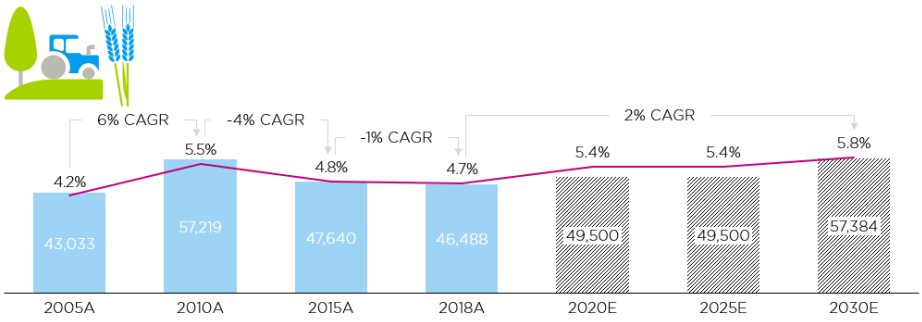
> "Growth conditions are difficult in Norway, especially for organic products. The perspective is that it is more important to protect Norwegian agriculture than facilitate organic production."
> – Jarle Rossavik, Norganic

The largest food distributors in Norway, such as Tine, Bama and Nortura, control a large fraction of the dairy, fruit and vegetable and meat market. They are all cooperatives owned by Norwegian farmers. This has further strengthened the focus on locally sourced food, rather than organic food products. Marketing for these local products has been extensive, and there has thus been less media attention dedicated to organic food. Especially, labels such as Nyt Norge ("Enjoy Norway") have guided consumers towards domestically produced goods and have been clearly visible in the public sphere.

> "Norwegian food is safe food. […] Norway has natural prerequisites, which puts us in a special position when it comes to food safety and animal welfare."
> – Nyt Norge website

[51] Jarle Rossavik, Norganic.
[52] Norganic.

Figure 26: Development of organic farmland (hectares) and share organic (%)



Source: Norwegian Agricultural Agency, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

2.5.2 *Organic farmland*

The total organic farm area in Norway was 46,488 hectares in 2018, constituting 4.7% of the entire farm area in Norway. The development of organic farmland in Norway is following a different pattern than its Scandinavian neighbours. While total organic farm area was increasing by 6% per year on average between 2005 and 2010, after 2010, the total organic farm area started to decrease and fell on average 4% per year between 2010 and 2015. Between 2015 and 2018 the share of organic farm area has decreased further, falling on average 1% per year between 2015 and 2018.

The main reason for the decline of organic farm area is reportedly that there has not been enough support for farmers wanting to convert to organic. Because of Norway's climate, organic production can be recurrently difficult. Norwegian farmers receive government support for organic farming, but in recent years, the organic area restructuring grants have ceased. If governmental support is insufficient, it is likely that this will contribute to fewer producers wanting to convert to organic land[53].

> "The problem is that the transition to organic is very expensive, and the Norwegian authorities are not facilitating this transition."
> – Jarle Rossavik, Norganic

Another reason for the decline is reportedly[54] that because Norwegian farms are relatively small, they are more dependent on a high output per hectare than farmers in Sweden, for example. Farms in Norway are typically small and inputs such as extra organic soil are limited.

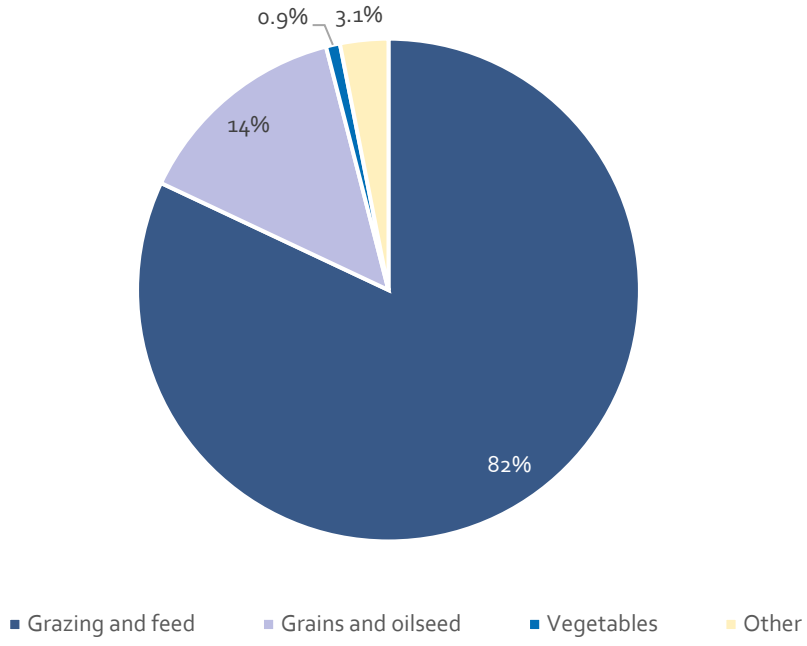
[53] Norganic.
[54] Helle Margrete Meltzer, Norwegian Institute of Public Health.

Even though the total organic agricultural land has been decreasing the past few years, a slight growth during the next ten years is expected, as demand is expected to increase. The Agricultural Agency has published an official forecast up until 2025, stating that they expect agricultural land to increase to just under 50,000 hectares. This comprises 5.4% of the total farm area in Norway.

Based on the expected growth in the consumer market and the Agricultural Agency's forecast for 2025, we expect this positive trend to continue. The total organic farm area in Norway is expected to increase slightly to 57,000 hectares by 2030, comprising 5.8% of the total farm area in Norway. This growth is driven by the increasing trend of organic foods among consumers, which is expected to spread to Norwegian producers, who will be more willing to convert to organic production.

Over 80% of the organic land in Norway is used for grazing and feed for live animals. The second most important use of organic land is grains and industrial crops like rapeseed. Fruit, berries and vegetables account for only around 1.5% of total organic agricultural output.

Figure 27: Use of organic farm area



Source: Norwegian Agricultural Agency.

2.5.3 *Organic users' profile and attitudes*

The organic market in Norway is much smaller than its Scandinavian neighbours, and only around 2% of retail is organic. Still, this is a sector that is growing steadily – from the customer perspective. According to our interviews, the typical organic consumer is a woman of 35–40 years, who has higher education, a stable and high income, lives in a city and has children under the age of ten.

According to a study published in Organic Agriculture[55], there is a "moderate belief in the superiority of organic farming, but Norwegians give relatively low priority to prompting organic farming compared to other agricultural policy goals". The survey showed that 6% of the respondents purchase organic as often as they can.

Among those who rarely or never buy organic food, there was a perception of a lack of superiority regarding taste, health benefits, safety and environment.

> "The most important reasons for buying organic food are health and environmental concerns, while animal welfare has little importance."
> – Citizen and consumer evaluation of organic food in Norway

2.5.4 *Organic labels*

In Norway, Debio has marked organic food and developed organic food in Norway for the past 30 years. Debio manages, regulates and controls organic production and legislation. Their most known certification is the green Ø-label. They also have a sustainability label, called the Demeter label, as well as the value label.

In addition to the green Ø-label, Debio has launched a labelling scheme for restaurants, hotels or other institutions who wish to promote their organic status. The three-tier system involves labels in bronze, silver and gold, which are awarded according to the purchasing value or weight of the organic ingredients.

- Bronze: 15%–49% organic ingredients
- Silver: 50%–89% organic ingredients
- Gold: 90%–100% organic ingredients

[55] Study is based on a survey with 939 Norwegian consumers.

Kitchens can also receive a Ø-label even if they do not commit to a specific share of organic ingredients, but where they offer certain dishes, which are entirely organic. Events such as festivals can also apply for and receive the organic Ø-labels.

2.5.5 Export and import of organic food

Norway is a cold country with shifting weather and limited potential for growing food products. Therefore, almost all food products are at least partially imported from abroad (approx. 60% of all food consumed in Norway[56]). Norway is a large exporter of fish, but this does not fall under the classification of organic.

Export

The amount of organic exports from Norway is very low, according to the Agricultural Agency. No data exist on the precise amounts. Based on our interviews, and the fact that Norway has at least some imports in every food category, it is likely that organic exports from Norway are negligible.

Import

Norwegian Customs do not differentiate between organic and non-organic goods. Therefore, it is not possible to distinguish the import of organic goods from non-organic goods.

According to the Norwegian Agricultural Agency, imports of organic goods vary across the various product groups. More or less all organic dairy products, excluding cheese, are domestic. Organic cheeses are approximately 50% imported from abroad. Organic eggs are 100% Norwegian, while fruits tend to be imported. In 2018, 76% of the fruit, nuts and berries sold through retail were imported, according to the Norwegian Agricultural Agency.

[56] Helle Margrete Meltzer, Norwegian Institute of Public Health.

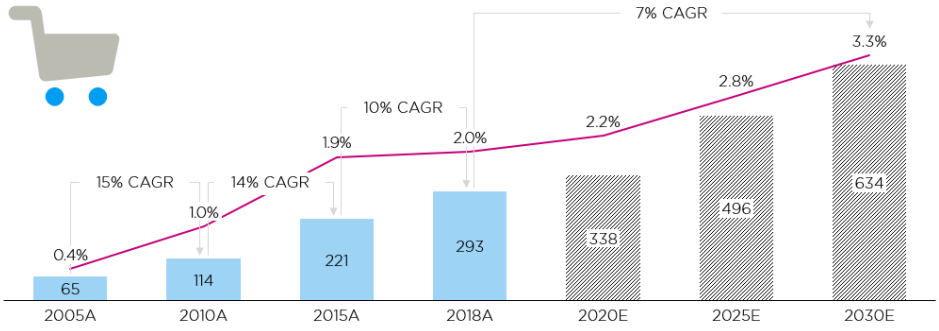
2.5.6 Retail sector

The retail market for organic food has been growing in recent years, as consumers have become more aware of the benefits of organic products.

In 2018, organic retail sales amounted to EUR 293 million. This constitutes approximately 2% of all food retail sales. Organic retail grew on average 14% per year between 2010 and 2015 and almost 10% per year between 2015 and 2018.

Between 2018 and 2030, the organic food retail market is expected to grow, on average, by 7% per year, reaching EUR 338 million in 2020, EUR 496 million in 2025 and EUR 634 million in 2030. The share of the organic within the retail is estimated to be 2.2% in 2020, 2.8% in 2025 and 3.3% in 2030.

Figure 28: Development of organic food and beverages sales within the retail sector (EUR million) and organic share of total food sales within the sector (%)



Note: The organic retail statistics for Norway include data from three categories of food retail stores: Discount stores, such as Rema 1000 and Kiwi; wide assortment stores, such as Meny and Coop Mega; and convenience stores, such as Joker and Nærbutikken. The retail data does not include organic goods sold in speciality health shops, which is included in a separate distribution channel. The CAGR is slightly altered from converting between NOK and EUR, however, this is not deemed to be of major significance.

Source: Norwegian Agricultural Agency, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

The growth rate going forward is slightly lower than the historical rates leading up to 2018. Although a high, sustained growth is expected, driven by the increased consumer demand for organic food, the growth is expected to flatten out in the future, as the initial growth wears off and the market becomes more satiated.

More than half of all organic goods in retail are sold in discount stores, such as Rema 1000 and Kiwi[57]. The share of organic goods sold through these types of shops has increased steadily over the past few years. The increase can be explained by the increasing demand for organic products, which has led to more general shops also stocking organic products[58].

[57] Norwegian Agricultural Agency.
[58] Norwegian Agricultural Agency.

Top 10 organic products in retail

Sorted according to value per product category. Percentage organic included in parentheses.

1. Vegetables (4.2%)
2. Dairy products (2.1%)
3. Cereal products and bakery (2.1%)
4. Baby food (37.4%)
5. Fruit, berries and nuts (2.2%)
6. Eggs (9.5%)
7. Beverages (0.5%)
8. Coffee and tea (3.6%)
9. Meat (0.5%)
10. Spices and condiments (2.6%)

Source: Norwegian Agricultural Agency.

Challenges for organic retail in Norway include the price premium on organic products, which may vary for different product categories. Additionally, as mentioned earlier, the food market in Norway is dominated by Norwegian farmers. There is, therefore, a constant overarching campaign for locally produced food products. This competes with organic products for peoples' attention. Consumers consider Norwegian farmed goods with the Nyt Norge label to be clean, healthy, environmentally friendly and safe, and as a result, often choose these products over organic products.

2.5.7 Vinmonopolet – state monopoly for alcohol

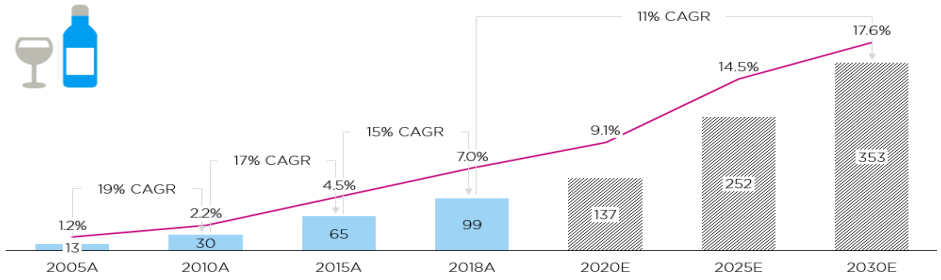
Vinmonopolet is Norway's state monopoly shop for wine and spirits. They have a monopoly for any alcohol over 4.75%. In 2017, the last year in which data is available, organic sales of wine and spirits in Vinmonopolet amounted to approximately EUR 87 million. This constitutes 6% of the total sales.

Although historical data is only available from 2014, Vinmonopolet has seen strong growth in the sales of organic products in these few years. In 2015, sales of organic wines and spirits were EUR 65 million and comprised 4.5% of total sales. Since then, the average annual growth rate between 2015 and 2018 is estimated at 18%.

This growth is expected to continue in the future, albeit at a slightly lower annual rate. It is expected that the current growth of around 17% to continue until 2020, and then a slight slowdown between 2020 and 2025, with an average growth of 13% per year. Progressing further into the future, the market is expected to still experience growth, albeit at a slightly slower pace, between 2025 and 2030. The growth is thefore expected to sustain an average value of 7% between 2025 and 2030, driven by an overall market satuariation, including that of Vinmonopolet.

We thus expect the market for organic wine and spirits to be EUR 137 million in 2020, EUR 252 million in 2025 and EUR 353 million in 2030. The share of organic is expected to reach 9.1% in 2020, 14.5% in 2025 and 17.6% of the total wine and spirits market in 2030.

Figure 29: Development of organic beverages sales at Vinmonopolet (EUR million) and organic share of total sales (%)



Source: Norwegian Agricultural Agency and Vinmonopolet, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

2.5.8 Foodservice sector

The organic foodservice market amounted to EUR 27 million in 2018, corresponding to an organic share of ~1% of the total foodservice market in Norway[59].

The market for organic foodservice has been growing at relatively high rates for several years. Between 2010 and 2015, there was an average annual growth of almost 20%. This has slowed down during the last three years, and the average annual growth rate has been 9% between 2015 and 2018.This growth rate is expected to continue going forward. The market is therefore expected to reach EUR 33 million in 2020, EUR 47 million in 2025 and EUR 67 million in 2030.

In terms of products, dairy is by far the most important product category. The dairy company Tine delivers dairy products to both private and public institutions, such as school milk for children, and ready-to-eat yoghurt in canteens and is thus a significant player in this area. Other important product groups include coffee and tea, and durable dry goods.

Top organic products in foodservice

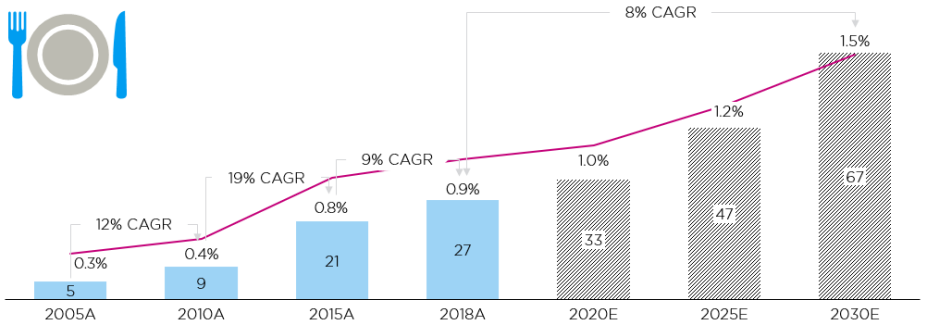
Sorted according to value per product category

1. Dairy
2. Coffee and tea
3. Dry goods
4. Beverages
5. Fruit and vegetables
6. Eggs
7. Meat
8. Other

Source: Norwegian Agricultural Agency.

[59] Based on numbers published in the 2018 report on organic food by the Norwegian Agricultural Agency.

Figure 30: Development of organic food and beverages sales to the foodservice sector (EUR million) and organic share of total food sales within the sector (%)



Note: 1) The estimation of the total and organic foodservice market is based on numbers submitted by the largest wholesalers in Norway. We were not able to find estimates of the Norwegian public foodservice sector. In the other Nordic countries, the public sector is typically only a small share of the total foodservice market but has a relatively high share of organic food. The organic share of foodservice may, therefore, be slightly underestimated. 2) 2009 was the first year that data was collected. Data for 2005 are estimates based on the historical growth rates between 2009 and 2015. The data is collected by the Norwegian Agricultural Agency, in which they have collected numbers from the largest wholesalers active in Norway. The data does not give an accurate image of the organic catering market, but it is an estimate, which, most importantly, shows the trend.

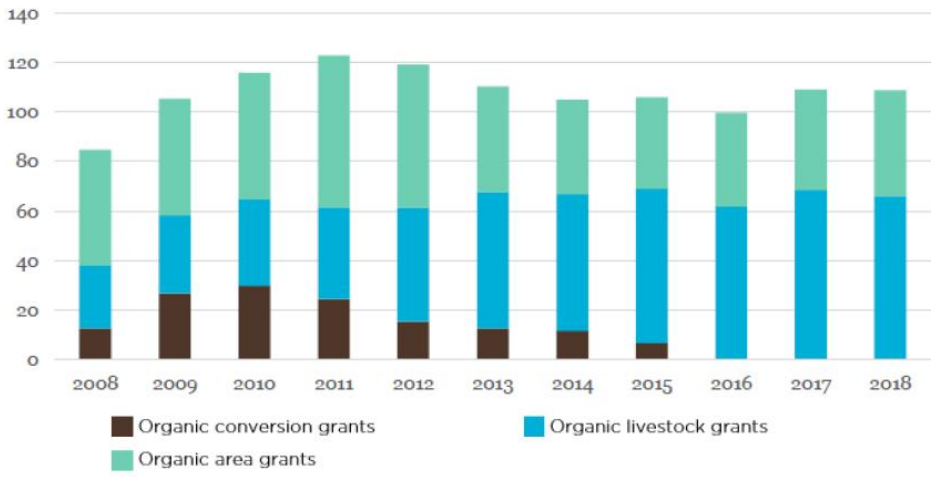
Source: Norwegian Agricultural Agency, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

2.5.9 Political agendas towards organic food

As of June 2018, Norway has a new national strategy in place concerning organic farming, active until 2030. The goal is to stimulate domestic organic farming, which is demanded in the marketplace.

However, the support for organic farming has stayed constant since 2014. The total support for organic farming comprises farm area grants, livestock grants and conversion grants. Since 2010, the conversion grants, for converting conventional farm area into organic farm area, has been diminishing, reaching a level of zero in 2016. There is thus no support for farmers wanting to convert their farmland into organic, implying that they are only eligible for governmental support after they have fully converted their land to organic land. The aim of this, from the government's side, was to simplify the support scheme for organic farmers.

Figure 31: Development of total support to organic farming distributed via the governmental agricultural plan (NOK million)



Source: Norwegian Agricultural Agency.

Norwegian national strategy for organic farming

- EUR 17.8 million allocated for organic farming in 2019;
- The overarching goal of the strategy is to stimulate organic production that is demanded in the marketplace;
- The three focus areas are (1) Knowledge and competency, (2) facilitating organic production, and (3) development of an effective value chain.

Source: Ministry of Agriculture and Food.

2.6 Sweden

Basic economy indicators

- Population: 10,057,698 (2017)
- Population density: 24.7 persons per km²
- Area: 407,310 km² (2017)
- GDP: EUR 467,012 million
- GDP per capita: EUR 45,900

Source: World Bank, Eurostat, FAOSTAT.

Sweden is an EU member, and the biggest country in Scandinavia, both in terms of total land area and population.

Out of a total area of over 447,000 square kilometres, 7% is cultivated land, 63% is covered by forest, 8% by boglands, 9% by fresh water and 3% is urbanised area.

Sweden has a high standard of living, and the country's welfare system is among the world's most comprehensive.

In 2016, agriculture (including forestry and fishing) contributed to approx. 1% of GDP and 2% of total employment.

The agricultural production conditions in Sweden vary considerably, both with regards to the climate and soil quality. In the northern area of Norrland, the growing season is only 4–5 months. The soil quality is quite poor here, with a lot of moraine gravel and marsh. Growing conditions are significantly better along the marine border in central and southern Sweden. The best agricultural area in Sweden, with the highest yield, is southwestern Skåne's moraine soil habitat. The growing season here is usually 8–9 months, approximately twice as long as in the northern regions.

2.6.1 Overview organic market

The Swedish food market reached a total value of approximately EUR 29 billion in 2018. Organic food sold via various channels amounted to EUR 2,691 million, corresponding to 9.3% of the total food market in Sweden[60].

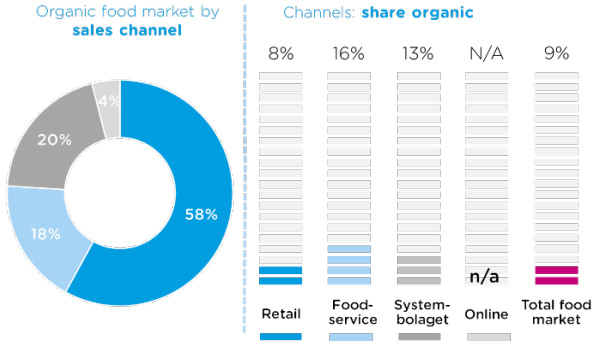
The organic food market has increased at an average annual growth rate of almost 5% between 2015 and 2018. In the most recent years, however, the growth has been somewhat lower[61], as organics have gained more competition from other alternatives for healthy and conscious food. This includes locally and sustainably produced goods and vegetarian products, which have received more attention to retail campaigns.

[60] Ekoweb.
[61] Ekomatcentrum.

Approximately 60% of the organic food in Sweden is sold via the retail channel. Although the retail sector accounts for the largest share of the organic food sales in Sweden (~60%), it is still lower than the retail channel's share of the total food market, by which 80% of all food is sold via the retail channel.

Other significant channels for organic food include the foodservice sector (~18%) and Systembolaget (20%), the state monopoly retailer for alcoholic beverages. Online sales[62] of food is a relatively new channel but experiencing significant growth.

Figure 32: Overview organic food market (2018)



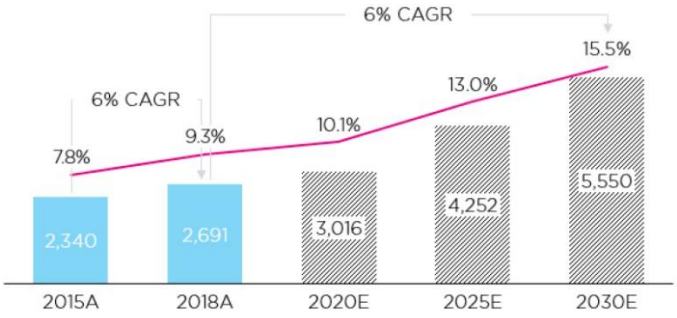
Note: 1) The split in channels is based on estimates and should, therefore, be treated with some degree of uncertainty. However, it is our opinion that they give an accurate picture of the organic market in Sweden. 2) Retail includes health food stores, Circle K (former Statoil), Shell, 7-Pupil and Pressbyrån, box sales, market trading (EUR 9.5 million), farm sales (EUR 19 million), speciality stores, organic stores and other.

Source: FIBL, Ekoweb, Ramboll.

Organic food accounted for 9.3% of the total food market in 2018 (EUR 2,691 million). Despite a slight slow-down in the growth during a recent couple of years, reportedly driven by a preference shift from organics to locally produced and vegan/vegetarian food, the organic food market is expected to continue to grow. The growth is driven by increasing demand for organic food within all channels and will reach 10% in 2020 (EUR 3,016 million), 13% in 2025 (EUR 4,252 million) and 15.5% in 2030 (EUR 5,550 million). The largest growth is expected within Systembolaget, although the outlook for the retail and foodservice sectors is also positive, especially with regards to the public share of organic purchases in the foodservice sector.

[62] Note that online sales are not shown separately for the other countries as the data is not available.

Figure 33: Development of organic food market (EUR million) and organic share of total food sales (%)



Note: Historical and the future estimations of the entire food market in Sweden are based on individual estimations for the largest channels, i.e. retail, foodservice and Systembolaget, that amount to approximately 96% of the total market in Sweden in 2018. Other channels are excluded because there is not sufficient data to forecast sales and organic shares for these channels. Numbers in this figure should, therefore, be treated with some degree of uncertainty. It is, however, our opinion that they provide an overall accurate picture of the organic food market.

Source: Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

2.6.2 Organic farmland

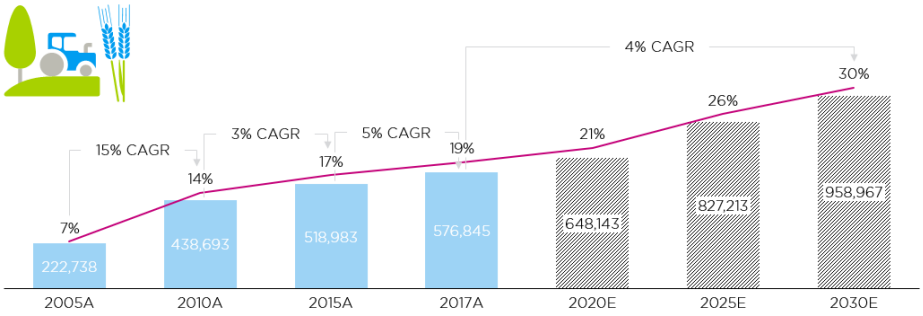
Organic farmland in Sweden has nearly doubled during the last 10 years and amounted to 577,000 hectares and 19% of the total farmland in 2017.

Organic farming has since around 1990 become an increasingly important factor in the national agricultural policy. In 1994, the Swedish parliament set a goal that by the end of 2000, ten per cent of the arable lands should be using organic methods. The goal was reached, in fact, 11% of Sweden's arable land was in 2000 either certified organic or was using the national support programme for organic farming[63].

The Swedish government launched a new overall target at the end of 1999, 20% organic farmland in 2005. At the same time the Organic Farmers Association adopted a target that implies that by 2010, 30% of all farmland production should be organic. Current national goals state a target of 30% organic farmland in 2030

[63] Ekoweb, Organic Sweden.

Figure 34: Development of organic farmland (hectares) and share organic (%)

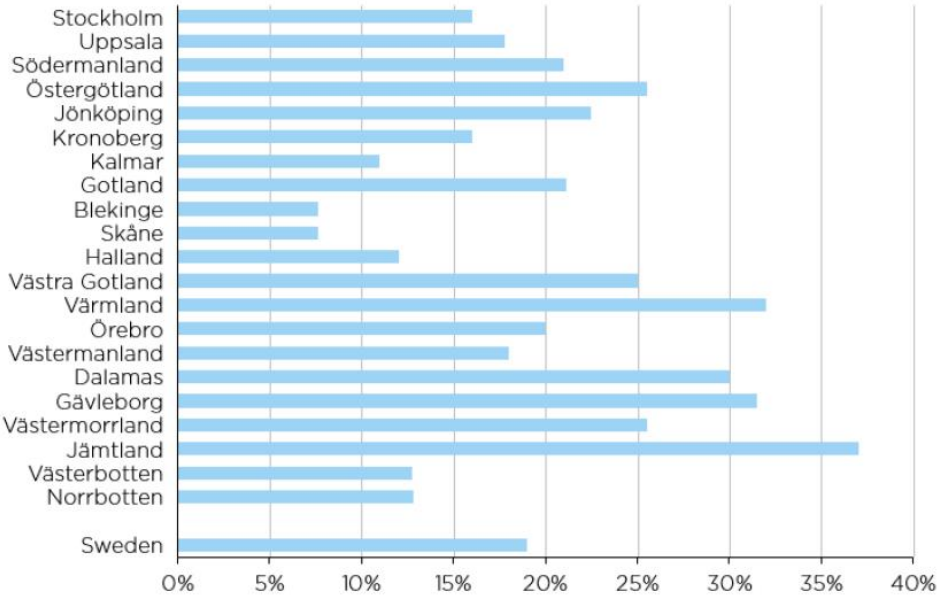


Source: FiBL, Ekoweb, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

There is a large spread, in terms of Swedish counties' share of organic farmland. One county that has already achieved the 30% organic farmland goal is Jämtland, where 37% of the area is organic. Värmland and Gävleborg are also over 30%.

Two large agricultural provinces with a high organic farmland share are Västergötland and Östergötland, each with about 25% of the total farm area being organic. Skåne is one of the counties with the lowest organic shares at ~8%, but at the same time, it has increased its share of organic farmland very rapidly in the past few years (47% in 7 years).

Figure 35: Share of organic in relation to the total area of agricultural land per county (2017)



Source: Swedish Board of Agriculture's statistics.

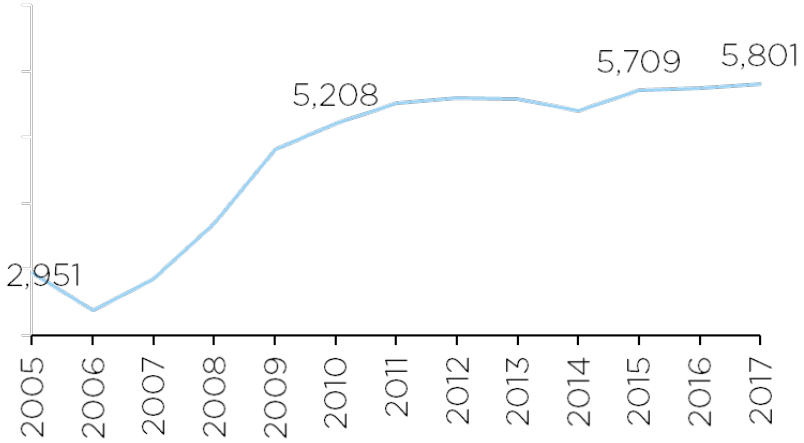
The organic farmland in Sweden is expected to continue to grow, driven by the increasing customer demand for organic production (incl. demand for locally produced organic goods) and the political push to increase organic farmland in the individual municipalities[64].

It is our opinion that an organic farm area share of 30% is a realistic forecast for 2030, given the latest developments within the individual municipalities. The organic farmland is therefore estimated to reach 648,143 hectares in 2020, 827,213 hectares in 2025 and 958,967 hectares in 2030, corresponding to shares of organic farmland of 21%, 26% and 30% in 2020, 2025 and 2030, respectively.

Top organic products produced in Sweden include cereals, protein crops, milk and beef.

There were 5,801 certified organic producers registered in Sweden in 2017. This number has been increasing since 2005 when 2,951 producers were certified as organic.

Figure 36: Number of certified producers



Source: FiBL.

2.6.3 Organic users' profile and attitudes

The number of consumers interested in organic food (and often willing to pay more for organic food) has increased from 27% of Swedes in 2005 to 38% in 2015[65] and is reportedly closer to 40% at the current moment.

Customers putting organic products in their shopping carts are typically characterised as women between 35 and 60 years of age, have an above-average income, and a higher than average level of education[66].

[64] Swedish faming association Ekologiska Landbrukerna and Ekoweb.

[65] "Swedish Consumers' Perception of Food Quality and Sustainability in Relation to Organic Food Production" by Techane Bosona/Department of Energy and Technology, Swedish University of Agricultural Sciences.

[66] "Swedish Consumers' Perception of Food Quality and Sustainability in Relation to Organic Food Production" by Techane Bosona/Department of Energy and Technology, Swedish University of Agricultural Sciences.

During the past year especially, a lot of attention has been drawn to sustainability, and other health and environmentally friendly trends. Marketing campaigns by retail chains have focused on these areas, as well as alternatives to organic food (e.g. vegetarian and locally produced/Swedish products).

There is an overall impression that Swedish consumers are uncertain of what a sustainable choice constitutes in terms of food products, especially as organic products and other products are marketed in similar ways.

However, despite the trend shifts mentioned, consumer demand for organic food is still expected to grow in the future, as organic food is already well-positioned in Swedish households. Swedish consumers prefer products with a low level of processing, that are healthy and produced in an environmentally friendly way. Especially locally produced organic food is expected to increase in popularity.

2.6.4 Organic labels

The Swedish organic market is dominated by labelling systems, the EU organic green leaf and the Swedish KRAV label.

EU organic certification is mandatory for all products to be marketed as organic while KRAV certification is a voluntary addition to the EU rules, including more requirements related to social responsibility, animal welfare, climate and health.

Around 80% of all organic products sold in Sweden were KRAV-labelled in 2010. Since 2010, the share of organic products that carried the KRAV label has declined, especially during the last 3–4 years. The main reason that producers choose to not use the KRAV certification is that labelling according to the EU organic green leaf requirements is less strict, and the overall process is simpler[67].

Despite the declining market shares, the KRAV label is still regarded as a leading and value-adding certification in Sweden. It is regarded as a well-established organic label for food, with a high level of consumer awareness. Therefore, environmentally conscious consumers are still willing to pay more for a KRAV-labelled product than a product with only EU organic labelling, especially in the animal products segment.

Also the foodservice has its own KRAV label, with three stars for restaurants serving at least 90% organic food, two stars for restaurants serving at least 50% organic food and one star for restaurants serving at least 25% organic food.

[67] Ekoweb.

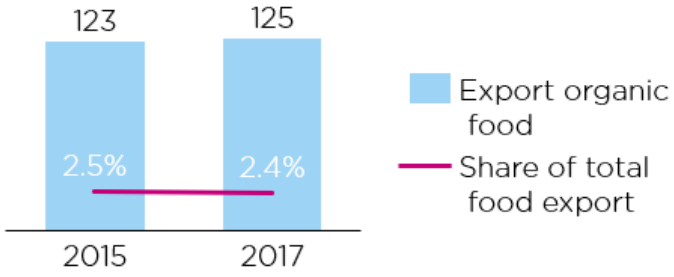
2.6.5 *Export and import of organic food*

Export reports published by Organic Sweden show that Sweden is a net importer of organic food. Only within the category of grains does the export exceed import.

Export

Exports of Swedish organic food amounted to EUR 125 million in 2017[68], meaning a 2% increase from 2015 (EUR 123 million).

Figure 37: Organic exports (EUR million) and share of total export (%)



Note: The survey was based on telephone interviews with 34 Swedish companies, both large and small organic producers and exporters. These numbers should, therefore, be treated with some degree of uncertainty, but it is our opinion that they give an accurate picture of the exports of organic food in Sweden.

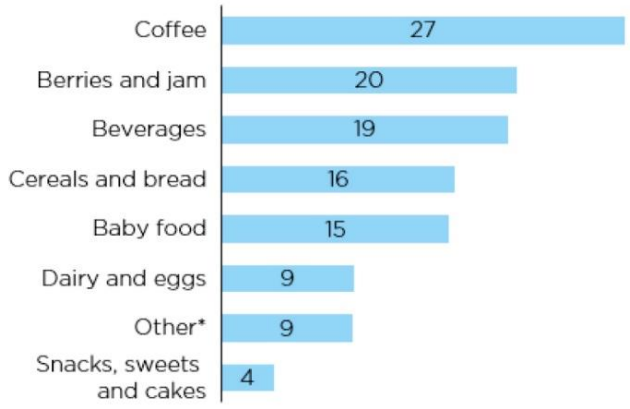
Source: Maclean on behalf of Organic Sweden and Ekologiska Lantbrukarna, Ekoweb, Ramboll calculations and estimates.

According to Organic Sweden, exports increased primarily among those companies that already have significant export quantities.

The majority of exports of organic food is exported to other Nordic countries (mainly Denmark), followed by Germany and the rest of Europe. Coffee, berries and jams, beverages, cereals and bread are the largest export categories within organic food exports.

[68] Data collected by Maclean in 2017 on behalf of KRAV.

Figure 38: Largest organic export categories (2017, EUR million)



Note: *Other consists of meat, spices and ready meals.

Source: Organic Sweden.

According to Organic Sweden, the main challenges faced by Swedish exporters is lack of competences and knowledge with regards to export markets and regulations which many consider heavy and difficult to access.

Import

Similar to several other countries, Swedish customs do not differentiate between organic and non-organic food products. It is therefore not possible to distinguish between import of organic goods and non-organic goods.

Although we have not been able to obtain any quantitative data about the import of organic food to Sweden, according to Organic Sweden, the typical organic product groups include fruit and vegetables, long-lasting goods, alcohol (wine and beer), coffee, tea, bananas and fish.

2.6.6 Retail sector

Organic food sales within the retail sector amounted to EUR 1,638 million in 2018, corresponding to ~8% of the total food sales within the sector.

High sales efforts focused on organic profiling among retailers, the general trend of a healthy lifestyle, and even food-related scandals receiving wide media attention have all contributed to a strong increase in organic food sales between 2005 and 2015.

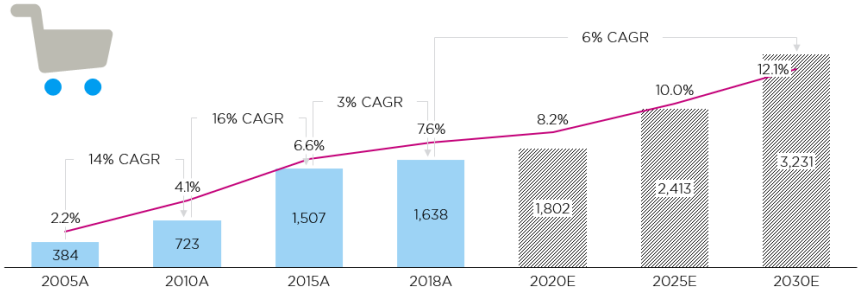
Between 2010 and 2015, organic sales in retail grew on average by 16% per year. Following these years of booming growth, the Swedish organic retail market slowed down slightly, with an average growth in organic sales of 3% per year between 2015 and 2018. This was to a large degree driven by a shift in focus from the organic to other healthy and environmentally friendly alternatives that large retail chains put on their store shelves, providing customers with many new alternatives. Based on held interviews, it is clearly our impression that this trend is not driven by a decreased

customer demand, but rather that consumers are uncertain of what is a sustainable choice in the store shelf, as organic is not always the given option anymore. Furthermore, the retailers focus less on organic profiling than before, and recently there have been only a few purely organic marketing campaigns. Despite this development, most of the retailers have reported a slightly increasing growth rate of organic sales in 2018[69].

> "The awareness and expectations of our customers are increasing in terms of sustainbility."
> – Maria Smith, Environmental Manager ICA (sourced from Ekoweb report)

Another explanation to the stagnation in growth of organic sales is that the stagnation is a natural development, as it is easier to increase organic sales when the share of organic is at 2–5%, but it is much harder when the share is above 8%, where the large players like ICA, COOP and Axfood are now. The main growth is now occurring among the smaller market players in the retail sector, that have organic shares of below 5% (e.g. Lidl and Netto).[70]

Figure 39: Development of organic food and beverages sales within the retail sector (EUR million) and organic share of total food sales within the sector (%)



Note: The figures are to some extent uncertain, as they do not include the comprehensive retail market. Some market players report only some years or refuse to share their statistics for publicity.

Source: Ekologisk Livsmedelsmarknad, Ekoweb, FIBL, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

> "One thing that stands out is that the rate of increase in retail trade has slowed down considerably. This is probably because less organic priority has been given to campaigns and shop shelves. Despite this, sales have nevertheless increased among all players."
> – Cecilia Ryegård /Ekoweb (sourced from Ekoweb report)

Despite the stagnated growth in recent years, the organic food market is forecasted to grow by approximately EUR 100 – 150 million per year going forward, driven by retailers with currently lower organic shares (e.g. Lidl and Netto), that still have the capacity to increase their organic shares. Increasing sales within the private label organic brands and sales of Swedish organic products are also expected to drive the market growth. As

[69] Ekoweb.
[70] Ekoweb.

reported by Ekoweb, product development continues and more organic articles, especially within the private organic label segment, will be launched on the Swedish market during the next few years.

Going forward the organic retail food market is therefore forecasted to reach EUR 1,802 million in 2020 (8% of total retail food market), EUR 2,413 million (10%) in 2025 and EUR 3,231 million (12%) in 2030.

> "Swedish consumers are showing an increasing interest in organic food. Those who previously might have just bought milk, coffee and bananas have regularly started to put other organic products into the shopping cart. […] The health trend is one of the strongest drivers."
> – Cecilia Ryegård /Ekoweb (sourced from Ekoweb report)

> "Organic has its obvious place in the health and climate debate and as long as these values are on the wallpaper, the market has its own internal power to be able to grow by about EUR 100 million a year."
> – Cecilia Ryegård /Ekoweb (sourced from Ekoweb report)

> "Organic has a significantly higher proportion of Swedish-produced than conventional foods. If you buy organic, you buy more Swedish. More Swedish agriculture has also begun a restructuring period during the year, so more organic raw material is to be expected in the future."
> – Cecilia Ryegård /Ekoweb (sourced from Ekoweb report)

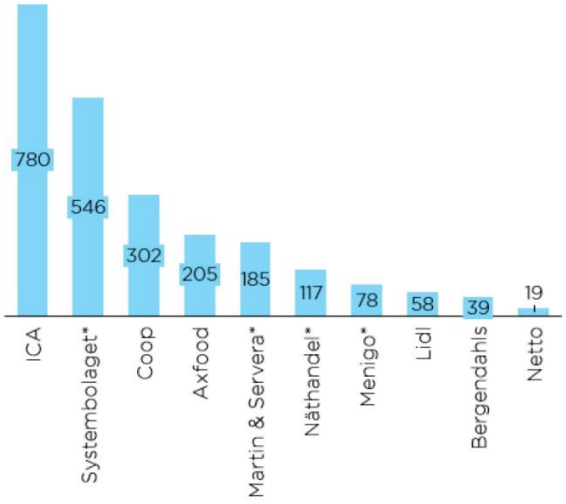
Mid-priced and private-label brands, mostly from Swedish companies, dominate the organic food landscape. The proportion of private organic label products is increasing and most of the large retail chains have their own private organic brand. It also means that retailers have gained more space and influence within the development of the organic food sector.

The most popular and successful private label brands include ICA's "I love eco". In many product segments, the brand has taken a step up to the premium class, because "I love eco" and ICA have very high credibility among consumers. Especially oatmeal and bacon with the "I love eco" brand are products with a high price premium. Other strong private label brands include "Garant", "Änglamark" and "Ängens", which have all strong brand within the organic dairy sector and according to Ekoweb have challenged Arla and other large dairy producers.

ICA is the largest market player and accounts for approximately one-third of the organic food sales in Sweden.[71]

[71] Ekoweb.

Figure 40: The largest market players within the Swedish organic food market (2018, EUR million)



Note: 1) The list above includes the largest market players from all sectors selling organic food and not only retail. Systembolaget is own category (and not included in the retail sales) and Menigo, Martin and Servera are categorised within the foodservice sector. Nethändel is online sales (also own category).

Source: Ekoweb.

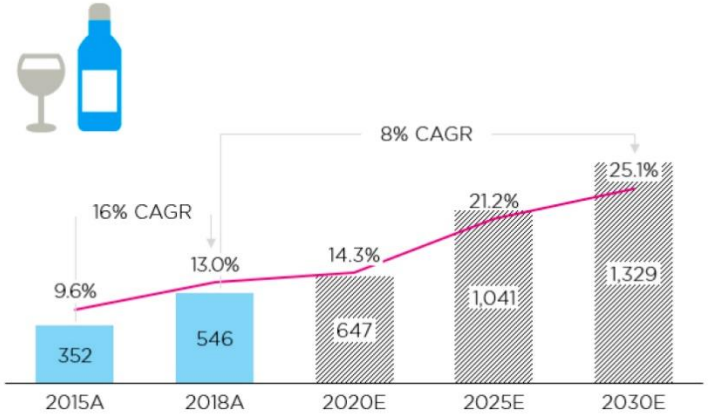
2.6.7 Systembolaget – state monopoly for alcohol

The Swedish state-owned company Systembolaget is Sweden's second largest player on the organic food market. It is the only retail store allowed to sell alcoholic beverages that contain more than 3.5% alcohol by volume. At present, Systembolaget offers over 1,700 organic articles, most of which are wine. Wine is the category with the largest organic share of 22%.

Its position as a monopoly retailer within the alcohol sales enables it to impact the range and type of products that Swedish people buy. Systembolaget has for several consecutive years increased its sales of the organic range and the internal share target of 10% in 2020 was achieved already in 2015.

The organic share of Systembolaget's total sales amounted to 13% in 2018 and the value of organic products sales to just over EUR 546 million.

Figure 41: Development of organic beverages sales at Systembolaget (EUR million) and organic share of total sales (%)



Source: Ekoweb, Systembolaget, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

The organic sales within Systembolaget have grown at an average annual rate of 16% between 2015 and 2018. The forecasted organic market size and share are somehow lower than the historical growth due to a general slowdown in organic food and beverage sales in Sweden over the most recent years. The market is estimated to grow by 8% on average from 2018 to 2030 and reach EUR 647 million in 2020, EUR 1,041 million in 2025, and EUR 1,329 million in 2030. The share of organic sold in Systembolaget is estimated to be 14% in 2020, 21% in 2025, and 25% in 2030.

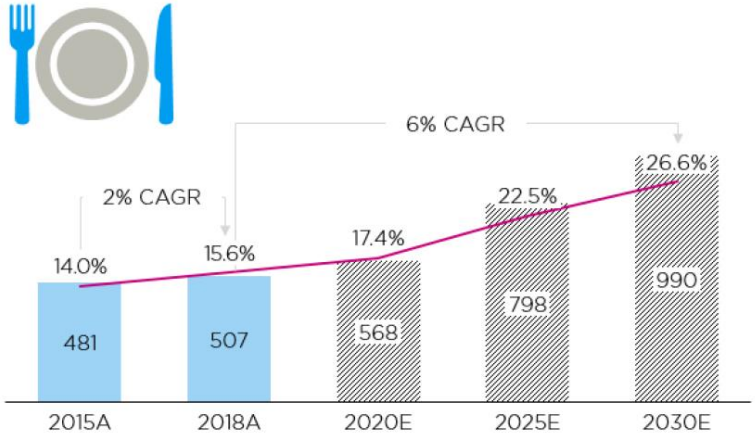
2.6.8 Foodservice sector

The total foodservice market is estimated at EUR 3,245 million in 2018 and was split between the private part (hotel and restaurant and large households) with organic sales of approximately EUR 2,340 million (approximately 70%) and the public market with sales of approximately EUR 900 million (approximately 30%)[72].

In total, the foodservice sector sold organic food for approximately EUR 507 million in 2018 corresponding to an organic share of 16% of the total foodservice sector.

[72] Ekoweb.

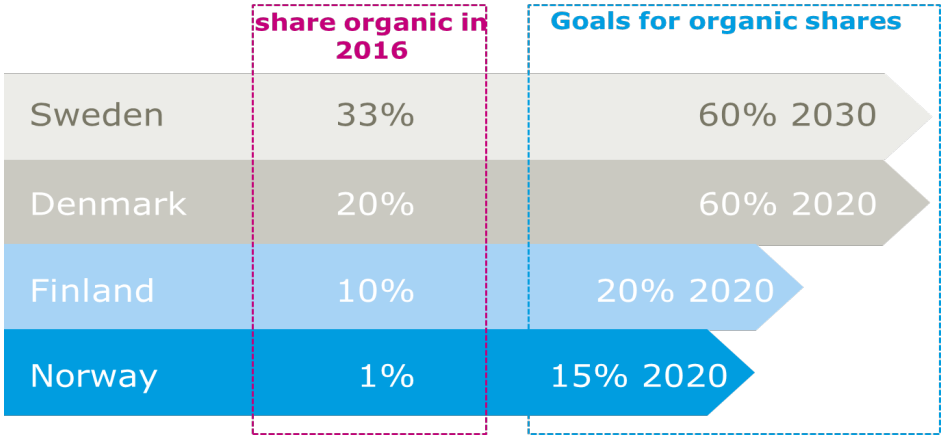
Figure 42: Development of organic food and beverages sales to the foodservice sector (EUR million) and organic share of total food sales within the sector (%)



Source: Ekoweb, Ramboll calculations and estimates. CAGR: Compound Annual Growth Rate, A: actual, E: estimate.

Although the private sector accounts for the largest share of the total foodservice market, it is clearly the public sector driving the organic sales within the foodservice in Sweden. Less than 10% of the private sector sales are estimated organic, while organic sales within the oublic sector correspond to 37%[73]. In 2018 private hotels and restaurants and large households sold organic food for EUR 175 million, while the public market had sales of EUR 330 million.

Figure 43: Organic goals and shares within the Nordic public sector (2016)



Source: EkomatCentrum 2018, Ramboll.

The focus on organic food in the foodservice sector is clearly visible. Organic has, however, as mentioned, recently gained more competition from other types of food,

[73] Ekoweb assessment, EkoMatCentrum, DKAB Service AB.

including locally and sustainably produced goods and vegetarian products. This trend is similar to that seen in the retail sector. This can be also observed via exposure in social media, where there is much less focus on organic than in e.g. 2015–2017.[74]

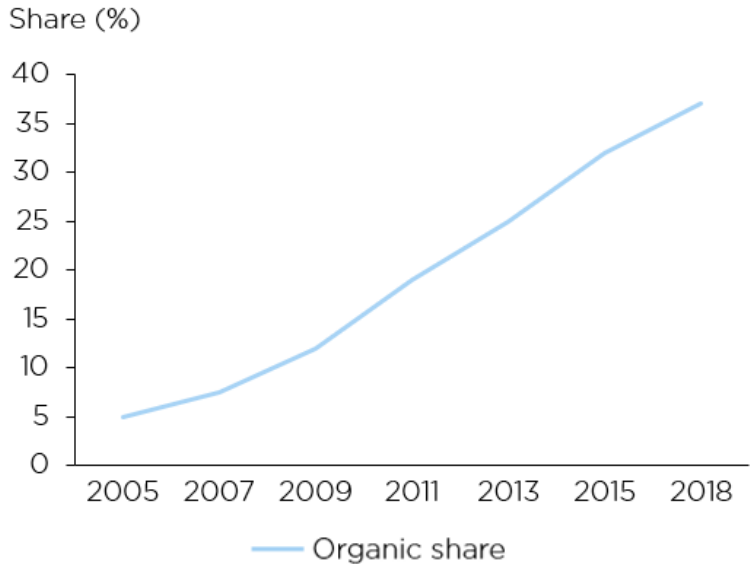
Despite the only moderate increase in foodservice sales over the last years, Sweden is still the country in the world that has the highest proportion of organic food in its public purchases.

Schools are among the institutions with the highest organic rates within the food purchases: 53% in preschools, 61% in primary schools and 33% in secondary and upper secondary schools. The elderly care sector also has a high rate of organic purchases, corresponding to 33%.[75]

The proportion of organic food in the municipalities and counties has been steadily increasing during the last years, from ~5% in 2005 to ~37% in 2018. Among the municipalities with the highest organic shares are Vellinge municipality (80% organic purchases), Lund municipality (74%), Malmö (63%) and Örebro (63%).

> "A third of the country's municipalities and regions have organic target of 25%, and more than half (60%), have a much higher target which is between 26–50%."
> – Eva Fröman, Ekomatcentrum (sourced from Ekoweb report)

Figure 44: Organic foodservice within the public sector



Source: EkomatCentrum 2018, Ramboll.

Driven by the increasing shares of organic food purchases within the public sector, organic food sales within foodservice are estimated to increase towards 2030. The

[74] Ekoweb.

[75] Source: Ekomatcentrum, DKAB Service AB. The data is based on data from 130 municipalities, county councils and regions. The term "Swedish" also refers to processed products manufactured in Sweden.

sector has experienced a continuous increase in the organic share during the past 10–15 years. The efforts by the individual municipalities to increase their organic shares are expected to drive the development going forward. According to Ecomatcentrum, the Government's target of 60% organic within the public sector in 2030 is within reach. Based on historical developments and future outlook, Ramboll's estimate is that 56% of food purchases in public kitchens will be organic in 2030. Despite the overall slowdown in the private sector, we still expected an increasing demand for organic food in Sweden in the foodservice sector, driven by increased consciousness and awareness surrounding health among the consumers.

Based on the above factors, the organic sales to foodservice sector are estimated to reach EUR 568 million in 2020, EUR 798 million in 2025 and EUR 990 million in 2030, corresponding to organic shares of total foodservice sales of 17%, 23% and 27% in 2020, 2025 and 2030, respectively.

The public foodservice market is dominated by three main players, Martin and Servera (53% of the public sector), Menigo (49% of the public sector) and Svensk Cater (7% of the public sector). Wholesalers have been overall important for the organic development within the public sector, as they set their own organic goals for sales to the public customers. They have therefore been able to provide their customers with organic products even though demand has been somewhat larger than the supply.[76]

Table 1: Wholesalers' goal for organic sales to public customers

Menigo	Goal: 20% organic until 2020 Current (2017) 14%
Martin & Servera	Goal: 40% organic until 2020 Current (2017): 30%
Svensk Cater	No organic goals

Source: EkomatCentrum 2018.

Coffee and tea, eggs, meat, milk and dairy, legumes and seeds are the typical organic product purchased within the public sector.

A large proportion of the organic food sold to the public sector in Sweden is of Swedish origin. Eggs, meat, milk and dairy are largely Swedish. This also applies to ready meals (whole and semi-finished products). The remaining organic products sold to the public foodservice sector are often imported.[77]

2.6.9 Online food sales

[76] Ekoweb.

[77] Source: Ekomatcentrum, DKAB Service AB. The data is based on data from 130 municipalities, county councils and regions. The term "Swedish" also refers to processed products manufactured in Sweden.

More and more organic food is purchased via online shopping. The organic share within the online food sales was 21% in 2018, more than twice compared to the organic purchases in the retail sector.
Online sales of organic food amounted to EUR 555 million in 2018, a 16% increase from the year before (EUR 480 million).[78]

Online sales are still a relatively small share of total food sales in Sweden (~2%), although reportedly a large proportion of customers purchase food online (31% in 2018, 25% increase from 2015[79]). According to Svensk Digital Handel, the industry expects a continued increase in sales in the future.

> "In ten years, most people will wonder why three hours of a Saturday were spent in one supermarket, putting goods in a shopping cart, loading them into the car, etc. It is clear that you should shop online."
> – Jonas Arnberg, HUI Research (sourced from Ekoweb report)

The increase in online food sales is an important driver of the organic food sales in general, as online consumers typically buy twice as much organic food as those making their purchases in store.[80] The organic range is also often much easier to access in online stores than in the physical stores, due to search engines online.

According to Ekoweb's assessment, online organic food sales will double during the next couple of years, and this growth will continue going forward, driven by:

- Customers who buy food online are, to a great extent, overlapping with customers interested in organic goods;
- Online, the smaller assortments also get the same physical space as the larger ones. Organic products are therefore easier to access;
- Smart applications.

The largest market players within the organic food trade online are MatHem.se (organic share of 25%) and Mat.se (16.4%).

> "When organic gets as much exposure as conventional, and becomes easy to find, it sells considerably more. The restriction on the retail market is still that consumers often find it difficult to find the products and spend time searching. In the store, product placement is crucial for sales."
> – Cecilia Ryegård /Ekoweb (sourced from Ekoweb report)

2.6.10 Political agendas towards organic food

[78] HUI Research/Svensk Digital Handel.
[79] HUI Research/Svensk Digital Handel.
[80] Ekoweb.

The national food strategy aimed at the year 2030 was adopted by the Government in 2017 and is the first Swedish food strategy that covers the entire food chain and aims to contribute to the full potential of the entire food chain. This means an increased and sustainable production of food that can lead to more jobs and sustainable growth throughout the country and give consumers better conditions for making conscious choices.[81]

One of the goals of the strategy is a national target stating that 30% of the Swedish agricultural land will be certified organic agricultural land in 2030. Another national goal is that 60% of public food consumption shall consist of certified organic products in 2030.

A National Food Strategy for Sweden

A platform set to shape Swedish food policy until 2030. It sets out a framework for continued work on developing a competitive, sustainable food supply chain leading up to 2030, aimed at the entire food supply chain.

Goals concerning organic foods:

- 30% organic farmland in 2030
- 60% organic within the public sector food purchases

Source: Government.se

[81] Government Offices of Sweden.

2.7 Faroe Islands

Basic economy indicators

- Population: 49,290 (2017)
- Population density: 35,3 (2017)
- Area: 1,396 km2
- GDP: EUR 2,515 million
- GDP per capita: EUR 50,490

Source: World Bank, FAOSTAT.

The Faroe Islands is an autonomous region of Denmark since 1948. It is linked to the EU through a trade deal, but is not an EU member, as opposed to Denmark.
There are only apprixmately 50,000 people living in the Faroe Islands, of which 21,000 in the capital of Tórshavn. 85% of the population can be reached within one hour's drive. They are not that clustered together, but the distances are not large either.

There is no natural forest on the Faroe Islands. The vegetation is instead characterised by grassy hills and mountainous and heath vegetation.

The most important industry in the Faroe Islands is fishery. This accounts for 95% of Faroese exports.[82] 6% of the Faroese land area is cultivated. This corresponded to about 8,376 hectares in 2018.[83] Most of this is grasslands. The traditional cultivation of potatoes, barley, turnips and vegetables has almost ceased. The agricultural production in the Faroe Islands is not as large and varied as in the other countries. All agricultural products produced in the Faroe Islands are sold domestically. Much of the farmland is state-owned, with farmers who then rent this land. The agricultural sector is dominated by sheep farming, and the sheep graze freely in the hilly areas.

2.7.1 Overview of organic market

Organic food as a concept is not as well-developed in the Faroe Islands as it is in the other Nordic countries. There are no official statistics regarding the different areas of the organic market in the Faroe Islands. Insights, gained from several interviews and conversations with producers and retail outlets, indicate that organic has a lesser presence in the Faroe Islands than the other Nordic countries, but among consumers, the popularity of organic products is increasing.

> "People have a feeling of how things are done in the Faroe Islands. Sheep walk around in the mountains, roaming around. Production is not 100% organic, but very close, so the view is that there is no need for organic."
> – Oyvindur av Skarði, Ministry of Foreign Affairs and Trade

[82] Ministry of Foreign Affairs and Trade.
[83] Store Norske Leksikon.

In 1994, there was an interest for organic food in the Faroe Islands, and discussions about a national organic certification system arose. The idea never developed further, however. Two producers are using the Icelandic certification system. There is one brewery on the Faroe Islands, which produces one beer that is certified organic according to the Icelandic TUN system, and one small island, which has some organic production according to the same scheme.

From the consumer perspective, data shows that the popularity of organic products is increasing[84] and retail shops are advertising for organic products.

The market for organic food faces several challenges in the Faroe Islands, however. There is a widespread belief that purchasing organic gives no added value, as conventional Faroese products are viewed as being "almost" organic. In addition, there is a slight price premium for organic goods. FK Coop, a major retailer in the Faroe Islands, estimated the price premium per kg of organic product to be around EUR 0.3. This estimate varies for different products.

Since there is no major push from consumers to buy organic products, this influences the few producers' outputs. The fact that there is no strong consumer push for organic products, and no export of agricultural foods from the Faroe Islands, means that farmers have few incentives to certify their production as organic, according to the Ministry of Foreign Trade and Affairs.

> "Fish comprising 95% of exports is one of the reasons why there is no real need for organic certification."
> – Oyvindur av Skarði, Ministry of Foreign Affairs and Trade

2.7.2 Organic farmland

Out of the 8,376 hectares of land area in 2018, none of this was certified organic. This does not mean that organic production does not occur in the Faroe Islands, but it is not certified.

In Faroese agriculture, very little pesticides are used, as it is not that necessary. Sheep graze freely, so food produced domestically almost fulfils the requirements for organic food, according to the Farmers' Association. All of the animal feed, however, is imported and this is not organic, meaning that the food produced on the Faroe Islands is not entirely organic either.

2.7.3 Organic users' profile and attitudes

Organic food is becoming increasingly popular among Faroese consumers.[85] It is estimated that organic consumers are likely to be educated people, who have lived abroad, and who are more conscious about their health. The data received from a

[84] Data from a large retailer in the Faroe Islands.
[85] Faroese Agricultural Agency.

retailer in the Faroe Islands clearly indicates that the share of organic sales is much larger in shops closer to Tórshavn, the capital. The selection of organic products is growing each year[86] and most shops have at least some organic goods.

Although some consumers are willing to pay a higher price for organic goods, the price premium is estimated to still represent a significant barrier to more purchases of organic goods.

Other important sales channels in the Faroe Islands include farmers' markets, but there is no data about total size or organic shares available in this area.

2.7.4 Organic labels

There is no national certification system or label for organic food. Implementing an organic certification scheme is expensive, and is not deemed as necessary, as there is already a high level of trust between producer and consumer, and no exports of agricultural goods.[87]

According to the Agricultural Agency, the Icelandic TUN label and the Danish red-Ø label are frequently used, as a lot of organic imports originate from Iceland and Denmark.

2.7.5 Export and import of organic food

There are currently no agricultural exports from the Faroe Islands. No data on imports is available.

Export

As already mentioned, 95% of Faroese exports are fish, but there are to our knowledge no data with regards how large share (if any) of these are certified organically. There are no agricultural exports. The Faroe Islands cannot export agricultural products to the EU, because there is no trade deal in place for this. There are two Faroese companies that have requested organic certification, and the Ministry of Foreign Affairs and Trade has stated that if some sort of certification is acquired, it is likely that exports of seaweed will grow.

Import

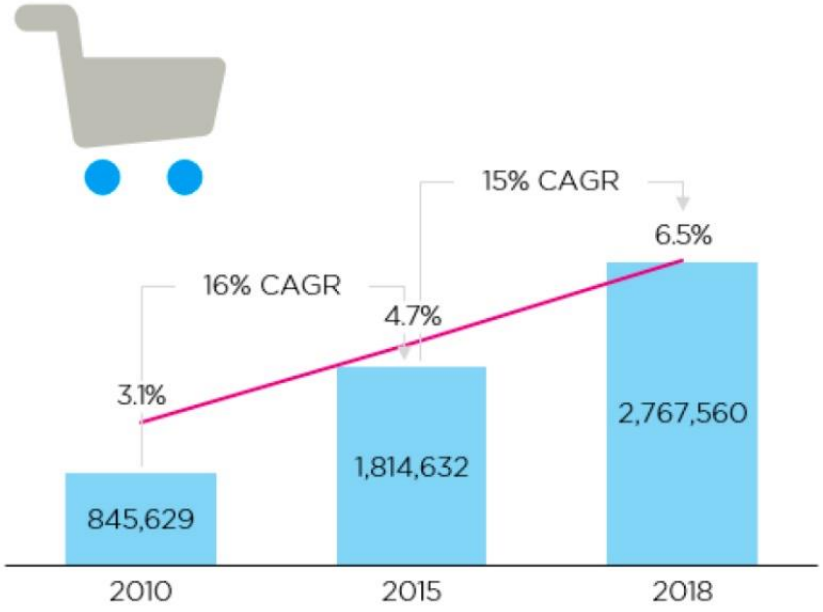
There is no data available regarding the total imported organic food or the organic share of total food imports. Insights from interviews indicate that organic imports are very likely to grow in the future.

2.7.6 Retail sector

[86] Ministry of Foreign Affairs and Trade.
[87] Ministry of Foreign Affairs and Trade.

The total market size for retail in the Faroe Islands is estimated to be EUR 178 million in 2018. The retail sector in the Faroe Islands is fairly concentrated, which makes calculations and estimations difficult. The three main stores, which dominate the Faroese food retail market, are FK Coop, Bonus/Miklagarður and Á/Samkeyp.

Figure 45: Development of organic food and beverages sales within one retailer (EUR million) and organic share of total food sales



Note: Estimates are based on interviews with one of the main retailers in the Faroe Islands. These numbers should, therefore, be treated with some degree of uncertainty. These numbers do not provide an accurate picture of the total market, but it is our opinion that they allow us to predict the direction of the trend applicable to the rest of the market.

Source: Retailer in the Faroe Islands, Ramboll calculations and estimates.

For the one retailer that has shared organic sales, total organic sales in 2018 were reported to be EUR 2.8 million. This corresponds to 6% of their total sales. The average annual growth of organic sales was 7% between 2010 and 2015 and 4% between 2015 and 2018. Looking at only one retailer in the Faroe Islands does not allow us to accurately predict values for the entire market, but we are able to predict the direction of the trend. The growth in organic has been relatively strong, and we assume that this growth can be applied to the rest of the market as well.

2.7.7 Foodservice sector

There is no system or scheme for organic catering in the Faroe Islands. Work canteens are mostly run by the individual workplace and, reportedly, conscious food policies are

not that widespread. There is not a large focus on neither organic nor locally produced food[88], as locally produced food is pricy.

Interviews suggest that most restaurants are not concerned about organic food. There is one café in Tórshavn, which serves 80–90% organic food, but this is not common.

There is a retailer that delivers fruit to schools in the Faroe Islands, and all of this fruit is organic. There is no data for the amount of this fruit, however, this shows that there is some organic foodservice in the Faroe Islands.

2.7.8 Political agendas towards organic food

There is no political agenda regarding organic food in the Faroe Islands. Faroese authorities are currently looking into creating or adopting an organic certification scheme, which would benefit seaweed producers wanting to export. Since there are only 50,000 inhabitants in the Faroe Islands, creating a new system is considered expensive. Research is, therefore, being done regarding adopting either the Danish or Icelandic organic certification schemes.

In the current agreement between the Faroe Islands and the EU, the Faroe Islands cannot export agricultural products to the EU, only seafood and seaweed. For seaweed producers, being organically certified is very important.

There is a political goal to eventually become self-sufficient with vegetables, but there is no particular time frame set for this and it does not involve organic food

> "The public sphere is not so much focused on organic food, but more on sustainability."
> – Oyvindur av Skarði, Ministry of Foreign Affairs and Trade

> "For every krone of support to Faroese farmers, Norwegian farmers receive between 10 and 15 kroner."
> – Oyvindur av Skarði, Ministry of Foreign Affairs and Trade

According to the Farmers' Association, the total support for farmers is far less than in the other Nordic countries.

[88] Ministry of Foreign Affairs and Trade.

2.8 Åland Islands

Basic economy indicators

- Population: 29,789 (2018)
- Population density: 19.2 persons per km² (2018)
- Area: 1,553 km² (2015)
- GDP: EUR 1,275 million (2016)
- GDP per capita: EUR 35,600 (2016)

Source: ÅSUB.

Åland is an autonomous region of Finland, with a Swedish-speaking population. It has its own government and ministries, exerting high levels of autonomous control. 40% of the almost 30,000 inhabitants live in Mariehamn, Åland's capital and only town. Agriculture is an important industry in Åland, especially cereal and vegetable production.

2.8.1 Overview of organic market

There is no data available for the entire organic food market in Åland. Åland Statistics has reported that the income from organic production reached over EUR 1 million in 2017. The total food production was EUR 25.8 million in 2017, which implies that the organic share of all food production was at least 3.9%.

The concept of organic food is still relatively new in Åland, and has been increasing for the past years, according to production data and interviews with retailers.

> "The concept of organic gained ground only six years ago and has increased with rapid speed since then."
> – Area manager of Åland retailer

2.8.2 Organic farmland

The latest data on organic farmland is from 2016. In 2016, 3,769 hectares of land was certified organic. This amounted to 27.5% of the total farm area in Åland. This is a 65% increase in the total organic land since 2005. The average annual growth rate of organic land was 8% between 2005 and 2010, 2% between 2010 and 2015, and 1% between 2015 and 2016.

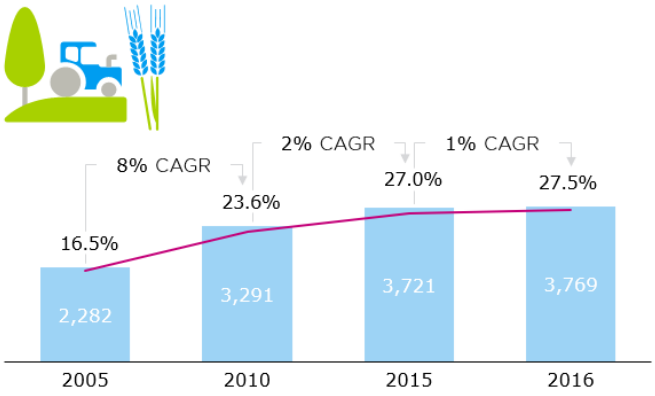
In 2014, there were 128 active primary organic producers. These producers were very small in size, approximately half the size of the average Finnish organic farm, with an average Åland farm being about 24 hectares.[89]

[89] Luomutuotanto Åland report.

Over 70% of the organic farmland in Åland is used for grass production. The second most grown product is oats, with about 260 hectares.

41% of the organic production in Åland is sold to processors. 20% is sold back to the farm or to other farms, almost 17% directly to the consumer, 9% to shops and stores, 6% to private restaurants and food places, 3% to the public sector and about 4% goes to other market channels.

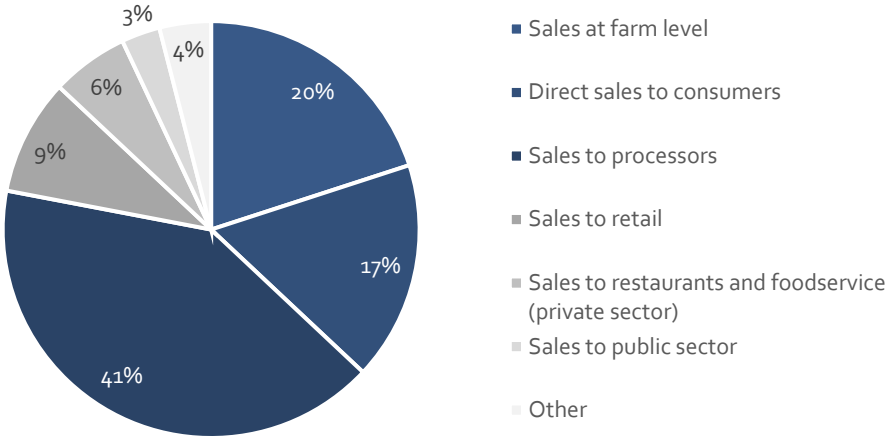
Figure 46: Development of organic farmland (hectares) and share organic (%)



Source: ÅSUB, Ramboll calculations and estimates.

A 2014 survey of organic producers in Åland reported that organic producers were relatively optimistic about future prospects for organic farming. Over half of the respondents reported that the value of their organic production would increase between 2014 and 2020. The respondents' average answer to the organic production value predicted a 2% increase between 2014 and 2020.

Figure 47: Distribution of organic production in Åland



Source: Luomutuotanto 2020 report.

Furthermore, the most important drivers of organic production in Åland were stated to be 1) consumer demand for organic products, 2) the profitability of organic production and price premium of organic products and 3) the general expectation that organic is a trend that will increase in the future.

In terms of organic processors, there are 16 certified organic processors in Åland. The range of product categories of the organic processors in Åland includes fruit and vegetables, cereals, bread and bakery products and dairy products.

2.8.3 *Organic users' profile and attitudes*

For consumers in Åland, the environment plays an increasingly large role when purchasing food.[90] Consumers are willing to pay price premiums of up to 15% for organic products. Organic consumers in Åland are typically young people, who are conscious about their health and food choices. Young parents between 25 and 40 years are also an important customer group in the organic segment.

> "Consumers want food products to be as clean as possible and are even willing to pay a price premium."
> – Area manager of Åland retailer

2.8.4 *Organic labels*

There is no unique organic certification scheme for Åland. Instead, they use the common Finnish certification scheme, which includes the green sun label and the ladybug label. The Swedish KRAV label is also used in Åland.

The green sun label tells the consumer that the product has been under the supervision of a Finnish authority, which may be the Food Authority (Ruokavirasto), the ELY Centre, the Åland Islands Government or Valvira. The label is owned by the Finnish Ministry of Agriculture and Forestry. This brand is not exclusively for products of Finnish or Ålandic origin but may be applied by operators, who produce, manufacture, process or import organic products.

The Ladybug label is a sign of organic goods produced in Finland. It has been around since the 1980s and can also highlight in which area of Finland the product is from.

[90] Åland retailer.

In Åland, they also use the EU organic leaf, as much of the organic food is imported.

> "People believe in these organic labels and trust them."
> – Area manager of Åland retailer

2.8.5 Export and import of organic food

There is no export of organic food from Åland, other than to Finland, as production levels in Åland are not that high. Most of the organic goods sold in retail are imported.[91]

Export

82% of Ålandic organic production is sold within Åland.[92] The rest, about 18% is exported to the rest of Finland. Historical data is not available. There is no export of organic goods to countries other than Finland.

Within the various sectors of agriculture in Åland, 100% of field crop output is consumed within Åland. Approximately, 37% of meat and egg production is exported to Finland, but none to third countries. Approximately, 18% of horticultural production is exported to Finland, but none to third countries.

A survey of 30 organic producers in Åland in 2015[93] mentioned that farmers saw an opportunity for organic export, but that it would require the domestic production to increase significantly, due to the economies of scale needed.

Import

There is no data available regarding imports of organic food, but qualitative input from interviews indicate that almost all the organic food consumed in Åland, is imported. Most of the organic goods are imported from Finland.[94]

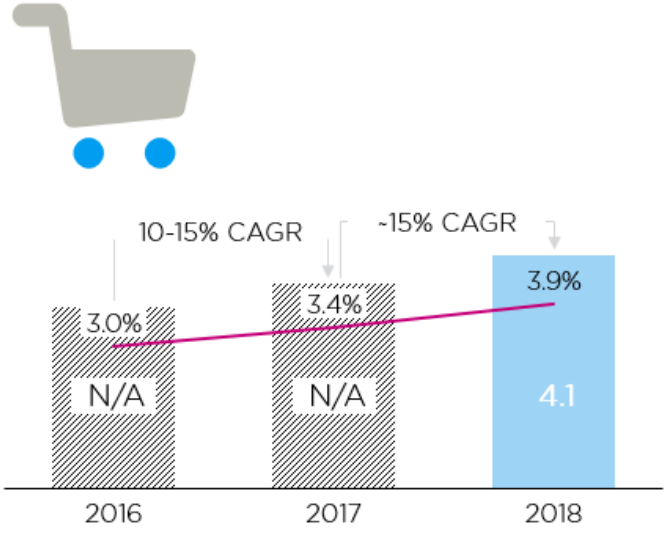
2.8.6 Retail sector

In 2018, organic sales of one retailer amounted to approximately EUR 4.1 million. Organic sales constituted 3.9% of total retail sales. For the years 2016 and 2017, total retail sales are not available, but the organic shares of total sales were 3% in 2016 and 3.4% in 2017. Between 2016 and 2017, total organic sales grew by between 10 and 15%, and between 2017 and 2018, organic sales grew by ~15%.

---

[91] Åland retailer.
[92] Luomutuotanto 2020, report about organic production in Finland.
[93] Luomutuotanto 2020, report about organic production in Finland.
[94] Retailer in Åland.

Figure 48: Organic retail sales of one retailer (EUR million) and corresponding organic share of total food sales (%)



Note: Data from the entire retail sector in Åland are not available. Estimates are based on interviews with one of the main retailers in Åland. These numbers should, therefore, be treated with some degree of uncertainty, but it is our opinion that they give an accurate picture of the organic market within this sector.

Source: Åland retailer, Ramboll calculations and estimates.

Within retail, most of the organic food is imported. The most popular organic products are fruit and vegetables, especially bananas. Organic eggs are also an important product. Organic eggs are produced locally but also imported from Finland, as local demand exceeds the domestic supply.

According to the area manager of the Åland retailer, the popularity of organic food will continue to increase in the future. The main risk to the spread of organic food is the price premium.

> "If the price premium is kept at maximum 10% more than conventional goods, there are unlimited opportunities for organic."
> – Area manager of Åland retailer

2.8.7 Foodservice sector

There are no organically certified caterers in Åland.[95]

The public kitchen of Mariehamn has increased its purchase of organic goods. The schools, nurseries and caring homes serve as much organic and local food as they can,

[95] Department of Trade and Industry.

and they purchase a lot of goods from a local wholesaler. In 2017, 35.2% of the value of the total food purchases, by the city of Mariehamn, was organic.[96]

For private foodservice, there is no data available.

2.8.8 Political agendas towards organic food

The Åland 2030 Strategy focuses on sustainable development for Åland. It is apparent that organic goods are an important part of this sustainable development agenda. In their Strategic Development Goal #7, which is about sustainable and conscious consumption and production patterns, sales of organic foods are mentioned as a potential indicator to measure achieving this goal.

Other than the strategy related to Agenda 2030, there are no national measures of Åland related to organic food. The capital city of Mariehamn, however, has developed its own environmental goals. Mariehamn had a goal to reach 30% organic food in the Mariehamn public kitchen within 2017, which it managed. Mariehamn has a goal to increase this share to 50% by 2020. Since 2016, children in schools and kindergartens in Mariehamn have been served milk that is organic.

[96] Bärkraft.ax article about organic food in public institutions.

2.9 Greenland

Basic economy indicators

- Population: 56,171 (2017)
- Population density: 0.1 (2017)
- Land area not covered by ice: 410,450 km²
- Total land area: 2,166,086 km²
- GDP: EUR 2,446 million (2016)
- GDP per capita: EUR 43,785

Source: World Bank, Statistics Greenland, FAOSTAT.

Greenland is a part of the Kingdom of Denmark and is the world's largest island. Greenland's economy is characterised by a large public sector, which is in large part financed by governmental grants from Denmark.

The majority of Greenland's area is north of the polar circle and mostly covered in ice. Around 81% of the total land area is covered by ice all year round. 16% of Greenland is not covered in ice. The entire island has a polar climate. The southern coastal areas of Greenland have some grass vegetation and some of the most southern places even see birch trees growing.[97]

In the southern parts of Greenland, there is some agriculture, mostly for forage, potatoes and some vegetables. There is also livestock farming of sheep in the southern areas. The production of this barely covers domestic consumption and there is no export. Winter feed for the animals is grown domestically.[98]

Fishery is Greenland's most important sector in the economy, especially prawns, which Greenland exports abroad. Hunting has been a way of life in Greenland for generations. Even today, hunting provides an important supplement to the household economy, even if it is only a minor part of Greenland's economy as a whole.

2.9.1 Overview of organic market

The market for organic food is different in Greenland than from other Nordic countries. Although organic food exists in retail shops, there is no certified organic production, and very strong trust among consumers towards locally produced food, which is considered to be "almost" organic.

Due to the cold climate, arctic areas like Greenland are not prone to disease outbreak of crops, and there is therefore little need for pesticides. Additionally, a considerable amount of the food consumed in Greenland originates from hunted wild

[97] Store norske leksikon.
[98] Statistics Greenland.

animals. Consumers are thus not that occupied with purchasing organic products, which are 100% imported and often expensive.[99]

Characteristic for Greenland is "brættet", a more or less formalised marketplace where producers and consumers come together to purchase farmed, hunted and fished food products. These products are considered by the localts to be organic without being actually certfied. Common products include dried fish, seal, whale, reindeer, fish, herbs and berries.

2.9.2 *Organic farmland*

There is no certified organic farm area in Greenland.[100]

2.9.3 *Organic users' profile and attitudes*

There are purchases of organic food in Greenland. A magazine panel from 2018 stated that although they appreciated the benefits of organic food, it was too expensive.

> "If organic food was cheaper, I would purchase more of it."
> – Magazine panel participant

> "If conventional and organic products had the same price, I would without a doubt purchase organic."
> – Magazine panel participant

Some consumers are willing to pay the price premium for organic products. These consumers often live closer to the capital of Nuuk and often have higher education. However, the large price difference still remains a significant barrier for many.[101]
As mentioned, there is a widespread view in Greenland that the Greenlandic products are equivalent to being organic, as there is little need for pesticides.

2.9.4 *Organic labels*

There is no national scheme for organic labels in Greenland. There is no export of agricultural goods, as production is not large enough, which might have made an

[99] Sermitsiaq.AG.
[100] Food and Veterinary Authorities.
[101] Food and Veterinary Authorities.

organic certification system more relevant. There is only export of seafood, which does not classify according to the organic standards.

Agricultural production barely covers the domestic market, and consumers in Greenland do not require certificates about the organic nature of a product, due to the high levels of trust that domestic agricultural goods are clean and pure.

However, as organic goods are sold in retail shops, there are products that carry organic labels. As Greenland imports a lot of food goods from Denmark, the Danish Ø label is commonly found on organic products in Greenland.[102]

2.9.5 Export and import of organic food

As there is no certified organic production in Greenland, there is no organic export. In terms of import, Greenland imports several organic products from abroad, but there is no data regarding exact amounts.

Exports

There is no export of agricultural products, and hence no organic export. There is an export of seafood, but this cannot be classified as organic, only according to MSC standards.

There is reportedly one producer of sheep in the south of Greenland which is able to export in terms of EU approval, but it has not had the capacity to export during the past three years. The amounts of food products other than seafood that are exported are negligible.[103]

Import

Greenland depends on food imports, and it also imports organic goods, many from Denmark.

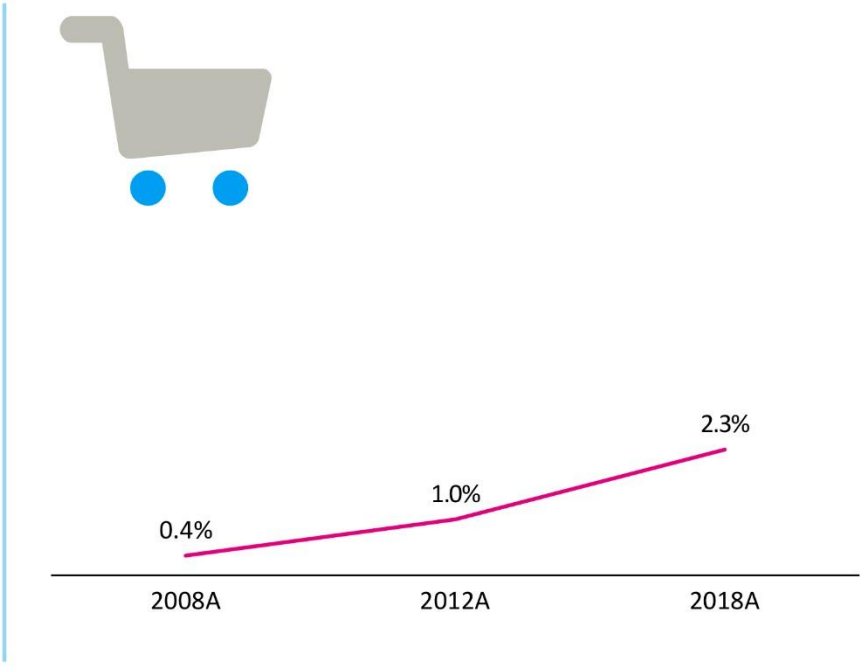
2.9.6 Retail sector

There is no official data or overview of the organic food sold in retail stores. In retail stores, there are some shelves dedicated to organic food.

Data from one retailer in Greenland indicated an overall organic market share of 2.3% in 2018. This is an increase from 0.36% organic in 2008 and 1.02% organic in 2012. According to the retailer, there was a large gap between the organic retail sales close to the capital of Nuuk, and more rural coastal areas, where the organic share of retail was much lower.

[102] Offer leaflet of Pisiffik retail.
[103] Food and Veterinary Authorities.

Figure 49: Organic share of total food sales (%) for one of the main retailers in Greenland



Source: Retailer in Greenland, Ramboll calculations and estimates.

Note Data from the entire retail sector in Greenland are not available. Estimates are based on interviews with one of the main retailers in Greenland These numbers should, therefore, be treated with some degree of uncertainty, but it is our opinion that they give an accurate picture of the organic market within this sector.

2.9.7 Foodservice sector

There is no data regarding organic food in the foodservice sector in Greenland. From our interviews, this is estimated to be a negligible amount.

2.9.8 Political agendas towards organic food

There are reportedly no policies or governmental programmes related to organic food. Agricultural policies and programmes tend to be focused on locally produced food, such as support to producers, making it easier for farmers to sell their local products.

2.10 Estonia

Estonia in numbers

- Population: 1,317,384 (2017)
- Population density: 30.3 (2017)
- Area: 43,470 km² (2017)
- GDP: 25,657 million (2018
- GDP per capita: EUR 19,500 (2018)

Source: World Bank, Eurostat, FAOSTAT.

Estonia is the northernmost and smallest of the three Baltic states. Since its independence in 1991 and joining the EU in 2004 it has seen strong economic growth and become known as "the Baltic tiger". Agriculture is an important sector in Estonia's economy, with the total agricultural land area comprising 22% of Estonia's total land area.[104]

2.10.1 Overview of organic market

Estonia's organic market is estimated to have a total worth of around EUR 92 million, according to the Baltic Organic Market Report by Moreganic Sourcing.[105] The development of the Estonian organic food market is partially a result of a national strategy to increase agricultural output and food processing value. Especially the food products of grains, pulses and oilseeds have proportionally large export values.

With increasing disposable household income and higher education levels, Estonian citizens have become more interested in health and organic products. Even if the organic market is relatively small (2.7% of the retail market), there is a vast selection of organic goods available through different distribution channels. Organic retail amounted to over EUR 40 million in 2018, as stated by the Organic Farming in Estonia report.

According to data gathered from our interviews, organic foodservice is still in its developing phase and plays a minor role in the Estonian organic market. The organic market in Estonia has been growing strongly for the past ten years and is expected to continue to grow in the future.

2.10.2 Organic farmland

Estonian certified organic farming started as long ago as 1989. By 2018 the country was one of the top three European countries when it comes to the organic share of total farm area: Almost 21% of Estonian farm area was certified organic in 2018 (210,033 hectares).

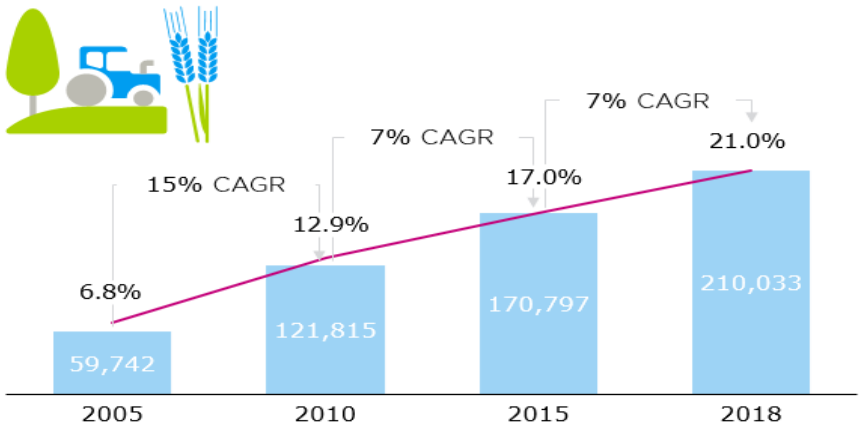
---

[104] Store norske leksikon.

[105] The data is based on the Baltic Organic Market Report by Moreganic Sourcing and we have not been able to verify this data, therefore it should be treated with uncertainty.

The growth in organic farm area has seen a relatively linear development. The average annual growth between 2015 and 2018 was 7%.

Figure 50: Development of organic farmland (hectares) and share organic (%)



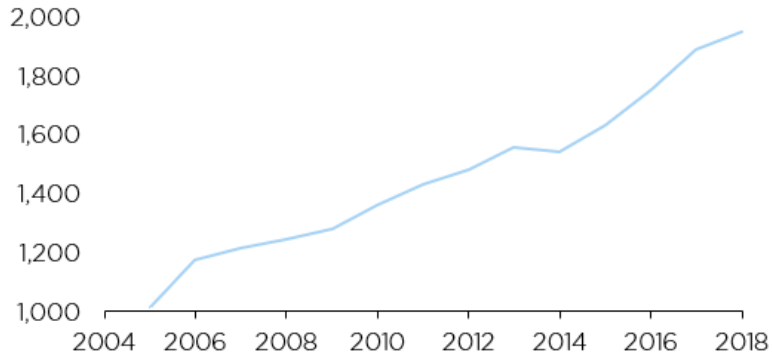
Source: FiBL and Estonian Organic Farming Platform. Note that the data comes from different sources and may, therefore, include some uncertainties. Still, the data illustrates the overall trend of the market.

In 2018, 68% of the land was used for grazing and feed for livestock on 1,154 farms and green manure. Important crops are cereals and grains, forage crops, industrial crops like rapeseed, fruits, berries and legumes.

The growth in certified organic farmland is expected to continue with the Estonian Comprehensive Organic Economy Programme 2018–2021, which emphasises an increase in the organic farm area.

Along with the growth in the organic farm area, Estonia has seen an increase in the number of organic producers. In 2018 there were 1,948 organic producers in Estonia, which is almost 20% more than in 2015.

Figure 51: Development of number of organic producers



Source: Ministry of Rural Affairs.

Estonia has several processors of organic foods, the most important being for fruit, berries, cereals, vegetables and herbs, but also for milk and meat. The widest product ranges are available in the herbal teas and seasoning mixtures, cereal products and fruit and berry products. According to the Estonian Institute of Economic Research, there were 1,695 domestic organic products in Estonia in 2018, 17% more than the previous year and more than five times more than in 2008 (311 organic domestic products).

In 2018, there were 168 registered organic processors in Estonia. The majority of these were small-scale enterprises. There was no significant growth in the number of organic processors compared to the previous year, but many companies significantly expanded their production or range of products. Many of the processors produced both organic and conventional food goods. 61 of the processers were organic farmers who processed their own goods.

Although increasing, the domestic product range and processing amounts are still limited, according to Organic Farming in Estonia 2018. The main reason that the Estonian organic product range is relatively limited and not more available to the public, is the small production amounts of the organic food producers. This makes quantities too small and logistics too expensive for many larger processors.

Figure 52: Organic processors in Estonia, by type of product processed

Source: Organic Farming in Estonia 2018.

2.10.3 Organic users' profile and attitudes

The organic market in Estonia is still quite small and there is still a lack of widespread knowledge and understanding about the benefits of organic products. Price is often mentioned by Estonians as an important factor hindering the increase in consumption of organic food. Especially in more rural areas, people have a lower average disposable income than in the larger cities, why the higher price discourages them from buying organic foods. There is also the tendency of consumers to associate locally produced food with clean and reliable food products.

The difference between the prices of organic and conventional products varies according to different products. In some cases, the organic alternative costs more than double that of the conventional (e.g. vegetables and flour), in some cases the same, and sometimes the organic alternative may even be cheaper than the conventional alternative (e.g. herbal tea).

> "Consumers buy organic food because it is healthy, local and tasty and because they like the principles of production."
> – Organic Farming in Estonia 2018

2.10.4 Organic labels

Estonia employs a mix of both the EU green leaf logo and its own organic label for food products. It also introduced a labelling system for organic caterers in 2017.

The EU organic logo is compulsory on pre-packaged organic products. In addition, the Estonian organic logo may be used.

In processed products, a minimum of 95% of the total weight of the ingredients of agricultural origin must be organic and only a few listed non-organic ingredients may be employed.

For businesses in the foodservice industry wanting to be certified as organic, there are two options. The first option involves the restaurant stating which of the ingredients or dishes on its menu are organic. The restaurant reports to the Veterinary and Food Board, which then inspects the menu and restaurant in question. Estonian Organic Farming Platform believes that a significant number of caterers are prevented from using this system, as it includes a lot of additional paperwork and calculations.

Therefore, a second option for organic certification of catering was introduced in 2017: a three-tier system to organic catering, similar to those seen in Scandinavia, but with different organic portion brackets:

- Tier 1. 20–50% organic ingredients
- Tier 2. 50–80% organic ingredients
- Tier 3. 80–100% organic ingredients.

This second option was meant to reduce the bureaucracy and complexity related to reporting to the Veterinary and Food Board.

2.10.5 Export and import of organic food

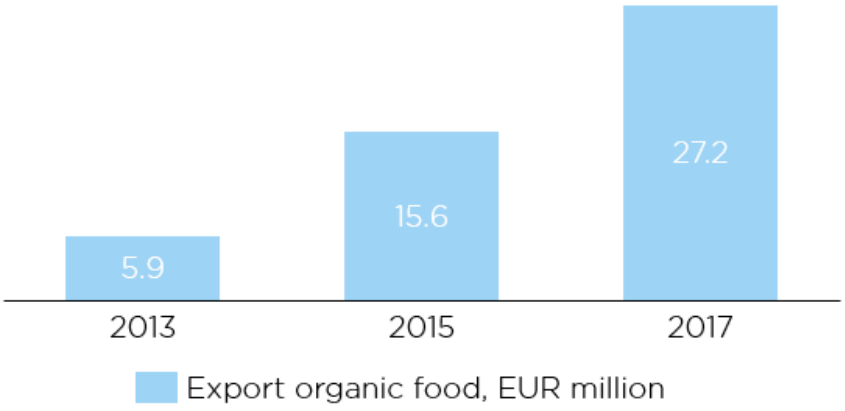
Export and import are important parts of Estonian agriculture. In the past five years, Estonian organic food exports have increased to almost five times its initial size. Likewise, imports are important, as it gives consumers access to organic goods that Estonia cannot farm domestically.

Export

Estonia has a well-developed organic export process, especially for grains, pulses and technical cultures. Most of the export value comes from unprocessed grains, but the share of processed products being exported is growing. There is untapped potential for exports in meats and dairy.

The major exported product in Estonia is cereals and grains, particularly oats. In 2017, grains account for EUR 17.2 million of the total organic exports of EUR 27.2 million. This constituted more than 60% of all organic exports in Estonia. EUR 2.8 million, or 10% of the total organic exports, were made up of exports of animal products, including live animals. These exports go mostly to other European countries.

Figure 53: Development of organic exports (EUR million) and organic share of total food exports (%)



Source: Ministry of Rural Affairs.

Grains, pulses and oilseeds are exported by large trade companies who have contracts with farmers around Estonia, and an organic farmers' cooperative. Thus, the size of each individual producer is not important. This can also be applied to the production of live animals. For organic food processors, the situation is different, and they are dependent on economies of scale to be able to export. Processed organic products are still a minority of exports from Estonia.

> "Exports of organic food have also grown significantly more than planned and the target was exceeded by 1.5 times in 2017."
> – Organic Farming in Estonia 2018

Exports are also on Estonia's organic agenda, and a goal was set in 2013 to triple the organic export value to other EU countries. This goal was reached very quickly, even if there were no actions or support related to increasing exports at this time. More attention was paid to exports starting with the Programme for Estonian Eco-Economy 2018–2021.

Import

There are 32 certified importers of organic foods in Estonia. This is a vast increase from 2011 when there were only four certified importers of organic goods (from outside the EU).

> "75% of all organic goods sold in retail are imported from abroad."
> – Estonian Organic Farming Platform

There is no official data for imports of organic goods in Estonia, as imported goods are not classified according to their organic nature. It is estimated that around 75% of all organic goods sold in retail are imported from abroad, according to Organic Farming in Estonia. This corresponds to EUR 31.4 million, although this is in terms of retail prices and is not the exact import figure. Additionally, food processors import some of its products, although no accurate data on this exists.

In terms of products, Estonia imports all food categories. There is no relevant study indicating how much of each product is imported, but Estonian Organic Farming Platform reports that fruit and vegetables, baby food, and several other product categories are significant.

2.10.6 Retail sector

In 2017, organic retail sales in Estonia amounted to EUR 41.8 million. This amounts to 2.7%[106] of the entire Estonian food retail market. No historical data is available, but Estonian Organic Farming Platform has stated that there has been strong growth in Estonian organic retail since the past five years and that the share of the entire retail market that is organic has grown considerably.

Looking forward, market-wide data is not available to make accurate predictions, but Estonian Organic Farming Platform has forecasted that the share of retail sales that is organic will increase in the future.

In terms of sales channels, supermarkets are an important channel where consumers purchase organic goods. In 2017, Coop was the largest player on the market, with a 22% market share. Maxima held a market share of 18.5%, Selver had 17.2% and Rimi had a market share of 15.1%. The range of organic products in each of these supermarket chains varies. Maxima reportedly has a poor selection of organic products and the smaller outlets of Coop and Rimi also have relatively narrow ranges of organic products.[107]

According to numbers from Rimi, their sales of organic products increased by approximately 20% in 2018. They report having more than 450 organic products in their assortment, although this varies between outlets. In terms of organic shares of each product category, they reported that more than half of the baby food sold is organic. The most popular organic vegetables sold are carrots, cucumber, and tomatoes. In addition to the basic Rimi assortment, a wide range of local organic products is sold in the Rimi Talu Toidab areas (local and organic product areas in 30 shops, store in store concept).

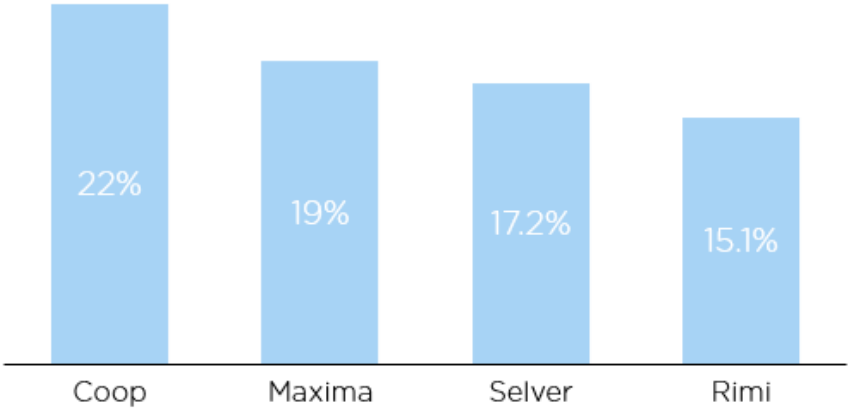
In addition to the general supermarkets, there are around 40 independent or specialised retail stores in Estonia. These may focus on a combination of organic, health and natural food. Online retail is another distribution channel for organic goods. There are fewer than ten online retail shops, and they are owned by speciality shops, purely independent online retailers, and the larger supermarkets.

---

[106] Note that alcoholic beverages are included in organic products, but not in conventional products, thus distorting the figure slightly upwards.

[107] Estonian Organic Farming Platform.

Figure 54: Market shares of largest retailers in Estonia



Source: Äripäev.

There are two important drivers of the increasing market for organic goods in Estonian retail. First, consumers in Estonia increasingly perceive the principles of organic production positively and associate organic food with healthy, tasty and local food. Secondly, the range of organic products has in recent years become much wider and more easily accessible to the general consumer. For an Estonian living in one of the larger cities, it is no longer necessary to search out a particular speciality shop for organic goods, as the product in question can likely be found in the nearest larger supermarket. The range is, however, much more limited in smaller areas and smaller supermarkets. A 2018 study by the Estonian Institute of Economic Research showed that 9% of consumers bought organic food once a week or more often. A similar study by Turu-uuringute Ltd showed that in the capital of Tallinn, the share of consumers who bought organic food once a week or more often was 21%, much higher than in other areas.

2.10.7 Foodservice sector

The organic foodservice in Estonia is still relatively small, but our interviews indicate that there is a growing interest for organic within this sector. Specific data on the organic shares and value in catering and foodservice is not available, but the number of organic caterers and government plans may indicate the relative size and trend of this sector, and the data reveals that it is growing.

In 2018, there were 31 organic caterers in Estonia. 15 of these were schools and childcare institutions. 0.2% of all childcare institutions in Estonia have reported that they are serving organic food at their institution.

Additionally, several caterers who are not certified according to any scheme use organic products without marketing or notifying about the organic nature of the products or dishes. This may indicate that the market for organic within foodservice is actually greater than the numbers signal.

The Estonian Organic Farming Development Plan reports that organic food in catering businesses is becoming increasingly popular and that restaurants and cafeterias are ever more interested in purchasing organic foods directly from farmers or from commercial associations of organic farmers. School and kindergartens are also increasingly interested in organic menus, as shown by an inquiry about their use of organic foods. This trend was observed especially in private kindergartens and schools.

As described in the organic labels chapter, there is a three-tier system for organic caterers. According to the Estonian Organic Farming Platform, only 10 organic caterers are using this three-tier system, of which six are schools and institutions, and four are restaurants and cafes. The low number of caterers using the scheme is due to the difficulty in informing the caterers, who view the system as a source of bureaucracy. There are at least 15 other caterers who are organic, but who are not using the three-tier system. Estonian Organic Farming Platform expects the number of caterers using this system to increase over the next couple of years, but that intense informing and marketing are needed to convince the caterers of the scheme's value.

Although still a small and growing sector, the Ministry of Rural Affairs has laid down a specific goal to increase the share of organic food in public foodservice, further indicating that this area will grow in the future. For example, The Estonian Organic Farming Development Plan of 2014–2020 envisages that by 2020, 30% of all childcare institutions will offer organic food. It should be noted that, as of 2018, the progress in reaching this particular goal has been much slower than anticipated.

2.10.8 Political agendas towards organic food

Several programmes have been launched related to developing the organic sector in Estonia. The two most relevant plans are Estonian Comprehensive Organic Economy Programme 2018–2021 and Estonian Organic Farming Development Plan 2014–2020.

Several of the goals foreseen in the Estonian Organic Farming Development Plan 2014–2020 have already been met. 96% of organic plant production products were sold as organic in 2014. Organic exports grew significantly more than expected, exceeding the 2017 target by 150%. Progress in catering in childcare institutions is much slower in reaching its 30% goal.

Estonian Comprehensive Organic Economy Programme 2018–2021

Overview

Coordinated by the Ministry for Rural Affairs, this programme aims to develop the Estonian eco-economy as an important economic export branch in Estonia and includes the sectors food and agriculture, forestry, tourism, cosmetics and detergents, each area with its own goals and objectives. The programme focuses on quality schemes for each area, as well as the marketing of these areas and products for the export market. The entire program is run by a council consisting of high level officials in the Ministry of Rural Affairs, the Ministry of the Environment and the Ministry of Economic Affairs and Communications and representatives of farming, food industry, tourism, catering and forestry.

Goals

- Organic export is EUR 50 million by 2021
- At least 250,000 ha of organic farmland by 2021 and at least 2 million ha of woodland potentially usable as wild collection area
- At least 51% of Estonia's total land area (including forests for wild collection) will have the possibility to grow or harvest organic products.

Source: Organic Farming in Estonia 2018.

Organic Farming Development Plan 2014–2020

Overview

The Organic Farming Development Plan is issued by the Ministry of Rural Affairs and prepared together with a wide range of organisations from the sector. It includes six sectors and lays out goals, targets, measures and activities to develop organic farming in each of these areas. The six focus areas are (1) production; (2) processing; (3) catering; (4) distribution and consumption; (5) applied research and scientific studies, training, consulting, marketing and promotion of organic products; and (6) legislation and supervision. The plan is endorsed by the Ministry of Agriculture and is based on the European Action Plan for Organic Food and Farming.

Goals

- 20% of Estonians will be regular organic consumers by 2020
- 30% of childcare institutions will offer organic food by 2020
- 90% of all Estonian organic plant production will be labelled as organic by 2020
- 50% of all organic animal products will be labelled as organic by 2020
- The value of exported Estonian organic products will triple between 2014 and 2020.

Source: Estonian Organic Farming Development Plan 2014–2020, Organic Farming in Estonia 2018.

"The strategic objective of the development plan is to improve the competitiveness of Organic farming and to promote the consumption of local organic food."
– Organic Farming Development Plan 2014–2020

2.11 Latvia

Basic economy indicators

- Population: 1,942,248 (2017)
- Population density: 31.2 per km²
- Area: 62,180 km²
- GDP: EUR 29,534 million (2018)
- GDP per capita: EUR 15,300 (2018)

Source: World Bank, Eurostat, FAOSTAT.

Latvia is the middle of the three Baltic countries. Since the 1990s, its economy grew rapidly until the financial crisis hit the country severely in 2008.

Almost half of Latvia's total land area is covered by forests[108], and the climate is temperate. Forestry and agriculture are two of the most important industries in the country. In recent years, Latvian agriculture has grown, partially thanks to improvements in efficiency and subsidies from the EU. Today, around 30% of the total land area is used for agricultural purposes, being evenly divided between grasslands for livestock and cultivated crops. There are around 83,500 farms in Latvia. The last 15 years, there has been a growth in the production of grains, partially thanks to greater cooperation between farmers in cooperatives, which has made investments easier. Rapeseed, beans, potatoes are other common crops.

Approximately one-third of the total agricultural production is linked to livestock and dairy production.

2.11.1 Overview of organic market

The most important distribution channel for organic food in Latvia is retail sales. This reportedly accounts for almost all of the organic food market in Latvia.[109] Organic foodservice is not as well-developed in Latvia as in the Nordic countries.[110] Some of the sales of organic food are also made via direct sales from farmers to consumers, but no data is available for this channel.

The share of organic food in the entire Latvian food market is slightly below 2% and it is growing.[111] In 2005, the share of organic food in the entire food market was reportedly less than one per cent, but the largest share of growth has been in the past ten years.

Due to very limited data availability, we are not able to provide valid numbers or estimates for historical development.

[108] Store norske leksikon.
[109] Association of Latvian Organic Agriculture.
[110] Association of Latvian Organic Agriculture.
[111] Association for Latvian Organic Agriculture.

"Compared to Nordic countries, the main difference is that the organic share in the catering sector is very low."
– Gints Strazdins, Association for Latvian Organic Agriculture

The concept of organic food in Latvia started in the 1990s with small, organic shops. Around 15 years ago, supermarkets started introducing organic products to their shelves and organic food gained a better foothold. The main development has been in the past ten years, however, and has been mostly focused in the retail sector. The foodservice sector has not seen the same development.

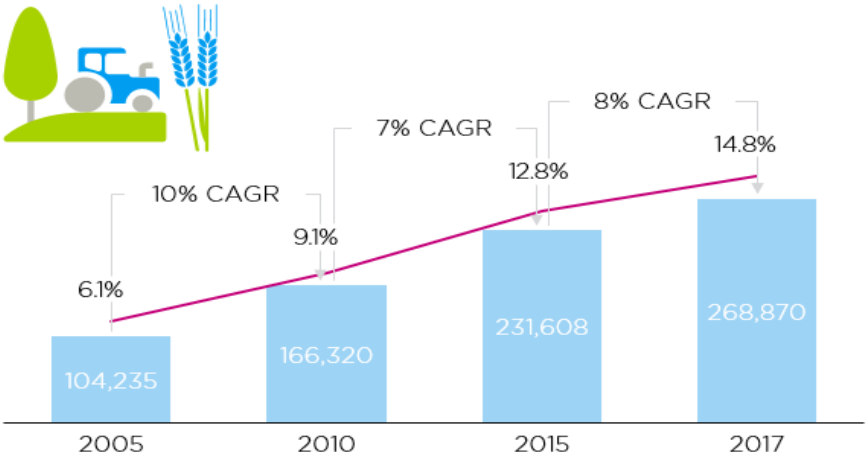
"A big issue that there is no data. But the development is good."
– Gints Strazdins, Association for Latvian Organic Agriculture

For many years, the growth of the organic production in Latvia has been mainly export-driven, as Latvia has exported organic commodities, such as grains. According to the Baltic Organic Market Report, however, there is now a growing domestic demand for organic products, and domestic consumption has been increasing in recent years.[112] The selection of organic products in retail outlets is improving, and there are signs that the large supermarket chains have made strategic choices to make organic products more visible in the stores.

2.11.2 *Organic farmland*

In 2017, the total organic farm area in Latvia was 268,870 hectares, which is an average annual increase of 8% since 2015.

Figure 55: Development of organic farmland (hectares) and share organic (%)



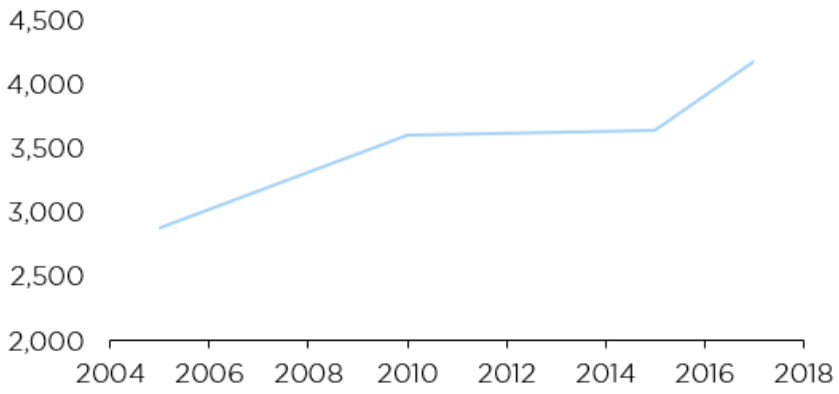
Source: FiBL, Ramboll calculations and estimates.

[112] Baltic Organic Market Report.

Most of the organic land is used for feed and grazing for livestock, especially cattle.[113] The most important agricultural products are cereals and dairy products.[114] There is also the production of potatoes, vegetables, fruits and berries, but this covers a smaller area.[115]

The number of organic producers has risen steadily with total organic farmland. In 2017, there were 4,178 organic producers in Latvia, which is a 15% increase since 2015.

Figure 56: Development of number of organic producers



Source: Ekoweb.

In terms of organic food processing, there are 281 Latvian food processors which are involved in organic food processing. The foods processed include meat, dairy, grains, starch and fruit and berries. It is not uncommon for organic agricultural products to be downgraded to conventional during food processing,[116] as the food processing activities sometimes do not comply with organic requirements.

> "There are not enough processing facilities, so some part of organically grown raw materials are processed at conventional facilities and are not marketed as organic to end customers anymore. Fortunately, this is now changing."
> – Gints Strazdins, Association for Latvian Organic Agriculture

2.11.3 Organic users' profile and attitudes

Organic food is increasing in popularity among consumers[117] but is facing the issue that several consumers tend to confuse organic food with locally produced food and mistake them for the same products.

[113] Baltic Organic Market Report.
[114] Association for Latvian Organic Agriculture.
[115] Baltic Organic Market Report.
[116] Latvian Food and Veterinary Department.
[117] Latvian Food and Veterinary Department.

"There is confusion among some part of consumers between organic and local. They assume that local is equal to organic."
– Gints Strazdins, Association for Latvian Organic Agriculture

There have been public programmes to educate consumers about the traits and benefits of organic food, but according to Association of Latvian Organic Farming, there is still need for greater consumer awareness.

"Looking at the consumer side, there is a lack of knowledge."
– Gints Strazdins, Association for Latvian Organic Agriculture

Organic consumers in Latvia are more likely to be educated individuals who live near larger cities. Latvian consumers are particularly concerned with purchasing locally produced products, especially via direct sales, such as farmers' markets and direct purchase e-mailing systems.[118]

A 2018 survey by Rimi,[119] the largest food retail chain in Latvia, showed that 27% of respondents regularly chose organic produce.

In terms of drivers and challenges of the organic market from a consumer perspective, the most important driver of organic food purchases from a customer perspective is reportedly health.[120] 57% of the respondents in Rimi's survey answered that health was the main reason for choosing organic. Challenges include the significant price premium on organic products, which differs according to the product group. This deters many of the more price-sensitive consumers from purchasing organic products. The confusion between organic and local products is yet another challenge for the advancement of organic food, as mentioned earlier.

2.11.4 Organic labels

There are several organic food labels in Latvia, both national, EU level and belonging to the individual stores. The most popular is the EU organic green leaf. This is used for both imported and domestic organic products and is widely known among consumers.

[118] Baltic Organic Market Report.
[119] 1007 consumers survey by Rimi in beginning of 2018.
[120] Baltic Organic Market Report.

There is also an organic label under the Organic Agricultural Association (LBLA), called Eco product of Latvia, or Latvijas Ekoprodukts, but its use is not as widespread as the EU organic green leaf[121]. It is only members of LBLA who can use this label, and not all farmers in Latvia are members.

Several supermarket retailers have their own organic labels. The Rimi Baltic outlets have access to its parent ICA's "I LOVE ECO" products. Maxima, a retail store, has its own organic brand called ekologica.

2.11.5 Export and import of organic food

There is no official data available on either exports nor imports of organic food products in Latvia. All data in this chapter is based on interviews and qualitative data obtain from available market reports.

Export

Latvia has a well-developed export process. According to FiBL, total exports of organic goods was EUR 51 million in 2017. Data for other years is not available. Export of organic goods is an important distribution channel for Latvia's organic production.

The most important exported products in Latvia are unprocessed grains and potato starch. Organic cattle are also exported from Latvia, and according to the Association for Latvian Organic Agriculture, this segment is growing.

Import

There is no data available for imports of organic goods in Latvia.

Most organic goods sold in Latvia are imported, especially vegetables.[122] Cereals products and dairy products are the strongest sectors for domestic products, but many of the other organic food product categories are mostly imported from abroad. The selection of imported organic goods available in retail stores has reportedly increased over the past few years. Rimi's selection of organic products mostly consists of imported goods, especially fruits and vegetables, while most of milk and milk products are produced locally.[123]

[121] Association of Latvian Organic Agriculture.

[122] Association of Latvian Organic Agriculture.

[123] Association of Latvian Organic Agriculture. Note that other sources state that is mainly relates to fruits and vegetables, while most of milk is produced locally.

2.11.6 Retail sector

The value of organic retail was EUR 51 million in 2017. This constitutes 1.5% of the total Latvian food market[124]. Data for other years is not available, but the total amount and share of organic within retail has reportedly been increasing steadily in the past years.[125] According to the Association of Latvian Organic Agriculture, Rimi is the leader of organic retail. Organic fruits and vegetables were introduced in 2009.

In 2017, Rimi started to properly highlight organic agricultural products. It introduced special shelf labels for organic foods. In 2018, Rimi had a range of 856 different organic products available in its stores. This is a 28% increase since 2017, when it had 668 organic products available.

It is estimated that the share of organic food within food retail will increase in the future.

> "We hopefully can reach 5% organic in retail in the next 5–10 years."
> – Gints Strazdins, Association for Latvian Organic Agriculture

In addition to supermarkets selling organic products, there are also some speciality shops which only sell organic products. Direct sales through farmers' markets or other initiatives are also popular among Latvians.

2.11.7 Foodservice sector

No data about the organic foodservice industry in Latvia was available. Our interviews indicate that this is a small segment of the total market for organic food, but that there is growing interest within the private foodservice sector.

> "There is not really a case for organic catering in Latvia. It just doesn't exist the same way it does in the Nordics."
> – Gints Strazdins, Association for Latvian Organic Agriculture

Compared to the Nordic countries, the share of organic food in foodservice is very low. Foodservice sector certification order is defined by governmental rules, but no official marking exists.

According to the Food and Veterinary Department, the main barrier to serving organic food in foodservice is the price premium of organic products. There are no official goals or policies related to organic foodservice.

> "It is hard to sell organic food for catering businesses because of the high price."
> – Everita Kalvane, Latvian Food and Veterinary Department

[124] FiBL.
[125] Latvian Veterinary and Food Department.

There is a seemingly growing interest in the private sector for organic foodservice. For example, a growing number of restaurants are providing organic options.[126]

2.11.8 Political agendas towards organic food

Before Latvia joined the EU in 2004, it had a separate national strategy related to organic farming. Since joining the EU, it instead integrated the EU's Rural Development Programme, from which it receives EUR 1.08 billion from the EU budget towards measures aimed at improving Latvian farmers' competitiveness.

> "The programme will facilitate the conversion to organic farming and the development of existing organic farms."
> – Rural Development Programme for Latvia

The current Rural Development Programme for Latvia includes specific goals related to the production side, but there are no targets or other programmes related to the consumption of organic food.

In Latvia's 2030 strategy related to the UN's Sustainable Development Goals, it has a goal to reach at least 15% of total agricultural area as area under organic farming. This is part of reaching the Sustainable Development Goal #2 of zero hunger.

According to the Association for Latvian Organic Farming, there is already work underway related to the next Rural Development Programme. Discussions have started to increase the importance of organic food in the next programme, which starts in 2020.

[126] Baltic Organic Market Report.

2.12 Lithuania

Basic economy indicators

- Population: 2,828,403 (2017)
- Population density: 45.2 per km²
- Area: 62,642 km²
- GDP: EUR 42,191 million (2017)
- GDP per capita: EUR 14,920

Source: World Bank, Statistics Lithuania, FAOSTAT.

The Republic of Lithuania is the southernmost and largest of the three Baltic states. It has seen strong economic growth since joining the EU in 2004, with the exception of the financial crisis in 2008. The food industry is important for Lithuania's economy. 3.3% of Lithuania's GDP comes from agriculture, and food processing is one of the most important industries.

2.12.1 Overview of organic market

Between 90% and 100% of all organic food in Lithuania is sold through the retail channel. Since the organic shares within retail are estimated at ~1% of the total food retail market, we estimate the organic share of the total food market to be slightly less than 1%. The total organic food market in Lithuania is estimated to be EUR 100 million.[127]

According to estimates from EkoAgros, the national certification authority, the organic market is growing by 10% each year.

The Lithuanian government has promoted agricultural exports and food processing as a national strategy, leading to a proportionally large export value. However, as the share of middle income, highly educated consumers increases, EkoAgros expects the domestic demand for organic goods to grow.

Although food processing is one of Lithuania's most important industries, it has been challenging to increase the organic share of the conventional food processing companies. The selection of domestic agricultural ingredients is low, consisting of mainly grains and cereals, and there is a lack of adequate inputs for organic processing. This leads to several of the organic raw agricultural goods coming from farms being downgraded to conventional goods in the processing process. Thus, goods that originate as organic are sold as conventional because they do not meet the organic food processing standards.[128]

According to EkoAgros, the single most developed distribution channel for organic is retail. Organic foodservice is still only in its initial phases. A third important channel

[127] EkoAgros.

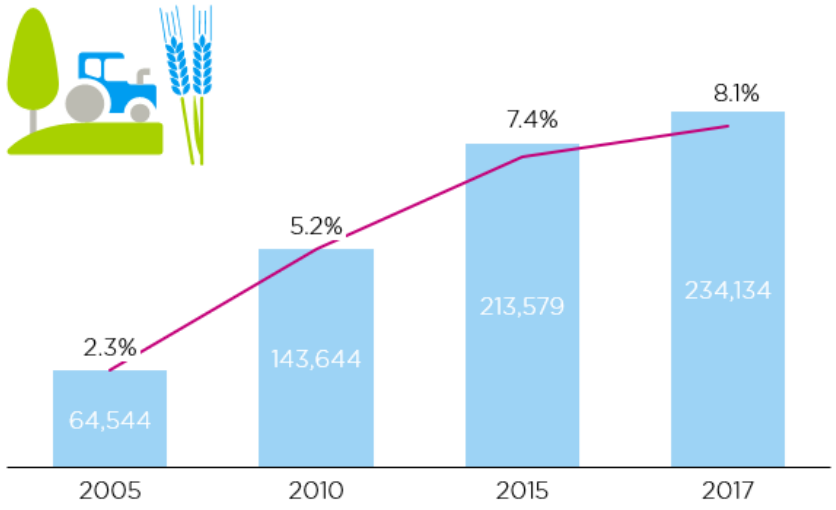
[128] The Baltic Organic Market report.

with roots in Lithuanian history is farmers markets, where a large portion of products are certified organic. This channel is relatively small, however.

2.12.2 *Organic farmland*

The area of organic agriculture in Lithuania has grown in a stepwise fashion since the 2000's and will be passing 9% of total arable land in Lithuania during 2018. The increase over ten years is about 90%, and in five years about 43%. The growth in area between 2016 and 2017 was almost 6%. As in most northern European countries, a large share of the land under organic management is pasture for grazing, silage and feed.

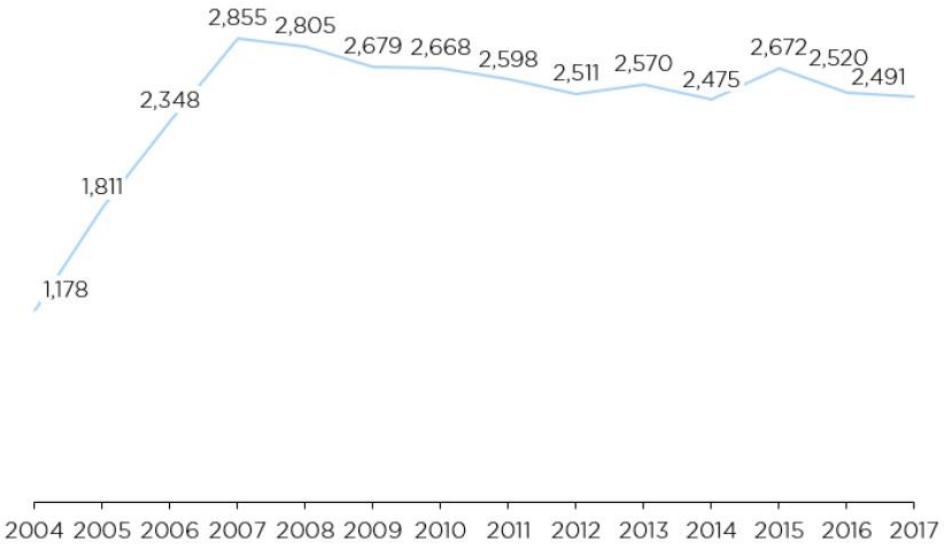
Figure 57: Development of organic farmland (hectares) and share organic (%)



Source: FiBL, Ramboll calculations and estimates.

The number of organic farms saw strong growth until the beginning of the financial crisis. Since then, the number of farms has kept relatively stable, decreasing slightly since 2015. This indicates that although the number of farms has been decreasing, the average organic farm area per farm has been increasing.

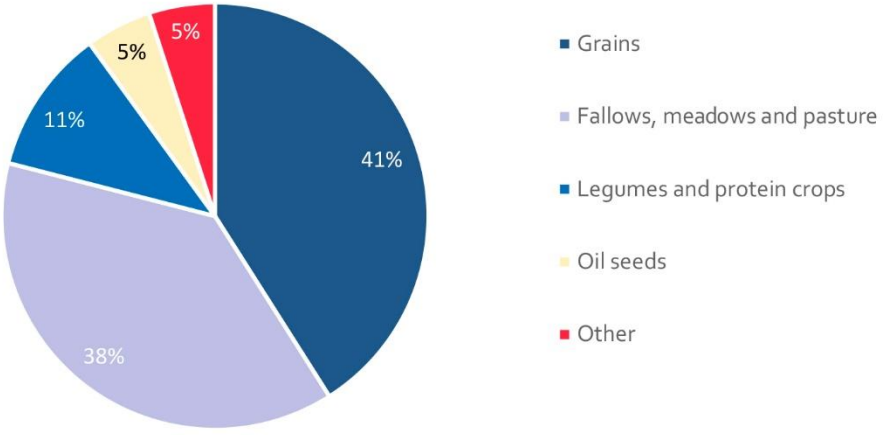
Figure 58: Development of number of organic producers



Source: EkoAgros.

Most of the land is used for feed and grazing for about 56,000 cattle on 2,491 farms. Important crops are grains, legumes and oilseeds. Lithuania also hosts a significant area of organic fruit production.

Figure 59: Usage of organic farm area in Lithuania



Source: Baltic Organic Market Report.

2.12.3 Organic users' profile and attitudes

The organic market is still relatively small in Lithuania, comprising around 1% of total food retail sales. Interviews and data collection, however, indicate that the organic market is set to grow for the future.

According to EkoAgros, the typical organic consumer in Lithuania is a young mother with small children.

Price is a major determinant for Lithuanian shoppers, according to EkoAgros. This is not only in the organic segment but across the entire food retail sector. Although the average disposable income per capita is rapidly rising in Lithuania, consumers are still price sensitive and their willingness to pay a high price premium is limited. The price difference between organic and conventional products has been falling in the last year, indicating both that there might be more interest for organic products in the future, and that the organic market is steadily becoming more competitive.[129]

Furthermore, consumers have a tendency to confuse organic food with locally produced food. Both are marketed as healthy, safe, and better for the environment, and are perceived by consumers as somewhat interchangeable, according to EkoAgros.

According to the Baltic Organic Market Report, the portion of people pursuing lifestyles of health and sustainability is increasing in Lithuania. Indicators of this would be the average education level in the country, which is rapidly rising. According to the report, these consumers tend to be concentrated to larger cities and more urban areas. Health is the most important driver for consumers wanting to buy organic.

2.12.4 Organic labels

Certification of organic agriculture in Lithuania is made by the certification authority Ekoagros. Certified organic products are commonly labelled with both the EU green leaf label and Lithuania's own national organic label. Use of the national label is widespread, especially for local products. For products meant for export, only the EU green leaf is used.

EkoAgros recently launched a national certification system for organic restaurants. There is a list of various requirements that the restaurant wishing to be certified must meet. This system is a system unique to Lithuania and not necessarily compatible with other organic requirements.[130]

[129] www.produktukainos.lt

[130] EkoAgros.

2.12.5 Export and import of organic food

Data on the value or amount of Lithuanian organic exports and imports are not available. There has been a strategic move by the Lithuanian government to increase the value of agricultural exports, and most of the organic agricultural production is therefore sold abroad. Organic imports are also significant in Lithuania, especially considering that the climatic conditions are not suitable for all types of foods demanded in the food market.

Export

Lithuania's agricultural strategy is export-focused, and they have seen a relatively high and stable level of agricultural exports the past 5–10 years. Only 4% of organic products leaving the farm are sold in the domestic market,[131] and most are exported abroad. The domestic demand is not sufficient for the organic domestic production, and export is thus a necessity.[132]

> "Lithuania has a well-developed organic export process."
> – Baltic Organic Market Report

Unprocessed cereals and grains are the most important product group for exports,[133] but the share of processed organic goods is also growing.[134]

Import

No specific data exists on organic imports. Almost all the organic goods sold within the retail sector are imported from abroad. All organic food categories are imported, but especially baby food and fruit and vegetables have a high imported share. Dairy products are almost entirely domestic.[135]

> "Only a small percentage of retail sales are domestic. Almost everything is imported."
> – Virginija Luksiene, EkoAgros

2.12.6 Retail sector

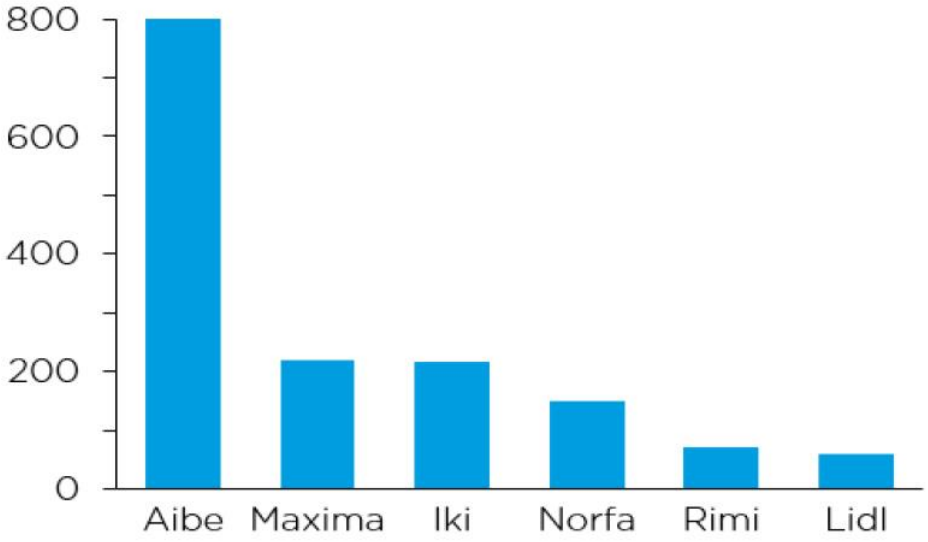
Although the concept of organic food is not new in Lithuania, the first data was only collected in 2017. Therefore, historic developments are not available. Organic retail sales in Lithuania in 2017 were EUR 50.5 million, comprising 1% of total food retail.[136] Based on interviews, this value has been steadily growing over the past years.

---

[131] Lithuanian Organic Farming Association.
[132] EkoAgros.
[133] IFOAM.
[134] Baltic Organic Market Report.
[135] EkoAgros.
[136] FiBL.

The retail market in Lithuania is divided between urban and rural areas, with different supermarket chains in each area. In the urban areas, retailers such as Maxima, Iki, and Norfa are common, while the more rural areas are dominated by Aibe. Although Aibe controls almost four times as many outlets as Maxima, in terms of turnover, the relationship is the opposite.[137]

Figure 60: Top grocery retailers in Lithuania by number of outlets



Source: Baltic Organic Market Report.

Aibe, which is a cooperative organisation, tends to focus more on a local product offer, rather than organic products.[138]

The most popular organic products in Lithuania include fruits and vegetables, milk and dairy products, bakery products, cereals, and baby food. Categories, where there seem to be a lack of organic products, would include cheese, confectionary, and ready-to-eat meals.[139]

2.12.7 Foodservice sector

The organic foodservice industry in Lithuania is still in its initial development phase, and information regarding this sector is limited. However, existing research shows that the interest in organic food within the foodservice industry is growing and that both catering businesses and restaurants are showing an increased interest in serving organic food.[140]

[137] Baltic Organic Market Report.
[138] Baltic Organic Market Report.
[139] Baltic Organic Market Report.
[140] Baltic Organic Market Report.

Among these, there are public canteens that work with organic food in an educational context, as well as restaurants in the larger cities which indicate that they use organic ingredients in their dishes. There are reportedly also a few restaurants which employ organic ingredients without promoting the organic nature of the dish or ingredients in any way.

2.12.8 Political agendas towards organic food

The 2014–2020 factsheet on the Rural Development Programme for Lithuania states the promotion of organic farming as one of Lithuania's main objectives. EUR 182 million have been allocated specifically for organic farming in Lithuania by the EU Rural Development Programme. According to EkoAgros, the national support for organic farming does not exist, the support comes only from the EU funds.

At the moment, there are no official goals or ambitions related to organic consumption and no certified organic public schemes for the organic foodservice industry.

There is a goal of increasing the supply of organic production to 30% of total agricultural production, according to EkoAgros.

> "[…] organic products and products made in accordance with the national quality system have been designated as priorities in organising public procurement of foodstuffs and raw materials for children's educational institutions."
> – Voluntary National Review on the Implementation of the UN 2030 Agenda for Sustainable Development in Lithuania

EkoAgros has stated that in order for the organic market in Lithuania to develop, consumers' knowledge about organic food must improve. Informing and educating consumers about the benefits of organic would lead to increased demand in the marketplace and a governmental action plan would facilitate reaching this goal.[141]

National organic production development objectives 2017–2020

- Ministry of Agriculture is responsible
- The programme aims to support the growth of organic production. It provides measures to directly address issues in production and consumption of organic food.

Goals of the programme include several areas, such as production, processing, employment, and research:

- Organic production and the number of controlled sales places will increase by 30%
- The variety of certified processors will increase by 35%
- The number of certified processors will increase by 20%
- Formal and non-formal training courses will be organised to educate accredited organic consultants
- Research in the organic sector will be supported and coordinated.

Source: EkoAgros.

[141] EkoAgros.

3. Organic market outlook

Estimates for the Nordic region outlook are based on the analyses for the individual Nordic countries in this report, i.e. outlook and historical data. Historical data is obtained via various sources including FiBL, national statistics, interviews and available market reports. Future developments are estimated by Ramboll based on historical developments, our expert insights and insights and estimates derived through interviews with external market experts.

It is important to note that some of the estimates are based on fractional data, i.e. not all regions or channels are included due to limited data availability for individual countries. Particularly:

- Total organic food market estimate is based on the main channels within Denmark, Norway, Sweden and Finland (see chapters for individual country data for further details). Iceland is excluded from this estimate as the total market data for this country is unavailable and neither possible to make reliable estimates for. However, it is our opinion that estimates based on data for the remaining four Nordic countries provide a valid picture of the overall organic food sales in the Nordic region, as Iceland only accounts for a minor share of the market.
- Similar to the overall sales of organic food, estimates for organic food sales via retail and foodservice channels are based on data for Denmark, Norway, Sweden and Finland.

The global outlook is estimated by Ramboll based on our expert insights and insights and estimates derived through existing market intelligence and interviews.

Global organic data should be read with caution, since availability, degree of quality and method for data collection (incl. definition of the individual categories) varies significantly across the countries and regions. National statistics organisations tend to regard organic production as of insufficient importance to be reported separately. The best estimates of the state of organic agriculture relate to land use and retail sales. On the production side, certifying bodies may collect farm-level data, but for reasons of confidentiality may be reluctant to make it publicly available. Furthermore, some production on certified organic farms may be sold as conventional produce due to a lack of market, further complicating data collection.[142]

[142] FAO/Food and Agriculture organization.

4. Nordic organic food market

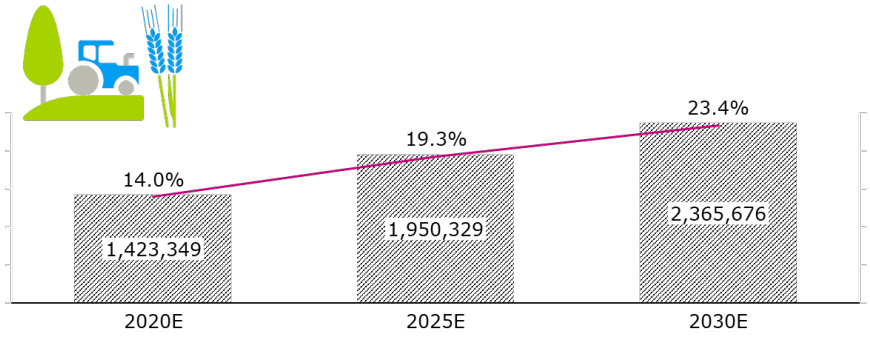
Following years of continued growth, the Nordic organic food market is estimated to continue the increase towards 2030, both with regards to organic farmland, organic sales within all major channels and total sales and respective organic shares.

4.1 Organic farmland

We expect that the organic farmland in the Nordics will continue to grow and is expected to reach 1,423,249 hectares in 2020 (14% of total farmland) and increase further to 2,365,676 hectares in 2030 (23%).

The total farming area is of similar size in Denmark, Sweden and Finland (slightly lower in Finland), however, Sweden is definitely the country with highest organic farmland both in terms of organic area and share. It is, however, Denmark, that is expected to drive the increase towards 2030, and the organic farmland here is expected to increase by almost 400,000 hectares between 2020 and 2030, i.e. double the size, and reach similar size to Sweden in 2030 (approx. 800,000 hectares organic farmland). This is anticipated to be driven by an increasing customer demand, especially amongst the newer customer generations, who grow up in a society highly influenced by environmental and health considerations. Large increases are also expected in Sweden and Finland (between 50 and 60% between 2020 and 2030), while increases in Norway and Iceland have minor impact due to much lower initial size of organic farmland in these countries. In Sweden and Finland, the increase is also expected to be driven by the increasing customer demand for organic production and especially in Sweden by the political push to increase organic farmland in the individual municipalities.

Figure 61: Development of organic farmland (hectares) and share organic (%), Nordic countries total



Source: Ramboll calculations and estimates. E: estimate.

4.2 Overall organic food sales

Similar to organic farmland, the organic food sales in the Nordic region are expected to increase towards 2030 and reach EUR 6,730 million in 2020 (8% of total food sales in the Nordic region) and increase further to EUR 14,243 million in 2030 (14%).

Sweden is the country with the largest food market, both total food market and organic. However, the relative share of organic sales is highest in Denmark (12% in 2017). Denmark is also the Nordic country that is expected to drive the total organic food sales in the Nordic region with an expected growth by ~150% towards 2030, and thus develop an even larger organic food market in value than Sweden (Denmark: EUR 6,091 million in 2030 vs. Sweden: 5,552 EUR million in 2030), and account for 43% of the overall organic food market in the Nordic region in 2030 (Sweden will account for 39% in 2030). The Danish consumers are the most pro-organic consumers in the world and are expected to drive the strong increase going forward. Sweden will also contribute significantly to the overall organic food market increase, driven by governmental push and incentives, however, the overall paradigm shift in focus towards other alternatives, especially the locally produced food will impact the growth, which will continue at somehow lower rates than during the last 10 years. Overall organic food markets in Norway and Finland are also expected to double, however, these countries account for much smaller share of the total market. Both the Swedish and Norwegian sales of organic food are in strong progress, and growth is expected especially among the smaller organic companies.

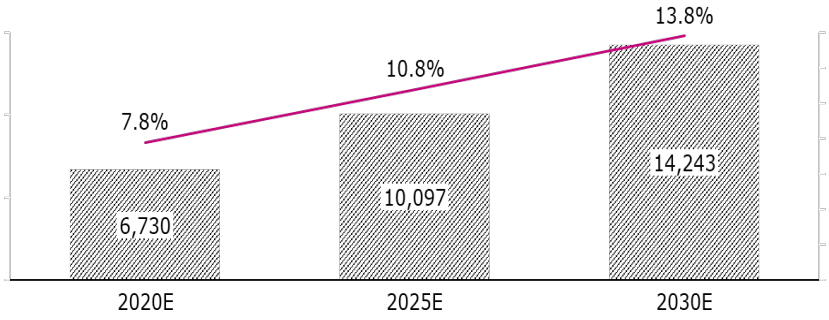
Majority of the overall growth in sales of organic food (~60%) is expected to occur within the retail channel, as it is definitely the largest organic sales channel across all Nordic countries. The foodservice sector is also growing and is expected to account for approximately 27% of the growth between 2020 and 2030. The remaining channels (not specified in this section, but supposedly mainly state monopoly retailers for wine and spirits) will account for the remaining 12% of the growth between 2020 and 2030.

The price level for the organic food has been decreasing over the last 15 years,[143] and this trend is expected to continue, as organic product gain popularity and the demand increases. This is expected to have a positive impact on the overall development of the orgaic food market going forward.[144]

[143] Forbrugerrådet Tænk.

[144] Danish Consumer Council.

Figure 62: Development of organic food market (EUR million) and organic share of total food sales (%), Nordic countries total



Note: The figure illustrates the Nordic market, i.e. sum of organic food markets in Denmark, Norway, Sweden and Finland. Iceland is excluded due to limited data availability and relatively small market size.

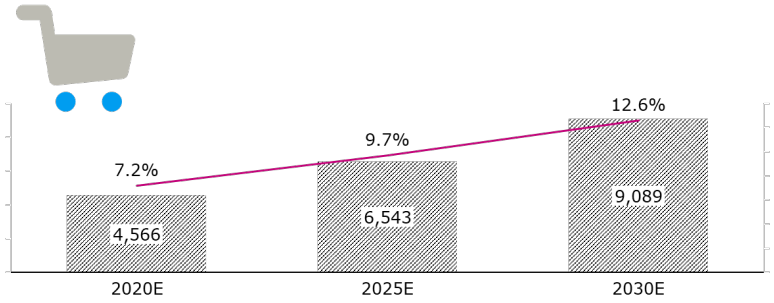
Source: Ramboll calculations and estimates. E: estimate.

4.3 Organic within the retail channel

Retail is clearly the largest channel for organic food sales across all Nordic countries. Organic food sales within the retail sector in the Nordic region are expected to increase towards 2030 and reach EUR 4,566 million in 2020 (7% of total food sales within the retail sector the Nordic region) and increase further to EUR 9,089 million in 2030 (13%).

The growth will be mainly driven by Denmark, where the organic sales within the retail sector are expected to more than double between 2020 and 2030 from EUR 2,019 million to EUR 4,461 million. The overall customer demand, driven by increasing focus on healthy lifestyle and consciousness, is expected to be the main drivers behind the organic sales increase going forward. Denmark is thus expected to reach an organic share of food sales in the retail sector of 33% in 2030. Sweden is the next country with the highest increase in the organic food sales within the retail sector and is expected to grow by EUR 1,430 million between 2020 and 2030 and reach a share of 15% organic within the sector. The increase in Sweden will be driven by the overall demand increase and happen primarily among retailers with currently lower growth rates, that still have the capacity to increase their organic shares. Increasing sales within the private label organic brands and sales of Swedish organic products are also expected to drive the market growth. Many connect better health with organic food, but also with Swedish and locally produced food. Both Norway and Finland will increase the sales as well, however, the overall contribution from these countries is much lower due to significantly lower organic markets within the sector.

Figure 63: Development of organic food and beverages sales within the retail sector (EUR million) and organic share of total food sales within the sector (%), Nordic countries total



Note: The figure illustrates the Nordic market, i.e. sum of organic food markets in Denmark, Norway, Sweden and Finland. Iceland is excluded due to limited data availability and relatively small market size.

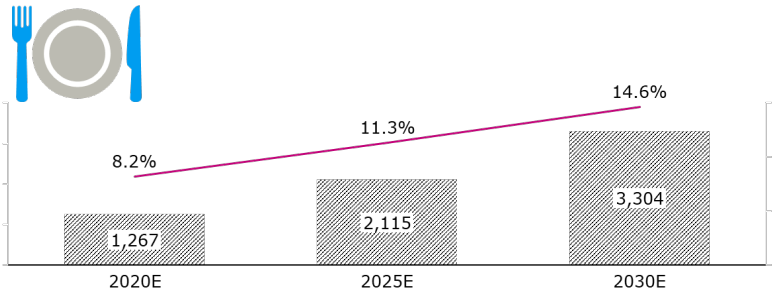
Source: Ramboll calculations and estimates. E: estimate.

4.4 Organic within the foodservice channel

Foodservice accounts typically for a much smaller share of total organic food sales but with relatively high organic shares especially in Denmark and Sweden.

Organic sales to the foodservice sector in the Nordic region are thus expected to increase towards 2030 and reach EUR 1,267 million in 2020 (8% of total food sales within the foodservice sector in the Nordic region) and increase further to EUR 3,304 million in 2030 (15%). The increase will be mainly driven by Denmark, but also Sweden and Finland are expected to contribute to the growth. Governmental focus on increasing organic food purchases in the public sector kitchens and canteens in Denmark and Sweden together with growing demand among consumers, who become more conscious about their health and well-being as well as the environmental concerns and animal welfare are among the drivers of the foodservice increase.

Figure 64: Development of organic food and beverages sales to the foodservice sector (EUR million) and organic share of total food sales within the sector (%), Nordic countries total



Note: The figure illustrates the Nordic market, i.e. sum of organic food markets in Denmark, Norway, Sweden and Finland. Iceland is excluded due to limited data availability and relatively small market size.

Source: Ramboll calculations and estimates. E: estimate.

5. Global organic food market

Environmental concerns, food scares, production subsidies and political reforms have all contributed to the substantial growth in organic production and sales in recent years. Based on the data from FiBL, global retail sales of certified organic products have increased to around EUR 60 billion in 2017 from approximately EUR 23 billion in 2005. In some national markets, organic sales reached close to 10% (with Denmark leading at 13%). Organic farmland increased substantially over the last years from 29,200,000 hectares in 2005 to 69,800,000 in 2017, and the current share of organic farmland is estimated at 1.4% on a global basis.

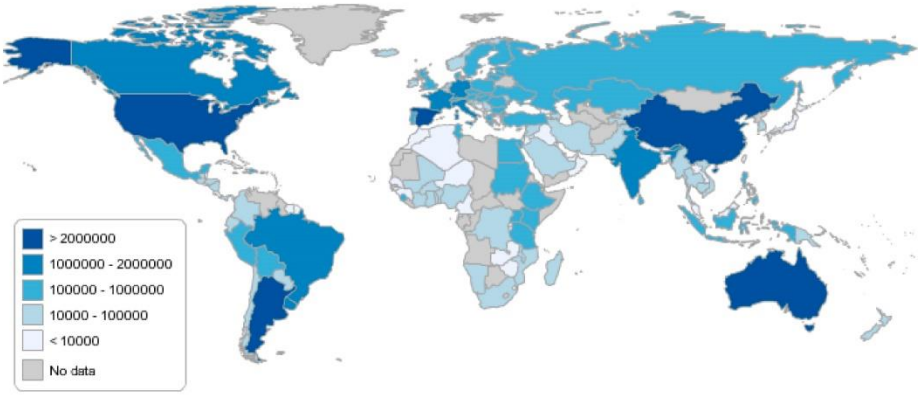
In 2017, organic sales were estimated to represent a small share, at around 2,5% of global food and beverages (high-level estimate), but it is a growing market. The organic food market is evolving especially in developed countries. About 90% of organic food sales happen in North America and Europe, although these two regions only have 25% of total organic land area.[145]

Even though many consumers still perceive organic products as "luxury" for the privileged few, the products are gaining greater acceptance.

5.1 Organic farmland

The figure below illustrates the organic farming area by country but also highlights areas where data are not available, and this disturbs the overall picture.

Figure 65: Map with key data on the organic area (hectares) (2017)



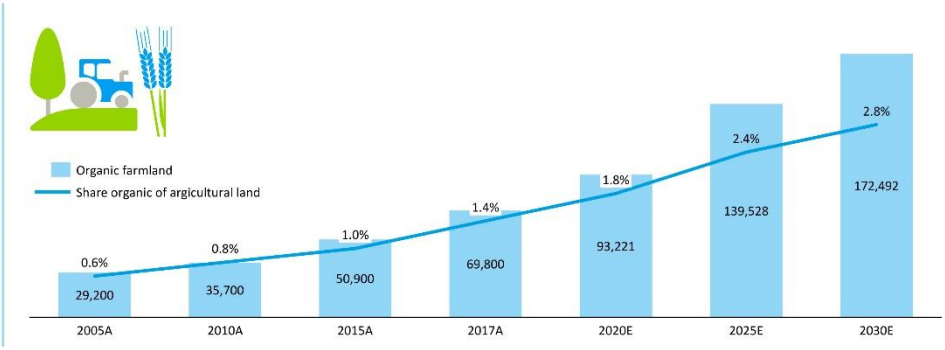
Source: FiBL.

[145] FiBL.

According to FiBL based on a survey from 181 countries (data as of the end 2017), the organic farmland increased substantially over the last years, from 29,200,000 hectares in 2005 to 69,800,000 in 2017.

Australia has the largest organic agricultural area (35,600,000 hectares), followed by Argentina (3,400,000 hectares), and China (3,000,000 hectares).

Figure 66: Development of organic farmland (thousand hectares) and share organic (%), total globally



Source: FiBL, Ramboll calculations and estimates. A: actual, E: estimate.

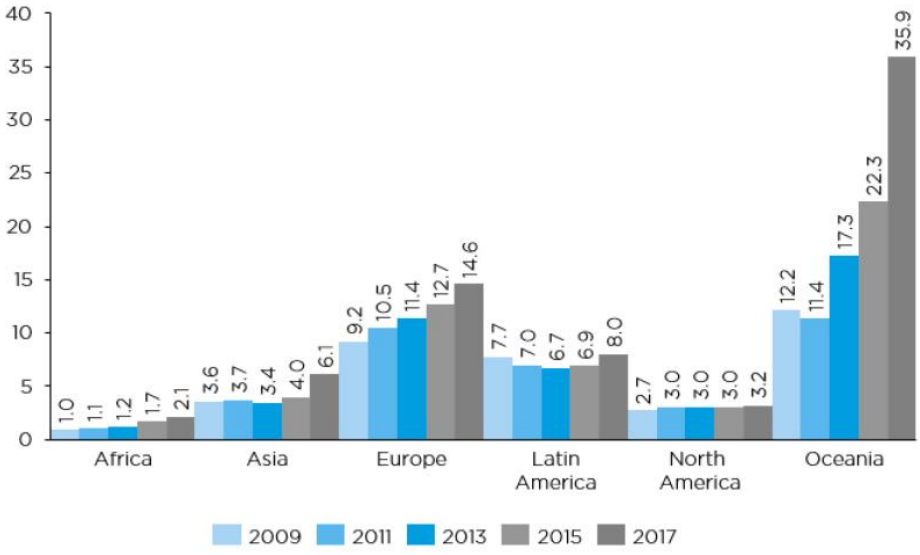
1.4% of the global farmland was organic in 2017. However, this distribution is not equal across the world, and many countries have far higher shares.

The countries with the largest organic share of their total farmland in 2017 were Liechtenstein (37.9%), Samoa (37.6%), and Austria (24%). Likewise, in total fourteen countries had an organic farmland share of 10% or above.[146]

Much of the increase during 2010–2017 was driven by Oceania and Europe. Oceania is mainly made up by Australia where the government puts much effort into increasing the certified area. The organic agricultural land in Europe has been growing as well, supported by the Rural Development Policy in Europe (supports the sustainable development of organic farming and the development of rural areas). Also, the European Innovation Partnership (EIP) and the future agricultural research supported by the Horizon 2020 program for investment in research and innovation will support organic farming growth in Europe.[147]

[146] FiBL.
[147] FiBL.

Figure 67: Growth of the organic farmland by continent



Source: FiBL.

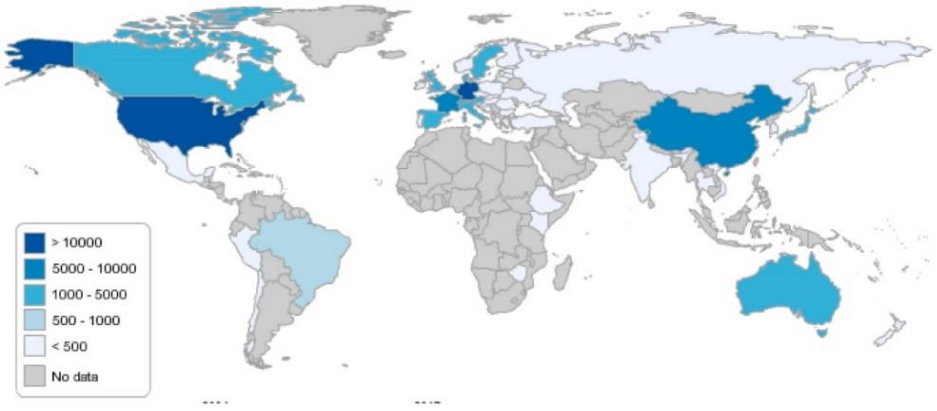
Organic growth policies in among others Oceania and Europe, increasing wealth and focus on consciousness worldwide together with a general shift in how organic products are regarded ("luxury for chosen few" before) are further driving the market growth over the forecast period. The global organic farming market is expected to experience an annual growth rate of ~ 7% during the forecast period (2018–2030),[148] and reach 172,491,791 hectares in 2030 (share of organic of 2.8%).

[148] Globenewswire release.

5.2 Organic food sales within the retail channel

The figure below illustrates organic retail sales across the world but also highlights areas where data are not available, and this disturbs the overall picture.

Figure 68: Map with key data on organic retail sales (EUR million) (2017)



Source: FiBL.

The market research company Ecovia Intelligence estimates that the global market for organic food reached EUR ~90 billion in 2017. The United States accounts for ~40% of the total organic food sales) followed by Europe (~40%), incl. Germany (~10%), France (~9%), and China (~8%).

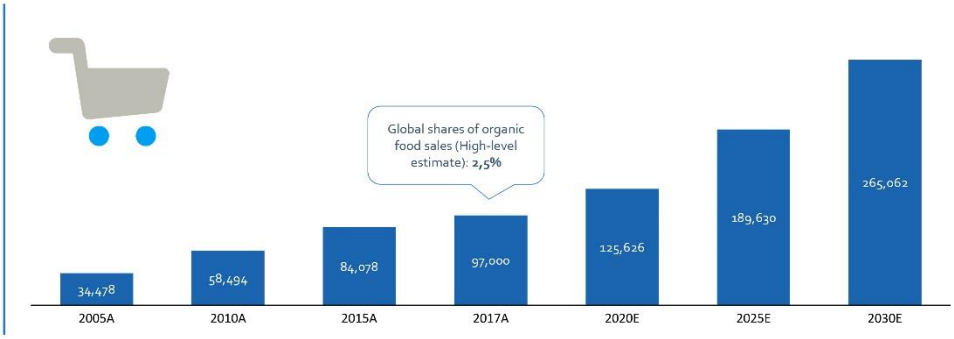
European countries also account for the highest shares of organic food sales as a percentage of their respective food markets. The highest organic market share in 2017 was reached in Denmark (13.3%), the first country with an organic market share of over 10%, Sweden (8%) and Switzerland (9%).[149]

In the US, which is the largest organic market in the world, the organic share was at 5.5% of the total food sales in 2017.

Organic food sales have been growing for several decades now, with a sales increase from EUR ~30 billion in 2005 to EUR ~90 billion in 2017.

[149] Ecovia Intelligence and FiBL.

Figure 69: Development of organic food and beverages sales within the retail sector (EUR million)



Note: Accurate data for total market unavailable, therefore not possible to calculate organic market shares. The market share for 2017 was estimated based on Ramboll's insights and is a high-level estimate.

Source: FiBL, Ramboll calculations and estimates. A: actual, E: estimate.

On average, the organic retail sales on a global basis have grown by 9% annually between 2005 to 2017. The global organic food and beverages market is expected to continue the growth at an average rate of 7% between 2017 and 2030 and reach EUR 225 billion in 2030.

The US, that is responsible for ~40% of the revenue share of the organic industry in 2017, is expected to drive the market growth in the coming years, due to the rising health consciousness among consumers and the growing popularity of organic food and organic drinks in the US.

> "The rising health consciousness among consumers and the growing popularity of organic food and organic drinks are driving the demand in North America. Increasing health issues such as diabetes, obesity, and digestive disorders are also one of the factors driving the growth of the organic food and beverages market in the region."
> – Sourced from Globenewswire

Europe accounted for over 33% of the total revenue share globally. Europen market is also expected to drive the global growth due to the paradigm shift of population towards a preference of healthy lifestyle and the rising awareness about the health benefits of organic food and beverages, environmental concerns, animal welfare etc. This is enhanced by increasing accessibility of the organic food in the supermarkets.

Another region substantially contributing to the growth expectations is the Asia Pacific, owing to the changing lifestyles and increase wealth in the region. This region is also characterised by increasing awareness about the health benefits of organic. Furthermore, the farming techniques in the region are advancing, and are anticipated to drive the demand for organic food and beverages in the region over the forecast period. Today, the Asian market imports a lot of processed organic food (e.g. infant formula) from the developed countries of Europe and North America. Other Asian countries, including Japan, Singapore, Hong Kong, and Korea are also markets that are expected to grow, driven by awareness about the benefits of organic food and beverage.

Likewise, the Middle East, Africa and Latin America are expected to grow their organic sales, driven by the rapid adaption of western culture and increase in awareness about the benefits of organic food.

The estimates above are high-level estimates and can be impacted by a number of current and potential challenges, which might have an impact on the global trade, and therefore also the organic food sales. However, the actual impact of these challenges is difficult to access and or estimate. Among others following challenges are relevant for the following organic food sales.[150]

- *Rising number of standards:* There are over 80 national standards and even more of private/voluntary standards for organic agriculture. Although some major trading blocs (incl. Europe and USA) have single and aligned standards, companies trading outside these regions need to consider multiple certifications which adds much complexity to their trade and may hinder the sales developments;
- *Demand concentration:* According to FiBL, organic crops are grown in 181 countries, however, 90% of organic sales are in Europe and the USA. This makes organic foods be perceived as "luxury" products for the western world. This perception will need to change if the organics shall continue its strong growth;
- *Supply shortfalls:* Organic food sales increased by three times between 2005 and 2017, while organic land area increased less. If this trend continues, supply shortfall will constitute a major hinder for sales growth;
- *Trade implications and agreements:* The global organic food industry affected by trade wars and geopolitics. E.g. the US and China's trade war since 2017, which impacts exports of agricultural products (both conventional and organic) from the US. Similarly, Brexit will impact European trade, as the UK is one of the largest importers of organic raw materials from other European countries.

[150] FIBL, IFOAM Organics and Ramboll.

6. Global sustainable development goals and organic food

Although different countries link organic farming to sustainable development in different ways, most countries seem to perceive at least some connection between the two. In scientific research, even though the precise effects of organic farming differ, there is a clear positive effect of organic farming in the areas of biodiversity and soil fertility and slightly higher efficiency in energy and nitrogen.

6.1 The Sustainable Development Goals

"The Sustainable Development Goals (SDGs), otherwise known as the Global Goals, are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity."

The United Nations Sustainable Development Goals are a set of 17 global goals which guide the United Nations Development Programme (UNDP) policy and funding until 2030. The goals include no poverty, zero hunger, good health and well-being, clean water and sanitation, sustainable cities and communities, responsible consumption and production, climate action, life on land and several others. The goals are interconnected and require a multi-target focus, such that reaching one goal often requires tackling another. The goals aim to engage several stakeholders in society, such as the private sector and citizens, in addition to governments.

The UNDP provides country support platforms to facilitate governments to integrate the SDGs into their national development plans. Countries submit Agenda 2030 progress reports detailing their work so far towards reaching the Sustainable Development Goals.

The SDGs encompass a range of topics to be addressed to reach sustainable development on our planet:[151]

- *Goal 1: No powerty and Goal 2: Zero hunger* – Organic farming methods have, according to the UN, strengthened yields and food security for millions of people in developing countries, for example through a focus on crop rotation, composting and co-cultivation of different crops (agroforestry), which enhance soil fertility, increase yields and household income and at the same time create a land that holds better on water and is more climate resilient;

[151] UN and Ramboll analysis.

- *Goal 6: Clean water and santiation* – Organic production as the ecology protects drinking water from residues of pesticides and nutrients;
- *Goal 14: Life below water* – Organic production contributes less runoff into the sea due to lower input of fertilizers and absence of pesticides;
- Other goals addressed by organic production:
  - Goal 3: Good health and well-being
  - Goal 12: Responsible consumption and production
  - Goal 13: Climate action
  - Goal 15: Life on land may all be linked to the production and/or consumption of food.

Figure 70: Sustainable Development Goals (SDGs)

Source: United Nations.

6.2 Different interpretation of the SDGs' link to organic

Governments, organisations and private sector players have various ways of interpreting the SDGs and the optimal way to reach them.

Goal 2 is more specifically to end hunger, achieve food security and improved nutrition and promote sustainable agriculture. There appears to exist some confusion as to what exactly constitutes "sustainable agriculture". In Denmark's progress report[152], Statistics Denmark reports, in relation to goal 2, that there has been an increase in the share of agricultural land grown by organic methods.

They continue, however, with: "Whether this type of farming should be the only type regarded as productive and sustainable agriculture, as phrased in for indicator 2.4, has to be further discussed.".

Similarly, Sweden reports about Goal 2 in its progress report from 2017: "If the proportion of organically cultivated area, which however does not have a globally

[152] Published in 2017 for progress in 2010–2015.

accepted definition, is used as an alternative indicator, this area has continuously increased in Sweden since 2005."

Other countries seem more certain that organic farming is vital for sustainable food production. Estonia reports in its review on implementation of Agenda 2030, related to Goal 2: "Environmental conservation, sustainable use of renewable natural resources, preserving nature and biodiversity in agricultural production can be guaranteed only through the implementation of organic farming and other agri-environment benefits included in the rural development plan."

Finland has not included organic food in its government report on the implementation of Agenda 2030. Lithuania mentions governmental support to organic farms in its section about goal 2 and has included the share of organic agricultural land as a national indicator for reaching this goal. In its section for goal 3, which is about ensuring good health, it mentions prioritising organic products in public procurement.

In 2018, Denmark was awarded silver at the Future Policy Awards by the Food and Agriculture Organisation of the United Nations[153]. The award was for their Organic Action Plan for Denmark 2011–2020. The Future Policy Award aims to develop and disperse policies that encourage sustainable production and consumption of food.

Countries thus differ in terms of establishing a direct link between sustainable development and organic farming. Examples from the various Agenda 2030 reports, and Denmark being awarded silver in the UN Future Policy Awards, indicate that there are at least perceived links between sustainable development and organic farming and that organic farming is significant in achieving sustainable development.

6.3 Research on the link between organic farming and sustainability

In January 2019, the Thünen Institute conducted an extensive literature review of 528 selected scientific studies on the potential of organic farming to solve the environmental and resource challenges[154]. The study focused on several areas, including climate protection, resource efficiency, soil fertility, and biodiversity.

The results varied across the different areas of research but were mostly positive. There was a clear positive effect of organic farming on biodiversity. The number of species on arable land was, on average, 95% higher on arable land under organic management. Additionally, soil fertility was clearly improved with organic farming. In terms of climate protection, the release of greenhouse gases was lower for organically cultivated land. However, when adjusting for the lower yield of organic farming, there was no significant difference between organic and conventional farming.

In terms of resource efficiency, both input and output of nitrogen and energy were lower for organic farming, but there was still slightly higher efficiency for both energy and nitrogen in organic farming.

[153] Organic Denmark.
[154] Thünen Institute.

References

Statistical resources:

- FiBL
- IFOAM
- FAO
- Eurostat
- World Bank
- Statistics Denmark
- Statistics Norway
- Statistics Sweden
- Åland Islands Statistics (ÅSUB)
- Statistics Greenland

Organisations and Agencies:

- Danish Agriculture and Food Council
- Økologisk landsforening
- Organic Denmark
- Ekoweb
- Ekomatcentrum
- Organic Sweden
- Norwegian Institute of Public Health
- Store norske leksikon
- Finnish Ministry of Agriculture and Forestry
- Pro Luomu
- Farmers' Association of Iceland
- TUN
- Faroese Ministry of Foreign Affairs and Trade
- Faroese Agricultural Agency
- Food and Veterinary Authorities in Greenland
- Estonian Organic Farming Platform
- Association of Latvian Organic Agriculture
- EkoAgros
- Lithuanian Organic Farming Association

Reports:

- FiBL and IFOAM – Organics International, The World of Organic Agriculture, 2019
- Danish Agriculture and Food Council, The Organic Way – The Danish Model, 2018
- Ekoweb, Ekologisk livsmedelsmarknad, 2019
- Ekomatcentrum, Marknadsrapport – Ekologiskt I offentlig sektor 2018, 2018
- Norwegian Agricultural Agency, Produksjon og omsetning av økologiske landbruksvarer, annual reports for 2005–2018
- Pro Luomu, Organics in Finland, 2018
- Kantar TNS, Luomun kuluttajabarometri, 2017
- University of Helsinki, Luomutuotanto 2020, 2017
- Statistics Greenland, Greenland in Figures, 2018
- Moreganic, Baltic Organic Market Report, 2019
- Estonian Organic Farming Platform, Organic Farming in Estonia 2018.

Sammenfatning

Størrelsen på det økologiske landbrugsareal, værdien af det økologiske fødevaremarked og de tilsvarende økologiske markedsandele varierer på tværs af de nordiske og baltiske lande. Selvom vi ser mange af de samme tendenser på tværs af de analyserede lande, så har de alle været påvirkede af forskellige faktorer, og de økologiske markeder har som konsekvens heraf udviklet sig forskelligt.

Generelt set er forbrugere i stigende grad blevet mere fokuserede på en sund livsstil og bevidste om den øgede værdi, som økologiske føde- og drikkevarer giver. Dette har sammen med støtteordninger og politiske dagsordener bidraget til en kraftig vækst i økologisk produktion og omsætning igennem de seneste år i de nordiske og baltiske lande.

De nordiske lande (Denmark, Sverige, Norge, Finland og Island) er tydeligvis blandt de mest udviklede markeder for økologisk salg og produktion – med Danmark og Sverige som de førende. Udviklingen i Norge og Finland har været mere moderat. Island er betydeligt bagefter, og økologi har endnu ikke haft sit store gennembrud på grund af udfordringer med begrænset efterspørgsel og ugunstige klimatiske forhold for økologisk produktion.

De baltiske lande (Estland, Letland og Litauen) er fortsat udviklingsmarkeder i forhold til økologiske fødevarer, men har oplevet kraftig vækst gennem de seneste ti år. Det økologiske marked i disse lande fokuserer mest på eksport, men også den indenlandske efterspørgsel er stigende.

De selvstyrende områder (Færøerne, Ålandsøerne og Grønland) er meget anderledes end deres nordiske naboer, og her er de økologiske markeder stadig i deres tidligste fase, især i forhold til produktion (med undtagelsen af Ålandsøerne). Forbrugerne er meget glade for den lokale produktion, og da de opfatter deres landes produktion som 'næsten økologisk', ser de ikke nødvendigvis noget behov for at købe certificerede økologiske produkter.

De nordiske lande

Landbrugsarealerne har samme størrelse i Danmark, Sverige og Finland (omend en smule lavere i Finland). Sverige har det største økologiske landbrugsområde både i forhold til det totale økologiske areal og som andel af det samlede landbrugsareal (576.845 hektarer og 19% certificeret økologisk landbrug i 2017).

Økologisk landbrug er blevet en stadigt vigtigere faktor i den svenske landbrugspolitik siden 1990, og det politiske fokus fortsætter gennem nationale mål og kommunale indsatser. Samtidig med den generelle vækst i forbrugernes efterspørgsel

af økologiske fødevarer, er det økologiske landbrugsareal vokset med 160% mellem 2005 og 2017 (totalvækst på 354.107 hektarer).

I Danmark og Finland er det økologiske landbrugsareal ligeledes steget væsentligt med henholdsvis 108% (totalvækst på 145.170 hektarer) og 101% (totalvækst på 149.058 hektarer) mellem 2005 og 2018[155]. Dette er drevet af stigende forbrugerefterspørgsel og et højt politisk fokus. Staten har i begge lande sat nationale mål for økologisk landbrug og bakket op om landmændenes ønske om at konvertere til økologi.

Udviklingen af økologisk landbrug i Norge har fulgt et andet mønster. Den overordnede økologiske andel er meget lavere, end i de andre nordiske lande (4,7% af hele landbrugsarealet i Norge i 2018). Kun Island har et mindre økologisk landbrugsareal (1,5% af total i 2017). Efter en periode med et stigende økologisk landbrugsareal mellem 2005 og 2010 er det økologiske landbrugsareal begyndt at falde efter 2010. Dette er angiveligt drevet af et ophør af statslig støtte til landmænd, der ønsker at omlægge til økologi. På grund af Norges kolde klima er økologisk produktion problematisk. Norske landbrugsbedrifter er typisk små, hvilket gør dem mere afhængige af høje udbytter, end landbrug i andre lande. Dette har været en af de vigtigste grunde til faldet i økologisk landbrugsareal.

Island er det nordiske land med mindst økologisk landbrug på grund af ugunstige klimatiske forhold for landbrugsproduktion. Island har ingen økologisk eksport, og den lave lokale efterspørgsel giver producenterne manglende incitamenter til at drive økologisk landbrug. Dette ændrer sig dog langsomt, og siden 2017 har omlægningstilskud været en mulighed for landmænd, som ønsker at konvertere til økologisk landbrug.

Fremadrettet forventes den største stigning i økologisk landbrug at være i Danmark. Med næsten 480.000 hektarer mellem 2018 (279.300 hektarer) og 2030 (760.000 hektarer) forventes dette at blive drevet af en stigende forbrugerefterspørgsel – især blandt de yngre generationer af forbrugere, som vokser op i et samfund, der har større opmærksomhed på individuel sundhed, miljø og dyrevelfærd.

Store stigninger i økologisk langbrugsareal er også forventet i Sverige og Finland drevet af en stigende forbrugerefterspørgsel for økologisk produktion og – især i Sverige – gennem et politisk skub i retning af at øge det økologiske landbrug i de enkelte kommuner.

Norge og Island forventes også at opleve en stigning i økologisk landbrug frem mod 2030. Selvom det samlede økologiske landbrugsareal i Norge er faldet inden for de sidste par år, forventer man alligevel en lille stigning inden for de næste ti år på grund af en øget efterspørgsel efter økologiske fødevarer blandt forbrugerne. Denne udvikling forventes at blive afspejlet hos de norske producenter, som dermed vil blive mere villige til at omlægge til økologisk produktion. Også i Island forventes både forbrugere og landmænd at kunne se værdien af økologi. Økologisk produktion

[155] Bemærk, at de mest aktuelle referencedata er 2017 for nogle lande, mens 2018 for andre. Se de enkelte landes rapporter for detaljer.

forventes derfor at blive øget – især efter, at omlægningstilskud blev introduceret i 2017.

Sverige er det land, som har det største samlede fødevaremarked (alle distributionskanaler) målt på samlet værdi. Den relative andel af økologi på det samlede fødevaremarked (alle distributionskanaler) er imidlertid højest i Danmark med 12%[156] i 2017 (9% i Sverige i 2018, 2% i Norge i 2018, 3% i Finland i 2018; Island kan ikke estimeres).

Danske forbrugere er de mest pro-økologiske forbrugere i verden. Mere end halvdelen af danskerne (52% i 2018) køber økologisk mad hver uge. Her har det statskontrollerede røde Ø-mærke været med til at skabe tillid til de økologiske fødevarer.

I alle de nordiske lande sælges de fleste økologiske føde- og drikkevarer gennem detailsektoren, som derfor er den største økologiske salgskanal i alle de nordiske lande.

Økologisk salg inden for detail har samme størrelse i Danmark og Sverige (1.522 mio. EUR i Danmark i 2017 og 1.638 mio. EUR i Sverige i 2018), selvom den økologiske andel inden for detailhandlen er højest i Danmark (13,3% i 2017[157], mens den var 9,3% i Sverige i 2018).

Det svenske detailmarked har oplevet en stagnation i salget af økologiske føde- og drikkevarer efter en periode med blomstrende vækst. Udviklingen i Sverige var i vid udstrækning drevet af et fokusskift fra de økologiske til andre alternativer, såsom lokalt/bæredygtigt producerede produkter og vegetar/veganer-varer. Store detailkæder i Sverige lagde disse varer på deres hylder for at tilbyde forbrugerne mange nye alternativer. Baseret på interviews er det vores indtryk, at tendensen til den langsommere vækst i salg af økologi i Sverige ikke skyldes forbrugernes manglende efterspørgsel, men snarere, at de er usikre på, hvad der udgør et bæredygtigt valg af fødevareprodukter, da økologi ikke længere er den eneste valgmulighed. Desuden fokuserer svenske detailforhandlere mindre på økologisk profilering end tidligere, og inden for det seneste stykke tid har der kun været et par kampagner, der udelukkende omhandlede økologi. På trods af denne udvikling har de fleste detailkæder i Sverige rapporteret en lille stigning i vækstraten for salg af økologi i 2018.

Det økologiske detailmarked i Norge er meget mindre, end dets skandinaviske naboers, og kun 2% af det samlede salg af fødevarer er økologisk. Denne sektor vokser dog støt.

---

[156] Bemærk, at 12% i 2017 er Rambølls estimat for det samlede økologiske salg på tværs af de forskellige sektorer. Det samme gælder 9% i Sverige, 2% i Norge og 3% i Finland. Det var ikke muligt at estimere 2018 tallet for Danmark, da data ikke er tilgængelige for alle sektorer. Bemærk desuden, at Danmarks Statistik har ændret antagelser og metode til beregning af økologiandele inden for detailsektoren i løbet af 2019, hvilket resulterede i lidt forskelligt (lavere) tal for detailhandelen og dermed også det samlede salg af fødevarer (på tværs af alle kanaler) i 2017 og før. Denne ændring er ikke inkorporeret i rapporten, og det er vores forståelse, at det ikke er en indikation af faldende salg af økologiske fødevarer, men kun en ændring i de underliggende antagelser til beregningen (f.eks. hvilke produktgrupper der er inkluderet). Se figur 10 for flere detaljer.

[157] Bemærk, at beregningsgrundlaget og den underliggende metode blev ændret i Danmark fra 2017 til 2018, hvilket resulterede i et fald i procentdel, men sandsynligvis ikke er et tegn på faldende salg af økologiske fødevarer.

I Finland er salget af økologiske fødevarer inden for detailhandlen ligeledes omkring 2%, men også her er markedet vokset støt siden 2015. I både Norge og Finland er væksten drevet af øget opmærksomhed i forhold til økologiske produkter og deres fordele samt et bredere udvalg og mere reklame for økologiske fødevarer.

Foodservice-sektoren er en anden vigtig salgskanal for økologiske fødevarer i de nordiske lande. Foodservice står typisk for en relativt lille del af det samlede salg af økologiske fødevarer (på tværs af alle salgskanaler), sammenlignet med detailsektoren, men har en relativ høj økologiandel – især i Sverige og Danmark. Det økologiske salg af fødevarer til foodservice-sektoren blev henholdsvis 507 mio. EUR og 16 % (2018) og 275 mio. EUR og 9% (2017) i Sverige og Danmark.

Økologisk fødevaresalg inden for foodservice-sektoren i Sverige er hovedsageligt drevet af køb i den offentlige sektor. Sverige har den største andel af offentlige indkøb af økologiske fødevarer i verden (37% i 2018), og det nationale mål er 60% inden 2030.

Økologisk fødevaresalg til foodservice i Danmark er seksdoblet siden 2005, hovedsageligt på grund af en stigning i antallet af spisesteder, der fokuserer på økologi og en generelt stigende økologisk volumen på de certificerede spisesteder. Den forventede vækst var blandt både private og offentlige aktører, og økologi ser ud til at være et vigtigt udvælgelseskriterium, når man køber mad og drikkevarer i denne sektor. Ligesom i Sverige har den danske regering haft et politisk mål om at nå 60% økologi i den offentlige sektor (i 2020). Den danske regering har fremmet de økologiske indkøb blandt kommuner og regioner og herved understøttet væksten i økologi inden for den offentlige del af sektoren.

Salg af økologiske fødevarer til foodservice-sektoren er markant lavere i Finland og Norge (henholdsvis 176 mio. EUR og 3% og 27 mio. EUR og 1% i 2018), men er også steget markant i løbet af de sidste ti år. Specielt i Finland er væksten hovedsageligt drevet af den offentlige sektor.

En anden vigtig kanal for salg af økologiske produkter i Norden er de statsejede monopoler, der sælger alkoholiske drikkevarer (Vinmonopolet i Norge, Alko i Finland og Systembolaget i Sverige). De har samme størrelse som, eller er endnu større, end foodservice-markedet i de respektive lande og er af stor betydning, da deres position som monopol inden for alkoholsalget giver dem mulighed for effektivt at påvirke sortiment og produkttyper, som forbrugerne køber. Der forventes store stigninger i det økologiske salg inden for disse kanaler i de tre lande, hvor den økologiske andel lå mellem 7% og 13% i 2018.

Fremadrettet forventes de nordiske lande at øge deres salg af økologiske fødevarer på tværs af alle kanaler mellem 2017/2018 og 2030.

Den største stigning forventes i Danmark, som vil tredoble det totale marked for økologiske føde- og drikkevarer (alle kanaler) mellem 2017 (1.797 mio. EUR) og 2030 (6.091 mio. EUR) og ramme en økologiandel på 34% af det samlede salg af fødevarer i Danmark. Danmark vil således overgå Sverige i den samlede værdi af markedet for økologiske fødevarer. Stigningen forventes på tværs af alle kanaler.

I Sverige vil væksten i det samlede økologiske fødevaremarked (på tværs af alle kanaler) være lidt lavere, men det forventes fortsat at blive fordoblet mellem 2018 og 2030 (5.552 mio. EUR i 2030) med stigninger på tværs af alle kanaler. Den økologiske

andel af det samlede fødevaremarked stiger fra de nuværende 9% til 15%. På trods af trend-skiftene forventes kundernes efterspørgsel efter økologiske fødevarer fortsat at vokse, da økologiske fødevarer allerede er velpositionerede i svenske husholdninger. Svenske forbrugere foretrækker produkter, der er forarbejdet så lidt som muligt, er sunde og er produceret på en miljøvenlig måde. Især lokalt produceret økologiske fødevarer forventes at vinde popularitet.

Norge forventes at (mere end) fordoble den samlede økologiske fødevaremarkedsandel mellem 2018 og 2030 fra 420 mio. EUR (2%) til 1.053 mio. EUR (5%). Den vigtigste drivkraft for den fremtidige vækst vil være den fortsatte stigning i forbrugernes efterspørgsel efter økologiske produkter på tværs af de tre vigtigste distributionskanaler inden for detailhandel, Vinmonopolet og foodservice.

Selvstyrende områder

Økologisk mad som koncept er ikke lige så veludviklet på Færøerne, som i de andre nordiske lande. Der er ikke noget certificeret økologisk landbrug på Færøerne. Desuden er der en opfattelse af, at køb af økologi ikke giver nogen merværdi, da konventionelle færøske produkter betragtes som 'næsten økologiske'. På trods af den relativt begrænsede tilgængelighed af data, både i form af kvantitativ og kvalitativ information, er der imidlertid en indikation på en stærk vækst inden for salget af økologiske fødevarer siden 2010 – i det mindste inden for detailsektoren, som er drevet af den stigende popularitet af økologiske produkter blandt kunderne.

Foodservice-sektoren på Færøerne udviser ikke særlig interesse for økologiske fødevarer med undtagelse af de mere eksklusive restauranter.

I lighed med Færøerne er datatilgængeligheden for Ålandsøerne meget dårlig. Konceptet med økologisk mad er stadig relativt nyt i Ålandsøerne, men efterspørgslen er ifølge produktionsdata og interviews med detailhandlen steget i de seneste år. For forbrugere i Ålandsøerne spiller miljøet en stadig større rolle, når de køber mad, og de er villige til at betale en merpris for økologiske fødevarer.

I 2016 var 3.769 hektarer jord i Ålandsøerne økologisk certificeret (en stigning på 65% i den samlede økologiske jord siden 2005). Det udgjorde 27,5% af det samlede landbrugsareal i Ålandsøerne.

82% af den økologiske produktion i Ålandsøerne sælges inden for Ålandsøernes grænser. Resten (ca. 18%) eksporteres til Finland. De fleste økologiske varer importeres fra Finland.

I Grønland er markedet for økologiske føde- og drikkevarer meget anderledes end andre nordiske lande. Selvom der findes økologiske fødevarer i detailforretningerne, er der en meget stærk tillid blandt forbrugerne til lokalt producerede fødevarer, der betragtes som 'næsten økologiske'.

En stor del af salget sker gennem markedspladser, hvor producenter og forbrugere mødes for at købe opdrættede, jagede og fiskede fødevarer. Selvom disse produkter kommer direkte fra producenterne og angiveligt kun indeholder få spor af pesticider, er de ikke økologisk certificerede.

Der er ingen certificeret økologisk produktion i Grønland, og de fleste af deres økologiske varer importeres fra Danmark.

De baltiske lande

I de baltiske lande vokser den økologiske produktion i øjeblikket hurtigt. Selvom de økologiske markeder i disse lande stadig er relativt små (mellem 40-50 mio. EUR svarende til 1-3% af detailmarkedet i 2017[158]), er de økologiske salgstal efter sigende fordoblet for hvert af de baltiske lande i løbet af de sidste ti år og forventes at fortsætte med at vokse i fremtiden. Med stigende disponible indkomster og højere uddannelsesniveauer er borgerne i de baltiske lande helt tydeligt blevet mere interesserede i økologiske fødevarer.

Der er et stort udvalg af økologiske varer til rådighed gennem forskellige distributionskanaler. Det meste af salget foregår gennem detailhandlen. Maxima og Rimi Baltic (ejet af den svenske ICA Group) dominerer detailmarkedet. Selvom supermarkeder er den vigtigste salgskanal inden for den økologiske detailsektor, startede begrebet 'økologi' allerede i specialforretninger tilbage i 1990'erne. Disse er stadig populære i dag i de forskellige lande.

Økologisk foodservice er ikke så veludviklet i de baltiske lande, som i de nordiske. Den er stadig i sin udviklingsfase og spiller en mindre rolle på det estiske, lettiske og litauiske marked. Der forventes vækst i økologisk foodservice i fremtiden.

Fælles for Estland, Letland og Litauen er deres eksport-fokuserede landbrugsstrategi. Den indenlandske efterspørgsel er ikke tilstrækkelig til den økologiske produktion, og størstedelen af de økologiske fødevarer, der produceres i de baltiske lande, sælges i udlandet (hovedsageligt til EU og USA).

Regeringernes fokus på eksport og betydelig støtte fra EU's landdistriktsudviklingsprogram har betydet at det økologiske landbrugsareal næsten er tredoblet i hvert af de baltiske lande siden 2005.

[158] Vi har ikke været i stand til at indhente data for andre salgskanaler end detailhandel i de baltiske lande. Imidlertid forventes denne kanal at udgøre den største andel af salget af økologiske fødevarer i Baltikum.

Nordic Council of Ministers
Nordens Hus
Ved Stranden 18
DK-1061 Copenhagen K
www.norden.org

Market analysis of organic foods in the Nordic and Baltic countries
The project was initiated in March 2019, deriving from a request from The Danish Veterinary and Food Administration who handles the project management on the Nordic-Baltic project "Nordic Nutrition the Green Way". The project is funded by the Nordic Working Group for Diet, Food & Toxicology (NKMT) under the Nordic Council of Ministers.

The purpose of this report is to provide an overall picture of the organic food and beverage market in the Nordic and Baltic countries. This includes a review of historical developments within the sales of organic foods and beverages across the main sales channels, imports/exports and organic agricultural production. Furthermore, we give an overview of political incentives in the area of organic food, consumer profiles and attitudes, and provide an outlook on the future trends and expected developments within the Nordic countries. The report also includes an outlook for the Nordic region and globally towards 2030. Lastly, the report includes a link between organic food and the UN's 2030 sustainability agenda and how the individual countries incorporate organic into their national strategies towards 2030.

The market analysis covers the following countries:
- Nordic countries: Denmark, Sweden, Norway, Finland and Iceland
- Autonomous areas: The Faroe Islands, Åland Islands and Greenland
- Baltic countries: Estonia, Latvia and Lithuania

The market analysis is part of the project "Nordic Nutrition the Green Way", which aims at bringing together the Nordic and Baltic authorities and relevant private stakeholders in the field of organic production and consumption. The project addresses the idea of a sustainable and healthy diet for the population and strengthening the Nordic-Baltic identity on sustainability and branding of a greener and more organic Nordic-Baltic region.