

### Denmark is a world-leading seafood exporter

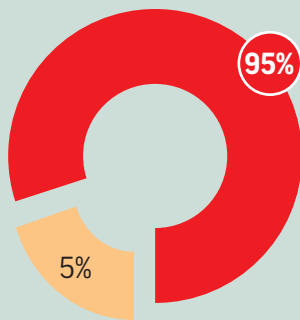
A cornerstone in the Danish food cluster is the seafood industry as this was one of the first established industries in Danish food history. Today, it represents the second largest export product group, making fish and shellfish a vital part of the Danish food sector's heritage.

Consumers around the world are demanding Danish fish and today, Denmark is the EU's largest exporter of fish and shellfish. 95% of all Danish fish are exported to more than 115 countries, and between 2008-2018 exports increased by a total of 9%.

Denmark is a net exporter of fish and fish products. Between 2008 and 2018, exports increased by a total of 9%

Source: The OECD Review of Fisheries 2020

Share of Danish fish production being exported



Source: The Danish Agriculture & Food Council, 2019

### A global trading platform

The Danish seafood industry discovered the global potential for sourcing and selling fish and shellfish early on, and today over 60% of all supplies are imported from all over the world. Denmark is forming a global platform for organised international trade and production of seafood.

A third of all supplies to the Danish seafood industry is provided by Danish fishermen. The journey from sea to consumer is short due to a closely integrated supply chain enabling the fresh fish and shellfish to reach markets as far as Italy and Spain on the same day as it was caught.

By-products from the seafood production in Denmark are used as ingredients for human consumption or in animal feed. By using the off-cuts as ingredients in other parts of the food and feed industry, Danish aquaculture provides a sustainable production based on modern recirculation technology leaving a small footprint on the environment.

### Close collaboration across the seafood value chain

One of the reasons why Denmark is leading within fish and processed fish exports, is the high-tech production methods developed over the years. Stakeholders in the fish industry operate in a value chain that is state-of-the-art within the industry.

The industry is constantly cooperating closely with universities across Denmark to stay up-to-date with solutions that are scientifically proven and technically operational. For instance, the Department of Food Science at the University of Copenhagen has developed an internationally recognised mathematical model, which calculates the shelf life for marinated shrimps and smoked salmon.

75% of all landings from Danish vessels are certified by the Marine Stewardship Council (MSC label)

Source: The Danish Agriculture & Food Council, 2019



### High-tech and energy efficient shrimp factory at sea

With today's trawlers at sea for up to 300 days a year, it places extremely high demands both on the vessels and on the production equipment and process line on board.

The Danish company Intech specialises in building complete shrimp factories on board of e.g. shrimp trawlers supplying all of the equipment to the factory including by-catch separators, shrimp graders, continuous shrimp cookers which saves energy by maintaining the temperature, freezing tunnel, automatic weighing of shrimp in sacks, complete package line and palletising system. The entire system is manufactured to make all work processes easier and less manual.

### Utilising resources to create high-quality ingredients

By utilising leftovers from the sea, Denmark has become a global leader in rich ingredients that are used in modern, nutritious feed around the world.

Examples within this field are the companies TripleNine and FF Skagen who deliver leftovers from Danish fish production to feed and pet food industries all over the world. The primary raw materials are small, short-lived fish with little or no potential for use in direct food production or upcycled trimmings from fish processing. Used in the production of fishmeal and fish oil, these valuable resources deliver essential nutrients to the fast-growing global aquaculture sector.



### Reduced salt in ready-to-eat seafood products

Salt has traditionally been used to preserve many types of fish products, because it inhibits bacterial growth and increases product shelf life. But as people generally consume too much salt, it is necessary to develop solutions to reduce salt in e.g. fish and shellfish products.

The Danish company Royal Greenland has used mathematical tools to predict the potential growth of hazardous microorganisms in ready-to-eat (RTE) seafood including *Clostridium botulinum* and *Listeria monocytogenes*. Using these tools, it is now possible to lower the content of salt in RTE seafood by up to 50% without compromising the food safety.