

appetizer

The Fishing Port Magazine

THE FISH & FOOD
INDUSTRY IN BREMERHAVEN



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Imprint 59

*Cover:
Skilled and experienced: Filleter Ibrahim Yilmaz has been working
at the R aucherei Sandelmann smokehouse since 2005.*



APPETITE FOR FISH
IS ON THE RISE!

Transparency

Creates Trust

Fish and other seafood are very popular and highly valued in Germany. Fish is an important part of a balanced diet, increasingly becoming a sign of a good and healthy lifestyle. The Federal Association of the German Fish Industry and Fish Wholesalers works at many levels to support, safeguard and further develop this important sector of the German food industry. Building the trust and confidence of consumers is crucial to the successful marketing of fish and seafood.

I am particularly happy that in publishing »**appetizer**«, a magazine dedicated to the Fishing Port of Bremerhaven – Germany’s most important fish processing center – we contribute to providing a wider public with an honest and transparent view of how fish and seafood is processed by all the companies involved.

The idea of sustainable fishing originated in Bremerhaven; in a way, Bremerhaven is the home of the MSC label. Today, the sustainable exploitation of fishery resources, as well

as the conservation of energy and water, are high on the agenda, as exemplified by some of the model projects we present in this issue. Readers will discover the many innovative aspects of Bremerhaven’s fisheries industry, such as product development, quality assurance, traceability of goods, creative marketing ideas and research on sustainable aquaculture. It will also become clear how closely our industry today works with research institutes. Bremerhaven’s *Schaufenster Fischereihafen* – an area of the port that showcases production facilities with restaurants, shops, museums and other places of interest – is another excellent example of how interaction between consumers and the fisheries industry can be successful and entertaining at the same time.

I hope you enjoy this issue and the new and interesting information it provides.

Dr. Peter Dill

*Chairman of the Board
Federal Association of German Fish Industry
and Fish Wholesalers*



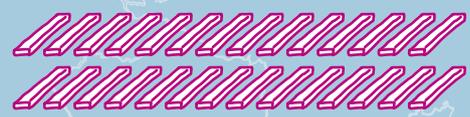
Fisch 'n Facts

BREMERHAVEN

Per capita fish consumption in Germany in 2013: 13.7 kg (marine fish account for 63 %)

PRODUCTS

Germany 2013



Breaded fish products
165,230 tons



Herring products
70,000 tons



Fresh fish
10,583 tons



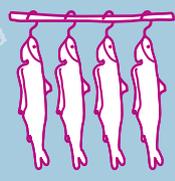
Frozen fish fillets
45,759 tons



Fish salads
27,319 tons



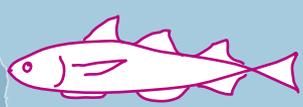
Other fish products
78,155 tons



Smoked fish
21,919 tons

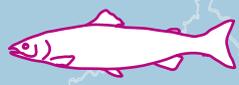
CONSUMPTION — TOP 5

Germany 2013



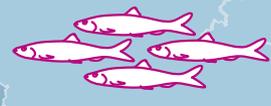
Alaska Pollock
(Theragra chalcogramma)

22.3 %



Atlantic Salmon
(Salmo salar)

17.1 %



Atlantic Herring
(Clupea harengus)

16.2 %



Tuna
(Thunnus)

13.0 %



Trout
(Salmo trutta trutta)

5.1 %



At the Center of the Flow of Goods –

It Doesn't Get Any Fresher

TEXT ~ Torsten Thomas

The food industry is a global business, and fisheries are a pivotal part of it. Fish caught today in the Pacific is flown into Bremerhaven; 48 hours later it is displayed on ice, still fresh, at fish counters across the country; or it is brought in by truck fresh from Scandinavia, or flash-frozen in containers from the North Atlantic. The romantic image of fishing boats coming into port accompanied by circling seagulls has almost completely vanished, making way for speedy and efficient logistics. Fishing and processing long ago went their separate ways and Bremerhaven, having become an important hub, stands at the fore. Although fishing boats rarely dock there, it is Germany's largest fish processing center. Some 80 companies with over 4,000 employees turn over more than 200,000 tons of fish every year – that is half of Germany's total production. Their products are consumed in Germany and many other European countries. The local fishing industry anticipated the decline of

the German oceangoing fleet and took steps to adapt to changes brought on by the globalization of fisheries. It wisely employed its decades of experience as the continent's largest fisheries port; it improved logistics, and set up a dense distribution network that reaches far beyond Germany's borders. The region's accumulated expertise also plays an important role at the European level. "Bremerhaven boasts a concentration of know-how, and guarantees a smooth outcome – from handling, storage and redistribution in cold stores to fish processing plants and transport by experienced freight forwarders. We rank number one in customer satisfaction in Europe because our competence creates trust," explains Lüder Korff, Managing Director of BLG Coldstore, a cold storage operator.



Even swordfish set off from Bremerhaven.

A hub for Germany and Europe

Others share his point of view. Florian Müller of Westfisch GmbH, a wholesale fish company, says, “We are specialized wholesalers and import some 9,000 tons of fish per year from various countries. It is frozen and transported in container ships to Bremerhaven, where it is inspected upon arrival and then stored in our cold storage facilities. There are also many companies that specialize in fresh fish. The fish auction house, Fischauktions GmbH, holds fresh fish auctions weekdays starting at 7 a.m. at its premises at Fischkai 15. The fish sold by Fischauktions GmbH originates almost exclusively from Iceland. Another important center for fish and seafood is the FUZ (Fish Trading Center) founded in 1994 and operated by freight forwarders Zahlten and Nordwest. Here, 1,600 tons of fresh fish change hands every month, with no disruption in the essential cold chain. Roland Seeckt, one of the managing directors of the FUZ explains, “Whatever is intended for sale on the market arrives here in the morning and is carefully inspected. Afterwards, the fish is sorted and usually dispatched to individual customers in consolidated transports the same day. Monday is almost always the busiest day, when we turn over

some 150 tons of fish.” Expertise in the reliable refrigeration of temperature-controlled goods is also of utmost importance at the FUZ because the fish arrives in trucks from Scandinavia or from Frankfurt Airport, and must then be inspected and repacked for each customer in surroundings that are kept at the right temperature levels. The temperature at the FUZ, a 1,000-square-meter building, is therefore kept at zero degrees Celsius. Seeckt says, “The temperatures in the trucks range between zero and two degrees Celsius, and fish from the Pacific arrives in Bremerhaven at the very latest within 48 hours of having been caught. We have the logistics required for temporary storage as well as our own ice machines.”

This professional transport and handling keeps restaurant owners and star chefs happy. They make up part of Deutsche See’s clientele, a company that also takes advantage of the logistics, the skilled labor and the expertise that Bremerhaven has to offer. Deutsche See turns over 70,000 tons of fresh fish in the port every year.

Heiko Frisch, Production Manager at Deutsche See, explains that, “When supplying high-end restaurants, everything must be identical. We get orders for a couple of thousand fillets that all have to be the exact same size and thickness.” The fish restaurant and retail chain Nordsee also uses Bremerhaven’s expert logistics and sustainable supply of fresh fish for its 400 locations. The company, which has a long tradition and was founded 120 years ago, will invest five million euros into the expansion of its headquarters in Bremerhaven and is one of Deutsche See’s major customers.

An ideal location

A good example of how attractive the Fishing Port is for enterprises is Transgourmet Seafood GmbH, a company that trades 12,000 tons of fish per year and generates a turnover of 50 million euros with some 1,900 products. The subsidiary of the Swiss-based Coop Cooperative has only been in Bremerhaven since 2008 and supplies its 35,000 German customers exclusively with products made to order. In just a few years, the company’s workforce has increased from 23 to 66 and it has enlarged its headquarters to 5,000 square meters. “Bremerhaven is the center of our operations for the German market,” says Jürgen Bergmann. He is responsible for sustainability and communication at Transgourmet. In an age of globalized flow, the company’s logistics center could have been domiciled anywhere. But Bergmann is full of praise for Bremerhaven, “The location is ideal. It offers a container port, skilled labor, competence centers, and many logistics companies and subcontractors

are based here. Nearly half of our products are produced by companies in the port; they are able to supply us with quality products in the quantities required by our customers.” Therefore it was only natural for the company to establish the Seafood Academy in Bremerhaven to train their employees. They also hold seminars for customers, but they do more than just inform them about the latest trends in fish and seafood preparation. According to Bergmann, “A big advantage is that there are many things for our customers to see in Bremerhaven, and we can organize tours for a variety of target groups.”



Fresh fish from Bremerhaven at an open-air market in Münster.

Fish on the move

Street market and online fish vendors also rely on Bremerhaven. The German association of mobile fish vendors represents 200 members and is based here in the Fishing Port. The majority of the 1,000 fish vendors registered in Germany who sell fish online or at markets in fish trucks, get their fish from Bremerhaven. Even though the quantities they sell are smaller, they focus on satisfying consumers who also profit from well-coordinated logistics and appreciate freshness. That means that special orders can be placed because Bremerhaven can sustainably supply just about anything the sea has to offer.

- < www.tg-seafood.de >
- < www.fuz-bremerhaven.de >
- < www.westfisch.de >
- < www.deutscheseede.de >
- < www.fischfeinkost.de >
- < www.fischauktion.de >



Experienced

Fish Suppliers

INTERVIEW ~ Torsten Thomas

Friedrich Wilhelm Lübbert GmbH was founded in 1923. The firm specializes in supplying fresh fish, fish to smokehouses, and takes on special orders. It currently employs 35 people who process an average of 30,000 tons of fish per year, and depending on prices, generate a turnover of 60 to 80 million euros. Managing Director Sven Braasch is aware of the importance of expertise for the success of the firm.

What is your core business?

Braasch: We're importers and exporters of raw fish and suppliers to the food industry, smokehouses, wholesalers and food retailers. As far as the latter are concerned, we've chosen to work with a single food retailer with a strong distribution network. We prefer this kind of collaboration.

What does that mean exactly?

Braasch: In this segment of the market, we buy raw material in bulk and share our expertise in the processing and design of the product.

But you don't just supply food retailers.

Braasch: We also supply smokehouses throughout Germany and Europe. In addition, we're suppliers to the herring industry and have many large, but also many smaller customers. They all trust the competence and expertise we and our regional representatives provide in all matters concerning raw goods.

What do you mean by competence?

Braasch: For example, deciding on the right time to buy a certain type of fish so as to be able to produce a first-class product later on. To do this we must know when and where certain shoals of fish are to be found, and we need to know the fat content required for a specific product. The constant exchange of information with contacts in our network of fisheries and catch processing operators is an essential as-

pect of our competence. The sale of raw fish makes up half our business, so we need a global overview and we must be able to source fish directly. This is why we've been in the business for such a long time.

Sounds complicated.

Braasch: True. But, for example, when a customer wants herring for the production of soused herring, the final product has to have a fat content of at least 12 percent – preferably more – to comply with current food standards. So we have to know when and where this kind of herring is available and from whom we can reliably source it. This is the kind of experience we've acquired in the many years we've been in business.

We provide our customers with information and quotes. Then we buy and secure the desired quantity during the fishing season and arrange for just-in-time delivery. In some cases we even take care of the financing. This is all part our service portfolio.

Transparency is becoming increasingly important in the fish business ...

Braasch: That's a very noticeable trend; after all, the customer wants a safe and healthy product. That makes transparency at every step of the way very important. We are certified and we require expert knowledge from our staff; that's why we do our own vocational training.

< www.luebbert.de >





Huge capacities right at the container terminal: 31,000 europallets of frozen or refrigerated foods can be accommodated at Bremerhaven's largest commercial cold storage facility operated by BLG Coldstore Logistics.

Fish Inspection

A visit to BLG Coldstore Logistics at the container terminal's arrivals area

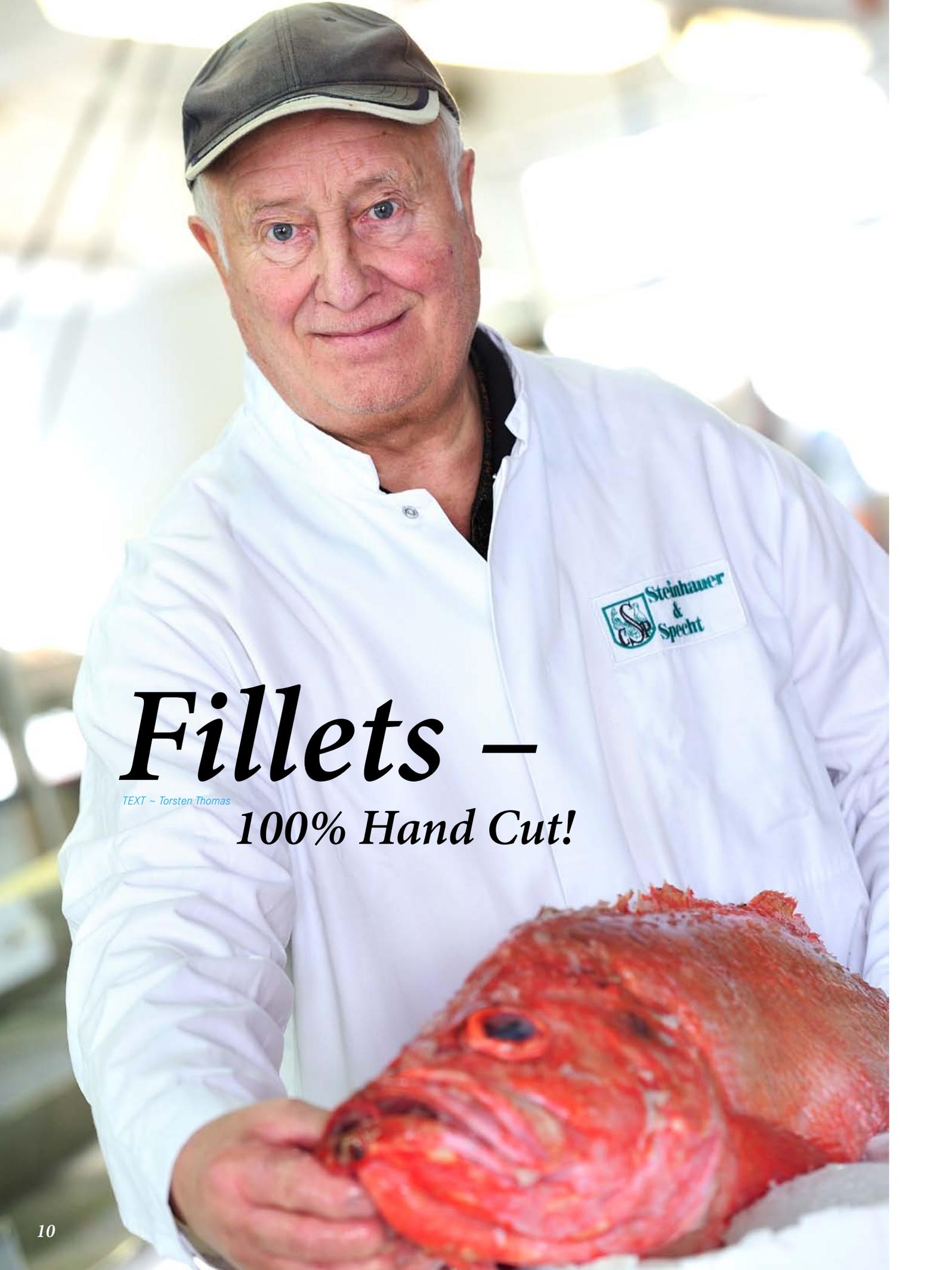
TEXT ~ Gabriele Becker

What it really comes down to in managing production supply for the food industry is keeping the right quantities available at the right place, at the right time. As one of the leading container ports in world, Bremerhaven offers many advantages. It functions as an interface between land and sea, it is close to major markets for temperature-controlled products, it boasts a high concentration of fish processing industries, and the many logistics, trade and food production enterprises based in the port provide a high level of specialized expertise. At its Bremerhaven location, BLG Logistics operates the largest commercial cold storage facility for frozen and refrigerated food with a capacity of 31,000 europallets. This facility handles some 130,000 tons of cold storage products per year. Eighty percent of the

facility's operations involve frozen fish and seafood, while the remaining 20% comprise the temperature-controlled storage, distribution and logistics of meat, poultry, fruits and vegetables.

All products are checked by the veterinary Border Inspection Post upon arrival at the overseas port before being stored at minus 22 degrees Celsius directly on site or reloaded onto trucks, and are then transported to the port or some other destination. The veterinary service of the State of Bremen checks the shipping documents and meticulously inspects the ice-cold fish. Apart from animal-based products, plant-based foods are also tested in the veterinary center.

In addition to BLG Coldstore Logistics located in the overseas port, there are three other operators of commercial cold storage facilities: Euro Frost, Nordfrost and L. Schopenhauer, all domiciled in Bremerhaven. These are the kind of capacities for which the port gets high marks. Bremerhaven's level of expertise in the storage and distribution of time-sensitive goods such as temperature-controlled fish make the city by the sea one of the leading locations for food logistics in Europe. < www.coldstore.de >



Fillets –

TEXT – Torsten Thomas

100% Hand Cut!



Love for the product: Hernani Ramos (above) and Vera Silva Duarte (below right).

Four cuts, flip over, remove skin and the fillet is ready. Every second, valuable fillets are sliced from perch and other fish. Dressed in rubber boots and long aprons, workers use sharp knives to skillfully cut fillets off the bone while Manfred Mesterham sits on a forklift taking orders on the phone. “We don’t use machines, everything is done by hand. That’s the way we’ve always done it because the fillets look nicer and stay fresher. Machines need too much water to do the work. That affects the taste and the quality goes down,” says Mesterham. His experienced filleters cut up to 1.5 tons a day of fresh perch for wholesale and retail customers. We only use machines to skin the fish. The fish wholesaler and owner of the long-established Johann Steinhauer und Carl Specht GmbH has seen lots of fish in his day. He started working in the company 62 years ago. His father took over the business in 1932, continually expanding it through acquisitions until well into the 1960s. Mesterham, who is now 76 years old, did his apprenticeship in the family-run business, and explains that he still really enjoys working there.

Left: Manfred Mesterham has worked here for 62 years and is an institution in Bremerhaven.

Doing things by hand, a tradition that has been kept alive, is currently making a wider comeback in nearly all companies located in Bremerhaven because of the value placed on it by customers, and machines need to process very large quantities to be economically viable.

High in demand

Castro Seafood GmbH is a company dedicated to producing fillets. It has 50 employees and specializes in hand filleting, but it also uses modern machines to cut perch, salmon and salmon trout; the fillets are then trimmed by hand to meet customer requirements. At peak times, Castro also helps out larger companies in the area, for example, during the holiday rush. Mesterham can remember the days when steam-powered fishing boats delivered their catch to Bremerhaven and there was still an abundance of fish. Today, wholesalers like Mesterham get their fish at auctions or from commercial partners. He says, “At peak times, we used to have ten people cutting three to five tons of perch per day. Fish is a very healthy food, but it has also become very expensive.” The quantities and the way fish reaches the consumer have also changed because of the decrease in the number of fish shops and consumers now tend to buy their fish from market vendors and at supermarkets.

< www.frisch-fisch.com >





Fresh Fish Ordered Online

... and delivered directly to your door. Fish wholesaler Wilhelm Petersen Seefischgroßhandels GmbH makes use of this ice-cold distribution channel. Established in 1903, the company is Bremerhaven's oldest marine fish wholesaler and was acquired by Abelmann group five years ago. The fish company went online a few years ago and started offering handpicked and hand-cut fish fillets in an online shop. What's special about Petersen hand-cut fillets is that the fish is not only cut by hand, it is also skinned by hand. This is the only way the quality, natural taste and consistency of the fish can be preserved.

"We are not part of the mass market, we do everything by hand to ensure that our fish is of the best possible quality. This is something customers are willing to pay more for," says Lars Giesecking, Managing Director of Heinrich Abelmann GmbH. In the company's online shop, consumers

are presented with a selection of fish and are provided with prices and information on the approximate weights of the various fillets – after all, it is a natural product and not all pieces are the same. Wilhelm Petersen's company motto is 'fillets exclusively made to order'. Only once a firm order has been placed is the fish cut, laid out on ice and shipped out packed in special boxes – freshness and 24-hour delivery guaranteed. The packaging is drip-free and designed to withstand transportation. The fish is kept at a cool zero degrees Celsius for at least 36 hours, keeping it so fresh it can be stored at home in the fridge for another three days.

< www.wilhelm-petersen.com >

Rollmops – Perfectly Rolled

Consumers can take their time eating foods made by Julius Krause. The label on the packaging states that foods will stay fresh for three to eight weeks if kept refrigerated. Herring is always the star and plays the leading role in some 30 different products.

“We process between 10 and 12 tons of this very versatile fish every month and source the ready-cut fillets from Denmark and Norway. We do not use any kind of preservatives in preparing and marinating the fish,” says Marina Spreckelsen, owner of the company founded in 1956. She uses traditional recipes and insists that everything be done entirely by hand. In the kitchens where the herring is fried, the individual pieces are breaded first and then immediately transferred to skillets on a large stovetop. Once they have cooled down, they are packed and steeped in a marinade.

The range includes soured herring, pickled herring, herring salads and naturally, rollmops, available as fork rollmops with onion and no skin, or the classic version with skin and pickle. They too are rolled and marinated entirely by hand. Logistics are also a very important part of the production process. Before being marinated or fried, the herring flaps are placed in barrels and soaked in brine for exactly 35 days as mandated by regulations to ensure safe consumption. All relevant data regarding the fish and its storage is meticulously recorded on the outside of the barrels. Preparation of the food products does not begin until the prescribed number of days has elapsed. That means that employees always have to keep an eye on the calendar and the number of barrels ready for use. < www.julius-krause.de >





Virtually No Traffic Jams on the *Salmon Autobahn*

TEXT ~ Torsten Thomas

Weigh, slice off the head and tail, cut in half, extract the backbone, scan the fillet, trim off abdominal flap and fat, debone and your salmon fillet is ready.

Everything is fully automated – or nearly, because ultimately, the stubborn fish bones must be extracted from the fillet by hand. The speed on the ‘salmon autobahn’ is always constant, but nevertheless somehow breathtakingly fast. “It takes just under six minutes. Afterwards, the salmon are filleted by machine and are ready for packing or further processing by hand. With the help of machines, we achieve a high and consistent quality of fillet that would otherwise be impossible,” says Heiko Frisch, Chief Operating Officer at Deutsche See. Of its 1,700 employees, 700 work in Bremerhaven where the company combines its purchasing, processing, distribution and logistics operations under one roof to serve its 22 locations nationwide.

Red gills guarantee absolute freshness.



Deutsche See

Deutsche See GmbH was founded in 1939, and until 1998, the multiple award-winning firm was a subsidiary of Nordsee. The entire logistics chain for 35,000 customers runs through Bremerhaven where a major portion of its approximately 3,500 products is manufactured. Large customers, restaurants, caterers and cafeterias make up about half of its business. In 1988, the company was the official fish supplier to the German Olympic team.

In 1998, Egbert Miebach, Dr. Peter Dill and Dr. Andreas Jacobs took over Deutsche See and were joined by Hartwig Retzlaff in 2014. In 2005, administration and production were brought together at the fisheries port of Bremerhaven. The firm has been certified by IFS (International Featured Food) since 2008.

The Beeck delicatessen brand was acquired in 2003 and moved from Hamburg to Bremerhaven. In 2013/14, Deutsche See launched its online delivery service in Berlin and Stuttgart.

The first stop for each fish is the Bremerhaven Border Inspection Post where 75,000 tons of fish every year are meticulously checked and inspected upon arrival. After that, most of the labor is done by hand, for Deutsche See regards itself as an artisan manufacturing business.

Salmon is an exception: Only with the help of machines can the public's ravenous hunger for *salmo salar* (Latin for salmon) be stilled, because the employees of the big processing plants could never cut up such enormous quantities by hand – at least not for long. Deutsche See processes up to 28 tons of fresh salmon daily in Bremerhaven. For that reason too, mechanized assistance is a blessing. No other finned creature is as popular here in Germany as the salmon. In 2014, an astounding 147,000 tons found their way fresh to the nation's dinner tables, rocketing Germans to the top ranking of salmon consumers worldwide.

Engineers have been tinkering around with mechanical help for a long time. Ultimately, each fish is different, having a different weight and a different length; and leaving too much meat on the bone would mean a loss of precious fish. That is why machines and sensors are important for the processing of large quantities, because in cutting a fillet, as much meat as possible is sliced off. "We owe that to the animals; it's our duty to make use of every bit we can, including any remnants," believes Heiko Frisch. For that reason, Deutsche See also built one of the most modern processing plants in the world; it can process salmon in three weight classes, between two and five kilograms. The scanner plays an important role. It scans the fillets before their abdominal flaps and belly fat are removed. "This step is always dependent on the customer's order. The machine also automatically recognizes the color of the fillet and can detect, for example, possible bruises. If something's not right, the halves are pulled off the line and then processed by hand," says Frisch.

Barbecue fish is all the rage

This mechanical help is only one, if also the most important, intermediate step because after that, the raw product goes its separate ways. One part ends up vacuum-packed in large chunks, or automatically cut to portion size. The other part is sliced into paper-thin slivers for sushi, smoked, or if so ordered, transformed to meet demand for the latest trend: barbecue fish. Here, the term 'all the rage' truly applies to the market for prepared convenience products. Deutsche See was awarded a 'Seafood Star' for the most innovative barbecue product of the year, its BBQ salmon



With its many new creations the industry is successfully creating an appetite for barbecue fish, like the fish shown here wrapped in bacon.

in grilling skin. What makes the product so unique is that the marinated fillet is hand-wrapped in the skin of smoked salmon and held together with twine so that the resulting work of art keeps its shape when placed on the grill or in the skillet. In this regard, the fish manufacturer's product development department is quite inventive. Besides salmon in beech woodchips, they have also come up with fish kebabs, freshwater salmon wrapped in bacon and tilapia in banana leaves to tickle your taste buds. There are more than 200 varieties in this segment alone, and every year the product developers come up with new ideas. "Barbecue fish is a real alternative to bratwurst, and the demand is growing enormously," says Frisch with satisfaction.

< www.deutscheese.de >



Driven by Sustainability

Ralf Forner and Transgourmet Seafood

Ralf Forner, Managing Director of Transgourmet Seafood, is at home on Germany's northern coast. He was born and grew up on the North Sea island of Norderney. Since 1988, he has been a resident of the coastal city of Bremerhaven. For him, fish and sustainability are a matter of personal concern. And that's why Transgourmet Seafood annually publishes a magazine about sustainability – this year for the fourth time.

When the REWE supermarket chain moved its fresh fish center from Cuxhaven to Bremerhaven in 2008, the turnover of fresh fish increased exorbitantly. After rebranding itself to Transgourmet Seafood, the center became an independent company, managing its own sales and distribution. Forner's strategy for success has three factors: fresh fish, innovative seafood products and sustainable fishing. Transgourmet Seafood offers more than 1,900 different products in its range, and supplies food retailers, specialty fish shops, wholesale businesses, restaurants and even mobile fish vendors in Germany, Austria, Poland and Switzerland.

The company purchases fish around the world and is guided by its clearly formulated principles regarding sustainability. These principles include fishery management based on the need to preserve ecosystems, which can definitely involve reducing fishing quotas on the basis of researched recommendations. But sustainable fishing methods can also have its problems. Here too, it is essential to trace fish sources with 100-percent reliability through sales receipts, catch certificates and valid documentation. Transgourmet Seafood supports the MSC, Global Gap, ASC, FOS and Naturland initiatives. Customers will find detailed information on the company's website and in its magazine dedicated to sustainability, as Ralf Forner attaches great importance to transparency. < www.tg-seafood.de >





Erika Siegel moved from Lithuania to Bremerhaven in 1988

“I’D BE NOTHING
WITHOUT MY GIRLS!”

Well Stirred

TEXT ~ Gabriele Becker

and Never Shaken

Fresh salads and marinated foodstuffs produced by small and large manufacturers

Erika Siegel started her business only four years ago. But even the energetic food technician from Lithuania says it sometimes seems like a dream when she looks at what she has accomplished in such a short time in her small production space in Hall XIII. Today, she and her eight employees produce up to 250 kilograms of herring salad per day – not counting other products.

Ms. Siegel, Salads and marinades are not really a niche product here in the Fishing Port. What drove you to try your luck in this business?

Erika Siegel: I had 17 years of experience in quality control and product development. But my head was –

and still is – full of ideas and new creations. And I wanted to market them. I simply placed all my bets on one card – and it worked. I started out with only 10 or 12 salads, small quantities, maybe 10 kilos per day, but I created them all myself! My soured herring recipe alone took me two years to develop! I also created my own seasoning mixes. Our German and international suppliers deliver raw fish to us several times a week, some of it already cured.

You seem to have discovered the right ‘recipe’: You have already been able to expand floor space and make substantial investments.

Erika Siegel: One evening a big customer marched into the hall and wanted to taste my products. He must have liked them because he immediately ordered large quantities of various salads and wanted them ready for pick up the following morning. My husband and I worked all night – that was my breakthrough!

We also received assistance in starting up our company here in Bremerhaven. The economic development agency BIS guided us through the necessary process and procured financing for the initial investment from the European Fisheries Fund (EFF) and the State of Bremen, and later on, for the expansion our premises. The FBG (Fischereihafen-Betriebsgesellschaft) renovated and retrofitted the space to accommodate our needs, and we’re already planning to expand a third time. In addition, we invested considerable amounts in increasing our refrigeration capacities.

What is your customer base?

Erika Siegel: Here in the Fishing Port we sell directly to consumers. Although we don’t have a shop at the *Schaufenster*, people now know where to find us. Many customers come from far away to buy our fresh products. We also supply food wholesalers, fish wholesalers and retailers and mobile fish vendors – they’re a world apart and we always have a lot of fun together.

Your company, Feinkost Siegel, today offers a selection of more than 50 different salads, all prepared by hand. Where do you see yourself in the future?

Erika Siegel: Wait and see!! I have ideas for things that nobody here sells yet. The culinary voyage will continue. Many recipes are inspired by my love for South Africa. Our scampi cocktail, for example, is my homage to Cape Town! Furthermore, we are considering serving food on our premises. But we’ll deal with that when the time comes. And of course, we can’t do without manual labor! That’s why we’ll continue to invest in our ‘girls’ and also hire additional staff; I’m a certified forewoman for industrial food processing and therefore qualified to train newcomers. My employees are very, very important to me. The working environment has to be right, that’s something you can actually taste. Here, have a taste!

< www.feinkost-siegel.de >

The organic food faction

Most of the food Anja and Dirk Brenner and their family eat is organic; they are convinced that it is healthier than eating conventional foods. “We don’t touch convenience foods,” says Anja Brenner and this also explains why she strictly avoids using glutamate, preservatives or colorings and flavorings in her deli salads. “Shrimp from the North Sea, however, is treated with preservatives immediately after being caught and while still at sea, as required by law. But we refrain from using any other preservatives and we can convincingly justify this to our customers because we only sell what we like to eat ourselves.”

The Brennens were originally mobile fish vendors and have been producing gourmet food products since 2002 in a space rented from the FBG in Packing Hall V. As the deputy chair of the German association of mobile fish vendors, Anja Brenner was awarded the Bremerhaven Matjes Medal in 2011 (see page 19). The Brenner family and its six employees currently produce some 40 different marinade products and salads for the fish wholesale market, fish retailers and mobile vendors. With the help of the economic development agency BIS, the family-run business received financial assistance for the development of its innovative fish products and the acquisition of a modern salad mixer from the European Fisheries Fund (EFF) and the State of Bremen. < www.fischfeinkost-brenner.de >

A meeting of ingredients

When a carrot from Dithmarschen and an organic potato from Münsterland meet an ox from a family-run farm in Schleswig Holstein, the consumer is most likely eating a Beeck gourmet salad. Product developers created some 20 different salads made with fresh herbs and just a bit of dressing. They are sold under the Beeck Extra Frisch label and made with local and sustainable ingredients of high quality and superior taste. The Beeck brand, which is now under the same roof as Deutsche See, a market leader for fish and seafood, was once an old reputable Hamburg family-owned business. In 1919, Otto Beeck and his wife Betty opened their first delicatessen; three years later, the Beecks were producing their own herring salads and gave up their retail shop. In 2012, Beeck moved production from Hamburg to Bremerhaven.

< www.deutschesee.de >

On Display

Everything in the Fishing Port centers on artisan craftsmanship. And if you want to see for yourself, the glass-walled galley of Julius Krause, a company that specializes in marinades and the wholesale of fish delicacies on Fischkai is the place to go. It's where you can see salads being made by hand or herring being prepared in the company kitchens and frying stations. The EU-certified family-run company supplies its fine delicatessen foods to the wholesale fish trade and retailers throughout Germany, and after all that appetizing watching, virtually no visitor to the Julius Krause shop in the Fishing Port leaves without buying a little something to take home. < www.julius-krause.de >



Fish at its finest

Abelmann Fischfeinkost, maker of gourmet foods, has been offering top-notch taste and hand-prepared fish since 1953: the finest young herring and delicious fish salads, the best fresh fish, succulent fish sandwiches and tasty soups for take out. For the most part, the long-standing company, rich in tradition, still makes its products without the use of machines in order to preserve the quality of the natural fish product and its exquisite taste. Day after day, more than 80 experienced employees ensure the premium quality of products that undergo continuous quality control at every step in the production process. That is why Abelmann's fish delicacies always live up to expectations. But the company also strives to satisfy new standards of sophistication and taste. Abelmann was honored for its soused herring in 2013 and 2015 with the highly coveted Seafood Star awarded by the prestigious trade publication *FischMagazin*. In Bremerhaven, Abelmann outlets are located at the *Schaufenster Fischereihafen* and at *Bürger* in Bremen and Oldenburg.

< www.abelmann.de >

Schaufenster Fischereihafen & the Bremerhaven Herring Medal

The fisheries industry has been of great importance to Bremerhaven for over 100 years, a tradition reflected in the concept of the *Schaufenster Fischereihafen* (a tourist attraction that showcases the port's industrial and commercial activities). Since 1991, the aim of the *Schaufenster*, the core of which is the newly restored Packing Hall IV, is to create transparency and promote Bremerhaven's largest industrial area as a tourist attraction. Events organized by the *Schaufenster Fischereihafen Werbe- und Veranstaltungsgesellschaft* [*Schaufenster* promotion and event company] raise public awareness for the importance of the local fish and food industry: The Fisch Party has been put on for many years for this very purpose. The 'Bremerhaven Herring Medal' was introduced at the tenth anniversary of the *Schaufenster*, honoring persons who have made a contribution to the fish industry and/or Bremerhaven, the city by the sea. This is also done to improve the image of the city and raise money for charitable activities. < www.schaufenster-fischereihafen.de >

TEXT – Gabriele Becker

It's the Golden Hue That Matters

Fish smoking is a high craft

Smoking with beechwood, using Altona ovens, and hand-filleting fish: in Bremerhaven, smokehouses still produce delicacies the old-fashioned way with traditional manufacturing processes and their own in-house recipes. And all that tradition has in no way diminished the inventive genius of product developers. Their numerous and sometimes exotic product innovations have ranged from smoked fish pralines to fish lollipops.

A visit to the Sandelmann smokehouse takes us to its new home in a brand-new building on the Kühlhausstraße, to where the company and its rich traditions moved in 2008. Here, in a 2,500-square-meter production area, it processes 1,700 tons of raw material each year exclusively by hand, filleting, smoking, packing and preparing its products for shipment or pick-up.

The family-run business was founded in 1929 and has been located in the port since 1946. Today, 50 employees process mackerel, halibut, herring, salmon, butterfish, trout – and very recently strips of dogfish – using proprietary recipes to turn them all into smoked fish specialties. Beechwood chips are used for the smoke. “That is really standard in the fisheries port,” explains General Manager Karl-D. Beddies. “The decisive difference is the quality of the raw materials. That can depend on the fishing grounds and the right timing. We buy on a seasonal basis when the fish have the right amount of fat. What is important to me is for everything to be perfectly coordinated. That’s why we train our own craftspeople.”

Even as he speaks, a mobile fish vendor drives up to stock up on supplies of smoked fish delicacies to make his rounds. Today he is greeted with a handshake. “We produce customized goods, of course, and deliver nationwide, predominantly to fish wholesalers and retailers as well as caterers, but even so, there are also the mobile fish vendors whom we have known for years.” < www.sandelmann.de >



The lure of new attractions

Deutsche See, fine fish and seafood foods manufacturer, produces innovative smoked fish delicacies: Together with the REWE Group retail chain, product developer Ingolf Ernst has created the Goldlocke or 'Goldilocks', an alternative to the Schillerlocke (named after the golden locks of the German poet Schiller) that are smoked strips of spiny dogfish. The new Locke is made exclusively from the belly fillet of tilapia from ASC-certified fish farms. Ernst explains how the fish imported from Indonesia is processed in Bremerhaven: "We make the Goldlocke by hand. The fillets are cured, rolled up and then finally finished with hot smoke." An ancient smoking method used by the Canadian Shuswap Indians is the godfather of the Indianer® recipe. In the Deutsche See manufacturing operation, salmon fillets are scored and then smoked over walnut wood and corncobs, a process that gives fish a particularly intense aroma. < www.deutschese.de >

»Altona ovens«

That's the name given to the precious old iron ovens that H.J. Fiedler Meeresdelikatessen uses to produce fresh smoked fish specialties without chemical additives or preservatives. Curing and seasoning is done according to an old family recipe. Grandfather Fiedler founded the business as a traditional eel smokehouse. Today, grandson Hans-Joachim Fiedler ships nationwide to grocery chains as well as fish wholesalers and retailers. In Bremerhaven, the company sells its products in a delightful setting with an old-fashioned flair, *Fiedlers Fischmarkt anno 1906*, which is part of the *Fischereihafen Schaufenster* and has won multiple awards; it has since gained renown beyond the coastal city's limits.

"Here we keep artisan craftsmanship alive – and that's what makes the Fishing Port so special. Artisan food production means traditional manufacturing methods, outstanding ingredients and excellent recipes, and, of course, it means doing as much as possible by hand. Consumers appreciate and value this. They buy and enjoy eating fish here in the port and that's why in addition to our café and wine shop, we operate three other culinary establishments in the *Schaufenster*. Many fish lovers come from far away, that's why it is important for us to put such great emphasis on transparency here in the port, thereby building trust in our products," explains Hans-Joachim Fiedler.

The company's online business is also doing very well: 12,000 gift packages and 700 packages of smoked fish are ordered online and shipped annually.

< www.fiedlers-fischmarkt.de >

WHAT DOES ASC STAND FOR?

The Aquaculture Stewardship Council (ASC) was founded in 2009 by the WWF (World Wide Fund for Nature) and the IDH (Dutch Sustainable Trade Initiative).

The requirements placed on ASC-certified products are congruent with the specifications for goods from MSC-certified fisheries (see page 39) but apply to fish and shellfish from aquaculture.

< www.idhsustainabletrade.com >

Rustic charm

The Herbert Franke smokehouse offers its customers a special smoked fish experience. Visitors here can expect to find stacked beechwood logs waiting for them at the door. If you're lucky you can watch the fish being taken out of the oven right next to the sales counter before they are placed in the window display. < www.fisch-franke.de >

The Hans Fiedler Söhne Lachs- und Aalräucherei [salmon and eel smokehouse] relies on a smoking method developed in 1949 by the founder of the firm, Hans Fiedler. The only the part of the family's secret recipe that they will reveal is that it combines the traditional art of smoking with the most modern manufacturing methods. The beechwood smoked eels produced fresh daily come from one of the largest eel farms in Germany. Orders placed online are locally packed – loosely in paper or vacuum-sealed – and will keep from seven to 21 days. < www.fiedler.biz >



We Can Do Sushi Too ...

TEXT ~ Torsten Thomas

Making this announcement, Deutsche See sallied forth into what had been an Asian domain, and brought home a winner. Since March 2014, sushi production has been going at full speed. Six times a week, a German-Asian team working day and night produces 13 different made-to-order masterpieces. Paper-thin slices of salmon, halibut and tilapia, fish roe or crunchy shrimp are bedded on pillows of rice, rolled in sheets of seaweed or thin strips of zucchini. The next morning, these super fresh eye catchers have already been delivered to well-stocked retailers and high-end restaurants. It was not a sure thing that Maki, Nigiri, California Roll, and others could make a breakthrough, and that sushi factories would be running like clockwork. "Our products show a high level of innovation. Naturally, we do have a flop every now and then, but some ideas like sushi become



mega-trends that never let up. But since we can't predict how a product will do, we take risks and try out new things," says Production Manager Heiko Frisch.

Italian rice

And sushi turned out to be a sweaty palm adventure because it takes six to ten years to train a Japanese master sushi chef. Although it did not take Deutsche See that long, many months went by before the real work could begin. To this end, its employees traveled to Japan to learn the techniques and philosophy of preparing sushi, and Japanese masters came to Bremerhaven to provide a final polish. Procuring high quality and controlled raw fish material was no problem at all, but the product development team was totally stumped by the challenge rice posed. It is both the most important and most difficult ingredient. The rice for sushi must be easy to shape and slightly sticky, but never mushy, always firm to the bite, and it must never lose its shape. After testing 47 different types of rice, the team finally settled on an Italian variety – and not just because of the European neighbor's expertise with slightly sticky risotto. There's a lot more to it than that. Production Manager Heiko Frisch lists other factors: "It also matters how hot the rice has to be cooked over an open flame, how much water is needed to rinse out the starch, and how long stored grain can actually retain its desired qualities." And here again the Far Eastern philosophy of preparation enters the picture. Every day the raw goods and batches produced are tasted and their appearance inspected; the shelf life of ingredients is checked and logistics are fine-tuned. After all, it's not just the seaweed called Nori that has to travel a long way to reach the sushi factory in Bremerhaven. And by the way, the rule here is that the darker the sheets of seaweed are, the better their quality.

< www.deutschese.de >





Pasta from own production must be cooked al dente so consumers will like it.

Successful Comeback

TEXT ~ Torsten Thomas

Frosta caters to everyone and the popularity of its own Brazilian sautéed vegetable dish creation is still at the top of the charts, even though the World Cup is long over. The company, which is listed on the stock exchange and has 1,559 employees, achieved 408 million euros in sales in 2014. Compared to the previous year, that represents a remarkable 10 percent jump. Behind this success is an array of convenience foods: ready-to-eat meals, vegetables, fruit, herbs, and most recently fish sticks and *Schlemmerfilets*, frozen fish fillets with a variety of sauces and toppings – a very popular item that can be found in the frozen food section of well-stocked retailers.

But the company has also been through some less than rosy times. Business was sluggish at the end of the 1990s. Frosta was just one of many brands in the frozen food section and was rapidly losing market share. It owes its rocky but successful comeback to a radical change of course in

company policies that began in 2001. Frosta's purity guidelines were key factors that led to its recent success; they called for the complete elimination of all additives, as well as the sustainability and transparency of ingredients and packaging materials. Frosta thus also managed to change the negative image of ready-to-eat meals as cheap foods with insipid and unchanging flavors. In principle, the company views itself more as a restaurant that freezes its foods. It caters to consumers who seek an alternative to cooking for themselves, a growing trend. This has obviously been successful. According to its own data, Frosta has achieved a market share of 25 percent in this segment and sets itself apart from the competition with its range of 88 products. "Consumers trust our brand and appreciate the standards we set for ourselves and our products. They buy our food products regularly because the brand is convincing and we deliver the best quality," confidently declares Arne Döscher. He manages the company's research and development department in Bremerhaven.

At its main plant, 600 employees working in shifts manufacture all the ready-to-eat meals and fish products that Frosta produces for its own product line or as generic brands for discount supermarket chains and other large customers. On average, 50 million frozen convenience food products leave its production facilities every year. The company has ties to Bremerhaven that go back a long time. Its history began in 1905 with the founding of Nordstern, a deep-sea fishery. Four years after the official introduction of the Frosta brand in 1978, the first frozen convenience foods were being produced in Bremerhaven. Finally, after multiple acquisitions, mergers and changes of name, Nordstern Lebensmittel AG finally became Frosta AG.

“We’re back to cooking ...”

The company rang in the change in trends in 2001 when it implemented its own purity guidelines. By doing without additives, colorings and flavorings, “we shifted into reverse and got back to cooking,” says Döscher, not without pride. Whereas food technicians used to be responsible for recipes, challenges today include how to work a good old flour



roux into the processes of producing delicious buttered vegetables, get the sauces to stick to the ingredients, and how to sauté onions in large industrial quantities. Udo Pollmer was also hired to complete the transformation. A food chemist and author, he is one of the industry’s toughest critics.

A large share of raw materials comes from two of the company’s own vegetable farms and is delivered to Bremerhaven; here vegetables are stored in deep freezers until needed for use. Machines are used to produce the right mix of vegetables before conveyor belts take them to the packaging line and on to the scales for a final weight control. Fifteen employees from all areas of the food business work in product development. Every year they create eight to ten new dishes. Their ideas are first tried out and judged at home by company employees. After the employees have given their feedback, external testers test the product. Frosta also makes its own noodles because they are used as an ingredient in many products. The pasta is processed into different varieties, sometimes with and sometimes without eggs, and then boiled and frozen for later use. “What’s important is where the durum wheat comes from so that the noodles will have a pleasing yellow color even without adding eggs. We do it all ourselves so that they have exactly the firmness of texture that we want them to have,” says Döscher.

The fish is just as tasty. Since 2014, after ten years of abstinence, fish sticks and fish fillets in sauces are again being produced in Bremerhaven. The company had actually abandoned this former core business in 2003. An important reason for that decision was that there were not enough certified fisheries sustainably fishing for Alaska Pollock. Not until a few years ago did sufficient quantities of the fish with the MSC seal become available. In Germany, it is the most popular fish and the basis for *Schlemmerfilets* and many other products. In any case, consumer preferences are changing here too: besides old favorites like ‘à la Bordelaise’, Frosta’s Bremerhaven plant is also topping its tasty fillets with buttered vegetables or creamed potatoes. One might well be astonished by the success of these products when considering that they achieved a market share of about 10 percent within just a few weeks of being introduced. “These are our strongest products although we started practically from scratch,” Arne Döscher happily recalls. Clearly the Frosta brand has a long run ahead of it.

< www.frosta.de >

Frosta reinvented itself and sources many of its ingredients from its own farms.



How Fish *Came to Be Sticks*

TEXT ~ Torsten Thomas

Bremerhaven is the fish stick capital of the world and home to many other Iglo fish products. Frozen Fish International, a subsidiary of market leader Iglo, alone produces more than seven million golden fish sticks a day in the world's largest frozen fish factory located in the Fishing Port of Bremerhaven. That's about 350,000 fish sticks an hour. Some 760 employees work at the plant in Bremerhaven and produce 1.5 billion fish sticks every year; lined up, they would go around the world three times. Each stick is about 8.4 centimeters long, 2 centimeters wide, 1.1 centimeters high and weighs 30 grams. The factory in Bremerhaven produces a total of 470 fish specialties and has an annual production volume of 95,000 tons. Fish sticks have a share of 45 percent, making them the company's most important product.

Not just popular with the little ones

This international box office hit was born on 2 October 1953. On this day, the American corporation General Foods introduced the first frozen fish sticks on the market. The new product was hailed as the most important event in the fish industry since the invention of the freezer. This was meant to boost consumption of bone-free and ready-to-cook fish among consumers young and old, and fish sticks succeeded in doing just that, achieving a remarkable triumph around the world – and Germany was no exception. Frozen Fish International got into the business as far back as 1962, and today produces an annual 60,000 tons of frozen fish. On the German market, the popular Alaska Pollock is the favorite. It is immediately filleted and frozen

after being caught in the North Pacific, and represents 83 percent of the fish processed. This raw material comes exclusively from sustainable fisheries that are MSC-certified and is loaded onto refrigerated cargo ships for transport to Bremerhaven. On arrival, the icy blocks of boneless fish are cut into shape; then the naked sticks vanish for a few seconds into the breading machine, followed by a short 30-second bath in a huge deep fryer. Deep-frying makes the batter-and-breadcrumb coating permanently adhere to the fish sticks, which remain frozen throughout the process.

Captain Iglo wears green

The finished fish sticks are shipped from Bremerhaven to various European countries. While German consumers prefer Alaska Pollock, UK consumers love cod. Fish sticks in Great Britain and Ireland are called fish fingers and sold under the Birdseye label with Captain Birdseye as the mascot. In Italy, the rectangular fillet pieces are made of hake with Captain Findus at the helm. Iglo belonged to Unilever until 2006, and was then taken over by the English equity firm Permira. In April 2015, English investor Nomad became interested in the frozen food business and bought the Iglo group for 2.6 billion euros. Sales in Germany, Austria, the United Kingdom and Italy account for 85 percent of the company's turnover. Iglo plans on further expanding the brand and increasing sales by introducing a new strategy. Since the beginning of 2015, for instance, fish sticks and *Schlemmerfilets* have been available with whole wheat breading. The iconic Captain Iglo now wears a green uniform and is on a new mission under a new flag: the sustainable Forever Food Together program. The company initiated the campaign with the intention of pointing out to consumers that portioned frozen foods curb food waste and informing them of the company's and its suppliers' commitment to a sustainable future. < www.iglo.de > < www.frozenfish.de >



Benchmarking Prototypes

A VISIT TO THE SENSORY
EVALUATION LABORATORY

TEXT - Torsten Thomas

Hindsight always gives us 20/20 vision. This old truism also applies to the food industry. In the product department, creative minds pull out all the stops to come up with new ready-made meals and recipes for a flavorful change of pace. The pressing question is always whether consumers will buy a product again. The Technology Transfer Centre (TTZ) in Bremerhaven can provide a wealth of support in this matter. The independent research company has 120 employees who work in the fields of food, health and the environment. The company develops and optimizes products and production methods on a national and international level, but it also handles analytics and has its own sensory evaluation laboratory for conducting blind taste testing.

TTZ was founded in 1991 and has its headquarters in the Fishing Port. It is a major driver of innovation for the food and beverage industry in the State of Bremen with an annual turnover of 4 billion euros. In 2013/2014, a sum of 2.7 million euros was invested in a new building to house the Institute of Food Technology and Bioprocess Engineering, part of TTZ Bremerhaven. The building contractor was the Fischereihafen-Betriebsgesellschaft. The European Regional Development Fund (ERDF) and the State of Bremen each provided just under half of the required financing.

New construction has created 500 square meters of additional technical space as well as 100 square meters of

new office space. This includes seminar rooms for 100 course participants, a test kitchen and a large test bakery; bread, a household staple, is a focus of attention at TTZ. Here the staff extensively tests recipes, baking processes and the consistency of dough. "We know how food is made and provide the impetus for new products. In doing so, we also support processes within companies," says Martin Schüring. The food technician is head of innovation in the food department at the center.

Organic products are a growing trend

Another focus is on organic products and what are referred to as natural food products, which are produced without the use of additives. It sounds simple, but can be quite difficult when it comes to the details. After all, products should be healthy, free of artificial ingredients – and taste good. "The broader public doesn't look at ingredients yet, but there are many people who want to maintain a vegan lifestyle, or avoid lactose, glutamate, additives and flavorings. These trends are changing the demands made on retailers and on the food industry itself. This is a challenge because we now have to rethink many of our food products," he explains.

Strawberry yoghurt is one well-known example. In many series of tests, real fruit did not score as highly as yoghurt with strawberry flavoring. This is not the fault of the straw-

Tasters taste new food products in the sensory lab in compliance with strict DIN norms.



berries, “but rather that people tend to like the taste of what they are familiar with,” explains Kathrin Mittag. She heads the sensory evaluation laboratory and most of the requests she receives for the testing of culinary prototypes come from the food industry. That’s where the nearly 8,000 test subjects in the lab’s database step in. For blind taste testing, at least 60 tasters are needed to try out new food products under standardized conditions; they then describe their impressions. Since specific groups are being targeted, the criteria for the selection of tasters are strict. They include food preferences, gender, age, income and even the way testers prepare food at home. Once testing is concluded, it’s either a thumbs up or thumbs down.

“We make recommendations only. For example, we tell our clients whether the food was good or not so good, too salty or too sweet,” she says. If necessary, the new food product goes back to the production kitchen, because producers take the testers’ taste buds very seriously. “The tests also involve benchmarking product ranges to allow comparisons with competitors’ products,” adds Mittag. Y’amee® is a brand-new app for conducting mobile consumer surveys. Findings may show, for instance, how products are catching on and being prepared in real-life settings.

< www.ttz-bremerhaven.de >



Aquaculture Research:

Securing the Markets of the Future

The Alfred Wegener Institute (AWI) enjoys a fine reputation internationally in the field of marine and polar research and is part of the Helmholtz Association of German Research Centres. The Institute was founded as a public foundation in Bremerhaven in 1980. Since then it has conducted research into the interconnections between global climate and ecosystems at sea and on land. The researchers at the Institute for Applied Oceanography, who have been working at AWI for over 15 years doing research into aquaculture, are also in international demand. On a European scale, the Center for Aquaculture Research (ZAF) is among the top ten and one of the leading institutes in this field worldwide. The focus of research is on chemistry, biochemistry and technical systems for closed cycle breeding because many of the species suitable for fish farming are not native to Germany.

Fish farming is experiencing dynamic growth

This is particularly the case with the Japanese flounder, for instance, which is already being bred successfully in land-based closed circulation systems in South Korea, and the Pacific starry flounder. In addition to turbot, both species of flounder are considered promising candidates for breeding here in Germany because their high-quality meat sells very well. A new, 630-square-meter building at the commercial port with five large closed circulation systems and 21 individual basins is available to the ZAF for applied research. In addition, the Bremerhaven-based scientists are among the leading experts in combining offshore wind farms and fish farming on the high seas, as well as in integrated multi-trophic aquaculture systems (IMTA). IMTA pursues the goal of raising multiple organisms such as fish and algae and using recycling to keep all of the by-products and waste within the closed system. The significance of aquaculture research for supplying humans with fish in the future becomes evident when we consider that worldwide, 150 species of fish and over 100 different species of clams, shellfish and algae are already being bred and farmed. According to the UN Food and Agriculture Organization (FAO), this already covers almost half of global fish demand and generated 144 billion dollars in sales in 2012. < www.awi.de >

German Government Institutes Move From Hamburg to Bremerhaven

By the end of 2017, the Institute of Sea Fisheries and the Institute of Fisheries Ecology will have both completed their move from Hamburg to Bremerhaven. They are part of the German government's Johann Heinrich von Thünen Institute. A new 35-million-euro building with 6,000 square meters of floor space and room for 150 employees is being built directly on the wharf in the Fishing Port. The *Walter Herwig III* already berths there on a regular basis. The oceangoing vessel is one of the Thünen Institute's three

research ships that sail in many parts of the world, for example in waters off the coast of Africa. The focus, however, remains on fish stocks and ecosystems in the North Sea, the Baltic and the North Atlantic, the main fishing grounds of German fisheries. Scientists conduct research by regularly sampling fish stocks and checking the state of the ecosystems. They also work in an underwater fish observatory (UFO) that records fish using echo sounders and cameras to continuously monitor stocks. The Institute shares its data



“The Fishing Port of Bremerhaven is a European champion in the fish and food processing industry. Bremerhaven is at the heart of the flow of goods, it offers excellent port and transport infrastructure, and is a truly important center of research particularly geared towards the food industry in our region. With more than 4,000 people employed in the food industry, Bremerhaven is well positioned for the challenges that lie ahead. That involves resource-efficient and sustainable production, experience in logistics and special expertise in the handling of sensitive foods; this is all accompanied by the presence of a distinctly innovative research community.”

Melf Grantz

Mayor
of the Coastal City of Bremerhaven



“The food industry is the second largest employer in the State of Bremen. Here, annual revenue from food production and beverages amounts to approximately four billion euros. Global brand-name product manufacturers and traditional family-run businesses alike, as well as small and medium-sized suppliers of foodstuffs and additives contribute to this success. The fact that the presence of this industry in the region is twice as strong as the national average is proof of the exceptional position of Bremen and Bremerhaven in this sector.”



Martin Günthner

Senator for Economic Affairs, Labor and Ports
of the Free Hanseatic City of Bremen

with the International Council for the Exploration of the Sea (ICES), which coordinates the findings and the monitoring data provided by 100 participating institutes from 20 member nations. In turn, ICES makes recommendations on fishing quotas to policymakers based on scientific data that reflects the development of stocks for over 110 species of fish. The goal is to ensure proper management of fish stocks to preserve sustainable fish resources.

Researchers focus on health and biodiversity

Experts at the Institute for Fishery Ecology are working to preserve the biodiversity and health of marine life. They are commissioned by the government to measure the level of radioactivity and the

concentration of organic and inorganic pollutants present in fish. Much scientific attention is also being devoted to the European eel, which is threatened with extinction. Here the Institute is involved in a data collection program and in projects that study the reproductive biology of these migratory fish. Aquaculture is another important area of research; scientists study the farming of fish and sea life, the economic viability of such systems, and the right feed. The species best suited for aquaculture are predatory fish and they need protein. Protein, in turn, comes from fish caught expressly for this purpose. Since this is clearly not the best way of doing things, the Institute is conducting research to find alternatives. < www.ti.bund.de >





Iben GmbH has many years of experience in food testing and analysis, in hygiene consulting and monitoring, as well as in quality assurance. The Iben laboratory is based in the Fishing Port and supports the fish and food industry with a variety of services, including certification according to IFS food standards.

Cutting-Edge Research

at the Center of the Food Industry

The Bio Nord Biotechnology Centre in Bremerhaven offers scientists working in biotechnology and food technology excellent start-up conditions and proximity to companies in the food industry. It also has close links to leading institutions such as the Bremerhaven Institute for Food Technology and Bioprocess Engineering and the Bremerhaven University of Applied Sciences. Since the food industry is one of Bremerhaven's core industries, innovation early on became essential to the development of the area. The center has been at the fisheries port since 2003, and due to strong demand from companies willing to relocate, was expanded in 2009 and now boasts a total of 4,600 square meters. Financing for the construction of the building was provided by the European Regional Development Fund and the State of Bremen. From the outset, the focus was on providing space for applied research and development, a goal reflected in the layout of the facilities. The center has the necessary technical infrastructure, as well as offices and laboratories that comply with S1 and S2 safety standards. Currently, ten research companies with 150 highly qualified staff have set up shop at Bio Nord. One focus of the specialists, some of whom have won multiple awards, is the food industry.

Impetus Bioscience GmbH was one of the center's first tenants. Among other things, the accredited testing laboratory specializes in the DNA analysis of food, feed, seed, and meat and bone meal. Their business model is based on the testing needs of the food industry, whose products must meet stringent requirements for transparent and accurate labeling and the declaration of ingredients. New regulations also mean that in the future this will apply to substances that have been genetically modified or that could be allergenic, and to the composition of animal feed used. DNA analyses can deliver fast results. "We don't just perform tests. We also develop analytical methods to precisely identify ingredients. As a consequence of food safety requirements, we work closely with the quality assurance departments of companies in the food industry," explains Managing Director Dr. Hermann Rüggeberg. Fish is a special case. In addition to EU fishing regulations, other regulations apply to sales and marketing. In Germany, this is governed by the Fish Labeling Regulation, in effect since 2010, which stipulates that fish be labeled with their Latin names and the area where they were caught. Penalties apply if this information is incorrect. This is why Impetus has over 100 DNA tests for the fishing industry alone. They can provide certainty about the correct species ordered

from the supplier in just three to five days. Expertise from Bremerhaven is also in demand in the field of hygiene, for instance, when it comes to detecting pathogenic bacteria in drinking water or salmonella in food.

Also founded in 2003, Q-Bioanalytic GmbH works in food analysis and microbiology, genetically modified organisms, and the detection of allergens. The accredited specialists perform the fastest analyses possible and have also developed their own rapid testing processes that can, among other things, deliver fast and reliable results to producers of perishable goods within 24 hours. The company uses polymerase chain reaction (PCR) technology, deemed the absolute key technology in molecular diagnostics. Using conventional methods, it takes three to four days to verify salmonella DNA. That is quite a long time, especially when processing sensitive foods such as egg products. Using Q-Bioanalytic's real time PCR kits, the industry can react much earlier to suspected cases and prevent the delivery of tainted goods. Bacteria resistant to antibiotics can be detected just as quickly.

< www.impetus-bioscience.de >

< www.bio-nord.de >

< www.q-bioanalytic.net >

< www.labor-iben.de >

Preparing for the future

The Bremerhaven University of Applied Sciences has developed a bachelor's degree program that is the only one of its kind in Germany, the interdisciplinary Food Technology/Food Economics Program. The university also offers a biotechnology program in cooperation with the Institute of Applied Microbiology and Biotechnology and the Life Sciences research cluster.

< www.hs-bremerhaven.de >



From Pellets Into Boxes – and Back Again

INTERVIEW – Gabriele Becker

The Karl Baumgarten company produces all kinds of Styrofoam (polystyrene) products, from the classic fish box to insulating material for floor heating systems, and it also takes care of the recycling process. For the family-run company, Styrofoam has been an ideal material for decades: it's lightweight, waterproof and an excellent insulator. Unlike packaging made of other materials, it absorbs virtually no odors, which means that cleaning and the consumption of energy involved are kept to a minimum. Sustainability is a matter of course at the company, which boasts a large local, domestic and international customer base.

How much variety is there in Styrofoam packaging?

Marc Baumgarten: Lots. There are 54 sizes of fish boxes alone. Their capacity ranges from one to 40 kilograms.

Do all the boxes look alike?

Marc Baumgarten: No, there are different requirements for fresh fish, smoked fish and frozen fish – and we also develop custom packaging on customer request.

In terms of recycling, what happens to used Styrofoam packaging?

Marc Baumgarten: We take back everything we make. Returns are shredded and pressed before being recycled. The other option is to clean, compact and pulverize the Styrofoam. Then it's broken down into pellets again. This is what we then supply to companies that process plastics. We developed this method in collaboration with BASF.

What do you do to lower energy consumption when producing packaging?

We have been able to lower our energy consumption since 2012 by replacing the software used in production. We have also invested in a water softening system for water in the steam boiler, reducing the amount of water and chemicals used.

How would you characterize your customer base?

Jörg Baumgarten: We have about 300 to 400 customers. They of course come from the Fishing Port and from throughout Germany, but also from Denmark and the Netherlands. The food industry makes up 70 percent of all our customers.

The Karl Baumgarten company has an international focus, but how close are your local ties?

Marc Baumgarten: Very close. With 15 employees, we are a family business that we took over from our father. This is what we have always been and how we still see ourselves today. Jörg is responsible for managing business and I handle the technical side. We feel very much at home in the Fishing Port.

What makes the atmosphere in the industrial area of the fisheries port so special?

Jörg Baumgarten: Our proximity to other companies is exceptional. And if we ever run into a problem, the FBG is a central service provider ready to help. We work next door to each other – side by side, so to say.

< www.karl-baumgarten.de >

5 commercial cold storage facilities

Refrigerated volume
(in cubic meters)

284,500

79,000

europallet spaces

Energy Management in Cold Storage Facilities

TEXT - Torsten Thomas

Bremerhaven is a choice location when it comes to keeping temperatures below zero.

The concentration of cold storage infrastructure in the city is one of the largest in all of Europe. Eleven commercial and corporate cold storage facilities in Bremerhaven altogether comprise a volume of 634,500 cubic meters. There is room for 137,000 europallets in Bremerhaven's iceboxes.

6 corporate cold storage facilities

Refrigerated volume
(in cubic meters)

350,000

58,000

europallet spaces

In terms of energy, this volume poses a challenge to the operators of cold storage facilities. “On average, 30 percent of overall operating costs are incurred by the electricity needed for the refrigeration units,” says Lüder Korff, General Manager of BLG Coldstore Logistics and Deputy Chair of the VDKL [the German association of cold storage and logistics companies], to which 80 percent of all operators belong. Energy costs are the second highest cost after staff. That’s why no one has to make a point of asking the operators of cold storage facilities to save energy. One way of achieving greater energy efficiency is by using energy management systems which can take over and perfectly control refrigeration units and cooling systems. According to regulations on the storage of frozen foods, 18 degrees Celsius is the minimum temperature specified. However, most cold stores are kept at minus 20 to 25 degrees Celsius. These Arctic conditions ensure a valuable temperature buffer for transport and cargo handling all the way to the retail market. VDKL’s electricity pool is the basis for energy management. It bundles the association’s electricity requirements into collective purchasing agreements. Since this amounts to over a billion kilowatt hours per year, which is quite a load, part of it is obtained at fixed wholesale rates over the long term. The other part is purchased on the spot market at the Energy Exchange in Leipzig, as prices there are the lowest for day-to-day business.

And this is exactly where the operators of cold storage facilities become involved, because they control consumption by way of the temperature buffer and the energy management system. For example, if electricity is currently very expensive, then the refrigeration units are switched off

for a brief period of time and switched back on when prices are more favorable. Operators can thus use cheap electricity at night, for example, to lower temperatures. Then they reduce the amount of electricity needed during the day simply by using the cold buffer. Nothing can happen to the goods, because the energy management system is set up to maintain the minimum temperature required. “Temperatures are still monitored and recorded around the clock to be able to guarantee and document proper operation to the customer,” explains Korff.

Conversely, cold storage facilities are perfect for safeguarding grid stability. On one hand, they can convert surplus into even lower temperatures, and on the other, they can briefly go off the grid when bottlenecks in electricity demand occur. However, these measures depend on what the cold store is used for. There are buildings where trucks drive in and out, picking up and dropping off goods. Other cold stores are used as conventional freezers. This is where, for example, fish is stacked and kept in stock, available year-round, despite the short fishing season. Heavy insulation and high-speed doors contribute to additional energy savings. Curtains made of air (air curtain systems) make loading and unloading possible, even with the doors open, by preventing cold air from escaping. Considerable energy savings are also achieved by the use of power-saving LED lighting, because conventional neon tubes produce heat that must in turn be cooled down. According to Korff, “Low energy costs give us a significant competitive edge. Customers also set conditions for carbon dioxide emissions and expect sustainable energy consumption.”

< www.nordfrost.de > < www.coldstore.de > < www.schoppenhauer.de >



Fresh Fish Needs Ice ...

TEXT ~ Torsten Thomas

... this bit of wisdom is as old as fishing itself. Yet those crystals of ice have to come from somewhere so that fresh fish can rest on a cool bed of ice. That's why, when the Bremerhaven fishing fleet was being set up in 1911, an ice factory was built in the Fishing Port, enabling cutters to be supplied with the quantities of ice they needed. "There wouldn't have been an oceangoing fleet without us," says Helga Düring, General Manager of Bremerhavener Eiswerk. In the past, fishing boats used to load ice on board before departing, but the customers are now restaurants, hotels and, in particular, companies dealing in fresh fish in Bremerhaven. In 2014, the ice factory produced a respectable 15,000 tons of ice for its customers. But the rising price of electricity becomes a major factor when producing such large quantities.

This increase made it necessary to invest four million euros in the construction of a new building, which will be inaugurated in summer 2015, and over the long term, will ensure the vital supply of ice for many companies. Although the ice factory uses approximately 1.6 million kilowatt hours per year, it has not been classified as an energy-intensive manufacturer. With support from the state government, the BIS economic development agency, and the Fischereihafen-Betriebsgesellschaft (FGB), one of the most modern ice



factories in Europe is now being built in Bremerhaven. "We have, for example, invested in better insulation for the refrigeration units and in new ice machines that improve production workflows. This reduces our electricity costs by about 20 percent. After all, ice is crucial for the functioning of many companies in Bremerhaven," Helga Düring explains.

< www.eiswerke.de >

THE MSC LABEL:
BREMERHAVEN LEADS THE WAY

TEXT ~ Torsten Thomas

Healthy Oceans

Are Not Just a Vision



Colorful ceramic reliefs decorate Hall XIV

We should not saw off the branch on which we rest. Large sectors of the fishing industry have realized this, and with the help of a label have been able to induce the industry and consumers to do some remarkable rethinking. The three letters that stand for the Marine Stewardship Council – MSC – now appear prominently on many packaged fish products. This label guarantees that the product you are buying comes from sustainable fisheries. The principle behind the label is simple: fish as a food resource is basically inexhaustible if we give fish the chance to reproduce and do not mercilessly overfish their stocks. Only in this way can we continue to use the world’s largest stores of protein to feed nearly seven billion people indefinitely. The fish industry in Bremerhaven faced a dramatic situation in the 1990s when 70 percent of commercially fished species were already overfished. In 1996, Unilever manager Anthony Burgmans and Bremerhaven resident Peter Greim (who at the time was working for Unilever’s subsidiary Frozen Fish International) stated in an article published by the German news magazine, *Der Spiegel*: “Unilever understands that we need to preserve a healthy and sustainable marine ecosystem. As one of the world’s largest fish processors, it is in our own interests to protect the marine environment from fishing methods that irreversibly destroy stocks.” Their words were echoed by others. The well-known Iglo brand (part of the Unilever group until 2006) still has its headquarters in Bremerhaven. This is also where the world’s largest fish processing plant makes fish sticks for Frozen Fish International.

Without a change in direction, this industry would have come to an end. “In 1997, Unilever and the World Wide Fund for Nature (WWF) set up a working group that introduced the MSC label and a fisheries certification program in 1999,” explains Gerlinde Geltinger, MSC’s press officer. In the meantime, the MSC has become an independent organization financed through donations and licensing fees for the use of the three-letter label, which has been awarded to 252 fisheries around the world. They represent 10 percent of the wild catch of fish, which apart from aquaculture (fish farming), accounts for almost half of global catches.

The process of certification takes 18 months and is conducted by outside specialists. Three principles apply: the sustainability of fish stocks, the minimization of environmental impact, and effective fisheries management. Consumers who are willing to spend more money on fish products to keep oceans intact exert additional pressure, which in turn affects the entire industry. Iglo is a good example here – the company estimates that demand in Europe alone amounts to 2.45 billion MSC-certified fish sticks. Iglo has already switched to sustainably sourced fish for its full range of products on the German market, which now all bear the blue MSC label – a model for 15 other European countries. The second important label is the Aquaculture Stewardship Council (ASC), also supported by WWF. It certifies sustainable fish farms, as commercial farming can also be problematic and pollute waters with chemicals and antibiotics.

< www.msc.org/de > < www.wwf.de >



When Angels Fish ...

TEXT ~ Gabriele Becker

... nothing can ever go wrong! Only an 'angel' can help when a trawler captain's dragnets are ripped while far out at sea. In such situations, a company known as Engel-Netze (angel nets) demonstrates its speed and professionalism. In the shortest time possible, the captain is supplied with a replacement net from Bremerhaven. For over 60 years, Engel-Netze, based in the Fishing Port, has been a reliable supplier to commercial fisheries on rivers, lakes and the world's oceans. Besides mechanically knotted nettings, it produces customized nets for every conceivable use. Whatever the pros may need in the way of equipment and outfitting for their work 'Engel' has it at hand. It delivers both locally and internationally. And by the way - that includes the classic Frisian mink oilskin parka and matching rubber boots.

< www.engelnetze.com >

AWARDS FOR SUSTAINABILITY

Deutsche See GmbH and Frosta AG are two heavyweights in the Fishing Port of Bremerhaven that are committed to the environment. In recognition of that dedication, both have been honored with the German Sustainability Award (Deutsche Nachhaltigkeitspreis). In 2010, Deutsche See won this prize in the category of 'Germany's Most Sustainable Company'. The jury thus paid tribute to the exemplary work done along the entire length of its supply chain: from purchasing, manufacturing, and packaging products to warehousing and shipping. Ultimately, sustainable fishing practices are the only guaranteed way of harmonizing consumption with the preservation of fish stocks.

In 2012, Frosta was recognized as 'Germany's Most Sustainable Brand'. The jury honored its principled transformation from a conventional to a sustainable brand and in so doing highlighted the company's purity guidelines introduced in 2003, which led the company to dispense with the use of all additives in its foods.

The German Sustainability Award is an initiative of the German Council for Sustainable Development (Stiftung Deutscher Nachhaltigkeitstag e.V.). It grants awards to companies, products and brands that are role models for combining business success with social responsibility and environmental protection.

The Fishing Port Profits from European Subsidies

The European Union is pursuing the goal of a sustainable, ecological fisheries policy and aims to simultaneously enhance the competitiveness of the fisheries sector. In addition, it is concerned with the economic and social development in regions that depend mainly on fishing.

The EU put a budget of about 3.8 billion euros at the disposal of its European Fisheries Fund (EFF) subsidy program that ran from 2007 to 2013. All areas of the industry were eligible for subsidies: ocean and freshwater fisheries, aquaculture, as well as the processing and marketing of fisheries products. Small and medium-sized firms were given priority of access to EFF funds. In 2014, the European Ocean and Fisheries Fund (EMFF) replaced the European Fisheries Fund (EFF). The EMFF forms the central pillar for financing a future common fisheries policy. The Fund has earmarked 5.8 billion euros for 2014 to 2020. In order to tap the Fund for subsidies, the State of Bremen must provide co-financing. The Bremerhaven economic development agency BIS advises companies based in Bremerhaven, receives their subsidy applications, and issues notices granting or denying subsidies. < www.bis-bremerhaven.de >

Frozen Foods

TEXT ~ Torsten Thomas

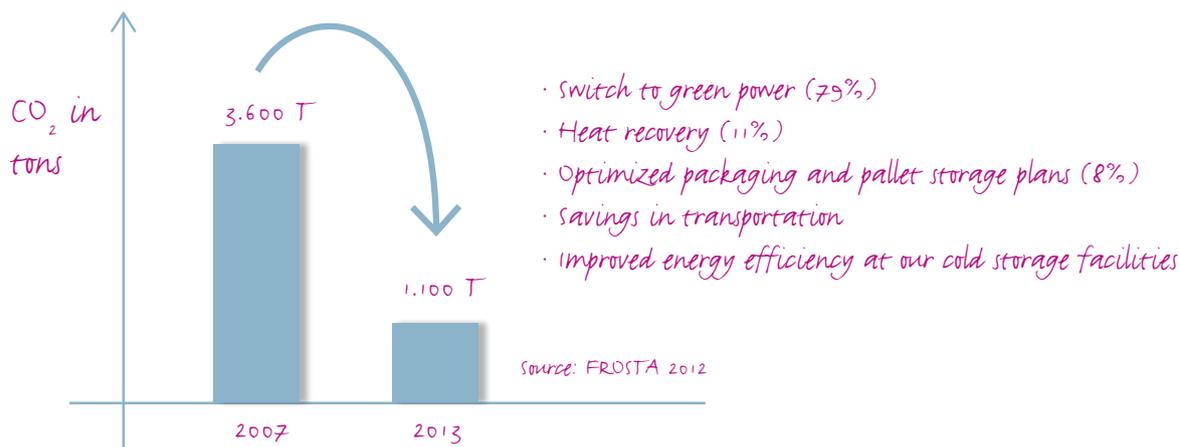
Become Transparent

Hinnerk Ehlers is a blogger. He is head of marketing at Frosta and enjoys provoking his customers every now and then. Many fellow employees also like to use the company blog without having to mince their words. That goes to show that transparency can take on many different forms. At headquarters in Bremerhaven, construction workers are cutting a 100-meter opening into the façade, so that everyone can see how fish sticks are produced – day and night. In all respects, Frosta is taking its own road and is ahead of the market. The company formed its business strategy around its desire to be ecologically, economically and socially sustainable. In compliance with its own purity guidelines, Frosta was the first food manufacturer to bid farewell to all additives and chemicals normally used in the food industry; in a manner of speaking, it virtually reinvented the cooking process for its production lines. Many items had to be discontinued. One example of this was the *Texas Pfanne* [Texas Stir Fry], because the typical barbecue taste, including that smoky aroma, could not be produced using all-natural ingredients. New products were added and discontinued items now enjoy a well-deserved and transparent rest in the product graveyard.

Goal achieved!
70% lower CO₂ emissions!

Sustainability also contributes to climate protection

With support from BIS, the economic development agency in Bremerhaven, a process was developed that calculates a product's CO₂ footprint from the sourcing and processing of raw materials up to the point it reaches the consumer. Since 2010, Frosta has made public and transparent its product-related emissions and has had all of the 2,000 raw materials it uses evaluated. This is also part of their philosophy. For instance, a "climate burger" can be conjured up with a single click. It can't really be eaten yet, but it does show what is possible and what has already been achieved. Frosta only grows fruits and vegetables in fields outdoors and not in energy-intensive greenhouses. Since Frosta wants to reduce its CO₂ footprint, the aluminum trays for fish fillets have been discontinued. The same standards apply to all of their suppliers. That means that, for instance, meat producers must maintain the high standards that apply to animal feed, animal welfare and slaughtering practices, and they must enable complete traceability. This also goes for fish, which originates exclusively from sustainable and certified fisheries and can be traced back to the fishing ship. And in the end, it's all very simple for consumers: just enter the code on the packaging at www.zutatentracker.de and you'll find out everything you need to know about your food! < www.frosta.de > < www.zutatentracker.de >



A Responsible Businessman

TEXT ~ Torsten Thomas



For Thomas Beyer, the matter is quite clear. “As a businessman I make my living off nature and that’s why I have to give something back,” says the owner of Meereskost GmbH. And that is what he has consistently and persistently put into practice in the planning and building of his new plant.

In 2009, the company moved into a new production and operations site equipped with innovative environmental technology in the fisheries port of Bremerhaven. It ensures that the company will no longer use any fossil fuels and no longer release any carbon dioxide. A photovoltaic system on the roof produces more than half of the power required by the plant and Beyer’s 35 employees for the production and processing of fish products and related refrigeration needs. Geothermal heat is also used and energy for heating is obtained from a regenerative heat recovery system. The use of rainwater for cleaning also saves the company over 680,000 liters of the valuable resource per year. “We have done everything possible and every day we continue to practice the principle of sustainability in production and processing,” says Thomas Beyer.

For his dedication, the State of Bremen presented Beyer with the ‘Environmental Company of 2012’ award in the energy-efficient company category. In previous years, he won the award for ‘Climate Protection Company’ twice in a row. It was hard work for the businessman who earns his money through the wholesale trade of sustainable fish and maritime specialties. Meereskost financed the new building with funding from the European Fisheries Fund (EFF). “Most of the project subsidies went into the building’s energy systems,” says the General Manager. All in all, Beyer increased production area threefold while cutting energy consumption in half. “The investments will pay off in the next few years and we intend to take advantage of new technical possibilities to conserve even more energy in the future.”

< www.meereskost.de >

Wherever Pleasure Is at Home, Good Recipes and New Ideas Are Sure to Follow!

TEXT - Gabriele Becker

The productive co-existence of tradition and innovation are the trademark of the seaside city's largest industrial area, the Fishing Port.

Covering more than 600 hectares, including 150 hectares of water, an unparalleled center for fish and food processing has developed over the decades. Ideal conditions have produced a multifunctional commercial and industrial area with a port connection, excellent infrastructure, and accessibility; it is home to a dense network of production companies, logistics providers, research centers, and exciting tourist attractions.

The fish and food industry, deeply rooted in Bremerhaven's traditions, provides jobs to over 4,000 people in the Fishing Port. But not just large brands such as Frozen Fish International (Igló), Frosta (frozen foods), Deutsche See (fish production) and Nordsee (a restaurant and retail chain) rely on the years of experience of a well-trained skilled workforce, numerous other highly innovative fish and food-processing companies do so as well.

More than 80 companies at various levels of the entire value creation chain ensure that all runs smoothly. Retail and distribution companies, the packaging industry, ice manufacturers, and a network of prestigious research and development firms specializing in product development, food analysis and quality assurance all contribute to making the city on Germany's North Sea coast (with a population of 114,000) the top European location for the processing, development and distribution of fish, frozen products and other foods.



The Fishing



Port of Bremerhaven

The City by the Sea in Our Genes

Nordsee, Europe's leading seafood restaurant chain, firmly believes in the importance of its sustainability policies and its commitment to Bremerhaven. Three questions for Hiltrud Seggewiß, Chief Executive Officer of Nordsee:



Ms. Seggewiß, Nordsee has been headquartered in Bremerhaven since 1934. New construction is taking place, you are investing in a new administration building and thus securing the location. What was the deciding factor behind this project?

Hiltrud Seggewiß: Nordsee has been headquartered here at Klußmannstraße 3 in Bremerhaven since 1934. We always felt very comfortable here, because Bremerhaven has become part of Nordsee's genetic makeup. However, the architecture and design no longer meet today's requirements. Our new company headquarters in the Fishing Port will create a modern and ergonomic working environment for our employees. The building will also comply with our policy of sustainability, for instance, in terms of energy conservation.

The city by the sea has now developed into a fish and food economy cluster. Everything is in place here, from logistics to science. Are there any cluster synergies for Nordsee? How is cooperation going?

Hiltrud Seggewiß: There are synergies of course – there have been for many years. We cooperate with, among others, Deutsche See and Frosta, and these relationships have been very trusting and fruitful.

As a company, Nordsee strives to satisfy the desire of consumers for more variety while living up to the company's commitment to the sustainable management of fish as a natural resource. In which direction is the company headed?

Hiltrud Seggewiß: Nordsee will continue to sustainably manage fish as a resource. We stopped selling any fish classified as endangered before any laws were implemented requiring us to do so. At our restaurants, snack shops and fresh food counters we welcome our guests' increasing awareness of health and nutrition issues. Fish is part of a balanced and nutritious diet. We wish to do our part by developing new recipes that result in lighter, more calorie-conscious cooking, and by offering a selection of fresh side orders that guests can put together as they wish. Examples of our current offerings are the fat-free grilled salmon in parchment and the recently introduced sushi hand rolls for take out.



Nordsee restaurant in the Oberen Bürger in Bremerhaven, one of 384 locations in Germany and abroad.

Nordsee has been headquartered in the old commercial port in Bremerhaven since 1934. However, the roots of the company go back to Deutsche Dampffischerei-Gesellschaft Nordsee [North Sea association of German fishing trawlers], founded by Bremen shipping companies in 1896. Freshly caught fish were sold at the association's own shops, with growing success: When Nordsee opened the Quick fast food restaurant chain in 1965, Unilever and Dresdner Bank were already important shareholders. In the mid-70s, a big show was put on for the opening of its one-hundredth location.

In 1986, the fishing fleet was integrated into the newly founded Fischfang-Union [Fishing Association] and the restaurants and fish specialty shops came under a single management. The sale of its fish wholesaling business Deutsche See at the end of the 1990s allowed Nordsee to concentrate on its core business of restaurants and retail shops and to continue to grow becoming Europe's leading seafood restaurant chain. Heiner Kamps acquired Nordsee in 2005; the HK Food Group was founded in 2007 and Nordsee was thus integrated into the Theo Müller (of Müller milk fame) group of companies, whose CEO, Kamps, is now the minority owner of Nordsee. Hiltrud Seggewiß has served as Chief Executive Officer of Nordsee GmbH and Nordsee Holding GmbH since August 2011.



In 2014, Nordsee generated 356.6 million euros in sales. The company currently has 5,200 employees of whom 800 are employed by franchise partners; women make up 82 percent of the workforce. < www.nordsee.com >



Industrial architecture from the 1930s: Hall XIV is one of the oldest industrial buildings in the Fishing Port.

TEXT ~ Gabriele Becker

Free Spirits and Fresh Fish

Pioneering the Architecture of the Future





The Seemannsheim (Seamen's Mission) established in 1913 is one of the Fishing Port's most distinctive historical structures.



Reminiscent of Bauhaus architecture: Haus der Technik completed in 2002.

An ideal location, the expertise of the firms and research institutes headquartered in Bremerhaven and its myriad tourist attractions are not the only things the city has to offer. Its biggest industrial area also has other charms, for instance, its well-preserved historical industrial architecture and modern new buildings.

The Haupterschließungsstraße Am Lunedeich runs almost four kilometers through the fishing port area. Left and right, lined up like a string of pearls is a veritable Who's Who of the seaside city's fish processing industry. The sight of a 320-meter long, two-story brick building immediately strikes anyone driving down this street: Hall XIV. Even today, numerous small fish processing firms still use the building much in the same way as when it was completed in 1939. Fish and shellfish are processed on the ground floor and offices are on the upper level. The walls over the entranceways are resplendent with expressive and cheerfully colored ceramic reliefs that depict different varieties of fish, from hake to gurnard. They are the creation of the Worp-swede painter and ceramicist Willi Ohler and are designated part of the city's historical heritage, as is Packing Hall X.

The Seamen's Home established in 1913 with its brick façade is also among the Fishing Port's most imposing historical buildings. Even as the traditions of the area remain

During the Second World War, forced laborers were housed in Hall XIV under inhuman conditions. A memorial plaque in the Fishing Port (located at the corner of Am Baggerloch and Kühlhausstraße) reminds visitors of the 21 foreign and forced labor camps located in the former Wesermünde during the National Socialist régime.

palpable in structures like these, remarkable new buildings reflect the forward-looking orientation of local industry and science.

“Form follows function”

“Working in the light of the water” – This was the concept underlying the new Haus der Technik [House of Technology] completed in the Fishing Port in 2002. It is the headquarters of the long-standing firm, Arthur Friedrichs Industriebedarf [Arthur Friedrich's Industrial Supplies] founded in 1921. In the Bauhaus architectural tradition, the structure's clean lines are determined by its function as a space for sales, offices, warehousing, and workshops. Designed by Westphal Architekten BDA, the building opens onto the water and offers views of the adjacent port. Its large glass windows also showcase the interior of the building with its light-flooded sales and warehouse spaces. (A. Friedrichs Industriebedarf, Herwigstraße 44)



Four star comfort on stilts:
the Best Western Plus Hotel on Fischkai

Hotel with a view

The new BEST WESTERN PLUS Hotel Bremerhaven unites steel and concrete, and uses large plate-glass façades to capture the light reflecting off the harbor waters. Designed by Iffi Wübben Planning & Architecture, the building towers over the shoreline: eighty concrete stilts support a total of 4,000 square meters of surface area – an especially difficult architectonic and technological feat. (Best Western Hotel, Fischkai)

A showcase in the port's Schaufenster

The task in designing the new building for the Bio Nord Innovation Center was to present biotechnology as a key technology of the twenty-first century. The building, designed by Husemann/Dr. Wiechmann Architects and Engineers, was completed in just under a year. The driving architectural concept was to blend the striking structure into its maritime surroundings and afford tenants the greatest possible degree of freedom in laying out the space to suit their individual needs; this was achieved by implementing an optimal floor plan. (Bio Nord, Fischkai)



Biotechnology as a key technology:
the Bio Nord Innovation Center on Fischkai

Fish scale look

The façade of the renovated *Seefischkochstudio* (the seafood cooking studio, founded in 1927 as the *Seefisch Lehrküche*) is a shimmering green. More than 12,500 shingles made of galvanized stainless steel sheet lend the building a glistening fish scale look. The design of the annex that houses the studio is by Andreas Heller Architects & Designers. In a modern demonstration kitchen seating about 100 guests, the kitchen chef works his magic while the audience follows his every move through a six-square-meter mirror suspended over the cooking ranges.



More than 12,500 coated shingles impart a shimmering glow to the façade of the modernized *Seefischkochstudio* [seafood cooking studio].

The entire infrastructure of the *Seefischkochstudio*, was renovated at a cost of 3.4 million euros. The annex is part of the total redesign of the *Forum Fischbahnhof* (the Fish Station Forum, an event and information center), where a space for events and the interactive exhibition 'Expedition to the Northern Seas' is currently being built in a location which will also display artifacts of the now closed North Sea Museum. The entire reconstruction will cost about 5.6 million euros and should be finished by the summer of 2015. Funding is being provided by the State of Bremen and the European Fisheries Fund (EFF). (Seefischkochstudio, Am Schaufenster 6)



Clear, simple, and in harmony with the Fishing Port's historical surroundings: Nordsee's new headquarters on Herwigstraße

Clean lines

The new company headquarters of Nordsee, a next-door neighbor to the port's *Schaufenster*, was designed by Bremen architects, Tülp und Partner, dt+p. The sleek, three story structure features large plate-glass façades and clean lines. The restaurant chain has invested five million euros in the construction of its new Bremerhaven abode. When the company celebrates its 120th anniversary in 2016, the 3,500-square meter administration building will offer working space for 150 people. Nordsee is Europe's leading chain of seafood restaurants. It employs 6,000 people, and sales in 2013 amounted to about 350 million euros. Nordsee has been headquartered in the old Bremerhaven commercial port since 1934. (Nordsee, Herwigstraße/Ostrampe)

Research on strong legs

The new building housing the Thünen Institute for Fish Ecology and Sea Fisheries (*von Thünen-Institut für Fischereiökologie und Seefischerei*) will soon be standing on strong legs with its 340 concrete pilings, each 30 centimeters thick and 16 meters deep. One hundred of these are so-called geothermic pilings, which will later produce energy for heating in winter – or cooling in summer. The 35-million euro structure that was designed by Staab Architekten should be completed in 2017. Its solid body shines with a light-colored metallic façade and 4,100 square meters of space for fishing equipment and large machinery, as well as aquaculture systems. Large glass windows provide good natural lighting for the work areas and laboratories with a direct view onto the water – and of the Thünen Institute's own research ships. (von Thünen-Institut, Herwigstraße)

In an attractive waterfront location: The new building for the Thünen Institute brings together sea fishing and fisheries ecology. The building offers a modern research infrastructure complete with a special mark: a spacious waterside terrace.



From a Single Source

There are plenty of delicious recipes in the Fishing Port – and new creations are being added every day. When it comes to help in achieving economic success, companies in Bremerhaven's largest industrial area can rely on customized services that others have developed for them on behalf of the City of Bremerhaven and the State of Bremen. The Fischereihafen-Betriebsgesellschaft (FBG) and the Bremerhavener Gesellschaft für Investitionsförderung und Stadtentwicklung (BIS) [Economic Development Agency Bremerhaven] offer uncomplicated and expert support.

Service providers in close contact

The FBG has been in charge of operating the Fishing Port of Bremerhaven since 1896. As a local partner, the FBG and its dedicated staff manage and develop the city's industrial area and provide rapid and individual solutions. The FBG organizes an attractive event schedule that also makes the port an exciting tourist destination, and its excellent networking capacity makes it easy for decision-makers to develop and realize new projects.

The FBG at a glance:

The FBG is in charge of

- renting, leasing and maintaining real estate in Bremerhaven; converting and renovating commercial properties, and maintaining the roadways and rail networks used for loading and handling activities
- supplying electricity, water and heating as well as providing wastewater disposal facilities
- managing the *Schaufenster Fischereihafen* (a maritime-themed tourist destination showcasing the port's many offerings), the Forum Fischbahnhof (an event and information center) the TiF theater and the 'Expedition Nordmeere' [Expedition to the Northern Seas – World of Fisheries Bremerhaven], an interactive exhibition, as well as a fish and seafood cooking studio
- building design and construction management
- technical services
- marketing and coordinating trade shows
- the development of the Fishing Port

< www.fbg-bremerhaven.de >

Central to development and open to new ideas

BIS is a service provider and partner for all companies interested in settling and growing in Bremerhaven. Its work ensures that attractive companies of all sizes continue to take advantage of Bremerhaven's potential as an innovative business and research location, create jobs, and strengthen the region's value creation chain.

BIS at a glance:

BIS services include

- support for expansion projects, subsidized projects and financing
- advisory services and support for site selection and new settlement
- assistance in dealing with administrative authorities
- assistance in the search, sale and rental of suitable commercial space and buildings
- investment, innovation and environmental funding, as well as support in procuring additional funding from the State of Bremen and advice on subsidy programs offered by the German government and the European Union
- business incubation centers, as well as advisory and support services for start-ups
- clustering and networking
- fostering collaboration between business and research
- infrastructure development (road construction, civil engineering, hydraulic engineering)
- the development of an industrial area with facilities and infrastructure tailored to meet future market needs
- nationwide marketing of Bremerhaven as an industrial center to attract new companies

< www.bis-bremerhaven.de >

Fish Forever!

An omega-3 weekend in the Fishing Port of Bremerhaven

TEXT ~ Gabriele Becker

Where else can this be found: an industrial area, rich in tradition and located directly on the waterfront, where people can go to the theater and roam late into the night exploring restaurants and pubs to then finally enjoy a good night's rest in stylish surroundings – Time for a weekend of enjoyment at the Fishing Port of Bremerhaven.

Fish processing is a craft

To this day, life in the seaside city of Bremerhaven is second to none when it comes to fish. Founded in 1896 in what was still the Prussian town of Geestemünde, the fishing port grew into a huge industrial area. For a long time it was the largest fisheries port on the European continent and today, it is still one of Europe's most important fish processing centers. In the 1950s, up to 250 fishing trawlers regularly docked at the wharf in front of legendary Hall X to land fish for auctions. Activities in the fishing industry included, aside from shipbuilding, the catching, marketing and processing of fresh fish. To this day, many of the businesses based in Bremerhaven continue to train their own artisan craftspeople: they still learn to clean, fillet and skin fish by hand.



Schaufenster Fischereihafen – the former fish packing hall Fischpackhalle IV.



Fish party: Life-size fish on display

A center of modern food industry

By the early 1970s, Bremerhaven's largest industrial area had grown and was home to 176 companies. But then things changed: fish trawlers were replaced by factory ships, fishing grounds moved farther and farther away, as import and transportation routes were replaced. In the mid-1980s, changes in consumer behavior and buying habits did their share to accelerate development. Today, transparency is of utmost importance to the Fishing Port, which evolved from a fish trading and processing center to an innovative fish and food industry hub – and a tourist attraction!

Reason enough to dive into the new world of the old Fishing Port.

LET'S GO ->



11.45 AM

Transparent galleys

Friday has always been fish day. For Bremerhaven that means that many of the delicacies produced here have at last reached their final destination, the consumer's home. And after a long working week, some of the many people who work in the port go home early. That's why we quickly head off to fish wholesaler Wilhelm Petersen's specialty fish shop at Fischkai 11 where the company has been skinning and filleting fish by hand since 1903. Customers can look through the glass and watch the work being done.

< www.wilhelm-petersen.com >



Next door herring salad is being prepared in the glass-walled galley of the Julius Krause shop. Delicious!

< www.julius-krause.de >

— Friday —

11 AM

Room with a view

A27 – Autobahn exit Bremerhaven-Süd: It's hard to miss the signs pointing the way to **Schaufenster Fischereihafen** (a tourist attraction that showcases the port's industrial and commercial activities). We check into a Comfort Hotel. The room has a wonderful view of the port. Just opposite, we can see the fishing trawler **Gera**. The last surviving German side trawler is now part of the Historical Museum of Bremerhaven.



The exhibition on the museum boat has just been brought up to date. Visitors can use the multimedia guide to virtually follow Captain Hein and his mate Harry around the boat and learn all about their tough day-to-day life on board. We're getting off to a good start! < www.comfort-hotel-bremerhaven.de >

< www.historisches-museum-bremerhaven.de >

12 PM

Schaufenster Fischereihafen

Walking back along the wharf, we head towards **Schaufenster Fischereihafen** where everything revolves around fish and the sea. We have an appointment with Karl-Heinz Michen. The **Schaufenster's** Event Manager knows the business in and out. "We get almost 800,000 visitors every year," he tells us. "With events that range from a summer music program to dragon boat races, there's always something to do. We have day-trippers from the entire northwest, but of course also tourists who stay in town longer. The **Fisch Party** in April is always a culinary highlight.

Karl-Heinz will step down at the end of the year and he already has his successor Marco Schilling in tow.

The center of the **Schaufenster** – the former fish packing hall, **Packhalle IV** – is full of restaurants, cozy pubs and shops with maritime gear and waterproof clothes. A look at the sky tells us that we might be interested in buying some of the latter. < www.schaufenster-fischereihafen.de >

12.30 PM

In the smokehouse



The historical building of the smokehouse *Fischräucherei Franke* is also in the *Schaufenster*. The smell of the beechwood fire greets us at the door. We admire the black Altona smoking ovens and understand why Franke is an institution in Bremerhaven. People say that it's not just beechwood, but that Bacardi is also used to create the perfect smoke – the shop assistant tells us that that's just a lot of nonsense.

< www.fisch-franke.de >

1.45 PM

Young and wild

Jürgen Rathjen is at the counter in his wine shop *Weinkontor am Hafen* just one door down. A legend in Bremerhaven, Rathjen is 76 years old and he is not thinking of retiring any time soon. "We specialize in the so-called 'Junge Wilde' among the German winegrowers and carry wines from 12 German states, but of course we also sell wines from Europe and abroad." We decide to taste some of his wines. Rathjen is a talented entertainer and time flies by.



1 PM

A 1906 fish market



Everything is close-by: *Fiedlers Fischmarkt anno 1906* is also in *Packhalle IV*. It offers an award-winning sea-themed shopping experience with sound effects such as the cry of sea gulls and breaking waves, and a great variety of delicacies: fresh fish, marinades, smoked fish and tasty shell-shaped fish sandwiches. We decide to try their latest creation, a *Küstengriller*, which is a 100-percent meat-free bratwurst made of salmon and squid. It tastes good and a knackwurst version is also available.

< www.fiedler-anno1906.de >

3 PM

Biking against the wind

The Fishing Port covers an area of 600 hectares. To explore 450 hectares of land on two wheels, we obtain bicycles from the clean new sparkling pavilion for tourists. Later, we take a break and have some coffee at the newly opened snack bar *Gern ans Meer*. If you're lucky there's some sun and you can sit in front of the old packing hall at tables made of pallets in the heart of the Fishing Port's commercial area.

< www.gern-ans-meer.de >



Legendary Hall X is around the corner. The imposing structure built in the 1920s is 550 meters long and is a symbol of the era in which the Fishing Port first established its international reputation. Innumerable fish trawlers used to moor at the quay, while traders at auctions hardly found room to stand among the many crates of perch and plaice. From the water's edge we look out over **Fischereihafen II** to the opposite shore. We can see Brinkamahof lighthouse over on one side. For many years, it guided ships in the North Sea, today it is privately owned and houses Bremerhaven's smallest pub.

3.30 PM

Iglo & Co.

We pass Frosta on Am Lunedeich: a plate-glass window allows us to look into the production facility. Here, high-quality frozen foods are made without additives. Soon after, we come across another big name. Deutsche See calls itself an artisan fish processor – rightly so. Top chefs create specialties that satisfy the most discerning tastes. Frozen Fish International is the home of Iglo and products such as the ever-popular fish sticks, Schlemmerfilets and other seafood delicacies. They are produced in Bremerhaven and sold all over the world. Different countries have different tastes, which means that the breeding varies depending on destination.

< www.frosta.de > < www.deutschese.de > < www.frozenfish.de >

4 PM

A visit to the buffalo behind the dike

Against the wind we head south: Bremerhaven is the German center of production of components for the offshore wind industry. We know why. On the PowerBlades site we can see huge rotor blades. By the way, their load capacity is tested by Fraunhofer IWES located nearby.



We have circled the port; in front of us lies the Weser River and Luneplate, a former island, which, along with the Weser River's intertidal mud flats located outside the Fishing Port, has just recently been designated as the State of Bremen's largest nature reserve. In the nature reserve, which is intended to compensate the construction of Bremerhaven's container terminal, nearly 70 species of water and coastal birds can rest, watched over by Valentino, the water buffalo who lives here with his herd. < www.bremenports.de >

5 PM

Home of the polar researchers

While pedaling back along the dike toward the **Schaufenster**, we pass the Double Lock, which was completed in 1925 and has since been greatly expanded. Right near the Lock we catch a glimpse of the many campers that have parked at one of northern Germany's most popular RV campsites.



Behind the Double Lock, the striking façade of the annex of the Alfred Wegener Institute for Polar and Marine Research (AWI) appears. < www.awi.de >

A few meters farther we see a new building, the Centre for Aquaculture Research. Here research is conducted on breeding, ecological farming and feeding fish.

7 PM

Welcome to Natusch!

Fortunately, we booked in advance – **Natusch**, a restaurant the Fishing Port, has been serving for 60 years and is one of Germany's best restaurants, now operated by the third generation of the family that owns it. It specializes in seafood and has traditional nautical decorations, with brass lamps and portholes. Here we let the evening wind down enjoying

our excellent dinner, while being wonderfully entertained by the jovial Senior Chef Lutz Natusch. < www.natusch.de >



12 PM

Approved by TV celebrity chefs: **Fisch 2000**

Time for a snack in the port. Line up please! From workers to businessmen, everybody here has to take a number and wait their turn to be served the city's tastiest fried and battered fish. < www.fisch2000.de >



For coffee, we go to a more stylish place, the lounge of the new Best Western designer hotel with a panoramic view of the workings of the entire port.

< www.hotel-bremerhaven.bestwestern.de >

— Saturday —

11 AM

Discovery trip

After our morning jog around the port, past the steamship *Dampfer Welle*, and a big breakfast, we start our day of wonder. At *Phänomenta*, the North Sea Science Center, everyone is invited to enjoy a hands-on experience. Visitors can explore exhibits that explain natural and technical phenomena in the former *Gewürzhalle* where spices used to be traded. An amazing way to have a good time!

< www.phaenomenta-bremerhaven.de >



3 PM

Off to an expedition

Expedition Nordmeere [Expedition to the North Seas] is the name of the new exhibition, opened in 2015 in the *Forum Fischbahnhof*, a former fish-packing hall located in the *Schaufenster Fischereihafen*. As members of the expedition, we track various species of fish and marine animals. This interactive expedition answers any questions one might have about fish, and that includes topics such as fisheries research. Fishing and fish processing are present-

ed and explained in a vivid and interesting way. Oh, by the way, the whale skeleton on display used to be in the former Nordsee Museum and has been in storage for 20 years.

< www.expedition-nordmeere.de >

8 PM

Curtain up!

Back at the *Fischbahnhof*: Quick thinkers get their money's worth at *TiF*, the theater in the Fishing Port, when the local heroes of the Instant Impro theater group take to the stage. The theater has been in the port since 1996 and become a permanent fixture in the cultural life of the city by the sea.

< www.tif-bremerhaven.de >

The same applies to the *Figurentheater Bremerhaven*, Ulrike Andersen's puppet theater which has been in the old packing hall, *Packhalle V* since 1998. Both children and adults can enjoy delightful and exceptional puppet shows at this small workshop theater, installed with the help of the FBG and the cultural office of Bremerhaven.

< www.figurentheater-bremerhaven.de >

11.30 PM

"Come again soon"

At the end of the day we have a drink at *Krohn's Eck*. Young and old, elegant and not so elegant – everybody's here, with Maggie behind the bar. And one thing is clear, it won't be long before the dancing starts. The guests themselves bring life to the trendy bar: they loudly and enthusiastically sing their old favorites accompanied by the jukebox.

< www.krohns-eck.de >

— Sunday —

11 AM

Off to the cooking studio

Well-rested after a good night's sleep, we make our way to the weekend's last highlight, the *Seefischkochstudio* (*Sefiko*), a fish and seafood cooking studio with a new façade that looks like it's covered in shimmering fish scales. Laughing, Christina Klug, the lively manager of Sefiko, meets us at the door, "We are fish ambassadors and have been active since 1927!" How true! At the cooking show hosted by TV celebrity chef Ralf Harms we find out how to best prepare fish, "Clean, cure and salt," he explains. One of the items on today's menu is plaice fillet roll. We are allowed to help out, and as a reward, get to enjoy the mouth-watering fish buffet. We take our leave equipped with delicious new recipes. An unforgettable glimpse of the world of fish at the port of Bremerhaven!

< www.seefischkochstudio.de >





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