



## Norway sails through the global downturn

During the recent global economic crisis, Norway navigated through the rough conditions quite smoothly and emerged from the turmoil with a highly enviable reputation as one of the world's most stable and strongest economies.

One of the first to exit the global recession last August, the country raised interest rates three months later, as its counterparts around the world cut their key lending rates further or maintained near-zero rates in an attempt to spur lending and consequently kick-start their own economies.

And Norway remains one of the world's wealthiest nations, thanks to its abundant supply of natural resources. It is the world's fifth-largest oil exporter and Western Europe's biggest producer of natural gas. In fact, the local petroleum industry accounts for 50 percent of its exports and over 30 percent of state revenue.

Backed by a stable public sector, the 4.8 million Norwegians enjoy a very high quality of life, all of whom have access to enviable health care and an excellent educational system.

With unemployment at only 3.1 percent, the country also has the world's second-highest GDP per capita after Luxembourg (at \$95,062).

Currently, Norway's well-managed state pension fund is the second-largest in the world (after Abu Dhabi), valued at \$450 billion as of late 2009.

"We have invested very carefully throughout the years. Currently, the fund has invested 60 percent in equities and 40 percent in bonds. The government maintains the fund by utilizing only the returns and not touching the actual fund itself. The fund has an expected real return of 4 percent and we spend this return more during downturns but save it during good financial times," says Norges Bank Gov. Svein Gjedrem.

"We invest for the very long term, so we are not overly concerned with a year of bad results. Norway owns 1 percent of the globally listed equity market, 2 percent of the European equities market, and at least 0.5 percent of

the Japanese equity market. We are quite substantial investors in the international market," Gjedrem adds.

Aside from the state pension fund, Norway also has a very diverse economy, whose industries have shown robust growth.

The country has benefited a lot on shipping, as the sector – which encompasses shipbuilding, trans-



Japanese Ambassador to Norway Hisao Yamaguchi

portation and cargo, vessel and shipping line operations, and shipyards – accounts for 100,000 jobs and generates around \$17.05 billion in revenue.

The base of some of the world's largest shipping companies (such as Western Bulk, J.J. Ugland, First Olsen and Grieg Star Shipping), Norway forecasts a full recovery in the sector this year.

The shipping industry also forms the basis of the strong relationship between Norway and Japan, which are celebrating the 105th anniversary of diplomatic relations this year.

"Japan, like Norway, is one of the leading maritime nations in the world. We've historically had very close ties to Japan, in terms of commercial cooperation and in transportation. Japan is our hardest competitor and one of our most valued friends and business relationships," Norwegian Shipowners' Association CEO Sturla Henriksen points out.

In this milestone year, the Japanese ambassador in Oslo forecasts

more dynamic trade and closer ties.

"Japan and Norway enjoy a strong trade relationship. The two nations have many similarities and we can appreciate each other's differences. Norwegians are down-to-earth, natural people, and put together, we make good friends and allies," says Ambassador Hisao Yamaguchi.

"Both countries also have a strong partiality for high-quality products. Norway's biggest imports from Japan are automobiles, machines and electronics. From Norway, Japan imports fish products, silicon wafers or chemical products, and metals like nickel and aluminum," Yamaguchi adds.

As the third-most important export sector, Norway's fisheries industry also plays a vital role in the country's economy, bringing in revenue of about \$6.82 billion from exports worldwide, with salmon, trout, halibut and cod being the most popular catches.

"As the largest consumer of fish, Japan is one of our most important importers of fish, accounting for almost 50 percent of our exports. We certainly value them as trading partners and we hope to continue a long relationship with them," says State Secretary of the Ministry of Fisheries Vidar Ulriksen.

A forerunner in environmental technology, Norway boasts also having the most dynamic companies in the sector.

As one of the most energy-efficient countries, the country's electricity is derived mostly from hydropower (at about 98 percent). Norway was also chosen by Japanese automaker Mazda as the pilot location for its first hydrogen-powered car.

"There has been a strong environmental movement in Norway throughout the years. Through the Kyoto Protocol and the Copenhagen Climate Conference, Norway is, more than ever, focused on addressing climate change, reducing emissions, and transferring technology," says Minister of Environment Erik Solheim.

"We aim to bring the environment closer to people and we are encouraging the use of electric cars and charging stations. Ultimately,



Opened in 2008, the Oslo Opera House, known locally as Operahuset, is home to the Norwegian National Opera and Ballet and has become an iconic and well-loved landmark in the capital. The building was designed to resemble a ski slope, a reference to the most popular pastime of Norwegians.

the goal is similar to the old philosophy of a Japanese or Norwegian farmer wanting to hand over the farm to their son or daughter in the same standard or better than he inherited it," Solheim adds.

Norway also has a dynamic biotech and pharmaceutical sec-

tor focused on cancer treatment, headed by the Oslo Cancer Cluster, which encourages collaboration with related companies such as DiaGenic (for early diagnostics of life-threatening illnesses), Algeta (which discovered the cancer drug Alpharadin) and Axis-shield

(for point-of-care testing).

Spearheaded by the organization Innovation Norway, the country has also stepped up efforts to strengthen regional development, promote Norwegian business and tourism and boost trade relationships around the world. ♦

## Norwegian shipping old guard blazes trail in thriving Asian region

Illustrating its significance to Norway's maritime industry, the offices of First Olsen Ltd. lies along a street in central Oslo named after the company founder's son. Originating from one of the country's oldest and largest shipping companies, First Olsen remains family-owned under the holding firm Bonheur ASA and its listed subsidiary Ganger Rolf ASA (both managed by Fred. Olsen & Co.).

The group has engaged in a wide variety of activities overseen by its affiliates, among them Fred. Olsen Marine Services AS (technical marine services), Knock Tankers Ltd. (tanker operation), and Fred. Olsen Production (Floating Production, Storage and Offloading and Floating Storage and Offloading).

Fred. Olsen Production owns and operates a fleet of seven FPSO and FSO units in the international oil and gas markets. While an FPSO unit operates offshore fields for the production of oil and gas, an FSO unit does not have the production capability but only storage and offloading capabilities.

A number of these units are located in Brazil and Southeast Asia, regions identified by the company as core markets and provide the most opportunities for business growth and development.

"Southeast Asian growth is really the one we are relying on and in particular, growth in China, which remains stable. This is a region we need to be present in. We also need to be patient to see the growth that is expected," says Per-Oscar Lund, chairman of Fred. Olsen Production and president of First Olsen AS.

Currently, the company is collaborating with Japanese trading giant Marubeni Corp. on marketing and developing of floating production projects in Southeast Asia through its office in Singapore.

"We are working with them for one specific project in Indonesia, where there is also some Japanese participation in the gas fields. We have been working with them for three years now and the relationship has been very good," Lund says.

Meanwhile, the group has also expanded investments into renewable energy-related businesses, such as Windcarrier AS, to support offshore wind farms.

"We are now developing a vessel for the installation of offshore windmills because we see that there are quite a number of offshore wind farms being developed in the North Sea and Northern Europe. And you need a specialized vessel to install these windmills," says Lund.

China is the only Asian country with impending full-blown plans to build wind farms along its coast – another potential area of collaboration with the Japanese.

"We have been doing business with Japan since the late '60s and are always looking at opportunities with them. We have a history that goes back to 1848 and we've been successful in our core businesses. We need to position ourselves for the future and improve our relationship with Japan and the Far East in general since that is where we will have the strongest growth in that region," says Lund. ♦  
[www.fredolsen.com](http://www.fredolsen.com); [www.fotl.no](http://www.fotl.no); [www.fjso.no](http://www.fjso.no)



Fred Olsen's cruise ship The Balmoral at sea (top) and its FPSO Knock Allan off the waters of Gabon (above)

## J.J. Ugland Companies build on reputation as shipping pioneers

Once a global shipbuilding center in the late 19th century, Grimstad is a small town of 20,000 people on the south coast of Norway with a proud maritime heritage. At one point during that period, close to 100 ships were being built simultaneously in the 40 shipyards along the coast.

While most of the shipping companies and shipyards have relocated to other shores, Grimstad remains home to the J.J. Ugland family, which first settled in the area as farmers in the 16th century but entered shipping when it

built its first sailing ship, the Fortuna, in 1772.

Still owned by one of Norway's oldest shipping families, Uglands Rederi is the main company that presides over an empire engaged mainly in shipowning, ship management, offshore operation, ship repair and offshore construction. J.J. Ugland is the chairman and owner of the J.J. Ugland Companies.

The J.J. Ugland Companies operate a fleet of 36 vessels, of which 28 vessels are fully owned, with an aggregate deadweight of 1.8 million tons. The vessels include 12 bulk carriers, eight tankers, one crane vessel, 11 barges, two tugs and two newbuildings. The two new vessels are part of an ongoing strategy by the company to increase its fleet.

"We have done well despite the global crisis and we remain committed to conservatively increasing the number of our vessels in the years to come. Last year, we took delivery of a Handymax bulk carrier from Tsuneishi and we are expecting delivery of two more in 2010," says Uglands Rederi President Hans Ivar Vigen.

The Handymax vessel, named MV Senorita, is fixed on a five-year charter party to Japan's Mitsui O.S.K. Lines.

The J.J. Ugland family has a close relationship to Mitsubishi Corp. and has entrusted the building of many of its vessels to Japanese shipyards because of their unmatched reliability and reputation for quality.

"It is a good match between Norwegians and Japanese.



The Favorita forms part of J.J. Ugland's 36-vessel fleet.



Uglands Rederi President Hans Ivar Vigen (left) and Oystein Beisland, executive vice president of Ugland Marine Services

They are quality-oriented, long-term players in the industry and so are we. We would like to continue this long-term thinking and relationship with the Japanese," said Oystein Beisland, the executive vice president of Ugland Marine Services, the ship management company in charge of all technical and commercial operations of Ugland vessels.

Armed with long-term partnerships, a sound financial position and a dedication to providing customers with the best quality services and solutions, the J.J. Ugland Companies remain well-conditioned to continue with its proud shipping tradition and grow as one of Norway's leading shipping companies. ♦  
[www.jjuc.no](http://www.jjuc.no)

*'It is a good match between Norwegians and Japanese. They are quality-oriented, long-term players in the industry and so are we. We would like to continue this long-term thinking and relationship with the Japanese.'*



A/S Uglands Rederi - Ugland Shipping AS

Shuttle Tankers - Bulk Carriers - Barges  
HLV Crane Vessel

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## Avinor keeps Norway's skies safer and cleaner

First impressions are everything. And in a highly globalized world with open borders and affordable air travel, airports have become an important introduction for all travelers, whether on business or on leisure.

For a nation known worldwide for its breathtaking natural landscape and formidable economy, Norway takes in thousands of foreign tourists and executives everyday at its 46 airports, the major ones located at the capital Oslo and in the cities of Bergen, Tromsø, Bodø, Trondheim and Stavanger.

Named Europe's most punctual airport three times by the AEA (Association of European Airlines), Oslo Airport (OSL) accommodates 60,000 passengers daily and in 2008, served 19

million passengers. Overseeing the development and the operations of the country's vital airport network is Avinor AS, a limited company fully owned by the Ministry of Transport and Communications. While state-owned, Avinor has achieved success through its self-financing, market-oriented policies.

To accommodate a predicted increase in passenger traffic as the global economy recovers and tourism companies and investment bodies boost efforts to promote the country, Avinor has undertaken major steps to expand and upgrade the airports.

"We will soon decide on some major investments for our major airports and we are upgrading almost all our airports with respect to new aviation safety requirements. This is to ensure that our visitors from Japan and around the world arrive in Norway safely and very satisfied with our facilities and services," says CEO Sverre Quale.

While the majority of Japanese visit Norway via direct chartered flights to Bergen and Tromsø mostly for tourism-related activities, Quale is inviting them to also look into investment opportunities.

"Since we have become a commercial and market-oriented company, we remain open to partnerships with the Japanese who are looking



Avinor CEO Sverre Quale

into investment opportunities in our industry," he says.

Apart from Avinor's safety and operational achievements and awards, new environmental technologies aimed at reducing emissions both in the air and on the ground are continuously being tested and executed in its network of airports. ♦ [www.avinor.no](http://www.avinor.no)

## Norwegian State Railways spreads network

One of Norway's biggest companies, Norwegian State Railways (NSB) has grown to become a top transport group in Scandinavia as the state-run firm launched bus operations in Sweden and Denmark, as well as train operations and maintenance in Sweden.

"We are now a more Nordic company," stresses CEO Einar Enger. Employing more than 11,000 people, NSB has an average annual turnover of €1.2 billion as it moves cargo and export goods across Norway and Sweden, with a significant amount of those goods headed to Japan.

In 2009, NSB marked the centennial of its famous Bergen Line. The seven-hour train ride links Norway's two largest cities, Bergen and Oslo. Very popular among Japanese tourists, the seven-hour train ride links Norway's two largest cities, Bergen and Oslo, as it passes through the country's breathtaking fjords and scenery.

The past two years, NSB suffered a decline in passenger and freight volume due to the global recession but the company expects a recovery this year.

"We are expecting a return to growth in 2010. In fact, we are preparing for the opening of our new lines in 2012 and we purchased 50 new train sets from Switzerland. This is the biggest contract in NSB history. These new,



Norwegian State Railways CEO Einar Enger

modern trains will be an exciting experience for our passengers. We'll have trains running from Oslo to the West side, and to the North side, every 10 minutes," he says.

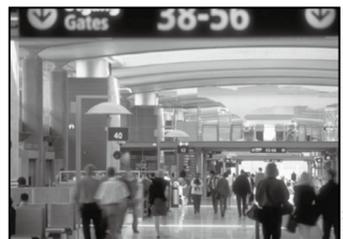
The company also has other partnerships in the pipeline.

"In November of 2009, we started cooperation in Sweden with the Mass Transit Railway from Hong Kong. MTR operates one of the most efficient subway systems in the world and our Sweden project is a significant partnership for us. MTR taking over the underground subway in Sweden is a sign of a new era as it's the first time that a train company from the Far



Norwegian State Railways' famous Bergen Line celebrated its centennial last November.

East will join the train industry in Scandinavia," he says. ♦ [www.nsb.no](http://www.nsb.no)



Oslo Airport

## Konica Minolta thrives on high-tech printing solutions

Located in the highly tech savvy market of Norway, Konica Minolta Business Solutions became the fastest-growing printer vendor in the country last year.

"Our recent growth strategies have included a new business plan, a new management group and an upgrade to modern information technology systems in our offices. It's been a very busy year. At Konica Minolta, we design our IT systems, so we can support our customers in the best possible way," says Managing Director Leif Lippestad.

Despite having just 200 employees, Konica Minolta is the third-largest provider of business solutions in the country, with its color copiers being the most popular product. In Norway, 19 of every 20 new copiers sold are color copiers.

An industry pioneer, Konica Minolta's latest products include high-speed, color machines that produce 22 pages and 28 pages per minute.

But its most innovative product is a color printer with an output of 65 pages per minute and new toner technology that provides clearer pictures. Konica Minolta sold the first three units of this printer in Norway and its Norwegian office tops the global list for most units sold of that model.

"Norway is and always has been an early adopter of new technology. We have high-cost employees and offer very competitive wages, so high technology is an area where Norwegians are willing to invest," he says.

Konica Minolta is also an active sponsor of winter sports teams such as the Norwegian Ski Federation Team and the Ski Jumping Team for the World Championship in Oslo in 2011. ♦ [www.konicaminolta.no](http://www.konicaminolta.no)



Konica Minolta Business Solutions Managing Director Leif Lippestad

## OKI leads growing trend for multifunction copiers

Two years ago, Oki Printing Solutions restructured its operations and management to boost its presence and business in the Nordic region.

In line with that objective, Oki recently formed a regional management team and turned each operating company in Norway, Sweden, Denmark and Finland into sales-only organizations.

The strategy apparently worked, according to Oki Printing Solutions Norway Country Manager Svein Helge Kringlen.



OKI's MC860 is a space-saving device that features 4-in-1 multifunctionality and wide-format color capability.

"During the financial crisis, the printer market declined 30 percent but Oki Norway improved its business. We have gained market share in the last 12 months, thanks to a lot of hard work and new products that have opened new doors for us," he says.

"We've seen an emergence of the multifunction machines, and our new MC860 has opened many markets for us," he adds.

Oki achieved much success with its new multifunction machines, specifically the MC860, which embody the growing trend in copying and printing technology.

Featuring functions such as a printer, copier, scanner and fax (up to tabloid-size media), the new multifunction machines are space-saving devices that have been attracting a growing number of customers realizing the benefits of the machines.

While Oki's clientele are mostly small-to-medium size businesses, its printers and multifunction machines are also found in most Statoil gas stations around Norway.

Meanwhile, Oki is looking to further expand their businesses in the country through its high-value, high-quality products.

"Oki has had a strong presence in the printing market for many years. We have proven quality in



Oki Printing Solutions Norway Country Manager Svein Helge Kringlen

new technologies, such as the multifunction machines. Unlike other companies that offer traditional one- to two-year warranties, Oki offers a three-year warranty on all products to show the strong belief we have in our products," says Kringlen.

"Oki, with its Japanese culture, definitely instills loyalty in their employees, just like our products," adds Kringlen, who has been with the company for over 22 years. ♦ [www.oki.no](http://www.oki.no)

## Mazda zooms through Norway with green technology

Mazda Motor Norges has seen phenomenal success in Norway the last five years under the leadership of Karianne Westby, who led the company's growth from a one-woman operation to a 14-strong team handling 52 dealerships across the country.

"It only took us a few years to build genuine trust with our dealers. We built a new culture and really focused on developing our brand, as we built cars with better design and are more fun to drive," says Westby.

The fastest-growing car brand in Europe, Mazda defied an industrywide slump worldwide last year and increased its revenue in Norway.

"Remarkably, 2008 was incredibly successful for us while it was not a very good period for other car manufacturers due to the financial crisis. The Mazda 6, which was released in 2008, helped us gain a good market share in Norway," says Westby.

Mazda Motor Norges has worked even more closely with its Japanese counterparts ever since Norway was chosen to lead the hydrogen hybrid car program with its RX-8 Hydrogen RE.

In 2009, Mazda launched 10 of those cars, which



The CX-7 is Mazda's latest addition to the diesel SUV line.



Mazda Motor Norges Managing Director Karianne Westby

were modified to carry only 5 liters of emergency petrol to avoid car taxation, which is the second-highest in the world, after Denmark.

"Cars like Mazda's RX-8 Hydrogen version will be highly favored because of its zero CO<sub>2</sub> emission. Hydrogen cars are the ultimate goal," she explains.

And Mazda's latest car, the CX-7 Facelift Diesel, is a diesel SUV launched in Norway in January 2010. It is the first of its kind in the country, and it will be the company's first real entry into a major segment in Norway.

"It will be an important car for us in building the brand," she says.

"Norwegians have a great preference for Japanese products, Japanese cars in particular. They are perceived to have high quality and high durability. Mazda has always had a good reputation. What we want everyone to discover these days is that Mazda also has very stylish and exciting cars," she adds. ♦ [www.mazda.no](http://www.mazda.no)

## World's 'best place to live' provides a haven for tourists

In 2009, the United Nations again named Norway as the 'best place to live' in the world.

This oil-rich country has been setting the global standard for quality of life, particularly in terms of life expectancy, literacy rates, school enrollment and economy.

A country similar in size to Japan at 324,219 sq. km, Norway has been famous for its breathtaking fjords, lush green landscape, grand mountain slopes and quaint fishing villages.

Tourists around the world travel to the so-called "Land of the Midnight Sun" during the summer season to see the Geirangerfjord, Norway's most famous and spectacular fjord.

But in the wintertime, there is also no shortage of winter sports venues for tourists to take advantage of in the country that has been dubbed the "Home of Skiing."

Although also known to be one of the most expensive countries in the world (with a pint of beer costing about \$10), Norway has been a favorite destination among Japanese travelers.

"We saw huge success with our nonstop chartered flights from Tokyo and Tromsø last winter. In addition to continuing this flight in March, we also hope to fly tourists from Tokyo to Bergen in the summer. The Japanese come to Scandinavia, specifically to Norway, to see the northern lights in the winter and the fjords during the summer," points out former

SAS CEO Ola H. Strand.

One of the leading Scandinavian hotel chains, the Radisson Blu offers a luxurious haven for these Japanese tourists as their eco-friendly home away from home.

"There is abundant potential for newness, growth and ideas in Norway, which makes it quite different from other, more mature European cities that have 'been there' and 'done that.' There is a certain romance to the society in Norway. There is a romance in the economy, the many industries and even the hospitality industry," says Angelica Montez de Oca, communications manager of the Rezidor Hotel Group.

The Norwegian capital Oslo also offers plenty of sites and attractions to foreign visitors and its 500,000 local inhabitants.

Nestled in the heart of the city is the Royal Palace, or Det Kongelige Slottet, home of King Harald V and Queen Sonja. And leading to the Royal Palace is Oslo's most famous street, Karl Johans Gate.

The street, lined with numerous shops and restaurants, is the home of the Nationaltheater (National Theater), Stortinget (Norwegian Parliament), Universitet (The University), and the Grand Hotel, the home of visiting Nobel Peace Prize winners during the yearly award ceremony.

Oslo is also a premier tourist destination for lovers of culture and the arts.

The city boasts Vigelandsparken, an 32-hectare park that features 212 bronze and granite sculptures by Gustav Vigeland, as well as the Munch Museum, home to Edvard Munch's famous expressionist and modernist pieces, "The Scream" and "Madonna."

One of the most recent additions to the notable landmarks in this seaside capital is the Oslo Opera House, which epitomizes edgy and modern architecture. Music lovers flock to the Oslo Philharmonic Orchestra, which holds regular concerts year-round.

The fishing village of Bergen has been named by National Geographic as one of the best travel destinations in the world. Called the "Gateway to the Fjords," the city is surrounded by no less than seven fjords.

During the summer, tourists flock to Bergen to enjoy the vibrant summer music festivals held along the



Norway has been famous around the world for its many breathtaking fjords.

cobblestone streets and wooden houses.

Also known for its fisheries industry, Bergen has an abundance of restaurants that serve such popular Norwegian fare as lutefisk, cod, whale meat and even reindeer meat.

Bergen Railways, which connects Oslo to Bergen, is considered to be the most exciting and beautiful train ride in the world, and is a must-do for many tourists.

"Japan is especially important to the west coast of Norway because the Japanese are one of our main consumers of fish. There are huge business opportunities in Bergen, specifically in underwater technology and offshore activities," says Bergen Chamber of Commerce CEO Marit Warcke.

"We are looking forward to seeing Japanese tourists in Bergen this summer, and hopefully we can develop a stronger student exchange program between Norway and Japan," Warcke adds. ♦

[www.visitnorway.com](http://www.visitnorway.com)

[www.visitbergen.com](http://www.visitbergen.com)

[www.oslofilharmonien.no](http://www.oslofilharmonien.no)

[www.operaen.no](http://www.operaen.no)

[www.flysas.com](http://www.flysas.com)

[www.radissonblu.com](http://www.radissonblu.com)

[www.bergen-chamber.no](http://www.bergen-chamber.no)



Bergen remains a top tourist attraction because of its quaint charm.



Together for aviation of the future

## Celebrating 100 years of the Bergen Line

NSB AS, Norwegian State Railways, is one of Norway's foremost transport companies, with roots going back as far as Norway's first railway service in 1854.

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# Norway

## TINE BA brings the best of Norwegian dairy to the world

While the energy, shipping and fisheries sectors remain the major pillars of the Norwegian economy and comprise the country's biggest exports, one local dairy company has succeeded in bringing its products to millions of households around the world.

Established in 1881, TINE BA is a cooperative owned by approximately 16,000 farmers and is Norway's largest dairy company with facilities all over the country.

The company began exporting its products in the early 1960s, with Japan being one of its first overseas markets.

"We started shipping cheese to Japan in 1966 and at one point, exports to Japan represented more than 40 percent of our export business," says President and CEO Hanne Refsholt.

The company's export brands currently include Ski Queen, Nøkelost, Normanna, Gräddost, Snøfrisk, Norvegia, Ridder and Jarlsberg.

Ridder and Jarlsberg remain the most popular products with the latter responsible for 60 percent of TINE BA's total exports.

The world-renowned Jarlsberg cheese is characterized by large round holes and its sweet and nutty taste, while Ridder is a semi-hard cheese without holes, aged in putty rind, and has an aromatic, piquant taste.

"Table cheese is still not as popular in Japan as in Western coun-

tries but with the help of our partners, we hope that more Japanese eventually try our products and incorporate them into their diets," says Refsholt.

As TINE BA solidifies its reputation as the preferred supplier locally and internationally, Refsholt stays committed to Japan and the region. Its importer in the country is Japanese trading giant Mitsui.

"We've had a presence in Japan for almost 40 years now and despite a decrease in exports in recent years, we remain committed to our partners there and look forward to growing our business in the next few years," she says. ♦

www.tine.no



TINE BA President and CEO Hanne Refsholt



Norwegian cheeses from TINE BA, as displayed during a recent consumer event in Tokyo

## Sjøvik Group is more than the catch of the day

Flanked by the Norwegian, North and Barents seas, fishing has provided livelihood for Norwegians for generations. As it controls some of the world's richest fishing grounds, Norway has developed the most efficient and modern fishing methods.

Although steeped in age-old traditions, Norway's fishing companies have adapted to a fast-changing world economy and expanded its market to hundreds of countries around the globe to build a multi-million dollar industry.

Located at the center of Norway's largest and most vital fishing areas, the Sjøvik Group has a history in the fishing industry going back almost a century. It operates from its base in Midsund, a town along the country's northwest coast.

Since taking over in 1973, President and CEO Odd Kjell Sjøvik has been instrumental in the global expansion of the family-owned company and in building its reputation for innovation.

In the past 30 years, it has become a marketing- and sales-oriented organization focused on customer satisfaction.

Sjøvik was the first in the industry to have on-board production of scallops on its purpose-built vessels, form partnerships with retail giants in the U.S. and France and establish a joint venture with a Canadian

firm, which eventually led to the company's introduction to Japan for the first time.

"We had the pleasure of working with a number of Japanese companies, including Mitsui, for many years and we've enjoyed our relationship with them despite the differences in our cultures. The Japanese are trustworthy and we are always open to discussing with them the possibility of taking interest in our business," he says.

Its most well-known business area is Seabay, an in-house brand recognized for delicious fish products. But the company also specializes in private labels tailor-made according to its customers' needs.

While it continues to focus on its global business and on transferring expertise to countries that include Argentina, Russia, and Morocco, Sjøvik is optimistic about reestablishing a connection with Japan.

"Historic relations are very important to countries like Norway and Japan and they are the basis to building new relations," he says.

Through the highest standards of information technology and experienced professionals, the company also offers numerous services related to professional vessel management and specialized fishing and processing. ♦

www.sjovik.no



## Norwegian crabs find their way across the world

With the world's second-longest coastline (around 83,000 km) and over 200 species of fish and shellfish found in its waters, Norway is among the largest seafood-exporting countries and a pioneer in modern aquaculture.

One of the country's latest seafood exports, the red king crab hopes to achieve a similar status of the much sought-after and world-renowned Norwegian salmon.

As the population of the giant crabs grew and migrated westward from Russia, Norwegian fishermen and environmentalists believed that the crustacean endangered local marine life. But as fishing quotas for the crabs were raised to eliminate that threat, some fishermen meanwhile saw a new opportunity and exported the delicacy to Asia and particularly, to Japan.

"This is the second season that we've started exporting to Japan and our business has almost doubled there from last year," said Berlevåg Kongekrabbe Managing Director Fred Martin Langøy.

Established in 2006, Berlevåg Kongekrabbe is strategically located on the coast of Finnmark, close to the rich red king crab fishing grounds and is one of the few specialists in harvesting the crab. Its products include whole king crabs, claws, roe and paté.

Technological advances have played a huge part in the growth of the company, which prides itself in maintaining the highest standards when catching the king crabs.

"We are the only company in our industry that uses nitrogen freezing for our crabs. This ensures quality and freshness as well as efficiency in our deliveries," says Langøy.

The company's expertise led to successful partnerships with Japanese food industry leaders Goshoku Co., Ltd. and Kyokuyo Co. Ltd.

"I am very pleased with how our business has been growing in Japan and remain committed to providing our customers with the best products available," says Langøy.

"We have a long-term outlook of the Japanese market and we expect our deliveries to grow there significantly in a couple of years," he adds. ♦

www.kongekrabbe.com



## Marine Farms introduces cobia to the world

Cod, trout, mackerel, capelin and most notably salmon are some of the most popular varieties of fish that Norwegians have fished and farmed over decades – catapulting their industry into a global leader in fisheries and aquacultures.

After more than 30 years, Marine Farms ASA has become a market leader that boasts of controlling the entire chain of its operations from brood fish and eggs to the marketing of a very diverse range of species.

Marine Farms owns a salmon farm in the U.K. that is also the largest salmon egg producer (Lakeland) and cultivates, through a subsidiary in Spain (Culmarex), sea bass and sea bream, two highly prized white fish from the Mediterranean.

Using the latest techniques and experience in fish farming, CEO Bjørn Myrseth has stepped up efforts to raise and sell the little-known tropical marine specie cobia, a fish he first tasted in Taiwan in 1999.

"Cobia has all the traits we want for a farmed fish, such as good taste, versatility in cooking methods because of its white, firm flesh and mild flavor. In Taiwan, cobia is a very popular fish for sashimi. The flesh is high on Omega-3. Cobia is therefore a very healthy fish to eat. Cobia live well in cages and grow pretty fast," Myrseth says.

Dubbed the "tropical salmon," cobia grows to between 6 and 7 kg one year after hatching, which is three times the rate of Atlantic salmon. Marine Farms first farmed cobia in Belize in 2002 and as its popularity grew, Myrseth saw a chance to farm the fish and sell it in major Asian markets, with Vietnam chosen as the ideal base.

"We started our operations in 2005 and our tonnage has increased significantly to the point that we are ready to introduce the fish to Japan this year," he says.

"Raw cobia is comparable to tuna in texture, which makes it perfect for sushi and sashimi. As a Norwegian company, we know that the Japanese demand quality and are willing to pay for quality. We can offer this in the cobia that we produce from our facilities in Vietnam," he continues. ♦

www.marinefarms.com



Marine Farms ASA CEO Bjørn Myrseth

## Sushi is to Japan as seafood is to Norway

It's no surprise then that Japan is one of Norway's major export markets for seafood.

"What we are particularly proud of with our relationship with Japan is that Norwegian salmon has been accepted and acknowledged in the Japanese sushi tradition," boasts Terje E. Martinussen, managing director of the Norwegian Seafood Export Council.

"Even though the share of the total salmon sales for sushi is relatively small, the usage of salmon in sushi is proof of high quality and increases the quality image for salmon," he continues.

"The fact that the young generations in Japan have a strong preference for salmon and tuna when eating sushi is an indication of the future opportunities in this market," he highlights.

Based in Tromsø, the NSEC employs representatives around the world, including Russia, Germany, France, Italy, Spain, Portugal, Brazil, China, Singapore and



Norwegian Ambassador to Japan Arne Walther (left) is joined by Vidar Ulriksen, state secretary of the Norwegian Ministry of Fisheries and Coastal Affairs, and Hans-Petter Næs, head of the Japan office of the Norwegian Seafood Export Council, to promote capelin in Tokyo.

Japan. It oversees seafood exports to around 150 countries.

"We have offices in 11 countries including Japan. Japan has always been one of our most important markets. We know Japan is very quality-oriented. If we can deliver seafood to Japan, then we know we have the quality standards that should be appropriate for most countries as well," says Martinussen.

Major species exported to Japan include salmon, mackerel and capelin, which until last year was under a fishing ban due to falling levels of stock in the Barents Sea. "In 2009, we had an event in Japan to reintroduce shishamo (capelin) to the Japanese market,"

he says.

Apart from promoting Norwegian seafood to its export markets, NSEC conducts market information, market access and information and crisis communication.

"We believe that Norway has a lot of qualities in addition to the product. We have invested a lot of money in research and this in turn has been incorporated into public policy, especially on sustainable fisheries management," says Martinussen.

"We have a very positive reputation in Japan and hopefully the position of the seafood of Norway will be even stronger in the years to come," he adds. ♦

www.seafoodfromnorway.com



Cobia served as sushi has been growing popular over the years.

## Skretting ensures steady supply of seafood

As the world's population is predicted to rise from 6.8 billion currently to around 9 billion by 2040, the global food stock is not expected to keep up with that rate of growth. As it is, overfishing is already a huge problem, with 70 percent of the world's oceans reportedly overexploited.

Amid the increasing demand for fish and fish-related products, aquaculture through fish farming offers the healthiest and most sustainable solution to overfishing.

"I prefer farmed fish to wild fish because at least I know what it has been eating," says Viggo Halseth, the managing director of Skretting Northern Europe, Australia and Japan.

"Also because you normally have a much shorter supply chain, you get farmed fish much fresher and faster compared to what is caught far out in the sea, which comes in a couple of days later," Halseth says.

Owned by Netherlands-based Nutreco, Skretting produces all types of feeds for more than 50 species of farmed fish in 12 countries, including Japan, where it produces feed for yellowtail and red sea bream in its production facility in Imari, Saga Prefecture, on the island of Kyushu.

"We've been in Japan for over 13 years and in the early days we were involved in joint ventures related to technology transfer. However, for about four years now, we have been a full-fledged fish feed company with research, production, advice and local Japanese management," says Halseth.



Viggo Halseth, the managing director of Skretting Northern Europe, Australia and Japan

Skretting formed a partnership with the Faculty of Fisheries of Kagoshima University and is involved in research projects related to fish feed for marine farming, including feed for tuna, which cannot use conventional pellets.

"Tuna is one of the species that has a huge potential in fish farming where Japan is a leader in the industry. We are now running tests in Japan and Australia for the tuna feed," says Halseth.

As Skretting builds further on its global market share of 40 percent and raises standards in research and development, it looks to Japan as a strong knowledge-based partner.

"Technology and sustainability are the key words for the future," Halseth says.

"Japan and Norway are complementary pioneers. Japan is very well-known and has a good reputation for its fish products and quality focus. We can learn from each other and we have both been important in actually developing aquaculture globally," he adds. ♦

www.skretting.com



## Fish auctions go high-tech with NSS

Norwegian seafood is known the world over for its taste and quality. While the clean and cold water plays a huge role, years of experience and tradition have resulted in the best fishing techniques in the world.

Owned and managed by Norwegian pelagic fishermen, Norges Sildealgslag (NSS) was established in 1927 to ensure the freshness of seafood from the ocean until they reach the dinner table.

It also coordinates sales of herring, mackerel, capelin and other pelagic species through an electronic auction system. It is in fact Europe's largest marketplace for first-hand sales of pelagic species.

"We use an electronic auction system that enables the fishermen to sell their fish on board the vessel while at sea," says Managing Director Johannes Nakken.

"The fishermen provide us with all the relevant information such as the species of fish caught, quantity, size distribution, length of time on board and we take this information and input it into a real-time electronic auction," he continues.

Over 80 foreign and domestic buyers take part in this unique auction about four times a day. After bids have been placed and the market has dictated the value of the fish caught, vessels can sail directly to the delivery harbor, dropping off their fresh cargo without unnecessary delays.



Norges Sildealgslag Managing Director Johannes Nakken

The economic implications of these auctions are tremendous to the Norway's second-largest export industry.

About 2 million tons of pelagic species are sold through the organization annually, representing 2.5 percent of the total global wild fish catch. These fish are then sold to all markets in the world including Japan.

"Two species that are very important for both Japan and for us is mackerel and capelin. For mackerel, Japan has been the most important market for us for many years now," says Nakken.

In 2008, more than 90,000 tons of mackerel went to Japan directly or via China with a value of between \$200 million to \$300 million.

"Our links with Japan are very good. We feel that because of our quality and taste of our mackerel, we will remain a good and stable supplier of mackerel and other species of pelagic fish for the Japanese consumers," he says. ♦

www.sildealaget.no

## Fishing and export tradition link Norway and Japan

While it may take some time before Japanese visitors to Norway get used to the availability of reindeer meat in supermarkets, they would immediately recognize traditional Norwegian fish balls, fish cakes, fish burgers and fish pudding as close variants of the processed fish product called kamaboko, which has been a staple of Japanese cuisine since the 14th century.

In many ways, 21st century Norway is just as traditional as present-day Japan.

"We are still a conservative country. For example in the Nordic sports of cross country skiing and ski jumping, Norwegians in general prefer and excel in the classic techniques rather than more recently developed free styles," notes Hans Christian Berggren, CEO of processed fish producer Berggren.

And like Japan with its important fishing industry, Norway is an avid consumer of fish. Studies show that 21 percent of Japanese consume products such as fish balls regularly, while Norwegians have always loved their fish cakes.

Berggren, in modern new facilities on the banks of the Glomma River in Kongsvinger, about 70 km east of Oslo Airport, specializes in processed fish products for the local market but has begun exporting to Sweden, Denmark, the U.S. and the U.K.

Set up in 1924, Hans G. Berggren, who came from a family of fish merchants, was stationed in the town as an army lieutenant and stayed on after serving the military to start the company, now run by his grandson.

Berggren slowly expanded to become an important distributor of fish products to food retailers across the country. Its proximity to Oslo (Norway's other fish producers and distributors are



Berggren CEO Christian Berggren accepts awards for his fish cake products.

mainly located on the western coast) meant easy access to the majority of the population.

In 1994, Norway's major supermarkets began buying food products directly from producers rather than distributors, prompting Berggren to focus solely on production. It expanded its operations in Kongsvinger, where its modern facilities can potentially produce much as 15 times current output as business expands.

Today, the four brothers who own and run the company: Hans Christian, Per, Tore and Einar Berggren, together with Sales Manager Inge Langrekken, look beyond Norway's borders for this expansion, while taking steps to increase its share of the local market.

Berggren's Marine Stewardship Council (MSC) certified products, obtained exclusively from sustainable fisheries that do not deplete the world's scarce resources, are finding increasing favor with environmentally aware consumers in Scandinavia and around the world.

Already, Berggren has started working with the Chinese market. It is actively searching for a Japanese partner to distribute and market its products in Japan and has no doubt that Berggren fish cakes will one day be found in Tokyo supermarkets. ♦

www.berggren.no

## Nammo is well-equipped for future growth

While Norway is known mostly for energy, seafood and shipping companies, the country is also home to many leading companies in niche industries.

Nammo, one of Europe's biggest manufacturers of conventional and high-tech ammunition, is an international defense group that specializes in advanced technology products for

shoulder-fired weapon systems, missile propulsion systems and related services.

"As a result of the end of the Cold War and the different directions that nations needed for defense, big armies were no longer needed. So, there was an obvious reason for the restructuring of the ammunition business in the Nordic area (Finland, Sweden and Norway) and this led to the foundation of Nammo AS in 1998," says President and CEO Edgar Fosshem.

In the early years of the company, only 40 percent of its export business came from Europe and the U.S., while the rest was within the Nordic region, prompting the company to expand its global reach.

"This we have achieved in the last seven years and have tripled our revenue and our sales. Presently, our exports represent 70 percent of our business," says Fosshem, who also attributes the company's success to recent acquisitions.

Nammo's defense products and systems can be found in Malaysia, Australia, Singapore and Japan.

"We've been working with Japan for many years but of course the substantial business with Japan is still a possibility especially in the ammunition business," explains Fosshem.

"The most successful program we currently have with Japan is the multinational RIM-162 Evolved Sea Sparrow Missile (ESSM) pro-



Nammo President and CEO Edgar Fosshem

gram, which is a surface-to-air missile system used by nine major NATO countries plus Australia," he continues.

The ESSM is a modification of the previous Sea Sparrow anti-aircraft and anti-missile system, which the Japanese Maritime Self-Defense Force (JMSDF) still uses.

"International cooperation is one of our key strategies and we are ready to discuss this with the Japanese. We think we can offer very attractive technologies for a wide range of armaments as well as rocket motors," he says.

Nammo is also engaged in demilitarization-related business, such as eco-friendly recycling and effective disposal of all conventional ammunition and explosives products. ♦

www.nammo.com



Nammo's Evolved Sea Sparrow Missile

*'International cooperation is one of our key strategies and we are ready to discuss this with the Japanese. We think we can offer very attractive technologies for a wide range of armaments as well as rocket motors.'*

## Oslo Cancer Cluster pioneers cancer diagnostics and therapeutics

According to the Norwegian Cancer Registry, one in every three Norwegians will develop a form of cancer during their lifetime. While the latest statistics showed a 6 percent rise in reported cancer cases from 2006 to 2007, more cancer patients (60 percent) have been able to live more than five years following their primary diagnosis.

Established in 2006 to become Europe's leading resource for research and treatment of the illness, the Oslo Cancer Cluster has since achieved enormous progress and breakthroughs in the field, particularly by its member companies Algeta (therapeutics), DiaGenic (diagnostics) and Photocure (therapeutics).

"What sets Oslo Cancer Cluster and its members apart from others is that we do not make promises of curing cancer but rather, we are committed to improving the lives of cancer patients by accelerating the development of new cancer diagnostics and therapeutics. We provide personalized cancer treatment for our patients," explains CEO Bjarte Reve, who at-

tributes the cluster's success to its commitment to focus on just one disease.

Collaborating closely with similar groups, such as Cancer-Bio-Santé in France and the Lance Armstrong Foundation (Livestrong) in the United States, Oslo Cancer Cluster hopes to partner with more cancer clusters around the world to further advance research and development.

Last September, Oslo Cancer Cluster and Cancer-Bio-Santé co-hosted the first European Cancer Cluster Partnering (ECCP) in the French city of Toulouse.

The event, which gathered 365 participants from more than 22 countries, provided a venue for investment opportunities and business alliances for Europe's leading oncology companies and international venture capital groups.

Later this year, the Oslo Cancer Cluster will preside over the second ECCP in Norway from Sept. 15-17th.

"Although many of our members still are in early stages, we would like to find a link with Japan. We can share advice on how to enter the European markets, and they can help us find partners in Asia. There is great potential for the Japanese to grow in the European market," says Reve. ♦



Oslo Cancer Cluster CEO Bjarte Reve

www.oslocancercluster.no; www.algeta.com; www.diagenic.com; www.photocure.com



## Breakthrough diagnostic tests allows early detection of diseases

Named "Norway's Most Innovative Company of the Year" by the Norwegian Research Council in 2009, DiaGenic has revolutionized medical treatment after it developed a patient-friendly blood test that allows the early detection of life-threatening diseases, such as breast cancer, Alzheimer's disease and Parkinson's disease.

zheimer's disease and BCtect for early detection of breast cancer – have received regulatory approval for Europe (CE mark) and were launched in ten European countries earlier this year.

Its latest products include PDtect for the early detection of Parkinson's disease and identification of Mild Cognitive Impairment, a biomarker for Alzheimer's. The research behind PDtect was initially funded by the Michael J. Fox Foundation and is now backed by the Norwegian Research Council for further development.

CEO Dr. Erik Christensen has stressed the importance of early detection to increase the patient's chances of a successful recovery from those illnesses.

"The symptoms of Parkinson's disease, such as shaking, appear when 60 percent of a patient's neurons are dead, while the rest of the neurons will continue to die. There are drugs that work well initially, but when too many of the neurons have died, you don't have many tools to work on and it becomes a devastating disease," he explains.

DiaGenic has steadily expanded its markets around the world, with BCtect now available in India and in process for launching the tests in the U.S. through a CLIA laboratory.

Listed on the Oslo Stock Exchange, DiaGenic welcomes partnership opportunities with other



DiaGenic's laboratory in Oslo

biotechnology companies.

"DiaGenic has technology that is applicable globally. We are looking into the Japanese market because there are great needs in Japan for diagnosis and treatment of these diseases. We are looking for good partners because these products will be in the market for a long time, and we need strong support from established compa-

nies," says Christensen.

"I have been in the diagnostic industry over 15 years and know the quality of Japanese diagnostic manufacturers. We look forward to working with them. Our aim is to have a point-of-care testing, where we work close to the patients and they can receive accurate diagnosis in 30 minutes," he adds. ♦

www.diagenic.com



DiaGenic CEO Dr. Erik Christensen

With an accuracy rate of more than 70 percent, DiaGenic analyzes gene expression in normal blood samples of patients.

DiaGenic's first two products – ADtect for early detection of Al-

## North Cape Minerals trains focus on Japanese steel companies

With its abundance of natural resources, Norway maintains a global leadership position in industries such as petroleum, fisheries and industrial minerals. In fact, the country is one of the world's largest producers of olivine and nepheline syenite, industrial minerals found in everyday products such as paint, steel, ceramics, glass.

North Cape Minerals is an industrial minerals producer and exporter whose main products include olivine, nepheline syenite, quartz and feldspar and is owned mainly by SCR Sibelco, a Belgian company founded in 1872.

"North Cape is very well known within the industry because of the technical benefits of olivine to the steel industry. We work with all the biggest steel companies in the world and our main market is Europe," says Managing Director Birger Nilsen.

The company supplies nepheline syenite, feldspar and quartz to the glass, ceramic, fiberglass, paint and coating industries, while its olivine products are sold mainly to steel and foundry companies.

"Apart from our sales in Europe, our products are exported to countries all over the world including Japan," says Nilsen.

While exports to Japan are limited at the moment to storage heating bricks, minerals for paint and filler used at shipyards, Nilsen sees a lot of opportunities in the future.

"We hope to do business with some of the large steel companies in Japan. The highest potential of growth in the Far East is in Japan and we would like to deliver substantial volumes of olivine to the steel industry. We believe we can do this as olivine is a carbon-free mineral, i.e., no CO<sub>2</sub> emissions" he says.

The company is determined to increase the competitive power of its customers and Nilsen emphasizes



North Cape Managing Director Birger Nilsen

that mission to prospective Japanese customers from the steel industry.

"We want our customers to regard us as the most innovative, environmentally friendly and future-oriented company in the minerals business," he says. ♦

www.ncm.no

## Small is applicable

*Efficient technology extends the global reach of a small, knowledge-driven populace.*

From her office just outside Oslo, in idyllic surroundings where the woods beckon only minutes away, Dr. Anne Kari Nyhus, managing director of Microbeads, is eager to talk of her company's tiny products and their almost unlimited industrial applications.

The Microbeads unique global patented technology enables the production of perfectly spherical, uniformly sized and generally microscopic polymer beads on an industrial scale at the company's Norwegian plant.

"We have to be efficient to be able to compete with the rest of the world. We focus on innovation, technology and niche products that only we can provide," says Nyhus.

Today, Microbeads counts among its clients companies in South Korea, New Zealand and the U.S., for applications ranging from paint and industrial coatings to cosmetics, LCD diffuser films and even nuclear waste management.

Microbeads has met with a Japanese chemical company to discuss cooperation for fine particle manufacture, especially as the Norwegian company's technology enables high production capacity and a wide range of particle sizes compared to conventional available technology.

The size uniformity of Microbeads' products, so crucial for its applications, is also unmatched by any other manufacturer.

It has developed with the U.S. company Bechtel National Inc. and the U.S. Department of Energy specialized microbeads that will extract cesium-137 isotopes from nuclear waste.



Microbeads Managing Director Dr. Anne Kari Nyhus

Shipping of these particles to the Hanford site in Washington state, the world's largest environmental cleanup project, will start in 2010, with possible future applications worldwide.

Microbeads' base technology was developed in the late 1970s at Norwegian University of Science and Technology by late professor John Ugelstad, whose students in polymer chemistry in the mid-1980s included Nyhus.

After obtaining a master's degree and PhD in bead porosity, Nyhus eventually came to lead Microbeads to its current position on the forefront of industrial application.

"My technical and research base has made me more confident as a manager because I know our technology inside out. I know its

limitations and its possibilities," she says.

Norway is also unique among most countries in the equal career advancement opportunities given to men and women which, as a Norwegian CEO comments, doubles the available brainpower for corporate leadership.

"Before I became managing director, I was a member of the board. If I had to attend a board meeting during my maternity leave, I just brought my baby with me," says Nyhus, who is keeping an eye out for cooperation and partnership with Japanese companies in any field of application for the tiny beads.

Microbeads may be small particles, but their potential for improving our lives is huge. ♦

www.micro-beads.com

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THE FUTURE  
through  
high-quality  
defense  
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www.nammo.com

# Norway

## Moss Maritime leads fleet in LNG delivery

Since reserves of natural gas in many cases are distant from the consuming markets, seaborne transportation of LNG (liquefied natural gas) is a crucial element to ensure efficient and safe energy supply to those markets where the LNG is re-gasified and distributed as pipeline natural gas.

Specially constructed seagoing vessels are required for the transportation of LNG and Moss Maritime – a pioneer in the development of gas carriers for LNG, LPG and ethylene – has been meeting the need for over 35 years.

The company's patented LNG carrier with spherical LNG tanks represents the safest and most reliable LNG containment system on the market since stresses and fatigue life of all parts of the tank structure can be

predicted with high degree of accuracy and the construction process is followed by rigorous quality checks.

While the Moss LNG carrier is a concept originated by Moss Maritime, major Japanese shipyards, such as Mitsubishi, Kawasaki and Mitsui have built the majority of Moss-type LNG carriers, since the first LNG carrier was delivered from Japan in 1981.

"Japan has supported the Moss concept very much and we appreciate that of course. I think it has to do with the fact that Japan is very quality-oriented and so are we," says President Per Herbert Kristensen.

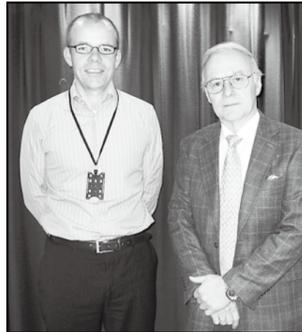
Moss Maritime also develops floating storage and re-gasification units (FSRUs) by converting existing LNG carriers into floating re-gasification terminals. FSRU's are relatively new products on the market

and an area where the Japanese can assert their expertise.

"Japan has yet to build an FSRU but there is a potential for the shipbuilders we cooperate with in Japan to build our designs in the future because these shipyards represent the qualities and possess the capabilities needed in handling the complexities of these sophisticated units," says Kristensen.

Drilling platforms and products for the Arctic environment are other business areas where Moss is using its expertise in design and technology. It has designed five ice-breakers able to withstand the harsh Arctic weather and some of the world's largest and most advanced semi-submersible drilling platforms.

"We look at our partners in Japan as high-quality yards that have cared for the Moss technology in the best way possible. We will continue the good relationship and cooperation with them," says Kristensen. ♦



Moss Maritime President Per Herbert Kristensen (right) and Vice President Tor Skogan  
www.mosswm.com

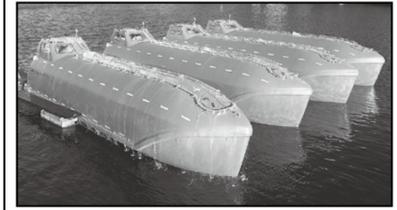
## Norsafe makes huge waves in Asia

Based in the coastal town of Arendal, Norsafe Group is the world's largest maker of marine lifesaving equipment with production sites in Norway, Greece and China, as well as after-sales offices in eight countries.

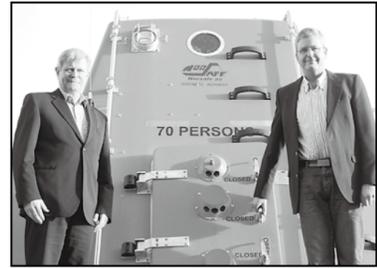
"In the last couple of years, we've seen rapid increase in success for all our markets, mainly due to the high activity in the shipbuilding market. Orders are widely spread geographically and productwise. Just recently we received an order for our fast-rescue boats from the Australian Coast Guard," says Chairman and CEO Geir Skaala.

"For the offshore market worldwide, Norsafe has more than a 60 percent market share for lifeboats and davits. Norsafe is the sole supplier and preferred supplier of many shipping companies in Norway," Skaala adds.

Of its largest subsidiaries, Jiangyin Norsafe in Chi-



Norsafe's free-fall system lifeboats are now available in Japan.



Norsafe Chairman Geir Skaala (left) and Tore Ibsen, area sales manager for China and Japan

na accounts for 70 percent of production volume and employs close to 250 people, backed by a full technical and project department, including Norwegian managers and a Chinese CEO.

Norsafe Japan is the latest addition to the company's global network with a sales and service company in Fukuyama City, Hiroshima Prefecture.

Although fairly young, Norsafe Japan Ltd. sees large growth potential for its premium free-fall system lifeboats, which can fit up to 90 people in a safe and secure enclosed cabin and is certified for a drop height of 40 meters.

"Asia is our most important market with approximately 50 percent of our sales coming from China, Korea, Singapore and Japan. The Japanese market is a huge market and we see a lot of potential for our business there with the Japanese shipyards and ship-owners," says Sales Manager for China and Japan Tore Ibsen.

"Our products are very high quality and are quite suitable for Japanese customers. There are five key factors that make Norsafe the preferred supplier for lifeboats and life-saving equipments: quality, punctuality (in delivery), competitiveness (in price), flexibility (regarding models and production locations) and most importantly, honesty. With these values, we are confident in being able to satisfy the Japanese market," Skaala says. ♦

www.norsafe.com

## Nordic Maritime stays ahead in shipbuilding and ship management

Established in 1998, Nordic Maritime Services has been raising standards in the shipping industry with its specialization in three core areas: ship management, project management and business management.

Within its ship management business, NMS operates a fleet of 20 vessels in the Middle and Far East, Caribbean and Europe, which operate within the chemical, LPG and general cargo segments.

Its knowhow gained from ship management translated to a project management business that includes more than 45 vessels valued at around \$3 billion. In this field, NMS evaluates design and guarantees the highest standards in the construction of chemical tankers, gas carriers, oil tankers, heavy lifters as well as drilling offshore support and drilling vessels.

"Something we have done since we started is to work on new de-



Nordic Maritime Services Chairman Torstein Dehn

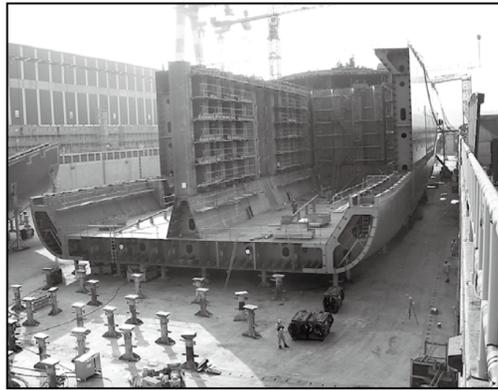
signs and new solutions that give us an edge. We still have projects lined up until 2011 so we are hoping the process we are doing on new developments will take us further into the future," said NMS Chairman Torstein Dehn.

In recognition for its focus on quality, the Royal Institution of Naval Architects awarded the company "Significant Ship of the Year" on multiple occasions. Its resume includes 85 vessels dating back to the company's establishment more than a decade ago.

"We go into every element of the ship in addition to actual supervision while the vessel is being built. That is where we try to be different from our competitors. We have a different approach to new building projects," said Dehn.

While most of its newbuildings and links in the Far East are with South Korea, Dehn has collaborated with the Japanese and is open to future partnerships.

"There should be more of an exchange in technology between Japan and Norway in the shipping industry. I would welcome an open dialogue with Japan to develop their shipbuilding industry in



An NMS team working at the SSP Shipyard in Jinhae, South Korea.

such areas as innovation and new designs," he says.

NMS is also in the process of designing vessels intended for

the Arctic region because current designs are not suitable for operations in ice. ♦

www.nordic-maritime.no

## Eltek Valere empowers telecom industry with green technology

With over 2,200 employees in 30 countries, Eltek Valere has become a global leader in providing energy systems and transmission systems for telecommunication companies, while helping them stay competitive and reduce their environmental impact.

In recognition for its leadership in green technology, Eltek Valere was chosen by Innovation Norway to be among eight companies to represent the country in the Bright Green Expo exhibition at the U.N. Climate Conference in Denmark last year.

"Our green initiatives can be seen in everything we do, including our green logo. Our tagline 'Always On' reflects that our products will ensure our customers' business will keep on running and running. Because of our global network with offices in every region of the world, we're available to help our customers 24-7," says Managing Director Dag Andersen.

"We're fortunate to be able to serve many markets with our broad range of products, all focused on energy efficiency. Telecom giants around the world, including Sprint Nextel Corporation in the USA, use our HE high efficiency product line. Our high efficiency rectifiers are new investments that will be paid back in just a few years of use," he says.

By switching to Eltek Valere's new HE Power System, wasted energy in AC-DC conversion is reduced by more than 50 percent compared to industry standards. Consequently, replacing existing equipment with the HE product line will indirectly contribute to the reduction of carbon emissions.

In Australia and in the "Sun Belt" countries, Eltek Valere has seen strong demand for its solar power applications. The HE technology has also been used in the solar product line for both telecom and grid connected solar inverters.

"Most recently, we have developed smaller, lighter, more energy-efficient chargers for electric vehicles. We already see a strong demand for these specific chargers and now our challenge lies in manufacturing enough of these products for the growing market," Andersen says.

"We're currently establishing applications for the Japanese market and we're expecting to support our Japanese customers in the near future. We respect the Japanese culture very highly and we want to adapt to both their culture and their technology. We're impressed with the stringent quality requirements in Japan and our goal is to provide these quality products to them as well," he adds. ♦

www.eltekvallere.com



Eltek Valere's Telecom Solar Installation

## Idemitsu has foothold in Norway's oil sector

With the discovery of oil in the Norwegian Continental Shelf in the late '60s, Norway eventually became the world's third-largest exporter of oil and a hotbed for investment, production and exploration for many oil companies.

Established in 1989, Idemitsu Petroleum Norge is the most successful Asian oil company operating on the NCS and continues to expand its operations in the country, where it explores and produces crude oil and natural gas. It is a subsidiary of Idemitsu Kosan Co. Ltd., one of Japan's largest independent energy corporations.

In the same year, Idemitsu purchased a 9.6 percent share in two exploration and production licenses for the Tampen area in the northern part of the North Sea from Statoil, Norway's state-owned oil company. Idemitsu's oil fields in the area now include Tordis, Statfjord Øst, Sygna, Vigdis and Snorre.

"Snorre is one of the largest fields but it has reached its peak already. Production is in the declining stage with about 35 years' worth of resources left. As an oil company, we need to replace those reductions of resources by new discoveries," explains Managing Director Kohsuke Tsuji.

Last year, the company took part in several successful exploration wells, including the Afrodite and Jordbær discoveries, two of the most publicized finds in 2008. It also made oil and gas discoveries in the greater Fram and Snorre areas.

Coinciding with Idemitsu's 20th anniversary of operations on the NCS, the Norwegian Ministry of Petroleum and Energy, during its 20th licensing round, awarded Idemitsu three new production licenses including eight full and part blocks.

The licenses cover areas of the Vøring Basin, additional sections of the Peon area to complement Idemitsu's current discoveries, and the Barents Sea, which contains vast reserves but remains largely unexplored because of the extreme weather conditions in the area.



Idemitsu Petroleum Norge Managing Director Kohsuke Tsuji

"Oil and gas exploration and the production business are very technically-driven industries. As a Japanese oil company, we need to keep up with the state-of-the-art technology in our industry. Having operations here in Norway, competing and being a part of the whole industry have helped us keep up with international standards for technology," says Tsuji.

"Norway is a very important country for Idemitsu. That is why we have been here for a while and we continue to have a long-term commitment to Norway and our partners here," he adds. ♦

www.idemitsu.no

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# Knutsen OAS sets the global standard in 'greener' shipping

As with most Norwegian shipping companies, Knutsen OAS has a proud history that traces its roots to the late 1800s. But its recent history is more impressive.

Restructured in the mid-1980s, Knutsen OAS has gone from running a two-vessel operation in 1987 to operating one of the world's most sophisticated and modern fleets of chemical carriers, product tankers, purpose-built shuttle tankers and LNG (liquefied natural gas) tankers. In 2011, the fleet will be close to 50 ships.

"Our emphasis is to be at the forefront of new technologies in the market. With respect to environmental solutions, we have been working for 10 years on our system to minimize emissions of Volatile Organic Compounds (VOC)," says Owner and Managing Director Trygve Seglem, a trained engineer and former president of the Norwegian Shipowners' Association.

"We believe this trademark technology (KVOC®) will be a standard for most tankers in the future due to the increasing focus to reduce emissions. It is a cost-efficient prevention technology that applies physics to minimize emissions," Seglem adds.



Knutsen OAS's shuttle tanker Sallie Knutsen uses KVOC to load in the Gullfaks field in Norway.

Ballast water is another environmental hazard that affects the ecosystem with alien organisms and pathogens transferred from a vessel's point of origin.

"As for VOC, we have developed our own ballast water treatment technology to meet this challenge to be able to handle the large volumes of ballast water our ships discharge," says Seglem.

Its most important innovation to date is its transport of compressed natural gas (CNG) using the patented Knutsen method Pressurized Natural Gas (PNG®). The breakthrough opens new transport alternatives for the gas industry and is particularly suitable for offshore loading of gas for direct transport to the market.

"We feel the market for transporting PNG will soon open up and we want to be the chosen partner of the biggest energy companies in the world to provide them with this service," says Seglem, who plans to build PNG vessels in the years to come.

While most of the company's new vessels are being built in China and Korea, Seglem emphasizes that major equipment on board the ships are Japanese-made. Historically, Norway's maritime industries have had strong ties with Japanese shipbuilders.

"We have a lot of equipment from Japan on our ships particularly the Kawasaki-built en-



Knutsen OAS Owner and Managing Director Trygve Seglem

gines and propellers," he says.

"We are interested in doing business with Japan. We are currently working on some new projects where we need some partners and Japan could certainly be a possibility," he adds. ♦ [www.knutsenoas.com](http://www.knutsenoas.com)

*'Our emphasis is to be at the forefront of new technologies in the market. With respect to environmental solutions, we have been working for 10 years on our system to minimize emissions of Volatile Organic Compounds.'*

# Grieg Star Shipping strengthens hold on specialist market

From the Norwegian town of Bergen, Grieg Star Shipping operates a modern fleet of between 15 and 20 bulk carriers backed by extensive knowledge of and experience in handling all types of conventional bulk cargo.

But the company's true expertise and leadership lies in the transportation of forestry products using an open-hatch concept developed by the company over 40 years ago.

"We were the ones that started the larger scale open-hatch vessels overseas custom built for carrying forest products. The ships are equipped with two traveling gantry cranes and they have a lifting capacity of about 70 tons.



Grieg Star's Juventas, unloading pulp in Baltimore utilizing three magnum double-wide trailers, is equipped with the world's biggest and strongest shipboard gantry cranes. The vessel was built in Japan in 2004 by Mitsui Engineering & Shipbuilding Co. Ltd., Tamano.

The cranes are fully rain protected and this has been our niche since the late '60s," says President and CEO Tom H. Rasmussen.

The company owns and operates a substantial number of open-hatch fleets in the world and the gantry cranes used in the vessels are the largest in the world. Its global operations involve more than 180 employees in 12 branch offices around the world, including Japan.

"We have had the office in Japan since the '70s and Japan remains an important market for us. We deliver large volumes of wood pulp from British Columbia and the U.S. to Japan and we also do a lot of conventional bulk business with them," Rasmussen says.

Star has had long-term relations with most of the major trading houses in Japan and with shipyards, with nearly 20 vessels built in Japan over the last 30 years.

"We are an industrial shipping company and we have been doing repeated long-term contacts with the same customers for 30 years now and that is what we appreciate with the Japanese mentality as well. When you establish a good relationship with them, they will honor and provide you with a lot of support for the future," he says.

Armed with long-term partners in Japan and the rest of the world, Grieg Star Shipping aims to become the preferred carrier for customers in their own business segments and seeks innovative ways to improve their operations on land and sea.

"We will be more aggressive in South America since there is a shift in supply of forest



Grieg Star Shipping President and CEO Tom H. Rasmussen

products to the region. We are also looking into newbuilding, replacing older vessels and working at designs to be even more efficient in our core businesses," says Rasmussen. ♦ [www.griegstar.com](http://www.griegstar.com)

# Western Bulk cruises on safe waters

Although many experts agree that the financial crisis has bottomed out, several industries remain very susceptible to the uncertainty surrounding the global economy. Companies with a conservative approach and good risk management are in a better position to emerge from the crisis stronger and more efficient.

"Our risk model is the best in the industry and combined with the fact that we have had no ships on our balance sheet, we have been in a better position than our competitors during these challenging times," says Western Bulk AS CEO Jens Ismar, who singles out risk management as a

central element of the company's strategy.

With offices in Singapore, Perth, Australia; Seattle; Santiago; and Oslo, Western Bulk is a leading dry bulk shipping company with a commercially controlled fleet of around 65 vessels in 2009.

"We are among the world's leading players in the Supramax to Handysize segments," says Ismar. Vessels in these segments typically have a length of about 150 to 200 meters and deadweight of between 30,000 and 60,000 metric tons. The vessels are flexible workhorses in the bulk trade and are equipped with grabs, which enable the vessels

to self-load and offload cargo.

Providing flexible and long-term solutions to customers worldwide, Western Bulk has an extensive network of port captains who ensure the efficient loading and discharging of specialized cargo, like fertilizer, timber and steel.

Western Bulk believes in long-term partnerships in Japan. Several Japanese shipowners provide core tonnage to the Western Bulk fleet to their mutual benefit. Its cargo customers include some of the largest trading houses in Japan.

"We've had relations in Japan since the company was established in 1982 and we would like

to deepen our relationships and grow our business with our partners there," says Ismar.

Western Bulk has had a strong intention to rebuild a long-term controlled and owned fleet and believes Japanese shipowners and shippers will play an important role in fulfilling these ambitions.

"The industry is going through a challenging phase but we remain optimistic about the growth of our own company. We will continue to foster our relations with partners from around the world including Japan and remain committed to providing the best solutions for our customers," says Ismar. ♦ [www.westernbulk.com](http://www.westernbulk.com)



Western Bulk AS CEO Jens Ismar



Western Bulk's Handymax MV Western Seattle on charter from Tokyo-based Nisshin Shipping

# 'K' Line Offshore prepares for future developments

With a global network spanning six continents and an overall fleet of 506 vessels from a variety of shipping segments, Japanese shipping giant "K" Line has been a market leader at deep-sea transportation for close to a century.

Driven by a desire to reach new heights and uncharted territory, "K" Line embarked on a massive investment and development plan to enter the upstream energy business in 2007.

"Given Norway's expertise on the maritime cluster and the significance of the energy sector to its economy, we wanted to be close to the customers and the industry. This is why we chose Norway as the ideal location to set up our operations in," says CEO Katsue Yoshida.

Needing a local partner at the start, the company formed a joint venture with the OSM Group, a leading Norwegian ship management company that manages 430 vessels including

120 offshore ships.

"We have a lot of expertise in deep-sea transportation but we initially had none in offshore so partnering with OSM Group was rather essential for us because it provides us with ship management and technical assistance in the offshore business," says Yoshida.

Newbuildings are underway to solidify "K" Line's presence in the offshore industry as well as several strategic partnerships with leading local and international companies in other upstream energy sectors.

"Step by step we have been deepening our relations with Norwegian companies and developing our business here such as two long-term contracts with Statoil for LNG transportation," says Yoshida.

Two Anchor Handling Tug Supply (AHTS) vessels and four Platform Supply Vessels (PSV) are due for delivery between 2010 and 2011.

AHTS vessels are extremely powerful boats with 34,000 brake horsepower and a 350-ton bollard pull. PSV's are very large ships with 5,100 deadweight tons and a deck area of 1,100 sq. meters.

These six environmentally friendly vessels designed for ultradeep water and able to withstand the harshest environments are at the forefront of technology and expected to meet the growing demand for these types of vessels in the near future.

"In the near future, we will see that resources will be further offshore and in much deeper waters. Now is the right time for us to build these vessels so that we are prepared for the future when the demand picks up," he says.



'K' Line Offshore CEO Katsue Yoshida

The company currently owns a modern medium-size PSV named KL Arendaljord that operates in the North Sea and is the starting point of their expansion upon delivery of their six newbuilds that will be available for long-term charter.

"We want to establish our presence in the market by providing our customers with high-quality service and ensuring that we are always at the forefront of innovation in technology," he says. ♦ [www.klineoffshore.no](http://www.klineoffshore.no)

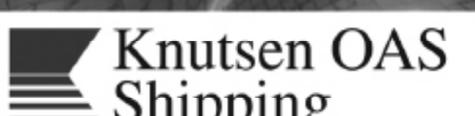


A digital rendition of "K" Line Offshore's Anchor Handling Tug Supply vessel



## Knutsen KVOC and Ballast Water Treatment technology – "new innovative technology to meet the future environmental challenges"

Knutsen OAS Shipping is a shipowning company located in Haugesund, Norway. The company will within 2011 have almost 50 ships in its fleet. Environmentally friendly solutions are the company's main objectives. To be prepared for the future, new innovative technical environmental solutions have been developed and implemented. A patented solution (KVOC®) for prevention of Volatile Organic Compounds (VOC) emissions has been developed. The solution presently has been installed on most of the company's own tankers and licensees has been signed for installations on new tankers to be built. The system prevents gas release on all volatile cargoes such as products, crude oils and gases. The company also has developed a new innovative Ballast Water Treatment technology to handle large volumes of ballast water. The innovation is the simplicity in its function and unique design for easy retrofit and new-built implementation.



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Related companies also listed on Oslo Stock Exchange are Fred. Olsen Energy ASA (offshore drilling) and Fred. Olsen Production ASA (floating production). Cruise, tankers and other shipping activities are organized under First Olsen Ltd.

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