FACTSHEET

North Sea
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Shaping the future.

Oil and gas production “on our own doorstep”

In focus: Wintershall in the North Sea

Almost half the natural gas consumed in Europe today comes from the countries bordering the North Sea: Norway, the Netherlands, Denmark, the UK and Germany. Crude oil production from this region covers more than one-fifth of Europe’s oil consumption. For Wintershall, one of Europe’s major natural gas and crude oil producers, the North Sea is one of the traditional production areas in Europe. The BASF subsidiary has been active in this region since 1965. In the last five years, Wintershall has acquired exploration rights in about 70 licenses in the German, British, Norwegian, Danish and Dutch sectors of the North Sea, which are being explored for new gas and oil reservoirs.

Norway

Norway is Europe’s most important supplier of natural gas and crude oil alongside Russia. Wintershall has significantly expanded its activities in Norway since it founded its Norwegian subsidiary, Wintershall Norge, in 2006. With around 50 licenses, more than half of these as operator, and a daily production exceeding 100,000 barrels of oil equivalent, Wintershall is already one of the major license holders and producers on the Norwegian Continental Shelf. At the same time, Wintershall continues to move its own discoveries towards development and production. Between 2017 and 2020, the company intends to further invest around 2 billion euros (18 billion Norwegian kroner) in exploration and development on the Norwegian Continental Shelf.

A key element for long-term solid growth is the partnership with Equinor. In two major asset deals, Wintershall acquired the operatorships of the Brage and Vega production fields, as well as shares in the Gjøa field (20 percent). As part of the deal in 2015, Wintershall acquired shares in the Aasta Hansteen development project (24 percent), the Asterix discovery (19 percent) and the Polarled pipeline project (13.2 percent). The shares in the assets encompass reserves and resources (2P/2C) of around 170 million barrels of oil equivalent (boe).

Focus on increased production: The Brage platform in the Norwegian North Sea.

Maria: Subsea installation in the North Sea

Maria is the first field that Wintershall has developed all the way from discovery to production in Norway. The field began production in December 2017, almost one year ahead of schedule. The partnership consisting of Wintershall as the operator and partners Petoro and Spirit Energy received approval for the Plan for Development and Operation (PDO) in September 2015.

Maria is located in the Haltenbanken area of the southern Norwegian Sea, about 200 kilometers off the coast of Kristiansund in mid-Norway. The field has been developed with two subsea templates at a water depth of 300 meters, tied back to the nearby Kristin platform, and receiving water injection from Heidrun and gas lift from Åsgard B. With the development concept Wintershall has utilized already existing infrastructure for its own production.

More than 90% of all Maria contracts for the development of the field were awarded to companies based in Norway. Over its entire lifetime this will generate around 34,000 man-years of work. This will bring significant value to Wintershall and its partners, suppliers and the rest of Norwegian society.

Wintershall's drilling engineers work in an international team.

The semi-submersible Deepsea Stavanger rig drilled seven wells at the Maria field.

Wintershall further strengthened its position in Norway with six new exploration licenses awarded by the Norwegian Ministry of Petroleum and Energy in the APA 2018 licensing round. Wintershall will be the operator for two of the new licenses. All areas lie in Wintershall's focus areas in Norway: in the North Sea and the Norwegian Sea.

With the start of production of the Aasta Hansteen gas field at the end of 2018, Wintershall has further strengthened its position as one of the largest producers in Norway, which also successfully implements technically complex projects. Aasta Hansteen is Norway's only SPAR platform, and the biggest of its kind in the world. The field is expected to make a significant contribution to Norway's total annual gas production in the coming decades, thereby further securing the European energy supply. Wintershall in Norway will also continue to focus on bringing its own discoveries such as Nova into production. In addition to Knarr, Edvard Grieg, Ivar Aasen and Maria, Aasta Hansteen is the fifth Norwegian field that Wintershall has helped bring into production since 2015. Together with the shares acquired from Equinor in Brage, Gjøa and Vega, Wintershall has successfully raised its daily production in Norway to more than 100,000 boe per day.

Nova: Wintershall remains on course

For Nova, Wintershall's second operated development project in Norway, Wintershall received approval for the Plan for Development and Operation (PDO) from the Norwegian Ministry of Petroleum and Energy in September 2018. Together with its license partners, Wintershall will connect the Nova reservoir to the neighboring Gjøa platform via a subsea tie-back. Similar to Maria, the development concept will enable the existing infrastructure to be utilized. The production volume is expected to be around 80 million barrels of oil equivalent. The approval for the PDO means that the Nova project has now entered the execution phase.

Denmark

The Ravn platform is Wintershall Noordzee's first operated oil production in the Danish sector of the North Sea. Via a subsea pipeline, the produced crude oil is transported from the normally unmanned platform to Wintershall Noordzee's operated A6-A processing platform, located about 18 kilometers to the southwest in the German sector of the North Sea. On A6-A, the oil is processed prior to transportation through the existing subsea pipeline to the Neptune Energy-operated F3-FB platform located in Dutch waters. From there the oil is collected by tanker for transportation to shore. Wintershall Noordzee currently holds an additional three licenses in the Danish North Sea, namely Ravn (block 5/06), Greater Ravn (block 2/16) and Torsk (block 1/16). The company is the operator of all three licenses.

UK

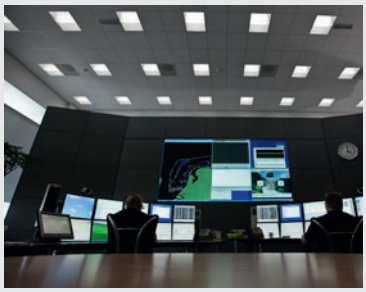
Wintershall Noordzee currently holds six licenses in the UK sector of the North Sea and is the operator for all of them. The Wingate gas production platform that Wintershall Noordzee operates with a 49.5 percent share has been producing gas from the UK continental shelf since 2011, reaching a plateau production of approximately 820,000 cubic meters of natural gas per day (100 percent) in 2018.

The Sillimanite gas field, discovered in 2015, is located just north of Wintershall Noordzee's Wingate complex. It is currently scheduled to start production during the first half of 2020. The Winchelsea gas field, located approximately 10 kilometers to the west of the Wingate complex, was discovered in 2016 and Wintershall Noordzee is currently evaluating possible development options.

The Wingate platform on the UK continental shelf.

Netherlands

Wintershall Noordzee is one of the larger offshore producers of natural gas in the Netherlands and operates more than 20 installations in Dutch, Danish, German and UK waters. In order to manage its operations efficiently, Wintershall Noordzee controls the majority of these platforms with a high-tech radio-controlled monitoring system from Den Helder. The Remote Controlled Operations (RCO) center monitors and controls the production platforms and facilities, including Wingate in the UK sector and Ravn in the Danish sector. This enables the company to increase its operating efficiency and effectiveness. The RCO center is a key enabler of the commercial production of smaller reservoirs in the southern North Sea.



Headquarters for the remote control operations: Wintershall controls its Dutch gas platforms from onshore with state-of-the-art wireless technology.

Rijswijk, near The Hague, is home to both Wintershall Noordzee's competence center for offshore technology and its shallow-water exploration and development expertise. The development of offshore oil and gas production expertise is critically important to address increasingly more complex reservoirs and is also being applied to activities in other regions of the world.

The E18-A production platform is one of several Wintershall Noordzee projects that show that environmental protection and commercial viability are not mutually exclusive when it comes to gas production. A large part of this platform consists of decommissioned parts of the P14-A gas production platform, which was dismantled, fully converted and re-deployed in Block E18-A in 2009. The E18 gas field has ceased producing, the production platform has been shut-in and the topside will soon be removed, recycled and prepared for its third life as the topside for the development of the Sillimanite gas discovery on the UK continental shelf.

Wintershall Noordzee's smallest stand-alone gas production platform is L6-B, which was installed in 2015. This monopod is located in a restricted military zone, approximately 85 kilometers north of Den Helder. The location required a unique approach and thus resulted in the installation of a Minimum Facilities Platform (MFP), containing no helideck and no living quarters. The Merel-G crew transfer vessel is deployed if maintenance work has to be carried out on the platform.

In future it is intended to compliment the natural gas production in the Netherlands with oil production. A key component of these activities is the Rembrandt oil discovery, which is located within exploration license F17a, 120 kilometers north of Den Helder. The Rembrandt field, which is one of the largest oil reservoirs discovered in the Southern North Sea in recent times, is supplemented by the neighboring Vermeer oil field. Both Rembrandt and Vermeer, which are both named after Dutch painters, are undergoing further analysis. At the same time, Wintershall Noordzee is paving the way forward for their development, having received a production license from the Dutch authorities for Rembrandt in June 2016. Wintershall Noordzee is currently evaluating the potential development of both fields as part of the define phase.

Germany

The Mittelplate drilling and production platform on the southern edge of the Wadden Sea National Park, a UNESCO World Cultural Heritage site in Schleswig-Holstein, is the only oil drilling and production platform in German waters. The offshore field, in which Wintershall and DEA (operator) each hold a 50 percent interest, forms the cornerstone of the oil production in Germany. Wintershall has completed a drilling campaign in what is by far the largest oil field in Germany and has now launched a new campaign together with the operator DEA. 30 years of safe production in the Wadden Sea show how oil production and environmental protection can go hand in hand. So far, the two partner companies have produced more than 35 million tons of oil. With around 1.3 million tons of crude oil per year, the reservoir provides a major share of the total production in Germany and proves that the extraction of natural resources and environmental protection can go hand in hand. With a commercially recoverable volume of around 20 million tons, the Mittelplate oil field is Germany's largest known oil reservoir. The development of this field has been expanded since the middle of the year 2000 with extended reach drilling from land. In addition, Wintershall operates platform A6-A in the so-called "Entenschnabel" (Duck's Bill) – in the far northwest of the German North Sea. It is the only offshore gas production platform in Germany and produced around 35 million cubic meters of natural gas in 2018.

In addition to offshore production, onshore production in Germany is another of Wintershall's main focus areas. For more than 70 years, Wintershall has been producing crude oil at a consistently high level in Emlichheim (County of Bentheim in Lower Saxony): at the end of December 2018, the facility produced its 11 millionth ton of crude oil. Seismic surveys completed and planned drilling, as well as investment in the infrastructure will ensure that oil will continue to be produced in Emlichheim. The Emlichheim South oil field is set to be reopened again, using a disused well from which oil was already recovered in the 1960s. In addition, in the second half of 2019 Wintershall intends to start construction of a crude oil transport pipeline between Emlichheim and Osterwald to enable the extracted oil to be safely transferred to the refinery in Lingen in an environmentally friendly way. Further wells are also planned during the next few years as part of the Emlichheim Phase III development project – with the first five wells scheduled to be drilled from September 2019.