

# Activities and results in 2020

Reference is made to the letter of assignment to Petoro AS for 2020, and to the business plan for Petoro AS. The targets set in the letter of assignment and Petoro's performance in relation to these are presented below.

## Safeguarding the state's direct participating interests

Petoro shall be an active partner that helps maximise the value of the SDFI portfolio through comprehensive assessments. The work shall be focused on areas and tasks where the company, based on the portfolio and in interaction with other players on the Norwegian continental shelf, can provide a particular contribution toward increased value creation, considering the state's overall financial interests.

## Operational targets

**“Petoro will establish operational targets with the aim of maintaining a high level of production in 2020.”**

*Management parameters: Volume figures. Development over time and description of deviations.*

Total production amounted to 988 thousand barrels of oil equivalent per day (kboed), an increase of 24 kboed compared with the same period last year.

Gas production amounted to 98 million standard cubic metres (million scm) per day, which is on par with the previous year. As a result of price optimisation, Troll experienced higher gas extraction in 2020 than the previous year, but this was offset by lower production, particularly from Snøhvit as a result of the fire in late September, and from Åsgard.

Liquids production was 374 kboed, 24 kboed (7%) higher than the previous year. The increase was caused by

Johan Sverdrup starting up in late 2019. Excluding production from Johan Sverdrup, production declined by 51 kboed (14%), mainly as a result of natural production decline on multiple fields, as well as reductions in oil production for the fields included in the Government's revised production permits.

In addition to ordinary licence follow-up, where the operator and partners set production targets and the operator is challenged on nonconformity management and mitigating measures, Petoro's efforts in 2020 were particularly aimed at measures to complete new wells and planned drilling programmes. These are important tools to increase production from the SDFI portfolio.

**“Petoro will prepare operational targets as regards efficient operations.”**

*Management parameters: Development in operating expenses with description of deviations.*

Efficiency measures on fields in operation have been an important part of Petoro's work in 2020 as well. The company has been a driving force for efficiency measures and cost reductions, particularly within the area of drilling and wells, as well as operations and maintenance.

Petoro is closely following the development in production expenses, including costs for operation and maintenance of fields and infrastructure. Adjusted for provisions for and subsequent settlement in the COSL case, production costs remained

stable from 2018 to 2019, but declined somewhat in 2020 chiefly due to lower electricity prices. Petoro follows up costs and efficiency measures, e.g. by using benchmark analyses.

The need for efficiency improvements and cost reductions within the drilling and well service area has been an important issue for Petoro over several years. The company has followed the development in drilling efficiency on ten fixed installations on five selected fields in the portfolio over a number of years. The number of wells from fixed installations was reduced in 2020 compared with previous years. The reason for this is that several drilling rigs have been unavailable to drill new wells for large parts of the year, in part due to prioritising other activity such as larger projects and well maintenance, and in part as a result of technical challenges. Petoro established a roadmap in 2020 for greater drilling efficiency in an effort to increase the drilling pace and reduce the cost per well.

Digitalisation is an important instrument for efficient operations and increased competitiveness. Petoro has therefore been a driving force for broad implementation across the SDFI portfolio, as well as for establishing and following up plans on selected fields. Broad implementation of new work processes and associated gains realisation are proceeding, but the pace is slower than expected. The company has identified concrete improvement opportunities within drilling and proposed them in selected joint ventures. The company also

actively participates in select industry forums with particular emphasis on sharing data. Petoro has also worked for efficient access to authority data for partners. The company has also employed strategic collaboration with Schlumberger, aimed special efforts toward improving quality and streamlining work processes in reservoir modelling.

**“Petoro will prepare operational targets as regards safeguarding safety and environmental concerns.”**

*Management parameters: Serious incidents and CO<sub>2</sub> emissions.*

*Development over time and description of deviations.*

The most serious incident in 2020 was the fire on Melkøya, which also resulted in a lengthy shutdown. The serious incident frequency, defined as the number of actual and potential serious near-miss incidents per million hours worked, is still too high. There was a total of 26 serious incidents in the SDFI portfolio in 2020, which yields a serious incident frequency of 0.9, about on par with 2019. Falling objects dominate the range of incidents in raw numbers. The personal injury frequency, i.e. the number of personal injuries per million hours worked, was reduced from 3.9 in 2019 to 3.6 in 2020.

The objective that the Norwegian petroleum activities shall be world-leading in health, safety and the environment (HSE) remains firm. This means that the industry must continue its work to continuously improve the safety level. Measures to limit the spread of Covid-19 and handle outbreaks have also led to challenges over the course of the year. Petoro has been concerned with putting safety first in 2020, and has clearly communicated the company's expectations for HSE management and HSE culture in operational activities offshore, at onshore facilities and in projects. Petoro also participated in a number of digital management visits in 2020, focusing on health, safety and the environment on selected fields, projects

and onshore plants. The pandemic has resulted in certain planned maintenance being postponed. This is a risk that will be followed up in 2021.

The most important measure to achieve considerable reductions in CO<sub>2</sub> emissions from production on the Norwegian shelf is electrifying installations. The industry has embarked upon a number of initiatives to identify and mature electrification projects. If they are realised, these projects will yield considerable reductions in greenhouse gas emissions, but will also require substantial investments moving forward. Petoro is working to ensure that the oil and gas industry on the Norwegian shelf will remain a leader in facing the climate challenges, in line with the roadmaps and goals the industry has set for the Norwegian shelf. Petoro has had considerable activity in 2020 associated with maturing measures for electrification of fields and onshore plants, with significant efforts linked to projects on Snøhvit and Troll. Over the next few years, Petoro will contribute to identify and mature a number of electrification projects, ensure quality in the decision documentation, and that the projects achieve sufficient profitability for them to be approved in the joint ventures.

Petoro prepares the “Annual External Environment Report” each year, which is published after the annual report. According to the 2019 report, emissions of carbon dioxide (CO<sub>2</sub>) from the SDFI portfolio amounted to 2.97 million tonnes, a decline of two per cent from 2018. However, CO<sub>2</sub> emissions per produced unit increased from 7.6 kg/boe in 2018 to 8.4 kg/boe in 2019. The increase was mainly caused by lower production. A total of 60 new measures were implemented in 2019 to reduce CO<sub>2</sub> emissions from the SDFI portfolio. The measures are expected to yield CO<sub>2</sub> emission reductions of 70,000 tonnes.

**Priority targets and activities in 2020**

Petoro shall devote particular attention to HSE risk, measures to reduce greenhouse gas emissions, well maturation, digitalisation, cost development and effective operating practices across production licences in the SDFI portfolio.

**“Petoro shall contribute to good solutions through separate in-depth work, studies and verifications for further development of the mature fields with important milestones in 2020.”**

*Management parameters: Initiatives, measures and work initiated by Petoro, achieved results and their effects.*

In line with Petoro's strategy, the company focused special efforts in 2020 toward the Breidablikk, Heidrun, Maria, Snorre, Åsgard, Gullfaks and Grosbeak fields. Well maturation and digitalisation have also been addressed as special topics for the entire field portfolio.

Petoro has conducted its own in-depth work on Heidrun for a number of years. Dedicated simulation studies were undertaken in 2020 for the field's northern section based on new reservoir models. Through this work, Petoro identified an alternative drainage strategy that could yield higher recovery. On Gullfaks and Snorre, the company carried out its own studies to assess the well potential with an option for additional well slots, which could improve recovery.

In light of disappointing production after start-up on Maria, Petoro has taken an active role in identifying measures to increase production. Petoro has worked to define a long-term solution to develop the field which will contribute to increase reserves. On Åsgard, the company used its own studies in 2020 to identify and specify projects that could help improve the recovery rate to the field's target recovery rate of 60 per cent. Petoro also carried out

its own studies on Troll to assess how increased gas production would affect oil production.

Electrification is included as part of a comprehensive further development of the mature fields. Electrification often takes place alongside a licence's desire for extended installation lifetime, or a need for more power for e.g. gas compression, in both instances to increase recovery and value. Petoro will continue to work actively to mature measures to reduce climate impact, as well as ensure good technical and cost-effective solutions. Electrification of mature fields is a time-critical measure as the projects' income potential is reduced when the remaining operating period is curtailed. Petoro therefore actively works with operators and partnerships to maintain progress on these projects.

**“Petoro shall contribute to good operational preparations through its own in-depth work, studies and verifications for projects in the implementation phase.”**

*Management parameters: Initiatives, measures and work initiated by Petoro, achieved results and their effects.*

In 2020, the company followed up a substantial portfolio of major development projects in the implementation phase, including Johan Sverdrup phase 2, Johan Castberg, Martin Linge and Troll phase 3. The follow-up has been focused on factors that affect HSE, climate and implementation risk as well as ensuring sound preparations for operations.

Covid-19 has resulted in delays and increased costs on projects in the implementation phase. The greatest consequences of this have been experienced on Martin Linge and Johan Castberg. The Martin Linge project has been characterised by multiple severe delays. There have also been challenges associated with well integrity in pre-drilled wells. Petoro led a project team

on Martin Linge where the company assessed well integrity alongside the operator, which resulted in a decision to drill multiple new wells. Petoro has furthermore kept a close eye on the project, with primary focus linked to safe, prudent start-up of the field. As regards Johan Castberg, Petoro has been closely following the development in correcting welding defects, and has also devoted significant attention to HSE in project implementation.

**“Petoro shall reduce uncertainty in the resource and reserve base through its own in-depth work, studies and verifications for discoveries and fields in the planning phase and comprehensive solutions that preserve future flexibility.”**

*Management parameters: Initiatives, measures and work initiated by Petoro, achieved results and their effects.*

The company conducted its own assessments for new development projects whose resource potential was associated with significant uncertainty. One example of this is Grosbeak, where Petoro carried out an external study to quality-assure the operator's geological model.

A plan for development and operation (PDO) was submitted for Breidablikk in 2020. The project is a major subsea development with 4 seabed templates tied into the Grane platform. The development is time-critical, as a loss of reservoir pressure could create challenges for the drilling of wells in the future. The development is scalable and robust in relation to both upsides and downsides.

Petoro has also assessed and provided input in connection with planning a new development on Kristin Sør.

**“Petoro shall contribute to development solutions to realise new discoveries through its own in-depth work, studies and verifications.”**

*Management parameters: Initiatives,*

*measures and work initiated by Petoro, achieved results and their effects.*

The SDFI portfolio has a record-high number of projects to be matured for a decision by 2022. The future projects primarily consist of further development projects and electrification projects on mature fields, but also a major discovery like Wisting, and a few medium-size discoveries such as Linnorm, Grosbeak, Lavrans and Peon.

As regards new fields in the portfolio, Petoro's efforts are associated with assessing various development solutions leading up to a concept choice. Petoro emphasises the selection of development solutions with the capacity and expansion opportunities to realise the field's full value potential, in addition to low CO<sub>2</sub> emissions. Robustness in the chosen solutions and technical maturity in decision documentation are also important parts of Petoro's assessment.

## Monitoring Equinor's marketing and sale of the state's petroleum

Petoro will monitor to ensure that Equinor conducts the marketing and sale of the state's petroleum alongside its own in accordance with the marketing and sale instructions issued to Equinor ASA. This includes contributing to equitable distribution of revenues and costs between the state and Equinor.

**“Petoro will monitor the marketing and sale of the state's petroleum with attention to the market situation, potential differences in interests, as well as issues of significant importance as regards value.”**

*Management parameters: Describe which initiatives and activities have been carried out and which considerations form the basis for the company's priorities. What results have been achieved through the activities and what impact have they had as regards value.*

In line with the letter of assignment, Petoro has focused its risk-based follow-up on prioritised issues within the marketing and sale of both oil and gas. In this context, the company has maintained particular focus on Equinor's management and follow-up system as regards maximum value creation and equitable distribution. As a result of Covid-19, with subsequent volatile oil and gas prices, Petoro has devoted particular focus in 2020 to conflicts of interest that may result from the market challenges.

Petoro is concerned with ensuring that the products are marketed and sold in the markets where the highest price can be achieved, in addition to ensuring that the portfolio's flexibility is used to achieve the highest possible value creation. In this context, optimal further development, regularity, utilisation of capacity and flexibility in production facilities and infrastructure are of significant importance in order to achieve maximum value creation.

Selected verifications have been conducted to ensure that the SDFI receives its rightful share of sales-related costs and revenues.

## Financial management

### “Petoro shall

- **ensure sound financial management and control of SDFI pursuant to the Regulations on Financial Management in Central Government and instructions for financial management of the SDFI**
- **prepare and follow up budgets and forecasts, conduct accountancy and perform periodic variance analyses and reporting on the SDFI's financial standing and development.”**

In 2020, Petoro has ensured sound financial management and control of the SDFI in line with the Regulations on Financial Management in Central Government and instructions for financial management of the SDFI.

The company has furthermore prepared and followed up budgets and forecasts, been responsible for accountancy through an external accountant and performed periodic variance analyses and reporting on the SDFI's financial standing and development in accordance with deadlines specified in the letter of assignment.

Petoro also received a clean audit report from the Office of the Auditor General for 2019.

## Efficient operations

Petoro will work systematically to utilise its allocated resources in an efficient manner. The company will prepare operational targets and indicators that demonstrate the efficiency of the company's operations and which can be compared over time.

### “Petoro will design its performance of the company's primary tasks in an efficient manner”

*Management parameters: Initiatives, measures and work initiated by Petoro and demonstrating their impact.*

Petoro aims to carry out its activities as efficiently as possible. The company regularly carries out efficiency and cost-reducing measures, for example by negotiating contracts for services the company uses, implementation and use of new digital tools and systems, as well as simplification of administrative processes and routines.

Petoro's portfolio of production licences has increased steadily since the company was established and at the end of 2020, the portfolio consisted of 194 production licences with SDFI ownership interests. The company has organised its licence follow-up in an efficient manner, such that new production licences the company receives for administration are also included in the follow-up within the same staffing framework. Over the course of the year, Petoro has achieved cost savings by selecting a different

accountancy provider and auditing supplier agreements, as well as improved and more efficient processes and routines within finance and administration.

### “Petoro will utilise its opportunities for efficient operation by applying digital solutions and digital data sharing”

*Management parameters: Initiatives, measures and work initiated by Petoro and demonstrating the effect thereof.*

Petoro works continuously to specify how digitalisation can be utilised to conduct the activities as efficiently as possible. The company's goal is to reduce the time spent on routine tasks, streamline reporting and supervisory tasks, as well as improve the company's influence through better insight, analyses and decision documentation.

Petoro continued its efforts within digitalisation in 2020 and applied new digital tools and systems within the company's main areas, including implementation of a new HR system and management system for information security. Petoro has also tested and applied new tools for subsurface analysis, and continued its work to make the company's administrative information more accessible by implementing digital work surfaces. In a year characterised by measures to limit the spread of Covid-19, the company's previous implementation and extensive use of new collaboration solutions allowed for stable, efficient operations in a situation with extensive use of home offices.

## Valuation of the SDFI portfolio

The Ministry of Petroleum and Energy conducted a valuation of the SDFI in 2020 with external assistance. As of 1 January 2020, the SDFI portfolio is valued at NOK 1,044 billion.