

3

Activities and results from the year



Melkøya, Hammerfest
Photo: Ole Jørgen Bratland / ©Equinor

Activities and results in 2022

Reference is made to the “Letter of Assignment to Petoro AS for 2022”, 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 shelf, can provide a particular contribution toward increased value creation, considering the state’s overall financial interests. A record-high number of projects are being planned, many of which will be matured toward an investment decision during 2022.

Operational targets

“Petoro will establish operational targets with the aim of maintaining a high level of production in 2022.”

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

Total production reached 1,044 thousand barrels of oil equivalent per day (kboed), an increase of 17 kboed compared with the previous year.

Gas production amounted to 109 million standard cubic metres (mill. scm) per day, an increase of seven per cent compared with last year. The increase was mainly caused by increased gas extraction on Troll, a full year of production for Martin Linge and production starting up from Snøhvit following the fire on Melkøya.

Liquids production was 359 kboed, 29 kboed lower than last year. The reduction in liquids production was primarily caused by natural production decline on multiple mature fields, as well as turnarounds. Extraction of NGL products from the gas stream

has also been reduced to optimise the value of gas in the strong gas market. The reduction was offset, in part, by contributions from a full year of production for Martin Linge and production starting up from Snøhvit following the fire on Melkøya.

Production from the mature oil fields continues to dominate the SDFI portfolio, despite Johan Sverdrup accounting for 25% of liquids production. The company’s strategy establishes the following four priorities to increase production: (1) more wells by increasing drilling efficiency, (2) better understanding of reservoirs, particularly by utilising opportunities for digitalisation, (3) choosing solutions with a long-term perspective in field development, and (4) increasing utilisation of the facilities through safe and efficient operations. Through focused follow-up, supported by in-depth professional commitment, Petoro works to reinforce value creation opportunities with emphasis on long-term business development.

“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 also been an important part of Petoro’s work in 2022. 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.

Production costs in 2022 amounted to NOK 23 billion, about NOK 6 billion higher than the previous year. The primary reason for the increase is

higher prices to purchase electricity and CO₂ credits, as well as increased maintenance activity on certain fields and facilities.

Petoro is closely following the development in production expenses, including expenses for operation and maintenance of fields and infrastructure. Petoro assesses the cost level of the various items in the licences’ budgets and requests efficiency measures, e.g. based on independent 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’s improvement efforts in drilling and wells are addressed below in this chapter.

Digitalisation as an instrument to improve and increase competitiveness is high on the strategic agenda of most oil and gas companies as well as suppliers. Petoro actively uses its role in the joint ventures and on the Norwegian shelf to reinforce the momentum for improvement and contribute to change processes, as well as to facilitate efficient data sharing. Through its strategic cooperation with Schlumberger, Petoro has also targeted special efforts on increased quality and efficient work processes in reservoir modelling.

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

Management parameters: Serious incidents, CO₂ emissions. Development over time and description of deviations.

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 were a total of 18 serious incidents in the SDFI portfolio in 2022, which results in a serious incident frequency of 0.5. This represents an improvement from 0.7 in 2021. Falling objects continue to dominate the range of incidents in raw numbers. The personal injury frequency was 3.9, which is on par with the previous year.

Petoro prioritises efforts to improve safety. This stance is clearly communicated through the company's expectations for HSE management and HSE culture in the licences. Petoro particularly focuses on handling major accident risk, and the company is addressing the quality of risk assessments and lessons learned across the portfolio. Over the course of the year, Petoro has carried out multiple management visits at selected fields and onshore facilities with a focus on HSE.

The most important measure to achieve considerable reductions in CO₂ 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. Electrification of mature fields is a time-critical measure, both as regards reaching national climate targets, in addition to a reduced income potential in the form of increased gas sales and saved CO₂ costs for projects when the remaining operating period is shorter. Petoro therefore actively works with operators and partnerships to maintain progress on these projects.

Petoro has seen significant activity associated with maturing electrification measures that will contribute to large reductions in greenhouse gas emissions from the SDFI portfolio. The last two years have seen investment decisions for multiple major electrification projects. The project Troll West Electrification (TWEL) and Oseberg Power from Shore constitute partial electrification of Troll B/C and Oseberg, respectively. The joint ventures also decided in 2022 to fully electrify Snøhvit and Draugen.

Later this year, Petoro will publish

a dedicated sustainability report addressing emissions to air and sea from the SDFI portfolio, as well as developments over time and descriptions of deviations.

Priority targets and activities in 2022

“Petoro shall, through its own in-depth work, studies and verifications, contribute to quality in the basis for investment decisions for the mentioned projects.”

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

Over the course of the year, Petoro has processed 19 investment decisions in line with the company's governance requirements. Petoro has contributed to improvements and quality in the documentary basis for several of them through its own efforts. In connection with the Snøhvit electrification and onshore compression project, Petoro provided crucial contributions toward the choice of concept and phase-in timing. On Maria, the company has carried out extensive reservoir simulation work, which significantly strengthened the reserve base for the revitalisation project and laid the groundwork for additional wells. On Blåbjørn and Smørbukk Nord, Petoro has conducted studies to verify the volume base as a basis for unitisation with Åsgard. On Åsgard, the company has also conducted its own studies and built its own reservoir model for the Smørbukk reservoir to bolster the basis for new production wells. These are a few examples of Petoro's work.

“Petoro shall, through its own in-depth work, studies and verifications, contribute to robust and comprehensive concept choice solutions for discoveries and new development projects which allow for future flexibility.”

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

In 2022, the company has been engaged in efforts to develop good concept solutions to realise the largest remaining

discoveries in the SDFI portfolio; Wisting, Linnorm and Grosbeak. In these efforts, Petoro has emphasised choosing development solutions with the capacity and expansion opportunities to realise the fields' full value potential, and that relevant new technology can be utilised to strengthen profitability. Examples of this include unmanned production facilities, multiphase over greater distances and advanced seismic monitoring.

“Petoro shall, through its own in-depth work, studies and verifications, contribute to reduced uncertainty in the reserve base for new projects.”

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

Early use and improvement of technology is important to increase competitiveness. Petoro is aiming its efforts towards technologies to increase the pace of drilling and optimise recovery strategies through the use of new digital tools. The company is also focusing on technologies for next-generation developments in remote operation, low-manned operations and reduced emissions.

2022 saw the submission of a plan for development and operation (PDO) for Halten Øst, Trell & Trine, Irpa, Verdande and Dvalin Nord. Amended PDOs were also submitted for Eldfisk Nord, Draugen electrification, Maria revitalisation, as well as Snøhvit electrification and onshore compression.

- The Halten Øst project is a joint subsea development of six gas/condensate discoveries tied back to the Åsgard field via existing subsea compression
- The Trell & Trine project is a subsea development of an oil/gas discovery tied back to the Alvheim production vessel
- The Irpa project is a subsea development of a gas discovery tied back to the Aasta Hansteen platform
- The Verdande project is a joint subsea development of two oil discoveries tied back to the Norne production vessel
- The Dvalin Nord project is a subsea development of a gas discovery tied

back to the Heidrun platform via the Dvalin pipeline

- The Eldfisk Nord project is a subsea development tied back to the Eldfisk platform which will improve oil recovery on the field
- The Draugen electrification project will replace current power generation by using gas to reduce the field's CO₂ emissions by 220,000 tonnes per year
- The Snøhvit electrification and onshore compression project is a joint project aiming to both compensate for natural pressure drop in the reservoirs and replace current power generation by using gas. These two measures will extend the field's plateau production and reduce CO₂ emissions from Melkøya by 820,000 tonnes per year.
- The Maria revitalisation project is a subsea development that will improve gas recovery on the Maria field, which is tied back to the Kristin platform.

Investment decisions have also been made for Smørbukk Nord which will contribute to increased gas production. This development is part of the development of the Åsgard field.

Petoro has continued its activities associated with maturing electrification measures aimed at helping reduce greenhouse gas emissions from the SDFI portfolio. Electrification of mature fields is a time-critical measure in order to reach national climate targets, in addition to a reduced income potential in the form of increased gas sales and saved CO₂ costs for projects when the remaining operating period is shorter. Petoro therefore works actively with operators and joint ventures to ensure progress. Multiple major electrification projects on Snøhvit, Kårstø and Draugen have been matured in 2022, and an investment decision was made for two of these projects. Opportunities to electrify other fields in the portfolio, including fields in the Halten Bank and Tampen areas, are also being considered. Alongside the implementation of energy efficiency measures, as well as shutting and scaling down fields, the realisation of electrification projects under consideration will, overall, contribute toward achieving the company's target of a 55 per cent reduction in greenhouse gas emissions from the SDFI portfolio

by 2030.

“Petoro shall, through its own in-depth work, studies and verifications, contribute to realising reserve bases and identifying new development projects for further field developments and improved recovery from mature fields in the portfolio.”

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

In line with its strategy, the company has aimed its targeted efforts at fields with a potential for further development; Johan Sverdrup, Heidrun, Oseberg, Åsgard, Blåbjørn, Martin Linge, Visund and Snorre. Drilling efficiency has also been addressed as a special topic for the entire field portfolio.

- On Heidrun, the company has conducted its own studies to explore opportunities to accelerate oil and gas production.
- On Blåbjørn, Petoro has conducted studies to verify the volume base as a basis for unitisation with Åsgard.
- On Åsgard, the company has conducted its own studies and built its own reservoir model for the Smørbukk reservoir to bolster the basis for new production wells.
- In light of disappointing production after start-up on Martin Linge, Petoro has taken an active role in identifying measures and concepts to increase production.
- On Oseberg, Visund and Snorre, the company has carried out its own studies to identify and refine volume bases from new drilling targets.
- Petoro has conducted its own studies and analyses on the resource base in potential candidates for new field developments such as Linnorm and potential further development of Johan Sverdrup.

“Petoro shall, through its own in-depth work, studies and verifications, contribute to high drilling efficiency and effective utilisation of rig and drilling capacity to drill new wells.”

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

Drilling efficiency has been addressed in 2022 as a special topic for the entire field portfolio.

The company has followed up drilling efficiency over time on ten fixed drilling facilities on the mature fields in the portfolio. 2022 proved to be yet another weak year for the number of completed wells from the fixed facilities, and costs per well were on par with the previous year. Several drilling facilities were unavailable to drill new wells for parts of the year. This was partly caused by prioritising different activity, such as larger projects and well maintenance, but was also a result of technical challenges. In order to realise resources in mature fields and raise the recovery rate, one must increase drilling efficiency and reduce the cost per well.

Despite the result for the year coming in below the company's goal, Petoro expects the work to be fruitful over the longer term. The company has raised multiple improvement initiatives, and cooperation with the operator is good. Petoro influenced improvements in the work process for mapping and identification of new well targets. The improved process has been applied on Snorre and Oseberg with good results, and has helped grow the portfolio of profitable drilling targets. This will contribute to more predictable drilling plans and better utilisation of rig capacity. Petoro has also lobbied for the implementation of automatic drilling control systems on Gullfaks.

Following up Equinor's marketing and sale of the state's petroleum

Petoro will follow up 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 shall follow up identified conflicts of interest, as well as Equinor's documentation of equitable distribution”

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

In 2022, Petoro has prioritised issues within the marketing and sale of both oil and gas. The company has particularly focused on measures to optimise gas production in order to deliver as much gas as possible to the European market. In addition, the company has paid attention to the extent to which the marketing and sale models satisfy the objectives in the Marketing and Sale Instruction regarding Maximum Value Creation and Equitable Distribution between Equinor and SDFI.

Petoro is concerned with ensuring that the products are marketed and sold in such a way that the highest price is 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. Petoro has maintained a dialogue throughout the year with the Ministry of Trade, Industry and Fisheries as regards clarifications related to the marketing and sale instructions. The company has also had an extensive dialogue with Equinor, including follow-up of shared goals for costs and value creation.

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 2022, 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 Allocation Letter.

Petoro also received a clean bill of health from the Office of the Auditor General for 2021.

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 shall carry out its primary tasks in an efficient manner, which includes utilising opportunities for efficient operations by using digital solutions and digital data sharing"

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

Petoro aims to carry out its activities as efficiently as possible. In 2022, the company has implemented a framework for efficiency and improvement. This framework is an integrated part of the company's governance.

Over the course of the year, the company has implemented 67 different improvement and efficiency measures. The impact of the measures is estimated at NOK 1.1 million in saved non-recurring costs and NOK 1.4 million in annual cost savings, as well as 250 saved hours worked. The measures have also yielded improved quality and fewer mistakes, increased availability of information and more efficient work processes.

The company has organised its primary tasks such that new ownership interests the company receives for stewardship are handled with a limited increase in the use of resources. Petoro has organised its activities with low basic staffing. 40 per cent of the company's cost consumption is linked to the purchase of external goods and services, and the largest areas are ICT, accounting and auditing services, as well as procurement of project-oriented expertise and studies within Petoro's strategic priorities. The company is concerned with facilitating a high level of competition in its tender processes, thus allowing Petoro to achieve the best terms available on the market, as well as closely monitoring costs in existing agreements.

In line with the company's digital strategy plan, Petoro works continuously to seize the opportunity for efficiency measures and improvement by using digital tools. The objective is to improve the quality and accessibility of information, reduce time spent on routine tasks and manual operations, streamline reporting and supervisory tasks, as well as to improve the company's impact through better insight, analyses and decision documentation.

Petoro also addresses efficiency and improvement measures in the joint ventures by following up costs and efficiency measures, e.g. through its strategic prioritisations within drilling efficiency and efficient operations. The efficiency measures in the joint ventures do not impact Petoro's accounts, but rather through increased cash flow from the SDFI. In the same vein, there is a considerable potential in using digital solutions and increased data sharing within and between the joint ventures to increase value for the SDFI portfolio. Petoro is an active driving force for this effort.

Valuation of the SDFI portfolio

The Ministry of Trade, Industry and Fisheries conducted a valuation of the SDFI in 2022 with external assistance, and the portfolio was valued at NOK 1,584 billion as of 1 January 2022.