ARROWHEAD
BUSINESS AND INVESTMENT DECISIONS

Due Diligence and Valuation Report

Arrowhead Code:	06-11-03
Coverage initiated:	January 14, 2020
This document:	January 14, 2020
Fair share value bracket:	EUR 3.66 – EUR 4.47
Share price (January 13, 2020):	EUR 3.00[i]

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Company:	Maurel & Prom
Ticker:	EPA: MAU
Headquarters:	Paris, France
Chairman	Aussie B. Gautama
CEO	Olivier de Langavant
COO	Philippe Corlay
Website:	https://www.maureletprom.fr/en/

Market Data

52-Week Range:	EUR 2.50 - EUR 3.84[ii]
Average Daily Volume (3M Avg.):	180,094[iii]
Market Cap (January 13, 2020):	EUR 601.1 mn[iv]

Financial Forecast (in USD) (FY Ending – Dec.)

USD mn	'19E	'20E	'21E	'22E	'23E	'24E
EBIT	136.9	128.8	157.2	197.6	190.8	185.3
NI	57.0	55.2	74.9	101.8	103.9	105.0
EPS (actual)	0.39	0.33	0.43	0.57	0.58	0.59

Company Overview: Maurel & Prom ("M&P") is an upstream oil and natural gas company specializing in onshore exploration & production (E&P) of hydrocarbons.

M&P's business model is to explore, develop and produce hydrocarbon assets. The company also carries out drilling activities. The Company generates most of its revenue through sale of oil (91.3%) and gas (6.4%), and a minor portion from drilling activities (2.3%).

The Company's profitability is highly dependent on its ability to efficiently operate its production assets and create significant value by developing its exploration assets. M&P had working interest in proven and probable (2P) gross reserves of 190 mn barrels of oil equivalent (MMboe) on December 31, 2018. A high percentage of these reserves were proven (1P) (approximately 74%).

Maurel & Prom's strategy is to diversify its business across products and geographies, to weather the impact of volatile market conditions. The Company has a combination of oil and gas assets in Gabon, Tanzania and Angola and generates some cash flows from its drilling activities. Additionally, the income and dividends paid by SEPLAT provide the company with a steady flow of dividends.

The company also has a stake in a high potential asset in Venezuela to help the company achieve further diversification of its cash flows streams in the future.

Pertamina, an Indonesian oil and gas group, became the parent company of Maurel & Prom by acquiring a controlling stake in the company in 2017. Pertamina plans to use Maurel & Prom as a platform for expanding globally, which aligns with M&P strategy of investing in promising assets.

The company resumed its drilling activities after almost three years in FY 2018, drilling nine wells in FY 2018 and ten wells in 9M 2019. It also utilizes its drilling capacity for exploration and development drilling.

Oil price is the single most important factor contributing to the value of an oil and gas company and the decline in oil prices is likely to have a significant impact on the value of Maurel & Prom.

Key premiums: (1) The company has a diverse portfolio of assets in high-potential areas such as Gabon, Tanzania, Angola and Venezuela; **(2)** The company is backed by Pertamina group, which provides a good base for growth and also provides credibility to its creditors, financers and investors; **(3)** The company has a diverse stream of revenues generated from production of oil from two assets, production of gas and also from its investment in SEPLAT.

Key risks: (1) The company's cash flows are highly sensitive to commodity prices and commodity prices are volatile; **(2)** The company's operations can be affected by unstable geopolitical conditions, like the US sanctions imposed in Venezuela; **(3)** The company's probable reserves, if not proven at the end, can affect the future of the company**; (4)** The company also runs the risk of not getting regulatory approvals from the governments of the countries/regions in which its assets belong.

Valuation and Assumptions[v]: Given the due diligence and valuation estimates, Arrowhead believes that Maurel & Prom's fair market value value lies in the EUR 734.2 mn - EUR 897.3 mn bracket. We have valued the company using Discounted Cash Flow (DCF) method. Our DCF model suggests a fair value bracket of EUR 3.66 – EUR 4.47.

See important disclosures on page 30 of this report

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1. Summary and Outlook

We are updating coverage on Maurel & Prom, an upstream oil and natural gas company, headquartered in Paris. It currently operates production assets in Gabon and Tanzania, and holds 20.46% stake in SEPLAT, one of Nigeria's leading operators.

Key Highlights[vi]:

1) The company produced hydrocarbons with a consolidated value of USD 393 million (mn) in 9M 2019, increasing by 22.4% on a YoY basis from USD 321 mn in 9M 2018. As a result of lifting imbalances, the revenue of the company amounted to USD 371 mn in 9M 2019, increasing by 8.5% on a YoY basis from USD 342 mn in 9M 2018. The working interest production of the company was 30,442 barrels of oil equivalent per day (boepd) in 9M 2019, increasing by 34.2% on a YoY basis from 22,681 boepd in 9M 2018. The increase in production followed an improvement in oil evacuation and resolution of export difficulties faced in FY 2018. Oil production in Gabon equaled 20,238 barrels of oil per day (bopd) in 9M 2019, increasing by 25.5% on a YoY basis while gas production in Tanzania fell by 14.3% on a YoY basis to 33.7 MMcfpd in 9M 2019.
2) Q3 2019 marked the first contribution from the two blocks acquired in Angola. Production from the two blocks equaled 4,587 bopd for a period of 60 days (August 01, 2019 – September 30, 2019) from the date of the completing the acquisition. The company acquired Angola Japan Oil Company's (AJOCO's) 20% stake in the two assets in Angola for an adjusted consideration of USD 35 mn. The acquisition was completed on July 31, 2019, using the company's cash resources
3) The company signed an agreement with Gabon Oil Company (GOC) to end the GOC carry mechanism, in June 2019. As a result, the company will sell 812 k boe to GOC in H2 2019, in return for a cash payment of USD 45 mn received at the end of H1 2019 and an additional payment of USD 7.5 mn in H2 2019.
4) The company acquired Shell's 40% stake in Petroregional de Lago, which operates Urdaneta West field in Venezuela. The consideration for the acquisition involved a payment of EUR 47 mn when the transaction closed and a balance payment of EUR 23 mn a year after the closing of the transaction. Currently, only maintenance work is being performed on the field, due to US sanctions.
5) The company bought back deferred payments from Rockover Energy for a consideration of USD 43 mn, of which USD 10.75 mn were paid in cash and the rest were paid by issuing shares to Rockover Energy. The deferred payments relate to the company's acquisition of Rockover Energy in 2005, in exchange for cash and deferred payments depending on the actual production in the future. The buyback of these payments will generate savings of USD 6 mn to USD 10 mn in the years to come, along with bringing some liquidity to the stock.
6) The company resumed drilling activities in H1 2018 after a period of three years. The company, through its subsidiary, Caroil, dug nine wells during the year, generating a revenue of EUR 12.0 mn in FY 2018. The company drilled another ten wells by September 30, 2019, generating a revenue of USD 9 mn from drilling activities in 9M 2019.
7) M&P trading, a subsidiary to market the oil volumes produced by M&P Gabon, was established in 2018. The subsidiary lifted 619,950 barrels Rabi Light quality on March 31, 2019.
8) In FY 2017, the company refinanced its entire debt and strengthened its financial structure. The debt has been rescheduled for payment over a seven-year period, including a two-year grace period.

Key risks: (1) The company's cash flows are sensitive to commodity prices and commodity prices are volatile; **(2)** The company's operations can be affected by unstable geopolitical conditions, as in Venezuela; **(3)** The company's probable reserves, if not proven at the end, can affect the future of the company; **(4)** The company is subject to regulatory risk pertaining to approval for its permits and exploration and production activities.

2. Business Overview[vii]

2.1 Company Overview[viii]

Maurel & Prom ("M&P" or "the Company") is an upstream oil and natural gas company specializing in onshore Exploration & Production of hydrocarbons, having an interest in exploration and production assets in ten locations all across the world. In 2018, it had 652 employees, with more than 50% of its employees operating in its assets in Gabon.

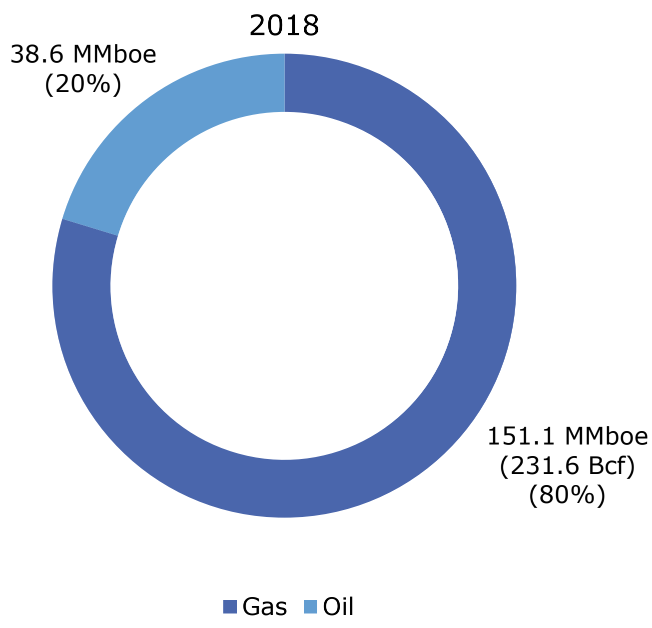
The Company is headquartered in Paris, France, and is listed on the Euronext Paris. Maurel & Prom Group currently operates production assets in Gabon, Tanzania, Angola and Venezuela (production currently suspended) and holds 20.46% stake in SEPLAT, one of Nigeria's leading operators.

Pertamina is an oil and gas company based in Indonesia, with revenues of USD 57.9 billion (bn) in FY 2018. Maurel & Prom serves as the international development platform of Pertamina, which has plans to produce 650,000 boepd from international operations.

M&P generates business primarily through the exploitation of its two major onshore assets in Gabon and Tanzania. The asset in Gabon (Ezanga) produces oil, while the asset in Tanzania (Mnazi Bay) produces natural gas. It also has two offshore blocks in Angola. As on December 31, 2018, the Company had Working Interest ("WI") 2P gross reserves of 189.7 MMboe (excluding Angola and Venezuela), 80% in Gabon and 20% in Tanzania. 140.3 MMboe (74%) of these reserves were 1P reserves.

The working interest share of production was 30,442 boepd in 9M 2019. Oil contributed 82% to total working interest share of production with 24,825 bopd, while gas contributed the remaining with 33.7 mn cubic feet per day ("MMcfd").

Exhibit 1: Share in Working Interest 2P reserves[ix]



2.2 Business Segments[x]

The activities of the company are split into three segments: Production, Exploration and Drilling.

2.2.1 Production

The segment focuses on the production of hydrocarbons in Gabon (oil), Angola (oil), Venezuela (oil) and Tanzania (gas). The asset in Ezanga permit in Gabon produced an average of 20,238 bopd in 9M 2019, contributing 67% to the working interest production. The Angolan asset made its first contribution since the finalization of its acquisition (July 31, 2019), producing an average of 4,587 bopd for a period of 60 days from August 01, 2019 to September 30, 2019 in 9M 2019 (contributing 15%). An average of 33.7 MMcfpd gas was produced in Tanzania in 9M 2019, contributing 18% to the total working interest production of the company in 9M 2019. The asset in Venezuela is not contributing to the production as a result of sanctions placed by the US in January 2019 on the parent company (owned by the Venezuelan government) of the Venezuelan asset and is not expected to contribute until the sanctions imposed by the US are lifted.

2.2.2 Exploration

The company has exploration assets in Canada, Colombia, France, Gabon, Namibia and Tanzania. The company completed drilling of two wells in France (Caudos-Nord-2D and Caudps-Nord-3D). The company expects to discover tradeable oil volume in the region of 1 mn barrels from Caudos-Nord-2D. Additionally, civil engineering work started at the end of May 2019 on the Kari permit and drilling is expected to start by the end of 2019. Seismic analysis is being conducted on licenses 44 and 45 in Namibia to determine the location of the next drilling campaign expected to start in 2020.

The exploration activities of the company are not revenue generating but do contribute to the operating expenses. The operating expenses from the Exploration segment in H1 2019 amounted to USD 1.5 mn.

2.2.3 Drilling

The Drilling segment is largely operated by Caroil, a wholly owned drilling subsidiary of the company.

Caroil is an oil drilling company that owns five onshore rigs with capacities of between 250 and 1500 HP operating in Africa. In the first half of 2018, the company restored Caroil’s operating capacity and commenced its drilling contracting activities after a halt of almost three years. The drilling contracting activities of the company contributed USD 9 mn to the sales of the company in FY 2018 and 9M 2019. Maurel & Prom also undertakes drilling activities on its own assets, both for exploration and for development.

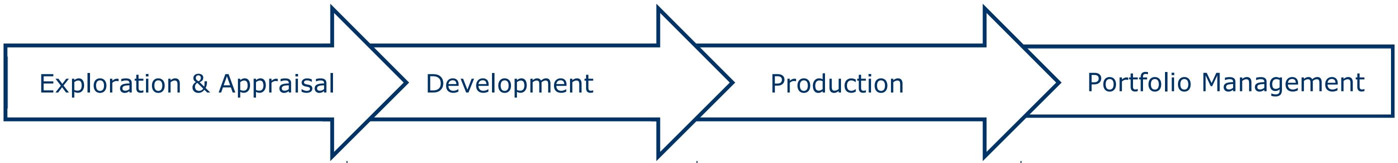
The company drilled nine wells in FY 2018 and another ten wells in 9M 2019.

The company has a 20.46% stake in SEPLAT, one of the main operators in Nigeria. The company’s stake in SEPLAT was held by Maurel & Prom’s Nigerian entity, MPI, before it merged back with Maurel & Prom in 2015. SEPLAT is an oil exploration and production company with total working interest 2P reserves of 481 MMboe (2018). The company had an average working interest production of 49,867 boepd in 2018. The company has a portfolio consisting of six blocks in the Niger Delta, of which it directly operates four blocks. Maurel & Prom’s share of income from SEPLAT amounted to USD 32 mn in FY 2018 and USD 26 mn in H1 2019.

2.3 Business Model

Maurel & Prom looks to create value by discovering assets that have the potential to produce oil and gas and developing these assets to their full potential. Once the asset reaches this stage, the Company monetizes it either by producing and selling hydrocarbons from it or by liquidating it (completely or in part) through a farm-out agreement, straight sale or an IPO.

Exhibit 2: Maurel & Prom's Business Model[xi]



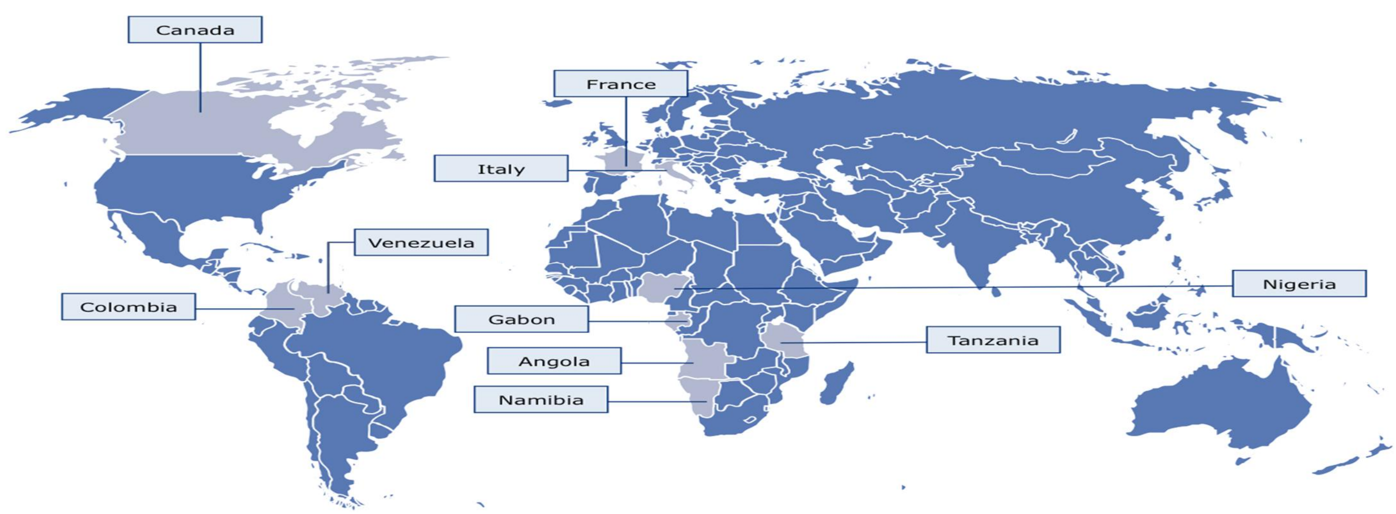
Exploration & Appraisal	Development	Production	Portfolio Management
1. Permitting 2. Seismic acquisition & Data interpretation 3. In-house exploratory drilling 4. Final investment decision	1. Design & Planning 2. In-house development drilling 3. Delivery	1. Production from the asset 2. Production growth 3. Production optimization to Maximize Value	1. Production optimization and further reserves development 2. Partial or complete monetization by way of: (a) Farm-out (b) Straight sale (c) IPO

2.4 Assets[xii]

Overview

Maurel & Prom's operations comprise production, exploration and drilling. The Company generates 97.7% of its revenue from the sale of oil and gas and 2.3% from drilling. It operates production assets in Gabon and Tanzania and has exploitation assets in Canada, Namibia, Colombia, Nigeria, Italy and France. In 2018, the company also acquired a production asset in Venezuela (production currently suspended) and two blocks of production and development blocks in Angola.

Exhibit 3: Asset Locations[xiii]



2.4.1 Production Assets

Maurel & Prom's two main producing assets are Ezanga and Mnazi Bay. Ezanga is an oil producing asset in Gabon and Mnazi Bay is a gas-producing asset in Tanzania. Oil production from Ezanga contributes 66.5% to the total production. The Company has acquired two new oil producing assets in Venezuela and Angola. The Company produced 30,442 boepd in 9M 2019.

Gabon (Ezanga)

A. Asset Overview

Ezanga in Gabon is Maurel & Prom's largest producing asset and contributes about 84% to total production and approximately 88% to the Company's revenue. Maurel & Prom has an 80% working interest share in the total production from this asset. This asset is being operated by M&P.

Asset Snapshot

Current Production*	**20,238 bopd**
2P Reserves#	**151.1 MMbbl**

**** M&P's working interest share in 9M 2019***

 # As on September 30, 2019

B. Regional Geology

The Ezanga Block (formerly called Omoueyi) is located onshore Gabon, 150 kilometers (km) southeast of Libreville. Maurel & Prom assumed ownership of the asset following the acquisition of Rockover Oil and Gas in 2005. The large Onal field was discovered in 2006 and a development license was granted the same year. Maurel & Prom discovered the Omko field 7 km east of Onal in 2008.

C. Recent Activities & Current Status

- Maurel & Prom achieved an average production level 20,238 bopd in 9M 2019, an increase of 25.5% from 16,129 bopd in 9M 2018
- Drilling activities resumed in the first half of 2018 after being halted for three-years. The Company drilled and deployed an additional unit in August 2018 to accelerate the drilling. A total of 10 wells were drilled in 9M 2019
- The Company is working on several long-term technical solutions to overcome its recent challenges. It is consulting various pipeline users and the Gabonese authorities to bring the production back to normal levels through better management of pipeline flows.

Tanzania (Mnazi Bay)

A. Asset Overview

The asset in Tanzania is a gas producing one. Maurel & Prom has a gross working interest of 48.06% in this asset that has total 2P reserves of 231.6 bcf as on December 31, 2018. The Company's working interest production was 40 MMcfpd in 2018. This asset is being operated by M&P.

Asset Snapshot

Current Production*	**33.7 MMcfpd (5,617 boepd)**
2P Reserves#	**231.6 bcf (38.6 MMboe)**
Company's Interest	**48.06%**

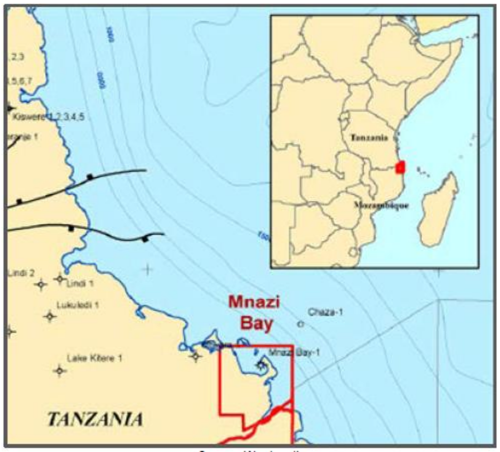
**** M&P's working interest share in 9M 2019***

 # As on December 31, 2018

B. Regional Geology

The first natural gas discovery in Tanzania was made in 1974 on the Songo Songo Island (Lindi Region) and this was followed by another discovery at the Mnazi Bay (Mtwara Region) in 1982.

Natural gas was discovered both offshore and onshore the Songo Songo Island, while the gas discovery at Mnazi Bay was only offshore. The natural gas produced at Songo Songo was first commercialized in 2004 and the gas produced at Mnazi Bay was commercialized in 2006. The commercialization of these two discoveries propelled further both onshore and offshore gas exploration. Since 2010, Tanzania has witnessed natural gas discoveries and further exploration.



C. Recent Activities & Current Status

Maurel & Prom's total operated production averaged 70.1 MMcfpd in 9M 2019, or 33.7 MMcfpd for M&P's working interest (48.06%), a 14.3% decrease compared with 9M 2018.

D. Future plans

Future plans are focused on stabilizing production by effectively tackling the factors leading to the uncertainty in production.

Angola

A. Asset Overview

In October 2018, Maurel & Prom signed a sale and purchase agreement to acquire AJOCO's stake of 20% working interest in two production and development blocks located in the shallow waters off the Angolan coast.

Asset Snapshot

Current Production*	**4,587 bopd**
Company's Interest	**20%**
Location	**Congo Basin, Angola**

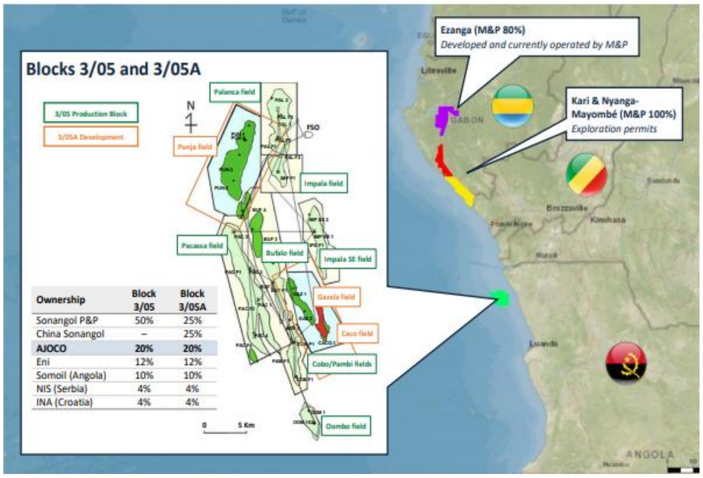
M&P's working interest share from August 01, 2019, to September 30, 2019

B. Acquisition Terms

M&P acquired the asset for a consideration of USD 80 mn with an additional contingent consideration of up to USD 25 mn subject to oil price performance and resources development. The contract will be funded from the Company's existing cash resources and will be contingent on receiving government approvals. The consideration of USD 80 mn translates into a price of approximately USD 7 per barrel which is very low for a producing asset.

C. Regional Geology

These assets are located in shallow water (100m depth) in the Congo basin, where M&P has extensive expertise. The assets in Block 3/05 consist of eight mature fields - Bufalo, Cobo, Impala, Impala SE, Oombo, Pacassa, Palanca and Pambi. The assets in Block 3/05A include the Caco and Gazela commercial fields and access to Punja field which is in pre-development stage.



D. Recent Activity and Current Status

Maurel & Prom's share of production from the Angolan assets averaged 4,587 bopd in 9M 2019, producing for a total of 60 days following its acquisition. The acquisition was finalized on July 31, 2019, and production took place from August 01, 2019 to September 30, 2019.

E. Future plans

The acquisition is an opportunity for the Company to further expand in the Congo Basin, a region where the Company has extensive operating experience. There is also a possibility to extend the license beyond June 2025 (the current license limit).

Venezuela (Urdaneta West Field)

A. Asset Overview

In December 2018, M&P announced the completion of acquisition of Shell's stake of 40% working interest in the Urdaneta West Field on Lake Maracaibo in Venezuela.

Asset Snapshot

Current Production*	**-**
Company's Interest	**40%**
Location	**Urdaneta West Field, Venezuela**

***M&P's working interest share in 9M 2019**

B. Acquisition Terms

Maurel & Prom Venezuela, a subsidiary of Maurel & Prom, acquired Shell's stake for a consideration of EUR 70 mn. Out of the total consideration, EUR 47 mn has been paid at the closing of the transaction and the remaining EUR 23 mn is payable in December 2019.

C. Regional Geology

Lake Maracaibo in Venezuela is a hydrocarbon-rich region that has produced over 30 bn barrels of oil until now and has an estimated 44 bn barrels of oil yet to be recovered.

D. Present Scenario

On January 28, 2019, the US placed sanctions against Petroleos de Venezuela, S.A. which owns more than 50% of Petroregional del Lago, preventing it from carrying out any sort of production activity in the country. As a result, only maintenance work is being done at the site.

E. Future plans:

Maurel & Prom believes that the asset offers significant optionality through the development of additional reserves and the possible extension of the license duration beyond 2026 (the current license limit).

2.4.2 Exploration Assets

Maurel & Prom conducts exploration activities in various geographies. The Company has an experienced exploration team and has developed many assets from exploration stage to production stage. Maurel & Prom has exploration assets in Gabon, Namibia, Colombia as well as some small assets in Italy and Southern France. The Company also has an appraisal stage asset in Alberta, Canada, with large resources but the asset is not currently producing.

Gabon

Maurel & Prom's exploration activities in the region consisted of finalizing the interpretation of the seismic lines on the Kari and Nyanga-Mayombé permits. The interpretations highlighted several prospects, the most critical of which required approach work and complex logistics for drilling due to the nature of the terrain. Civil engineering work to prepare for drilling began at the end of May 2019 in the Kari permit. Drilling on the permit was expected to start before the end of 2019.

Canada

Maurel & Prom's Sawn Lake project in Alberta continues to be dormant. The pilot test conducted by the Company between September 2014 and March 2016 produced encouraging results and confirmed the validity steam assisted gravity drainage extraction method. The Company filed an application with the Alberta Provincial Government in 2016 for administrative approval of production of 3,200 bopd, by drilling four new horizontal well pairs. The application was accepted in December 2017. The Company is working closely with the operator Andora to define possible options for the project based on the partners' respective market conditions and financing capacities.

Namibia

Maurel & Prom is exploring PEL-44 and PEL-45 offshore permits in Namibia, in which it has a 42.5% stake. Seismic analysis to confirm the locations for drilling is being carried out. Drilling is expected to start in 2020.

Colombia

Maurel & Prom has 50% interests in the COR-15 and Muisca blocks through its subsidiary Maurel & Prom Colombia. The Company is currently reprocessing the Seismic lines on COR-15 permit to finalize the establishment of two wells.

France

The company has a permit named 'Mios' in France. It stretches for 60 sq kms. A positive exploration result was announced in H1 2019 for the Caudos-Nord-2D (CDN-2D). The company also completed drilling in the Caudos-Nord-3D (CDN-3D) well and is expecting a discovery of around 1 mn barrels from the CDN-3D well.

Italy

The company has an exploration permit 'Fiume Tellaro' in Sicily, Italy. The permit covers an area of 600,000 sq km, involving the territories of Ragusa, Catania and Syracuse. A geophysical survey is being carried out on the permit area and is expected to continue till February 2020.

2.5 Company Milestones[xiv]

Exhibit 4: Maurel & Prom Milestones[xv]

Year	Event
1831	• Establishment of Maurel & Prom
2001	• Discovery of M'Boundi field in Congo
2004	• The company entered countries like Gabon and Tanzania
2005	• The company acquired Hocol to enter Colombia and Venezuela countries
2006	• The company started operations in Peru
2007	• Maurel & Prom discovered Onal field in Gabon and Ocelote field in Colombia • ENI acquired M'Boundi and Kouakoual fields from M&P
2009	• The company signed a Memorandum of Understanding (MoU) to increase its participating interest in the Marine III operating license in Congo • Maurel & Prom raised a USD 255 mn reserve-based loan from 4 international banks • The company sold Hocol Colombia to Ecopetrol
2010	• The company acquired a 45% stake in SEPLAT and entered Nigerian territory
2011	• The company created a spin-off of Maurel & Prom Nigeria (MPN), later renamed MPI • Maurel & Prom sold M&P Venezuela • Maurel & Prom signed a farm-out agreement with Pacific Rubiales Energy (PRE) to give it access to 50% of M&P working interests in a block located in North Western Peru • Caroil SAS (drilling and work-over subsidiary of Maurel & Prom) is acquired by Tuscany International Drilling Inc. • Pacific Rubiales Energy acquired 50% of Maurel & Prom's interests in the blocks Sabanero, Muisca, SSJN-9, CPO-17 and COR-15
2012	• The company secured a syndicated line of credit of USD 350 mn

2013	• Maurel & Prom acquired drilling activities in Africa from Tuscany International Drilling • Maurel & Prom sold its Sabanero field in Columbia Pacific Rubiales Energy • Saint-Aubin Énergie S.A.S. in which Maurel & Prom has a 33% stake, signed two agreements with Deep Well Oil & Gas, through its subsidiary MP West Canada, to acquire a 20% stake in Deep Well Oil & Gas and a 50% stake of Deep Well Oil & Gas in 12 blocks in Alberta • Maurel & Prom and MPI, through a joint investment vehicle, signed a 50/50 joint venture agreement with Pétrolia to develop hydrocarbons exploration permits in Gaspésie • Maurel & Prom authorized a partnership agreement with MP Nigeria (MPNG) in which Maurel & Prom will have a 33% stake
2014	• Maurel & Prom signed a gas sales and purchase agreement with Tanzania Petroleum Development Corporation (TPDC) for the long-term sale of natural gas from the Mnazi Bay and Msimbati fields • The Gabonese Republic granted a new production sharing agreement called the 'Ezanga' permit to Maurel & Prom • Maurel & Prom signed a partnership with Government of Quebec, Petrolia and Corridor Resources to carry out an exploration program in Anticosti island
2015	• The company completed a merger with MPI, taking over its stake in SEPLAT
2016	• Pertamina International Exploration Production (PIEP), a wholly owned subsidiary of Pertamina, acquired the 24.53% stake held in Maurel & Prom by Pacifico
2017	• The Government of Quebec signed an agreement with Saint-Aubin Énergie to decommission of exploration activities on Anticosti island • PIEP increased its stake to 70.65% in Maurel & Prom
2018	• Maurel & Prom acquired Shell Exploration and Production Investment's 40% stake in Urdaneta West Field in Venezuela • Maurel & Prom completed the buyback of deferred payments from Rockover Energy
2019	• Maurel & Prom acquired AJOCA's 20% interest in two producing and development blocks in offshore Angola

2.6 Company Premiums[xvi]

Investment in promising assets in different geographies: The company closed the acquisition of a 20% stake in two blocks in Angola. Similarly, the company also acquired a 40% stake in Urdaneta West Oil field in Venezuela. The acquisitions added to an already existing high-growth potential asset portfolio of the company, expected to come good in the future. The Angola asset has started contributing to the total production after acquisition.

Backing of a strong oil group: Pertamina group owns 70.65% shares of the company. Pertamina group has an annual revenue of approximately USD 57.9 bn. Backing by a large group gives M&P more credibility in the view of its creditors and its future partners. Maurel & Prom serves as the international development platform for Pertamina which also opens up promising acquisition opportunities for the company.

Diverse streams of revenue: The Company relies on multiple revenue streams and diversification of cash flows to mitigate some of its business risks. In addition to its existing oil and gas assets in Gabon and Tanzania, the Company has acquired a new oil producing asset in Angola. This results in portfolio diversification which brings more stability to existing revenues. Additionally, M&P generates some revenue from its drilling activities and dividends received from SEPLAT, which bring in steady cash flows.

2.7 Company Risks[xvii]

Commodity Price Risk: Being an upstream oil and gas company, M&P produces and sells hydrocarbons. The revenue streams of the company are highly dependent on the prevailing oil and gas prices, which are subject to volatility. Oil and gas prices experience fluctuations and a sudden decline in the prices would have an impact on the operations of the company and its cash flows.

Sensitivity to Macroeconomic and Geopolitical conditions: The company’s operations are subject to prevailing economic and geopolitical conditions in the world. An unstable political scenario and an unfavorable trade situation can have a direct impact on the performance of the assets of the company. The company acquired a stake in an asset in Venezuela and US sanctions in January 2019 have prevented the company to start production to commence on the field. Similar situations can prevail in other countries where the company operates and can hamper the company’s exploration, drilling and production activities.

Uncertainty related to Volume of reserves: The possible and probable reserves might not always turn into proven reserves and such a situation is most likely to have an adverse impact on the company’s performance. Discovery of less than optimal levels of reserves from the company’s exploration sites will have an impact on the company’s future operations and their estimated cash flows and returns on their investments.

Regulatory Risk: The company operates production and exploration assets in various geographies. The operations of the company are subject to approvals from the governments of the various countries it operates in. Obtaining licenses and approvals as well as extending them is not certain and non-approval from the government can lead to closure of activities in the respective country, similar to what the company faced in Quebec, Canada, when the government decided to exclude Anticosti island from all future hydrocarbon activities for which the company had already been granted Exploration permits.

2.8 Business Strategy[xviii]

Growth through high potential acquisitions: Maurel & Prom was acquired by Pertamina with the intent to strengthen its upstream business globally. M&P's new growth strategy after the acquisition and refinancing has been to grow via acquisition of new assets and increase production. As part of its external growth value creation strategy, the Company has acquired a share in two new oil producing assets in Angola and Venezuela. The Company's acquisition of Angola asset in the Congo basin, provides an opportunity to capitalize on its experience and create value in the asset.

Strong Exploration Portfolio: Apart from the existing assets which generates the revenues for the company, M&P also has exploration assets in Canada, Namibia, Colombia, Gabon, Nigeria, Italy and France. The Company plans to develop these assets with an aim to start production or to monetize these assets fully or partially in future. Drilling activities in the exploration assets have either started or are expected to start soon as the company is focused on realizing the potential of its assets.

Focus on existing portfolio: The company is focused on developing and improving the value of its existing assets, along with developing its exploration assets. Drilling activities started in the Ezanga permit after a gap of three years in FY 2018 with nine new wells drilled by the end of the 2018. Drilling of more complex and high potential wells took place in 2019 with ten wells drilled by 9M 2019.

2.9 Company Outlook[xix]

The company will continue to milk its producing assets in Gabon (oil) and Tanzania (gas) and will also look to explore them further.

The company has exploration assets worldwide and it plans to develop them in the future. Exploration and drilling activities in Caudos-Nord-2D (CDN-2D) and Caudos-Nord-3D (CDN-3D) wells had a positive result. Nearly 1 mn barrels of oil volume is expected to be discovered from the wells.

In Gabon, drilling activities will commence around the last quarter of 2019 in the Kari and Nyanga Mayombe fields.

Seismic analysis in Namibia is being used to determine the next drilling campaign location which is expected to take place in 2020.

Geophysical analysis, being conducted, in Sicily, Italy, is expected to conclude by February, 2020.

Sanctions placed by the US against Petroleos de Venezuela have led to postponement of production activities in Venezuela by the company. The company expects to start production activities as soon as the sanctions are lifted.

Improvement in efficiency of operations is an area that the company is another area that the company is looking to focus on. Along with taking measures to improve export management, the group established M&P Trading, the crude oil trading company of the group, in FY 2018 to improve the value of the hydrocarbons produced by the group.

The company remains in a favorable position in terms of its contracting and licensing position as the company management is optimistic of an extension in terms of its operating licenses in Angola, Gabon and Tanzania.

2.10 Financial Overview[xx]

During H1 2019, the company had a working interest production of 25,326 boepd, increasing by 7.3% on a YoY basis, from 23,602 boepd in H1 2018. The company continued its growth in production with production levels of 31,483 boepd in Q3 2019, up by 46.1% from 20,869 boepd in Q3 2018. The increase is attributable to the efficiency achieved in management of oil along with the contribution from the newly acquired assets in Angola.

Revenues of the company in H1 2019 amounted to USD 228 mn, having a negative growth of 3.6% from USD 237 mn in H1 2018. The company followed it up with a strong performance with a consolidated production value of USD 141 mn in Q3 2019, increasing by 34.3% on a YoY basis from USD 105 mn. An underlift position, having a negative impact of USD 22 mn, in the first nine months of the FY 2019 resulted in consolidated sales of USD 371 mn. The company registered a growth of 8.5% on a YoY basis from USD 342 mn in which the company had an overlift position. Resolution of export difficulties faced in 2018, progress in oil evacuation and first contribution from Angola led to the growth.

The company improved its EBITDA margin by 950 basis points from 50.6% in H1 2018 to 60.1% in H1 2019, led by increased production in the first half, stable prices and underlift receivables of USD 9.7 mn.

The operating income of the company decreased by 12.8% YoY to USD 55.8 mn in H1 2019 from USD 64.0 mn in H1 2018, due to increased depletion expenses.

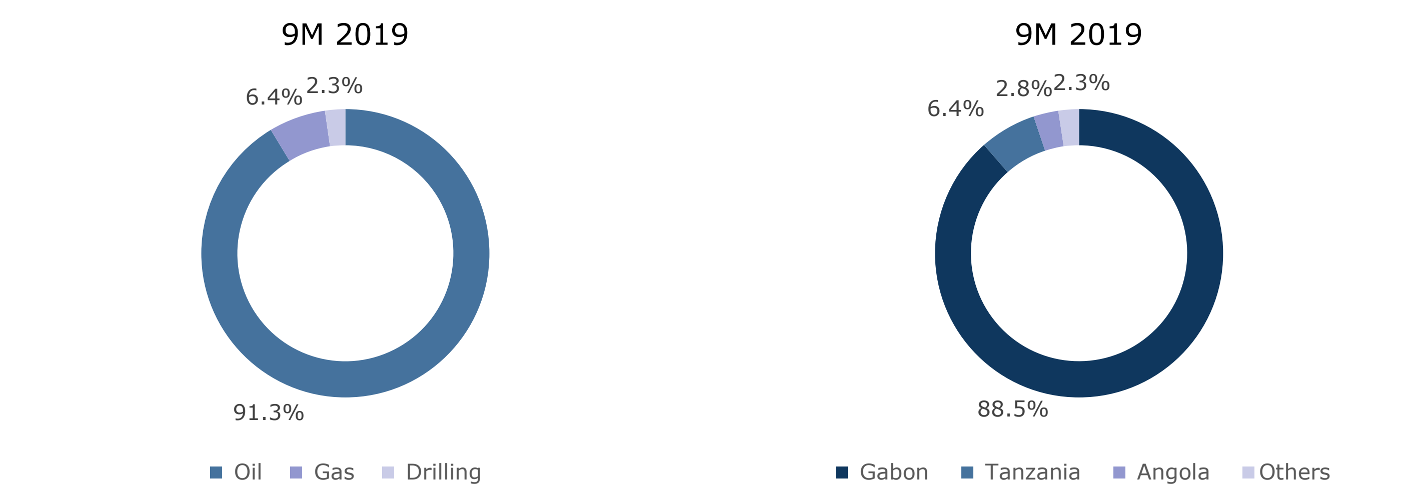
The company had a net income of USD 33.2 mn, increasing by 37.1% on a YoY basis, from USD 24.2 mn, as a result of the increase in income it received from SEPLAT.

On a segmental basis, the company had a consolidated production value of USD 245 mn in H1 2019 and USD 139 mn in Q3 2019 from its Production activities in Gabon, Tanzania and Angola. Gabon's assets produced oil worth USD 229 mn in H1 2019 and USD 118 mn in Q3 2019. Gas produced in Tanzania amounted to USD 16 mn in H1 2019 and USD 9 mn in Q3 2019. Production started in Angola from August 01, 2019, and continued till September 30, 2019, producing oil worth USD 11 mn. The drilling activities of the company had a production value of USD 7 mn in H1 2019 and USD 3 mn in Q3 2019.

The company's borrowings totaled USD 761.6 mn in H1 2019, consisting primarily of a term loan of USD 600 mn and shareholder loan of USD 100 mn that it took while refinancing its debt in 2017.

The company had cash and cash equivalents of USD 291.2 mn at the end of H1 2019.

Exhibit 5: Production Breakdown by Type of Activity and by Region[xxi]



2.11 Shareholding Pattern[xxii]

The company had **200,713,522** shares of common stock issued and outstanding on January 14, 2020.

Exhibit 6: Shareholding Pattern (as on January 14, 2020)

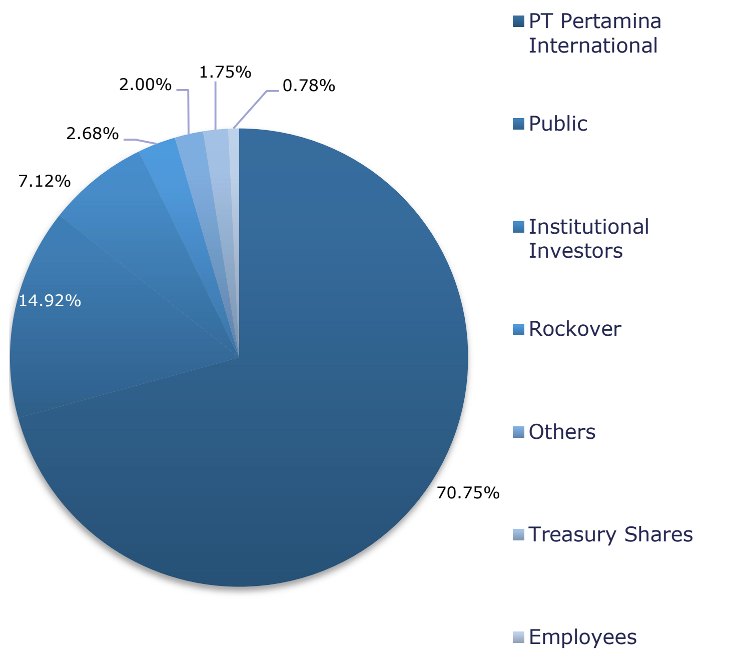


Exhibit 7: Shareholding Pattern as of January 14, 2020

Shareholders	No. of Shares	% of total
PT Pertamina International	142,004,817	70.75%
Public	29,946,457	14.92%
Institutional Investors	14,290,803	7.12%
Rockover	5,379,122	2.68%
Others	4,014,270	2.00%
Treasury Shares	3,512,487	1.75%
Employees	15,65,565	0.78%

2.12 Listing and Contact Details[xxiii]

Maurel & Prom is listed on the Euronext in Paris (Ticker: EPA: MAU).

Company Contacts

Address: 51 Rue d'Anjou, 75008, Paris, France
Contact No: 33 (0)1 53 83 16 00
Fax: +33 (0)1 53 83 16 05
Email Id: ir@maureletprom.fr

3. News[xxiv]

- **Announcement of Stance on Bidding Process for Amerisur Resources:** On December 02, 2019**,** the company announced that it would not make a competing offer for Amerisur Resources, in light of the cash offer made by Geopark. The company had earlier made an offer for Amerisur Resources before the formal sale process started.
- **Announced 9M 2019 activity results:** On October 23, 2019, Maurel & Prom announced its 9M 2019 results. The company reported a revenue of USD 371 in 9M 2019, increasing by 8.5% from USD 342 mn in 9M 2018. The value of production of the group was USD 393 mn, up by 22.4% on a YoY basis from USD 321 mn in 9M 2018.
- **Appointment of new Chief Executive Officer:** On October 03, 2019, Maurel & Prom announced that Olivier de Langavant had been appointed as the Chief Executive Officer with effect from November 01, 2019, as a replacement for Michel Hochard.
- **Announcement of H1 2019 results:** On August 01, 2019, Maurel & Prom announced its H1 2019 results. The company reported a revenue of USD 228.8 mn in H1 2019, down by 3.6% on a YoY basis, from USD 237.4 mn in H1 2018. The working interest production of the company was 25,606 boepd, up by 7.3% on a YoY basis from 23,602 boepd in H1 2018. The company sold 3.0 mn barrels of oil and 5.9 mn of million British thermal unit (MMBtu). The company's EBITDA increased by 14.5% on a YoY basis to USD 137.5 mn in H1 2019, from USD 120.0 mn in H1 2018.
- **Completed acquisition of two blocks in Angola:** On July 31, 2019, Maurel & Prom announced that it had acquired a 20% stake from AJOCO in two production and development blocks in shallow water offshore Angola. The company paid adjusted consideration of USD 35 mn on completion of the transaction, using its existing resources. The production keeping in mind the company's working interest for H1 2019 of the asset was 4,600 boepd. The acquisition was funded from the company's existing cash reserves. The acquisition plan was first announced in October 2018.
- **Production and Sales results for H1 2019:** On July 12, 2019, Maurel & Prom announced its production and sales numbers for H1 2019. The revenue figures of the company were down by 3.6% on a YoY basis to USD 228.8 mn in H1 2019, from USD 237.4 mn in H1 2018. Oil production in Gabon for Maurel & Prom's share was 20,026 bopd. Gas production in Tanzania was 31.8 MMcfpd for Maurel & Prom's share.
- **Combined General Shareholders' Meeting:** On June 13, 2019, the company held its Combined General Shareholders' meeting. In the meeting, a dividend of EUR 0.04 (4 cents) per share was approved. The dividend payment date was announced as June 19, 2019. The board of directors also renewed the terms of Mr. Aussie B. Gautama as Chairman.
- **Announcement of Q1 2019 sales results** On April 18, 2019, the company announced the Q1 2019 sales results. The company reported a revenue of USD 103.0 mn. The working interest production of the company was 25,636 boepd in Q1 2019, increasing slightly by 1.1% on a YoY basis from 25,346 boepd in Q1 2018. The company produced 19,733 bopd and 35.4 MMcfpd in Q1 2019 as compared to 19,180 bopd and 37.0 MMcfpd produced in Q1 2018.
- **Announcement of FY 2018 results:** On March 21, 2019, Maurel & Prom announced its FY 2018 results. The company recorded a revenue of USD 440.2 mn in FY 2018, an increase of 9.9% on a YoY basis, from USD 400,629 in FY 2017. The company also reported an EBITDA of USD 245.0 mn in FY 2018 with an increase of 29.6% on a YoY basis, from USD 189.1 mn in FY 2017. The net income in FY 2018 rose significantly by 805.6% on a YoY basis to USD 61.7 mn in FY 2019 from USD 6.8 mn in FY 2017, as a result of an increase in prices of Brent, a decrease in cost of debt and a more favorable exchange rate. The company had cash and cash equivalents of USD 279.8 mn on December 31, 2018.
- **Announcement of completion of acquisition of Shell's stake in Venezuela:** On December 28, 2018, the company announced that the completion of the acquisition of Shell's 40% stake in the Urdaneta West Field in Venezuela. The acquisition price for the asset was 70 mn, out of which EUR 23 mn will be paid in December 2019, on the anniversary date of closing of the transaction.
- **Completed the increase in capital reserved for Rockover and the buyback of deferred payments from Rockover:** On December 17, 2018, the company announced the completion of acquisition of deferred payments from Rockover Energy Limited, in consideration for USD 10.8 mn to be paid in cash and the issuance of 5.4 mn new shares. The company raised its capital for the acquisition by an amount of EUR 4.1 mn by issuing 5.4 mn shares as stated in the agreement.

- **9M 2018 activity and sales results:** On October 24, 2018, Maurel & Prom announced its 9M 2018 activity and sales results. Consolidated sales of EUR 286 mn were recorded in 9M 2018, up by 10.9% on a YoY basis from EUR 258 mn in 9M 2017. The working interest production for 9M 2018 was 22,681 boepd as compared with 23,769 boepd in 9M 2017. The company had a cash balance of USD 318 mn (EUR 267 mn)[xxv] on September 30, 2018.
- **Announcement of H1 2018 results:** On August 01, 2018, the company announced its H1 2018 results. The company had a working interest production of 23,602 boepd in H1 2018, increasing by 3.9% on a YoY basis from 22,723 boepd in H1 2017.The sales of the company increased by 14.2% on a YoY basis to EUR 196.2 mn in H1 2018 from EUR 171.7 mn in H1 2017. The EBITDA of the company improved to EUR 99.2 mn in H1 2018, with a growth of 27.8% YoY. The company ended the half with cash and cash equivalents of EUR 269.0 mn. Q1 2018 sales results: On July 27, 2018, the company announced its Q1 sales results. The working interest production of the company increased by 10.7% on a YoY basis to 25,306 boepd from 22,905 boepd. The company registered a sales growth of 33.5% on a YoY basis as the sales increased to EUR 104.1 mn from EUR 78.0 mn, as a result of an increase in the average price of oil produced in Gabon. Inclusion in CAC Small, CAC Mid and Small and CAC All-Tradeable stock indices: On March 14, 2018, the company announced that the shares of Maurel & Prom Group were included in CAC Small, CAC Mid and Small and CAC All-Tradeable stock indices. The basis of inclusion was the amount of capital traded in the last 12 months and the ranking of free float market capitalization at the date of revision.
- **Announcement of FY 2017 results:** On March 07, 2018, the company announced its FY 2017 results. The company had a working interest oil production of 23,903 bopd in FY 2017, against a production of 25,202 bopd in FY 2016. The working interest gas productions of the company increased by 14.0% to 23.6 MMcfpd in FY 2017 from 20.7 MMcfpd in FY 2016. The sales of the company grew by 11.8% on a YoY basis to EUR 354.7 mn in FY 2017 from EUR 317.2 mn in FY 2016. The operating income of the company in FY 2017 was EUR 58.5 mn, increasing by 236.0% from EUR 17.4 mn in FY 2016, as a result of lower depreciation charges in the Gabon asset. The company had cash and cash equivalents of EUR 216.9 mn on December 31, 2017.

4. Management and Governance[xxvi]

The management and governance team have vast experience in managing operations and finance for multiple businesses. They also have an extensive background in investment matters.

Exhibit 8: Management and Governance

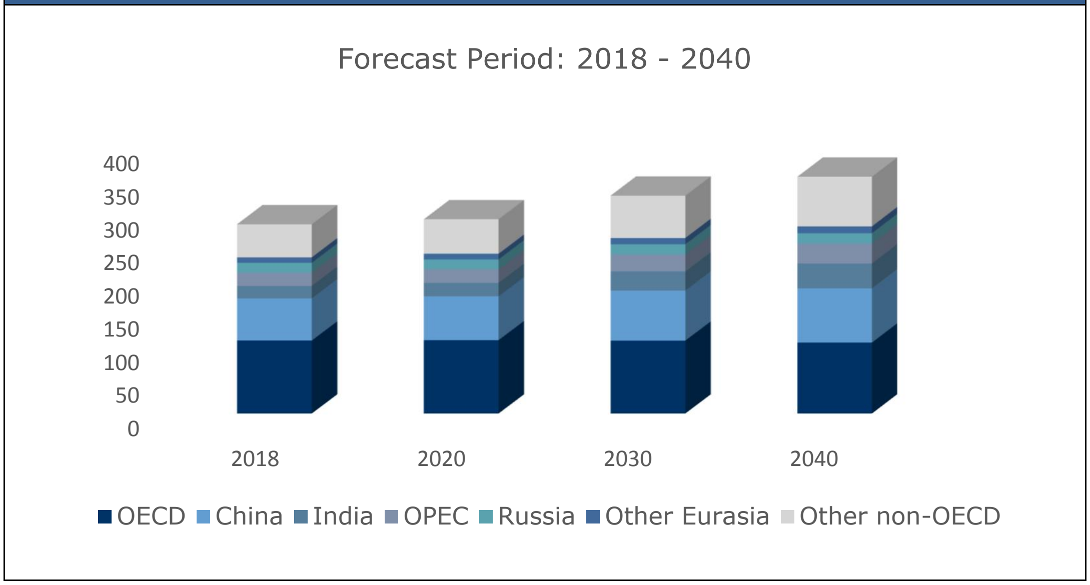
Name	Position	Experience
Aussie B. Gautama	Chairman	• He is a graduate of the Bandung Institute of Technology (Indonesia) with a degree in Geology • He has also been to ENSPM and INSEAD for his education • He has a total of 35 years of experience in the hydrocarbon sector • He worked for 30 years with Total group on various projects in different countries including Indonesia, Norway, Libya and Nigeria • He has been serving as an advisor to Pertimina's CEO on Exploration and Production activities since 2015 • He joined Maurel & Prom as the Chairman of the Board of Directors in 2017
Olivier de Langavant	Chief Executive Officer	• He graduated from Ecole Nationale Supérieure des Mines de Paris • He joined Total group (formerly Elf Alquitaine) in 1981 as a reservoir engineer and was later appointed Operations Director in the Netherlands • He has served as the Deputy Managing Director of Total E&P Angola from 1998 to 2002 and as Managing Director of Total E&P Angola from 2005 to 2009 • He also served as the Managing Director of Total E&P Myanmar • He was appointed as the SVP of Finance, Economics & Information Systems at Total E&P and was later appointed as the SVP of Strategy, Business Development and R&D of Total E&P in 2011 • He has served as the SVP of the Asia-Pacific region (based in Singapore) of Total Group from 2015 to 2017 • He has been a member of the Total Group's Management Committee since 2012 • Appointed as M&P Group Chief Financial Officer on May 01, 2019
Philippe Corlay	Chief Operating Officer	• He graduated from Hautes Etudes Industrielles in Lille • He studied at the School of Petroleum and Engines • He worked in the Deposit Department of Beicip-Franlab • He has served as the head of Assisted Recovery Project Hydrocarbons at the French Petroleum Institute • He has served as the Technical Director of Coparex from 1998 to 2003 • He joined Maurel & Prom in 2003 and became a Production Manager in 2008 and the Director of Operations in 2011 • He currently serves as the Chief Operating Officer of M&P

5. Industry Overview

5.1. Global Energy Demand Outlook[xxvii]

Global energy demand is predicted to rise from 285.9 MMboepd in 2018 to 357.5 MMboepd in 2040, increasing at a CAGR of 0.9%. Population growth, rising urbanization, and transportation growth are expected to result in growing energy needs, and in turn push demand higher for crude oil and natural gas. Oil and gas are anticipated to retain more than a 50% share in global energy demand through to 2040. A large part of this growth is anticipated to come from India, China and other non-OECD countries, which are experiencing a faster pace of economic development. Demand for energy is predicted to increase by 1.0% annually between 2018 and 2040 as a result of increased energy efficiency and lower population growth.

Exhibit 9: Global Energy Demand by Region (in MMboepd)[xxviii]



5.2 Global Oil and Gas Supply & Demand Outlook[xxix,xxx,xxxi]

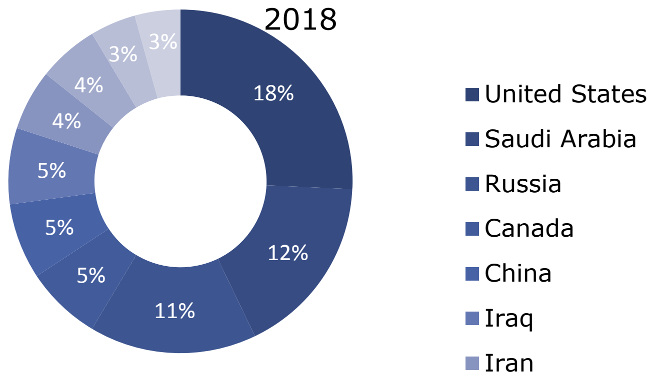
According to the US Energy Information Administration (EIA), the members of OPEC (Organization of the Petroleum Exporting Countries), United States and Russia are the major suppliers of oil globally. While OPEC produced 37% of the total global output in 2018, the United States and Russia contributed approximately 18% and 11% respectively. There was a decline in global oil output following the oil price collapse in 2014, due to a supply cut by the OPEC countries and Russia, coupled with a fall in investments in energy assets in the US. However, with the rebound in oil prices since mid-2016, there has been an increase in the daily production and inventory in the US, which is expected to continue as suggested by an increasing number of rigs.

5.2.1 Supply of Oil

According to the EIA's Short-Term Energy Outlook, production of crude oil in OPEC countries is forecasted to average 29.8 MMbopd in 2019, a decrease of 2.2 MMbopd from 2018, and fall further in 2020 to an average of 29.5 MMbopd. A decline in production in Venezuela and Iran is expected to account for most of the fall in OPEC's output in 2019 and 2020, partially offset by an increase in production from other OPEC members.

Global oil inventories are forecast to decline by 0.2 MMbopd in 2019 and increase by 0.1 MMbopd in 2020. Global liquid fuel supply is expected to increase by 1.9 MMbopd in 2020, with 1.5 MMbopd of the increase forecast to come from the US.

Exhibit 10: Top Ten Global Oil Producers[xxxii]



5.2.2 Supply of Natural Gas

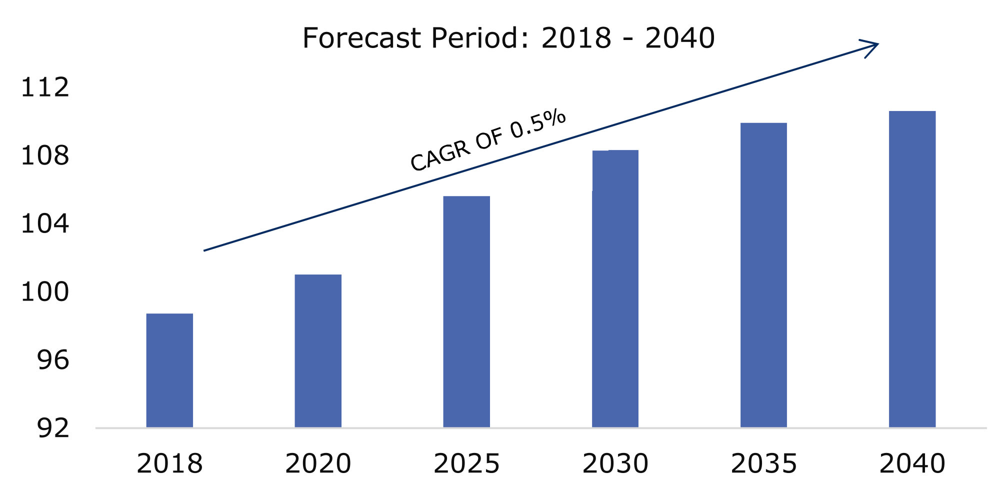
According to the EIA, the US had a natural gas inventory of 1.9 trillion cubic feet ("Tcf") at the end of October 2019, 9% higher than the five-year average. EIA forecasts the dry natural gas production to average 92.1 billion cubic feet per day ("bcfpd") in 2019, an increase of 10% from 2018. EIA expects natural gas production to average around 94.9 bcfpd in 2020.

Moody's predicts that there will be no change in the pace of earnings growth and has a stable outlook on the global Oil & Gas industry for 2020.

5.2.3 Demand for Oil

According to the OPEC's World Outlook Report for 2019, the growth in demand for oil will be driven by strong new passenger car and commercial vehicle sales, demand from the aviation industry and demand from the petrochemical industry. Over the medium term, demand for oil is expected to grow at a CAGR of 1.0% to reach a level of 104.8 MMbopd by 2024. The period would however witness decelerating demand growth as a result of lower GDP growth, improvements in efficiency and substitution of oil with other sources. Global oil demand is expected to increase by almost 12 mbopd over the long-term, rising from 98.7 mbopd in 2018 to 110.6 mbopd in 2040, with a big portion of demand coming from road transportation and the petrochemicals industry.

Exhibit 11: Global Oil Demand Forecast (in MMboepd)[xxxiii]



5.2.4 Demand for Natural Gas

According to the World Oil Outlook 2019 report, demand for natural gas is expected to increase at a rate of 1.5% between 2018 and 2040. Natural gas is expected to overtake coal in the primary energy mix by 2030, as power and heat generation switch from coal to gas. Consequently, natural gas is forecast to become the second largest energy source by 2030. In 2040, the share of natural gas in the primary energy demand mix is expected to be just above 25%, up almost 2.5 percentage points from 2018. The surge in demand is expected to be driven by greater supply availability, coupled with more pipeline and LNG export capacity that makes gas more widely available and more economical. The majority of gas demand growth is expected to originate from developing regions, led by China, India and OPEC.

5.2.5 Commodity Prices

Price of Oil - Crude oil prices increased consistently from 2009 to 2013 and reached USD 110 per bbl before collapsing by 40% to USD 60 per bbl in 2014. This collapse was on account of oversupply and increasing inventories. Oil prices continued to decline gradually and touched a low of USD 30 per bbl in mid-2016 before commencing on an upward trajectory. Crude oil prices averaged USD 60 per bbl in October 2019, down USD 3 per bbl from September 2019 and down USD 21 per bbl from October 2018. In its Short-Term Energy Outlook of November 2019, the EIA estimated that Brent Crude oil prices will fall from an average of USD 64 per bbl in 2019 to USD 60 per bbl in 2020. The expected decline in prices is based on an expected increase in inventory levels, particularly in the first half of the year.

Exhibit 12: Crude Oil Average Prices (in USD per Barrel)[xxxv]

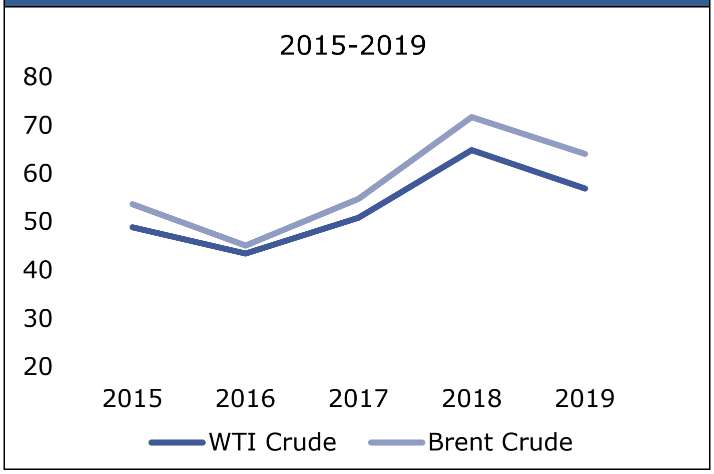
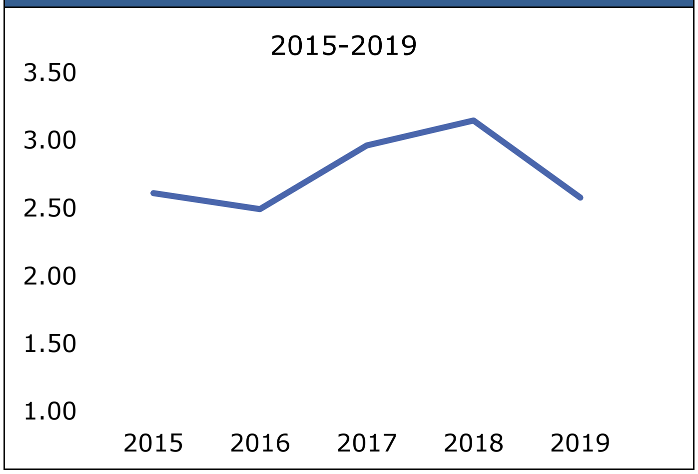


Exhibit 13: Average Gas Prices (in USD per MCF)[xxxiv]



Price of Natural Gas – Henry Hub natural gas spot prices averaged USD 2.33 per million British thermal units (MMBtu) in October 2019, down USD 0.23 MMBtu from the September 2019 average. Cold temperature forecasts lead to an increase in price in early November, with the prices expected to average USD 2.73 MMbtu in December 2019. The prices are expected to fall by USD 0.13 MMbtu in 2020 to average USD 2.48 MMbtu. The 2020 outlook would reflect an expected decline in natural gas demand in the US and slowing US natural gas export growth, which would lead to build-up of inventories, in spite of lower natural gas production.

5.3 Upstream Oil Industry

Exploration and Production (E&P) companies are going through a major transformation in asset acquisition, production, and cost optimization in view of changing market dynamics. Given a history of negative cash flows due the collapse in to oil price, and a high probability of increasing cost of debt in the future, upstream companies have shifted their focus from making large acquisitions to improving profitability and cash flows by changing their asset mix, optimizing their costs and embracing advanced technologies, such as digitization.

Changes in the Upstream Oil Industry

1. **Diversified asset portfolio of productive brownfield assets and renewable businesses**

E&P companies are not only divesting non-core assets to increase cash flow but are also acquiring low cost assets with high proven reserves. They are also diversifying the asset mix by adding renewable sources to adapt in a changing low-carbon environment. Upstream companies are trying to acquire assets in regions with good infrastructure, low operating costs and high reserves.

Maurel & Prom's strategy to acquire oil producing assets in Angola and Venezuela is in line with this trend. The Company also has exploration assets in Canada, Namibia, Colombia, Nigeria, Italy and France. However, the Company's business model is exposed to risk of rapid growth in renewables as the availability of substitutes at attractive prices leads to increased competition in the market.

2. **Strategic alliances to leverage the expertise of industry specialists**

For cost optimization, upstream companies are entering into strategic alliances with exploration specialists. These alliances help upstream companies leverage the expertise of the specialists and save time and cost. Instead of having a fully integrated business model wherein the companies internally handle all the processes from exploration to drilling, companies are engaging specialists to manage some of these operations. For example, BP formed an alliance with Kosmos, which specializes in exploration to acquire assets in Mauritania and Senegal.

Maurel & Prom is acquiring assets in regions where it already has extensive expertise and experience. The Company has alliances with local contractors which helps it maintain efficiency across processes.

3. **Cost optimization through advanced drilling techniques, automation and digitalization**

Upstream companies are focusing on advanced drilling techniques, autonomous processes and use of digital technologies across all segments to increase efficiency. Drilling cost can be reduced by proper selection of specialized rigs, depending on the availability and pricing, as rig rate is a major component of drilling cost. Besides this, there are various technologies which are being used to increase production in a cost-efficient manner, such as infill drilling and Multi-Purpose Drilling (MPD). Given the volatility in oil prices, companies need to explore alternatives to survive in the industry and gain a competitive edge.

4. **Use of superior drilling techniques to increase productivity**

Multiple advanced drilling techniques such as Infill Drilling, MPD, Logging While Drilling, Rotary Steerable drilling, and smart completions are being used by E&P companies to increase productivity, reduce cost and non-productive time (NPT), as well as generate data related to oil wells in the drilling phase. Infill drilling increases the total reserves by discovering new reserves and increases the rate of recovery from the wells. MPD technologies are increasingly being used to drill wells that are complex and impossible to drill using conventional techniques. MPD technology reduces (Non-Productive Time) NPT risk to the company. It also lowers overall costs by reducing formation damage, casings and gas kicks & losses.

5. **Use of automated systems to reduce human deployment in adverse environment**

Automated systems such as robotic drilling and high speed well communication result in higher productivity at lower costs by standardizing operations, reducing work stoppages, enabling timely and accurate execution and saving monitoring costs. High speed well communication helps in automating drilling by generating real time data from the well downhole diagnosis. It enables the use of MPD and helps save time and cost by detecting transport problems and stuck pipe. It also improves wellbore conditions, generates high data quality related to drilling, and ensures higher safety. Robotic drilling systems are used for land and under water operations. Large companies such as BP use sensors in rigs, wells and pipelines, to derive real time operational data like temperature, pressure, chemicals and equipment vibrations and analyze it to increase productivity and lower safety risk.

6. Employment of digital technologies likely to change upstream ecosystem

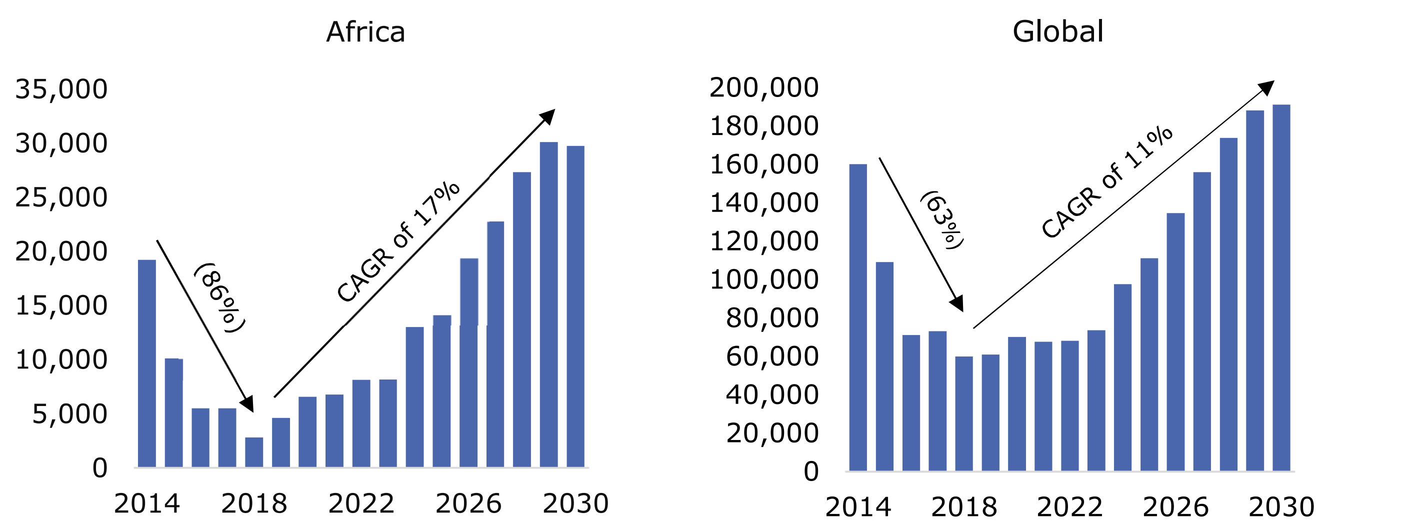
Implementation of digital technologies is expected to transform the entire value chain of upstream companies from exploration and project execution, to drilling and production. Upstream companies are investing in big data & analytics, cloud computing and artificial intelligence for faster and more accurate information processing in various areas related to production, maintenance, and asset management. Big Data and predictive analytics help in real-time decision-making by providing a better understanding of reservoir activity leading to higher refinery efficiency and production. BP has funded an artificial intelligence company, Beyond Limits, for the development of Artificial Intelligence (AI) software used in deep space exploration missions. It has also partnered with Oceaneering International to explore underwater pipelines and subsea infrastructure in the Gulf of Mexico using Seabed robots.

5.4 Regional Analysis[xxxvi]

Oil and Gas Industry – Global versus Africa

Global oil and gas discoveries were on a remarkable recovery in 2018, with discoveries of approximately 9.4 bn barrels of equivalent (boe), reversing the declining trend during the 2015-2017 period.
Only one discovery made in Africa made the top 10 global oil and gas discoveries list in 2018. According to PwC's Africa Oil and Gas outlook, Africa, which is the center of Maurel & Prom's production activity, had proven oil reserves of 125.3 bn bbl in 2018, down 1% YoY. The decline followed a drop of 86% in exploration spend in the continent from 2014 to 2018. However, the exploration spend in Africa is expected to grow at a CAGR of 17% from 2020 to 2030.

Exhibit 14: Exploration Spend (in USD mn) - Global versus Africa (Period: 2014 – 2030)[xxxvii]



The capital expenditure in Africa based oil and gas projects dropped by 43% from 2014 to 2018 but is expected to witness a 5% CAGR from 2020 to 2030, matching the global oil & gas capex growth rate of 5% year-on-year.

Venezuela[xxxviii,xxxix]

Venezuela, located off South America's Caribbean coast, has the largest oil reserves in the world (302.8 bn bbl of proven crude oil reserves in 2018). The country also had proven natural gas reserves of 5.7 bn cubic meters in 2018. Companies like Total, Statoil, Repsol-YPF, Gazprom and Chevron have assets in Venezuela, owing to its huge potential. Venezuela's oil revenues accounted for about 99% of its export revenues in 2018.

Despite its massive proven reserves, foreign investments in the oil and gas industry of the country, since 2014, have dried up due to the unstable geo-political situation in the country. The situation worsened in 2019 when the US imposed sanctions on the state-owned oil and gas company, Petróleos de Venezuela, S.A. (PDVSA), freezing its assets in the US and preventing US based entities from engaging in transactions with the company. PDVSA was unable to use US financial markets for any activity. With the US being one of the major export destinations for Venezuelan crude oil, production dropped massively to 644 k bopd in September 2019 from 1.4 MMbopd in September 2018.

Other countries have also become wary of importing from Venezuela, to avoid running the risk of endangering their ties with the US. Unable to export oil easily, Venezuela's oil storage capacity was utilized to its maximum. Floating ship tankers were being used to store excess oil, which further hampered the export process.

The long period of underinvestment in field and equipment maintenance in the country, coupled with the sanctions imposed by the US, has put the Venezuelan oil and gas industry in a precarious position.

The sanctions are bound to be lifted, although the time and nature of this cannot be predicted. A politically stable Venezuela would be a suitable and appropriate location for any future oil and gas related investments, with plenty of high-potential assets and seemingly perennial reserves.

Angola[xl]

Angola is located in the southern part of Africa, on the Atlantic Coast. It is the second largest oil producer in Africa. The country's oil and gas industry contributes 50% to GDP and 89% to total exports. The country had proven crude oil reserves of 8.2 bn barrels and proven natural gas reserves of 383 bn cubic meters in 2018. It had surplus production in 2018 with an oil demand of 120.8 kbopd and crude oil production of 1.5 MMbopd. The natural gas production of the country was 9.6 bn cubic meters in 2018.

The oil and gas industry in the country is dominated by E&P of offshore crude oil and natural gas. Major players in the E&P market in the country are Total (Market Share: 41%), Chevron (Market Share: 26%), Exxon Mobile (Market Share: 19%), BP (Market Share: 13%). Eni and Equinor also have a minor presence in the country.

The company has high-potential untapped reserves in the Congo and Kwanza basin, predominantly in deep and ultra-deep waters. However, limited investment in existing and new oil and gas projects due to lower oil prices and high cost of production in Angola (around USD 40 per bbl) has stalled progress.

With new discoveries and investments being made in 2018 and 2019, production is expected to increase in 2020 and 2021. Additionally, to stimulate investments, the government introduced legislative reforms, began to restructure the state oil company, Sonanga, and created the National Concessionaire – Angola's Oil, Gas and Biofuels Agency (ANPG) – to oversee licensing in 2018. ANPG commissioned an auction procedure to be carried out from 2019 to 2025 to auction fifty-five new blocks in the continental shelf off the coast of Angola, which was earlier divided in fifty blocks. The auction started in October 2019 with ten new blocks. The government also introduced the country's first gas legislation to regulate natural gas exploration, production and monetization in 2018.

Gabon[xli]

Gabon, located on the western shores of Central Africa, is one of the largest producers of oil in sub-Saharan Africa, with 193.4 kbopd in 2018. Petroleum is the main source of public revenue. As per the World Bank, oil revenues accounted for 27% of GDP and 35% of government revenues in 2017. Gabon had proven crude oil reserves of 2 bn barrels in 2018 and proven natural gas reserves of 26 bn cubic meters in 2018. The major players in the upstream oil and gas industry of Gabon, apart from Maurel & Prom, are Total Gabon, Assala Energy, Perenco Oil and Gas Gabon, Addax Petroleum/Sinopec and Vaalco Energy.

In 1997, production in Gabon peaked with 370 kbopd produced, according to the EIA. Since then, production has decreased and mature oil fields are in decline. However, with Gabon's reliance on oil exports (174.1 kbopd in 2018), the country's economic outlook somewhat depends on oil production and oil prices. This has led the government to orient its policy towards offshore reserves (70% of the total), revising its hydrocarbons code and launching the 12th bidding round for 12 shallow water blocks and 23 ultra-deep water blocks, in a bid to attract investors. With these measures, the government expects to increase crude oil production in the country by 50% by 2020/2021. The new hydrocarbons code allows for greater flexibility in negotiating economic terms and a reduction in the State's stake in the exploration and production-sharing agreements (EPSAs), along with a cut in taxes for gas production. The efforts of the government appeared to have paid off as, in response, Petronas signed an agreement for two new exploration permits for blocks F12 and F13 which, once developed, will produce 200 kbopd. In addition, Vaalco Energy started its offshore drilling campaign in the country in September, 2019, while Assala Energy (Gabon's second largest oil producer) announced renewals for twenty five years for four of its onshore production licenses, along with approval for three new onshore exploration areas. The future of the sector seems bright for now and the country looks to be on track to achieve its production objectives by 2020/2021.

Nigeria[xlii]

Nigeria is located on the Gulf of Guinea on the Western Coast of Africa and is Africa's largest oil producing nation. The country had proven crude oil reserves of 37.0 bn barrels in 2018 and proven natural gas reserves of 5.7 bn cubic meters in 2018. Crude oil production in 2018 stood at 1.6 MMbopd and natural gas production in 2018 stood at 44.3 MMcfpd.

The oil and gas industry accounted for 10% of the country's GDP and revenue from the oil industry accounted for almost 75% of the federal budget in 2018. Most of the country's oil is in the Niger Delta.

The oil and gas industry in Nigeria faces challenges such as inefficient procurement and contracting process, oil theft, depleting oil reserves and illegal refining. To counter these challenges, the country came out with an accelerated lease renewal program in January 2019, under which twenty two out of twenty-five license renewal applications made under the program were accepted by the President of the country. This is in addition to the 16 new field development plans approved by the Federal Government of Nigeria (FGN) in 2018, which are expected to increase the nation's oil and gas production capacity by about 560,463 bopd when fully commissioned.

Nigeria aims to increase its production to 3.0 MMbopd (currently 2 MMbopd) and its crude oil reserves to 40 bn barrels by 2023. In order to achieve this, the government is looking to create a favorable fiscal landscape to encourage the inflow of foreign direct investment. The government, through Nigerian National Petroleum Corporation (NNPC), owns a stake in joint-venture agreements with international oil companies and in November 2019, it signed an agreement to increase the percentage of earnings accruing to NNPC from each barrel of oil on approximately half of its crude production. Additionally, NNPC is looking to bring down its stake in the joint-venture agreements to 40% from 60%, in order to enable international oil companies to raise funding easily.

Chinese state-owned company China National Offshore Oil Corporation (CNOOC) increased its investment in the country to USD 16 bn in 2019 and Aramco and the Abu Dhabi National Oil Company (ADNOC) are also considering investing in the nation's oil and gas industry.

Tanzania[xliii]

Tanzania, located in East Africa, has one of the most promising hydrocarbons market. The country had proven natural gas reserves of 57 trillion cubic feet (as of 2018), most of which were underdeveloped.

Historically, Tanzania imported fossil fuels to meet its huge power needs, but recently the country has shifted to use of domestic natural gas reserves, saving around USD 4 bn between 2015 and 2017.

Depressed global economic growth and low commodity prices have affected Tanzania's economy in recent years, in turn affecting the pace of development of its natural gas reserves. However, the government looks keen to exploit the country's potential for natural gas production and is encouraging investment in the industry. The government announced that construction on a natural gas project worth USD 30 bn, with the capacity to produce 10 mn tonnes of natural gas per year, will commence in 2022. The development of the project will be carried out by a consortium led by Equinor of Norway, along with Royal Dutch Shell, Exxon Mobil, Ophir Energy, Pavilion Energy and the Tanzania Petroleum Development Corporation.

The government's agenda of becoming a middle-income country by 2025, is propelling natural gas development in the country, as the country looks to fulfill its untapped potential in the oil and gas industry.

See important disclosures on page 30 of this report

6. Valuation

The Fair Market Value for all the company shares stood between EUR 734.2 mn and USD 897.3 mn on January 14, 2019. The Fair Market Value for one of the company's publicly traded shares stood between EUR 3.66 and EUR 4.47 on January 14, 2019. The valuation approach followed is DCF.

6.1 Discounted Cash Flow Method

Valuation	
WACC	
Risk-free rate	0.50%[xliv]
Beta	1.20[xlv]
Equity Market return	7.50%[xlvi]
Country Risk Premium	12.0%
Cost of Equity	9.97%
Cost of Debt	4.00%
Terminal Growth Rate	0.00%
WACC (Discount Rate)	9.97%

Year Ending- Dec	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
FCFF (USD 000's)								
NOPAT	69,840	66,993	83,329	106,703	104,910	103,739	96,138	88,885
D&A	116,491	119,478	110,792	103,756	97,483	91,871	86,840	81,737
Impairment	12,363	11,411	10,541	9,744	9,015	8,347	7,734	7,171
Working Capital changes	(13,311)	(14,674)	5,388	(15,023)	3,997	(246)	5,752	4,795
Capital Expenditure	259,307	43,853	43,221	54,032	55,011	55,916	56,887	48,393
FCFF	(47,303)	168,703	156,053	181,194	152,400	148,286	128,073	124,606
Present Value of FCFF	(47,476)	153,931	129,482	136,714	104,566	92,497	72,647	64,273

*In model we have taken the forecasts till 2029

Arrowhead Fair Value	
Firm Value from Operating Assets (USD 000's)	827,375
Terminal Value	321,663
Firm Value (Euro 000's)	1,031,951
Net Cash	(373,448)
Investment	160,482
Minority Interest	3,232
Equity Value	815,753
USD/EUR	0.90
Total Equity Value	815,753
Number of shares outstanding (thousands)	200,714
Price per Share (EUR)	**4.06**
Current Market Price (USD 000's)[xlvii]	3.00
Upside/(Downside)	35.5%

Sensitivity Analysis

Sensitivity Table		Oil Prices				
		50.0	55.0	60.0	65.0	70.0
Growth rate of oil (%)	(2.0%)	1.6	2.4	3.1	3.8	4.5
	(1.0%)	2.0	2.8	3.6	4.3	5.1
	0.0%	2.5	3.3	**4.1**	4.9	5.7
	1.0%	2.9	3.8	4.6	5.5	6.3
	2.0%	3.4	4.3	5.2	6.1	7.0

Approach for DCF Valuation

Time Horizon: The Arrowhead fair valuation for MAUREL & PROM is based on the DCF method. The time period chosen for the valuation is 96 months (2020E-2029E).

Terminal Value: Terminal value is estimated using terminal growth rate of 0.00%.

Prudential nature of valuation: It should be noted that this Arrowhead Fair Value Bracket estimate is a relatively prudential estimate, as it discounts the eventuality of any new products being launched in the market or any significant change in the strategy.

Important information on Arrowhead methodology

The principles of the valuation methodology employed by Arrowhead BID are variable to a certain extent depending on the subsectors in which the research is conducted, but all Arrowhead valuation research possesses an underlying set of common principles and a generally common quantitative process.

With Arrowhead Commercial and Technical Due Diligence, Arrowhead extensively researches the fundamentals, assets and liabilities of a company, and builds solid estimates for revenue and expenditure over a coherently determined forecast period.

Elements of past performance, such as price/earnings ratios, indicated as applicable, are present mainly for reference purposes. Still, elements of real-world past performance enter the valuation through their impact on the commercial and technical due diligence.

Elements of comparison, such as multiple analyses may be to some limited extent integrated in the valuation on a project-by-project or asset-by-asset basis. In the case of this MAUREL & PROM report, there are no multiple analyses integrated in the valuation.

Arrowhead BID Fair Market Value Bracket

The Arrowhead Fair Market Value is given as a bracket. This is based on quantitative key variable analysis, such as key price analysis for revenue and cost drivers or analysis and discounts on revenue estimates for projects, especially relevant to those projects estimated to provide revenue near the end of the chosen forecast period. Low and high estimates for key variables are produced as a tool for valuation. The high-bracket DCF valuation is derived from the high-bracket key variables, while the low-bracket DCF valuation is based on the low-bracket key variables.

In principle, an investor who is comfortable with the high-brackets of our key variable analysis will align with the high-bracket in the Arrowhead Fair Value Bracket, and likewise in terms of low estimates. The investor will also take into account the company intangibles – as presented in the first few pages of this document in the analysis on strengths and weaknesses and other essential Company information. These intangibles serve as supplementary decision factors for adding or subtracting a premium in the investor's own analysis.

The bracket should be understood as a tool provided by Arrowhead BID for the reader of this report and the reader should not solely rely on this information to make his decision on any particular security. The reader must also understand that on one hand, global capital markets contain inefficiencies, especially in terms of information, and that on the other hand, corporations and their commercial and technical positions evolve rapidly: this present edition of the Arrowhead valuation is for a short to medium-term alignment analysis (one to twelve months). The reader should refer to important disclosures on page 30 of this report.

8. Analyst Certifications

I, Natasha Agarwal, certify that all the views expressed in this research report accurately reflect my personal views about the subject security and the subject Company, based on the collection and analysis of public information and public Company disclosures.

I, Sumit Wadhwa, certify that all the views expressed in this research report accurately reflect my personal views about the subject security and the subject Company, based on the collection and analysis of public information and public company disclosures.

Important disclosures

Arrowhead Business and Investment Decisions, LLC received fees in 2018 and 2019 and will receive fees in 2020 from Etablissements Maurel & Prom S.A. for researching and drafting this report and for a series of other services to Etablissements Maurel & Prom S.A., including distribution of this report, investor relations and networking services. Neither Arrowhead BID nor any of its principals or employees own any long or short positions in Etablissements Maurel & Prom S.A. Arrowhead BID's principals intend to seek a mandate for investment banking services from Etablissements Maurel & Prom S.A. in 2020.

Aside from certain reports published on a periodic basis, the large majority of reports are published by Arrowhead BID at irregular intervals as appropriate in the analyst's judgment.

Any opinions expressed in this report are statements of Arrowhead BID's judgment to this date and are subject to change without notice.

This report was prepared for general circulation and does not provide investment recommendations specific to individual investors. As such, any of the financial or other money-management instruments linked to the company and company valuation described in this report, hereafter referred to as "the securities", may not be suitable for all investors.

Investors must make their own investment decisions based upon their specific investment objectives and financial situation utilizing their own financial advisors as they deem necessary. Investors are advised to gather and consult multiple information sources before making investment decisions. Recipients of this report are strongly advised to read the information on Arrowhead Methodology section of this report to understand if and how the Arrowhead Due Diligence and Arrowhead Fair Value Bracket integrate alongside the rest of their stream of information and within their decision taking process.

Investors are advised to gather and consult multiple sources of information while preparing their investment decisions. Recipients of this report are strongly advised to read the Information on Arrowhead Methodology section of this report to understand if and how the Arrowhead Due Diligence and Arrowhead Fair Value Bracket integrate alongside the rest of their stream of information and within their decision-making process.

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Arrowhead Business and Investment Decisions, LLC is not responsible for any loss, financial or other, directly or indirectly linked to any price movement or absence of price movement of the securities described in this report.

9. Notes and References

[i] Source: Bloomberg – retrieved on January 14, 2020
[ii] Source: Bloomberg: 52 weeks – January 15, 2019 to January 14, 2020
[iii] Source: Bloomberg: 3 months – retrieved on January 14, 2020
[iv] Source: Bloomberg: Retrieved on January 14, 2020
[v] Arrowhead Business and Investment Decisions Fair Value Bracket – AFVBTM. See information on valuation on pages 33-34 of this report and important disclosure on page 38 of this report
[vi] Source: Company Fillings, Company Website and Press releases
[vii] Source: Company Website and Company Fillings
[viii] Source: Company Fillings, Company Website and Press releases
[ix] Source: Company Filings
[x] Source: Company Fillings, Company Website and Press releases
[xi] Source: Company Filings
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[xviii] Source: Company Website, Company fillings
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[xxii] Source: Company Press releases, Bloomberg
[xxiii] Source: Company Website
[xxiv] Source: Company Website, Factiva
[xxv] Source: Exchange rate taken from Company Filings; 1 EUR = 1.19 USD
[xxvi] Source: Company Website
[xxvii] Source: https://woo.opec.org/ (World Oil Outlook Report 2019)
[xxviii] Source: https://woo.opec.org/ (World Oil Outlook Report 2019)
[xxix] Source: https://www.eia.gov/outlooks/steo/pdf/steo_full.pdf
[xxx] Source: https://www.pwc.co.za/en//assets/pdf/africa-oil-and-gas-review-2019.pdf
[xxxi] Source: https://woo.opec.org/ (World Oil Outlook Report 2019)
[xxxii] Source: International Energy Outlook 2018
Note: Oil includes crude oil, other petroleum liquids & biofuels
[xxxiii] Source: https://woo.opec.org/ (World Oil Outlook Report 2019)
[xxxiv] Source: Bloomberg
[xxxv] Source: https://woo.opec.org/ (World Oil Outlook Report 2019)

[xxxvi] Source: https://www.opec.org/opec_web/en/about_us/25.htm
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