

Investor Presentation

Colombia Inside Out



Picture: Chuchupa Field





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Summary

1

Value and sustainable growth

- Reserves and production growth
 - ✓ Existing fields
 - ✓ Exploration in Colombia
 - ✓ International
 - ✓ Unconventional
- Strict capital discipline
- Cash protection and cost efficiency

2

Track record of performance

- 759 Mmboe* of reserves have been added from 2017 to 2019
- Reserves replacement >100% in the same period
- Strong financial performance amid price volatility
- Delivered COP 3.55 Tn in efficiencies from 2015 to 2019

3

ESG and societal values

- Major ESG investments, dividends, and taxes
- Decarbonization plan, renewable energy expansion and water recycling initiatives (UN SDGs)
- Short, mid and long-term goals in terms of GHG emissions reductions and gas flaring usage
- High corporate governance standards

4

Decisive response to COVID-19 and oil price environment

- COP 3.5 Tn in costs and expenses optimization
- US\$ 3.1 Bn in financing to strengthen cash position
- New investment plan target of US\$ 2.5 – 3.0 Bn for 2020
- > US\$ 130 Mm in Revenue optimization from Commercial Strategy

5

Sustaining strategic investment

- EOR
- Domestic gas
- Digital transformation
- Renewable energy sources
- Unconventional pilot projects (PPiR)

* Gross addition



Life ensures business continuity

RESPONSE PLAN COVID-19



Leadership

- COVID-19 Crisis Committee
- Health Response Committee
- Diagnostic tests at Barrancabermeja Hospital

IT Management

- Secure digital connection for +9,000 employees
- Chatbot to determine risk of contagion
- CoronApp** for self-diagnosis

Occupational Health - Labor

- Operation with “minimum viable personnel”
- Isolation of workers with pre-existing health conditions
- INS* visits to refineries

Supporting the Country

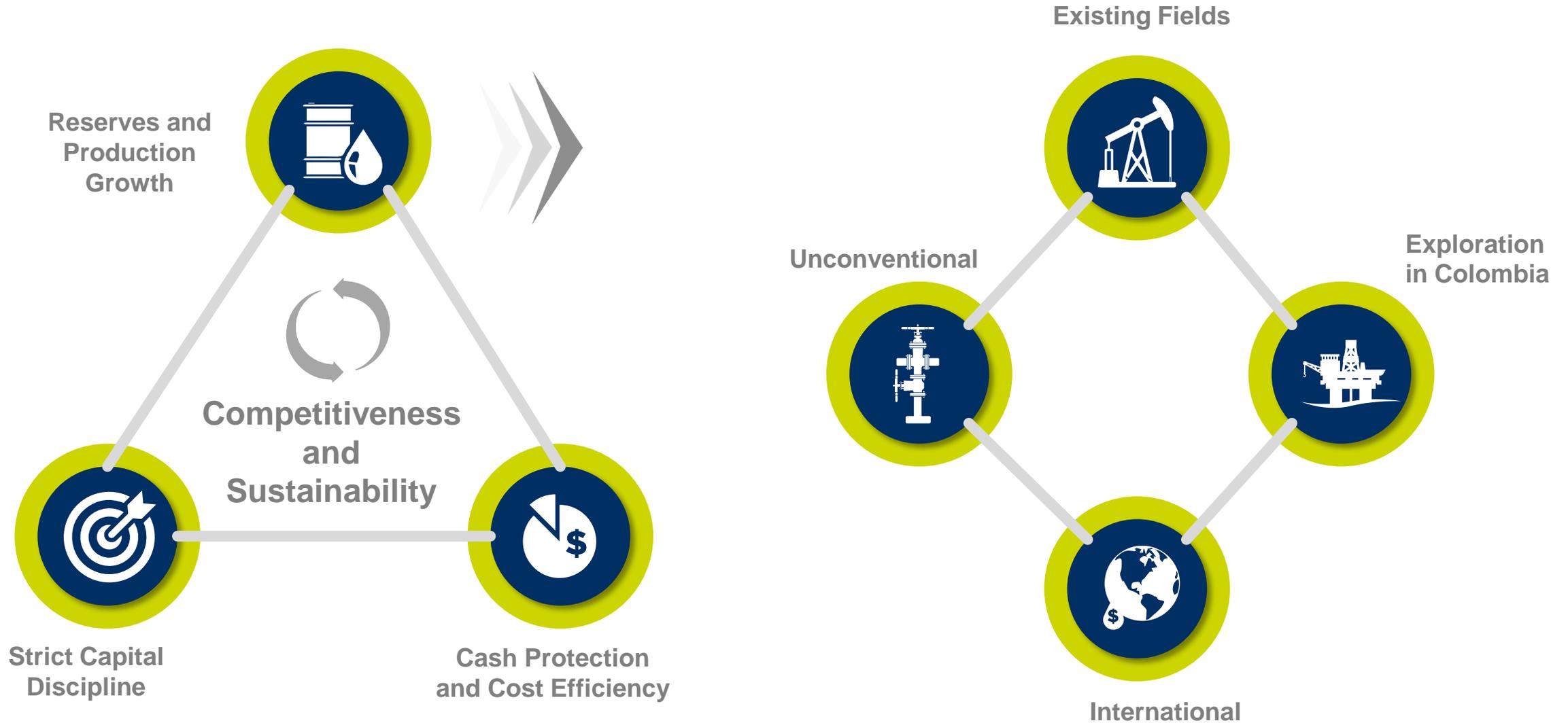
- Supporting the local industry
- Voluntary employee contributions
- Strengthening of the Country’s healthcare system and humanitarian aid

* Instituto Nacional de Salud (National Health Institute)

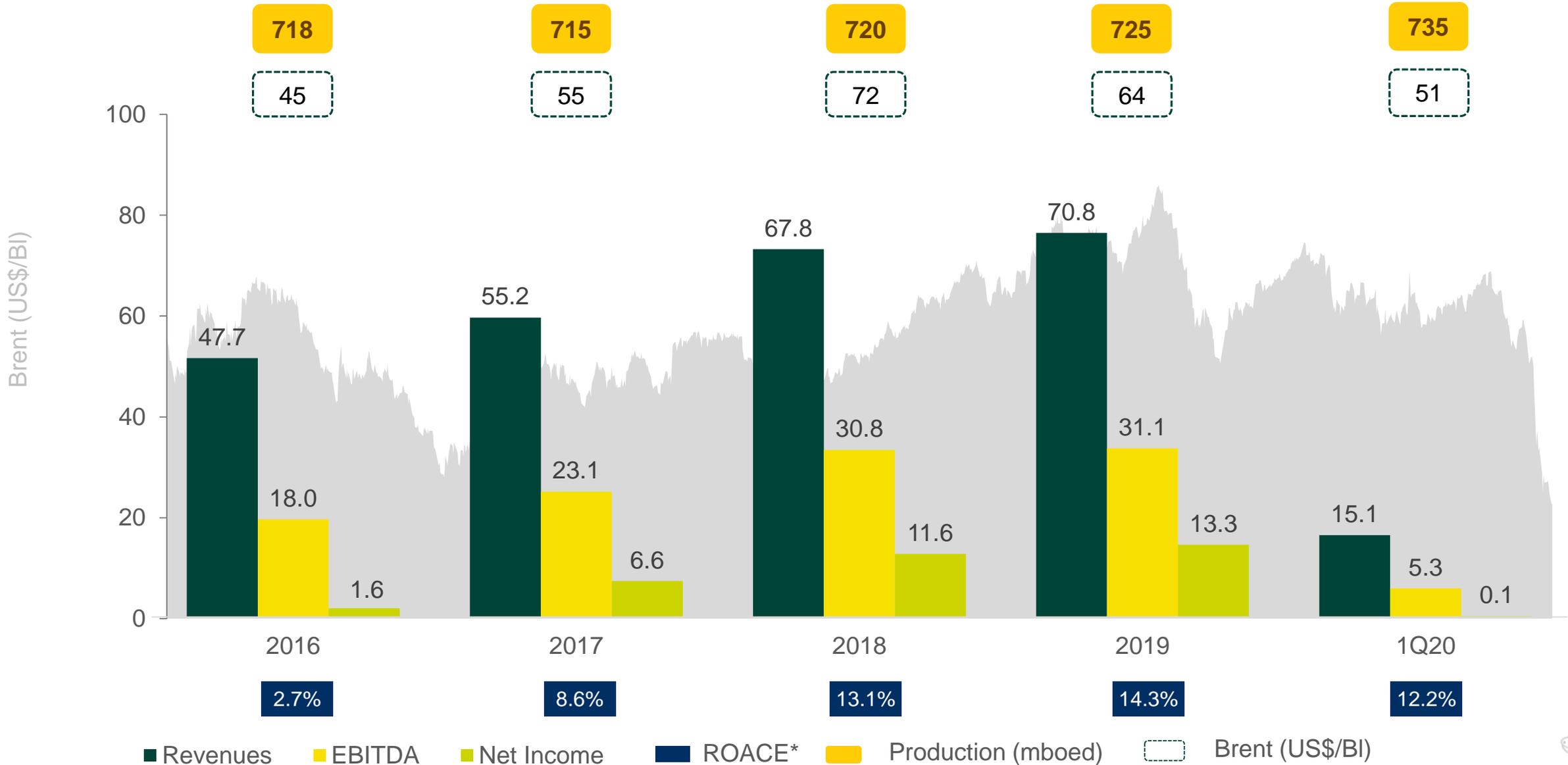
** Ecopetrol supported the mobile app of the National Government designed to fight against coronavirus



Strategy remains focused on value generation



Delivering strong returns despite price volatility

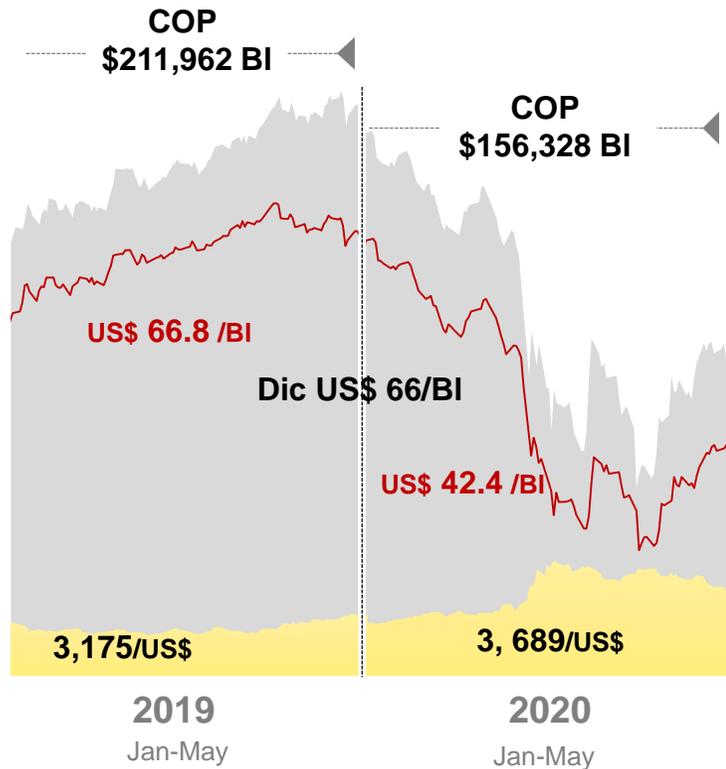


Revenues, EBITDA and Net Income in US\$ B. Figures calculated with the average exchange rate of each year. *Figure calculated in COP.

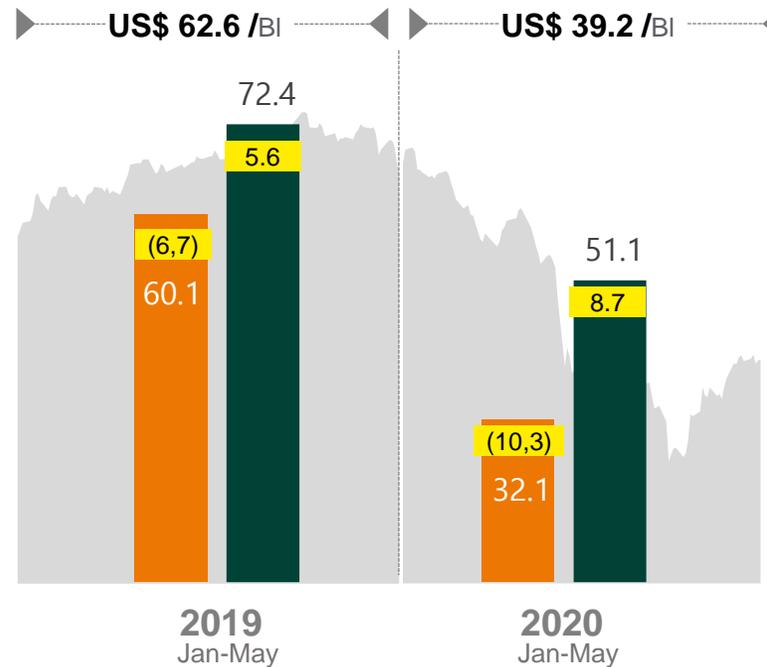


Oil market is currently facing an unprecedented supply and demand shock

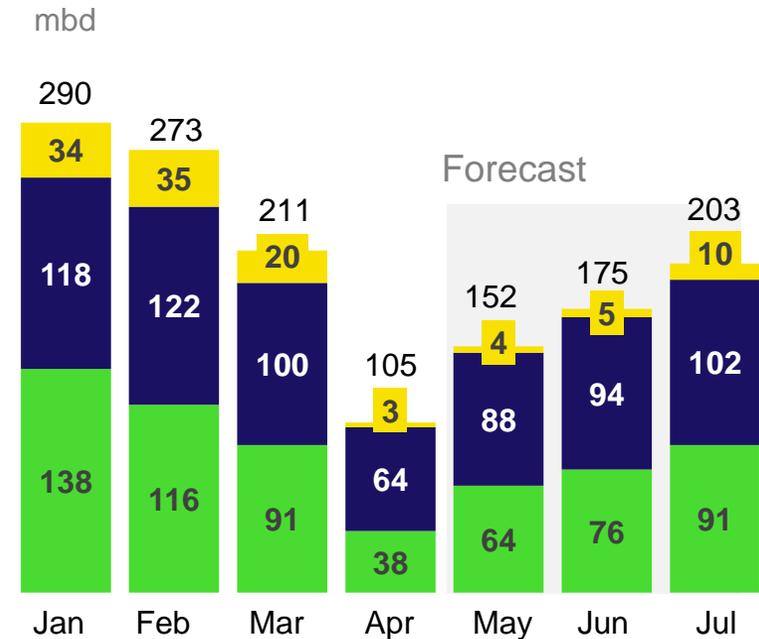
Brent, Peso and FX



Basket Price (US\$/BL)



National Demand 2020



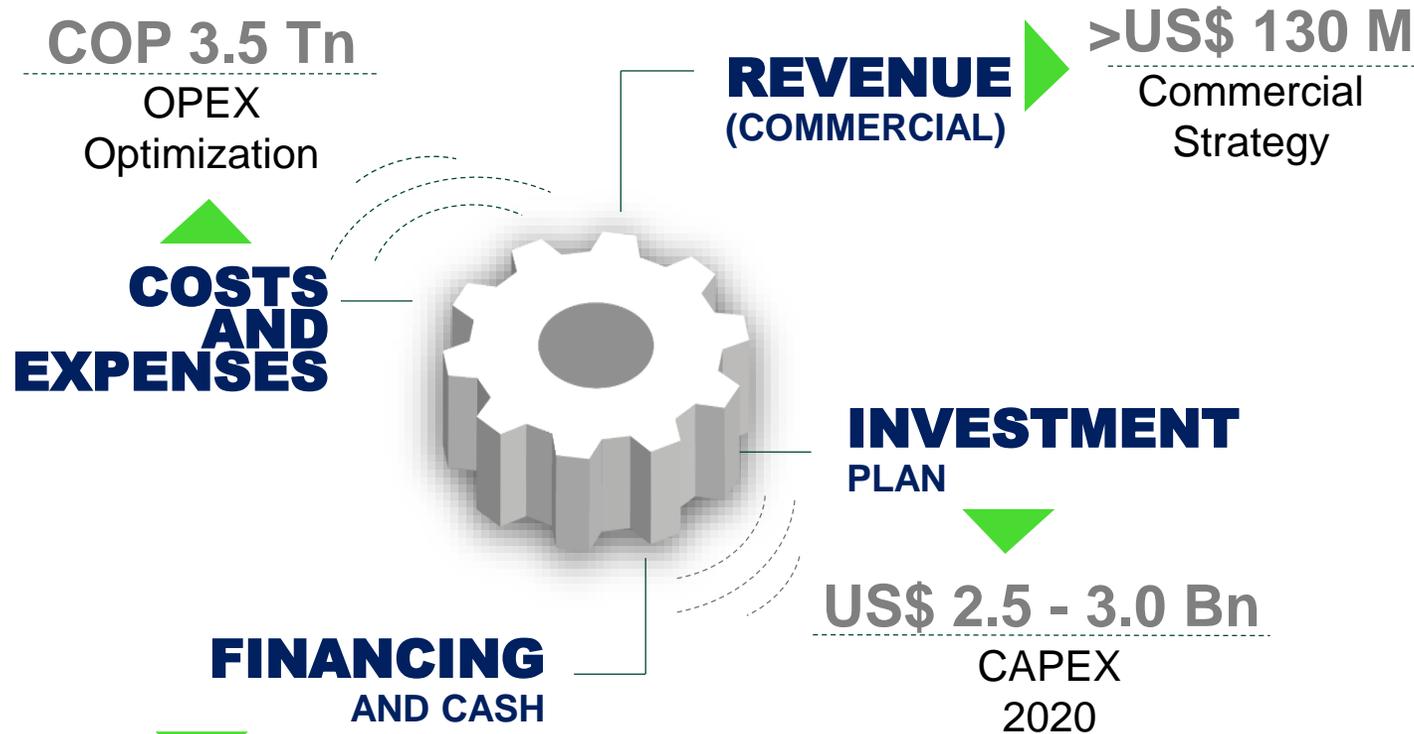
■ Brent - Peso — Brent ■ Exchange Rate

■ Historic Brent ■ Crudes ■ Products ■ Spread

■ Gasoline ■ Diesel ■ Jet



Facing this new challenge



 **We exceeded previously announced efficiency targets**



We maintain investments in strategic projects

-  **Enhanced Oil Recovery Technologies**
-  **Gas Opportunities**
-  **Digital Transformation**
-  **Renewable Energy**
-  **De-carbonization roadmap**
-  **Unconventional Integral Research Pilot Projects***

* In unconventional reservoirs

Creating value to society

13.7 US\$ B
Contributed in 2019

8.0
US\$ Bn

Republic of Colombia



Dividends
Taxes
Royalties

0.5
US\$ Bn

Shareholders



Dividends

0.3
US\$ Bn

Community*



Social & Environmental
Investment

0.9
US\$ Bn

Employees*



Salaries
Variable Compensation
Benefits**
Training

3.9
US\$ Bn

Suppliers*



Local
Procurement

US\$ 18 Mm allocated to respond to the pandemic in communities where we operate

*Ecopetrol S.A. figures. **Includes: Health and Safety, Education, Loans, Savings and Investments. Calculated with an average exchange rate for 2019 of 3,281 COP/US\$.



Corporate governance practices

BOARD OF DIRECTORS



Luis G. Echeverri Vélez
Independent Board Member

- +20 years of experience in international business, public policy, and public & private project finance
- Former Executive Director of the Inter-American Development Bank
- Chairman of the Bogota Chamber of Commerce, and board member of Teléfonos and Pragma
- B.A. in Law from University of Medellin and MSc in Agricultural Economics from Cornell



Sergio Restrepo Isaza
Independent Board Member

- Former Vice President of Capital Markets and Corporate Development at Bancolombia Group
- Former board member of Cementos Argos, Compañía Nacional de Chocolates, Conavi, SUAM, among others
- B.A. in Management from EAFIT University of Medellín, with an MBA from Stanford University



Luis Perdomo Maldonado
Independent Board Member

- +30 years of senior management experience in the Colombian banking industry, including President of Banco Colpatria and Scotiabank Group
- Founding member of the Colombian Institute of Corporate Governance
- B.A. in Management from the CESA School of Advanced Studies in Administration



Carlos Gustavo Cano Sanz
Independent Board Member

- Former President of the Colombian Agriculture Association (SAC), Founder and Director of Corporación Colombia Internacional (CCI), President of the Agrarian Fund, and President of the newspaper El Espectador
- Former Minister of Agriculture and Co-Director of Banco de la República
- Member of the Group on Earth Observations Global Water Sustainability (GEOGLOWS) in the United States



Hernando Ramírez Plazas
Independent Board Member

- Former Dean of the Faculty of Engineering at Universidad Surcolombiana, Principal, and Professor.
- BSc in Chemical Engineer and MSc in Public Health from Universidad Nacional de Colombia,



Esteban Piedrahita Uribe
Independent Board Member

- Former General Director of the National Planning Department, Advisor for the President, Senior Specialist for the Inter-American Development Bank, among others
- President of the Cali Chamber of Commerce and board member of Cementos Argos, among other corporates
- BSc in Economics from Harvard University



German Quintero Rojas
Board Member

- General Secretary of the Ministry of Finance and Public Credit
- Former Managing Director of Fogafin and President of the National Hydrocarbons Agency
- Board member at Fiduciaria La Previsora S.A., Central de Inversiones S.A. and Gecelca S.A. E.S.P
- B.A. in Law from Sergio Arboleda University and PhD candidate from San Pablo CEU University of Madrid



Juan E. Posada Echeverri
Independent Board Member

- Former Chairman of Avianca, Alianza Summa (Avianca-Aces-Sam) and Aces S.A.
- Currently serves as Executive Chairman of Tájimo Ltd., President of Direktio S.A.S., and board member of Grupo Odinsa S.A., among other corporates
- B.A. in Management from EAFIT University in Medellín, with an MBA from Pace University in New York



✓ Strong corporate governance practices

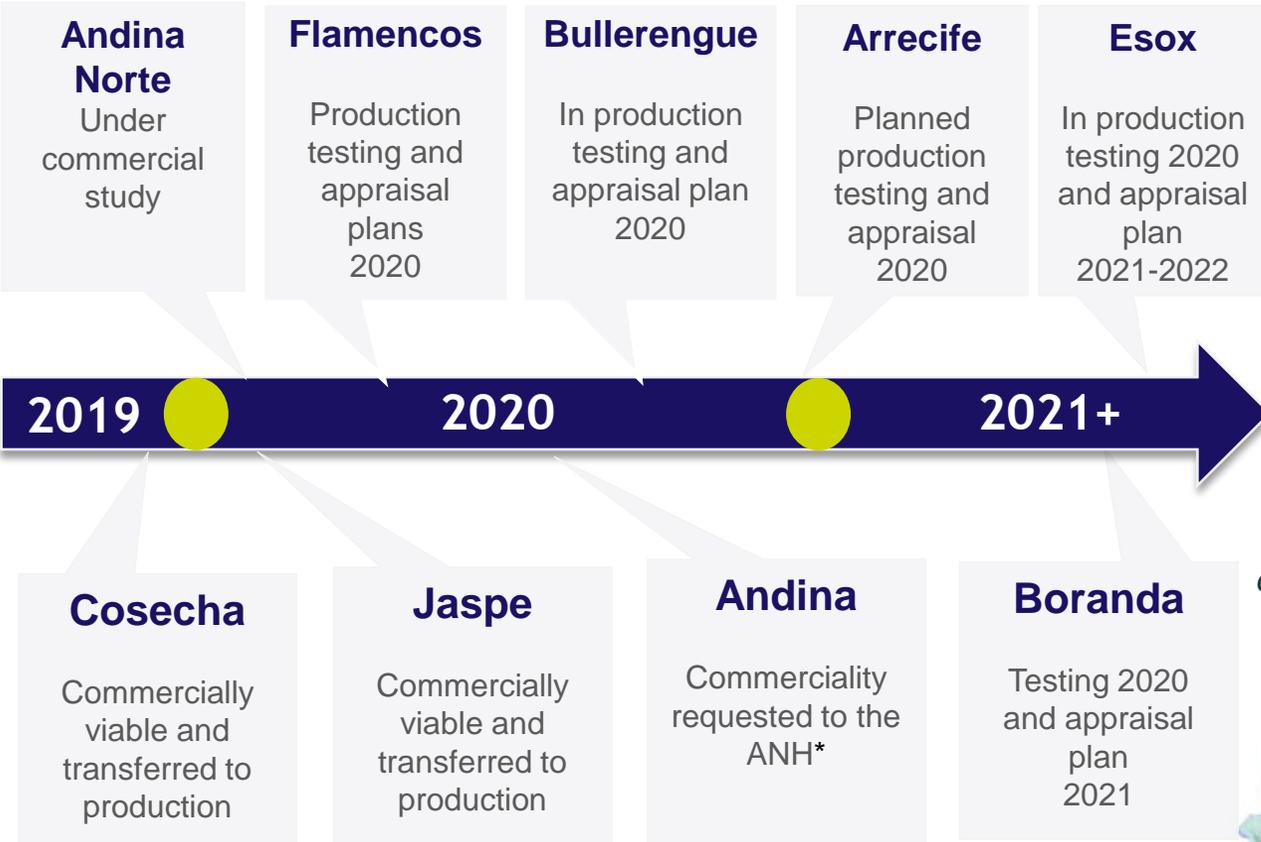
- Commitment to transparency
- Multiple venues to look for guidance or whistleblowing
- Robust AML standards to prevent money laundering and terrorism financing
- Increased independent directors: from 4 in 2008 to 8 in 2019
- Minority governance ensured through an elected board member
- No director with ministerial rank following OECD recommendations
- ✓ New corporate governance model underpins the execution of the business plan

Upstream

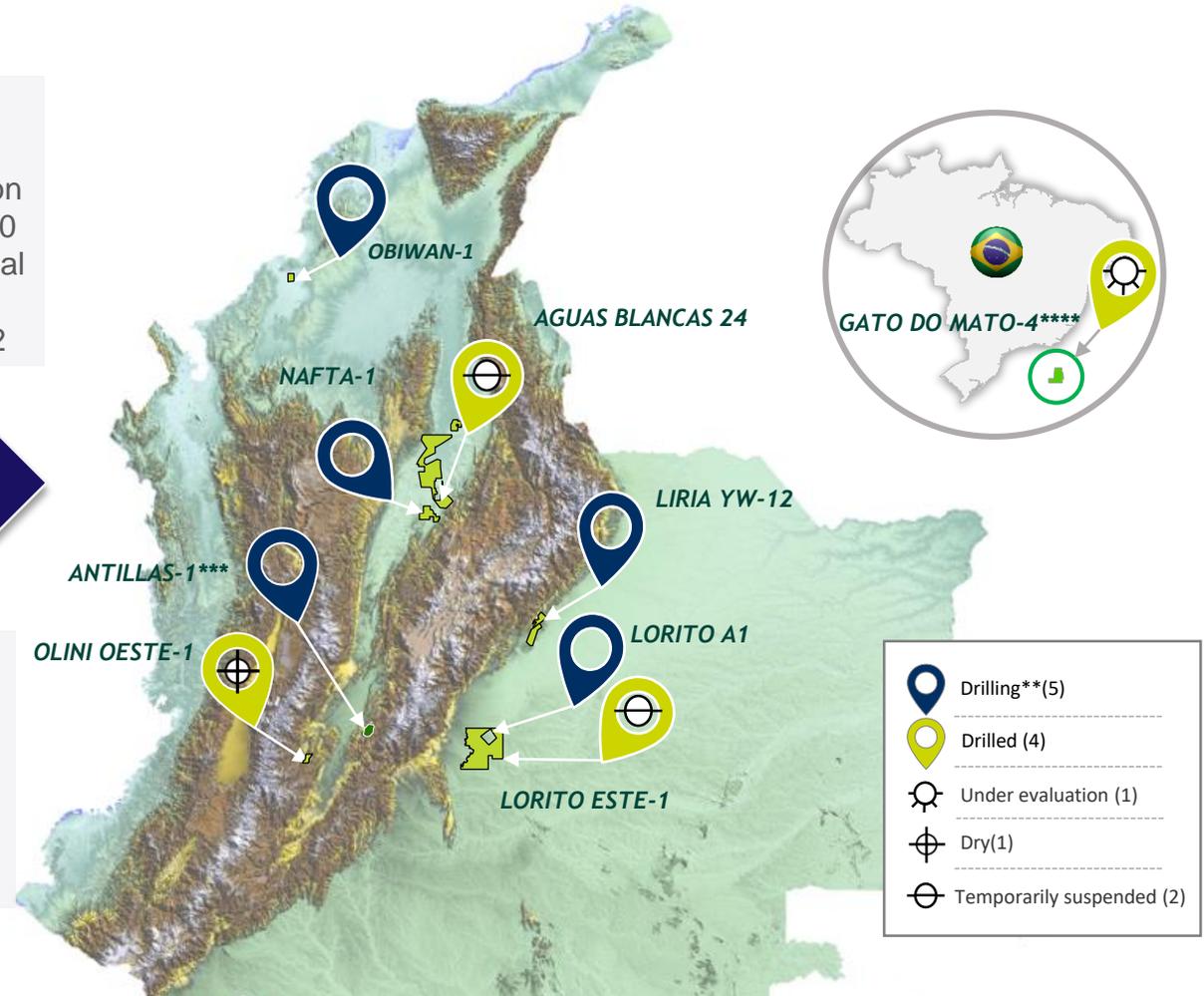


Progress in the incorporation of resources

MATURITY OF DISCOVERIES



EXPLORATORY ACTIVITY 1Q20



- Production in extensive tests 1Q20: 347 mboe (3,810 boed)
- Planned drilling of Saturno-1 well in 2020 (Santos basin - Brazil)
- Implementation of "**Digital Petrotechnical**" project

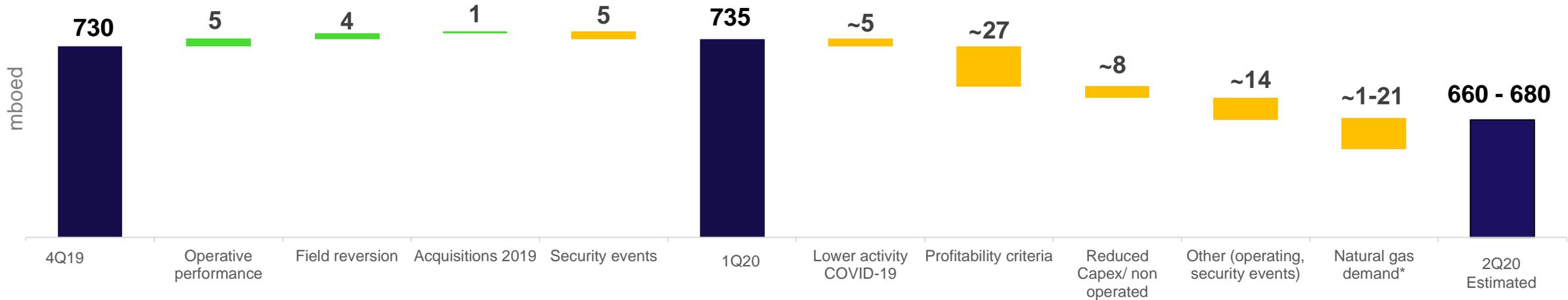
**Drilling suspended because of COVID-19

*** Well operated at risk-only by Perenco

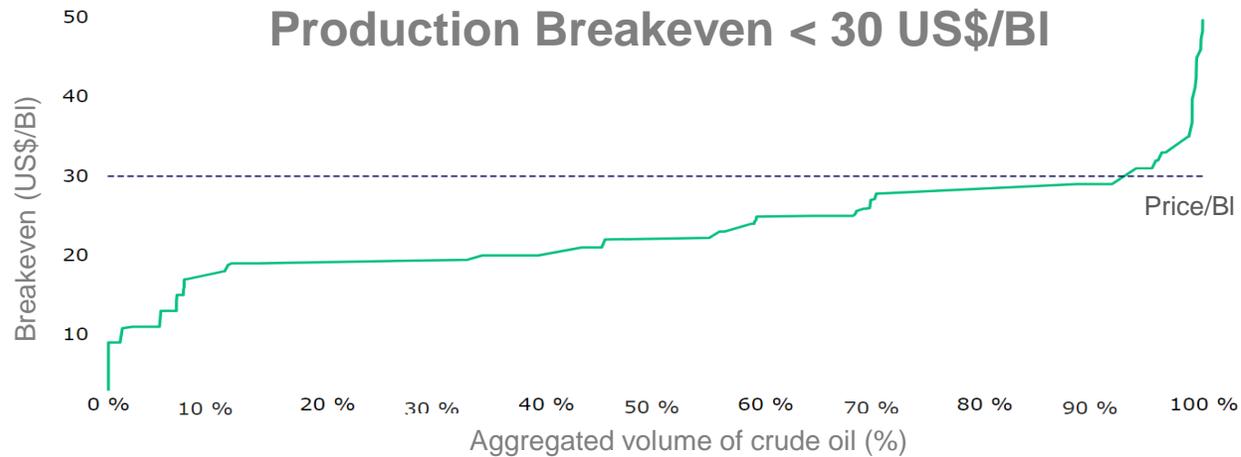
****Began drilling in Q1 20. Pending completion of entry procedures for ECP in the project



Focus on profitable production



Efficiency of Fields



MEASURES

- ✓ Review of transportation schemes
- ✓ Cost efficiency
- ✓ Reallocation of crude to refineries

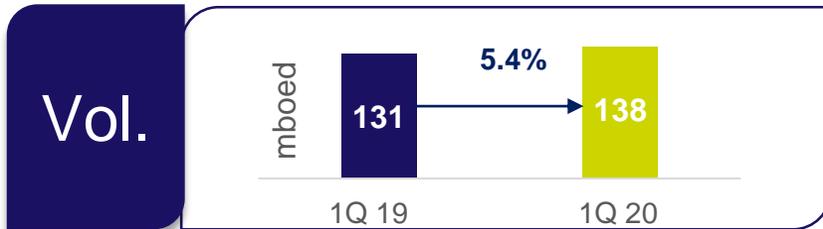
* Gas demand depending on the resumption of the economic activity in Colombia



Gas continues as strategic priority



\$ ~ 10% Upstream Income
Demand contracted at fixed prices



Lower self-consumption: due to lower throughput in refineries and closing of fields
Force Majeure

Demand Protection: sector measures to mitigate impact on customers
Materialize Upsides: commercial strategy to meet thermal power sector demand with surpluses



Strategic progress in gas agenda

Portfolio

Hocol receives from Chevron Chuchupa and Ballena fields in La Guajira

31
mboed

Total production potential

Integrated vision

Operational continuity assured in Invercolsa's integration process



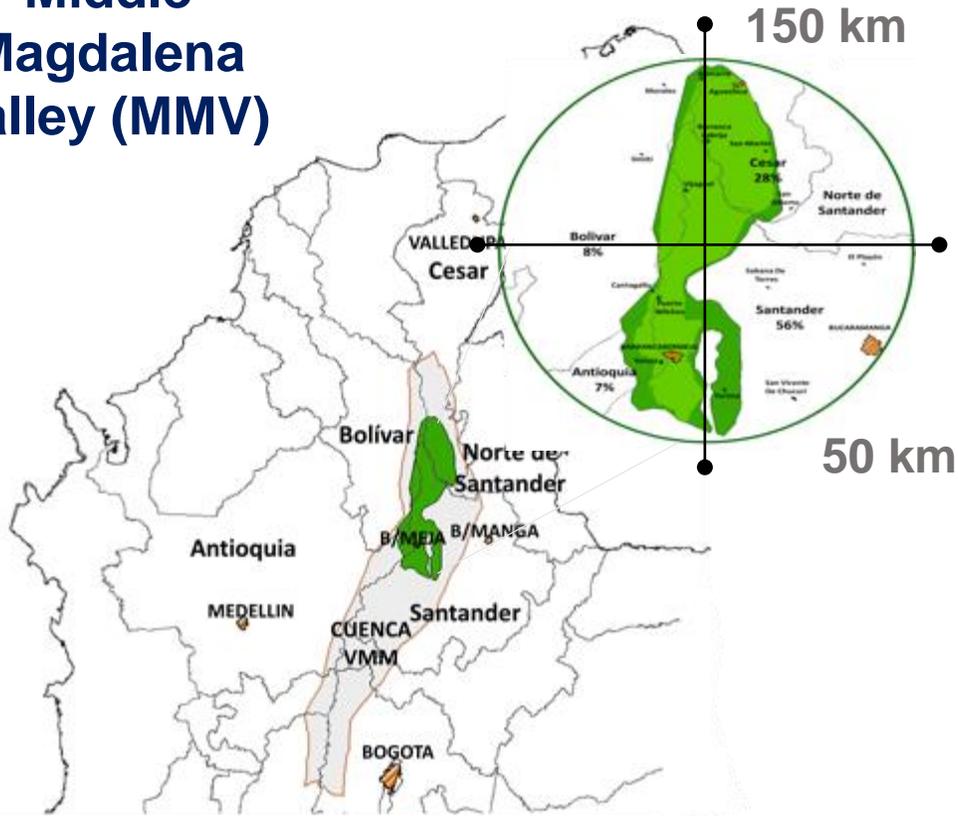
Investments

Gas investment plan is maintained



Unconventional potential in the Middle Magdalena

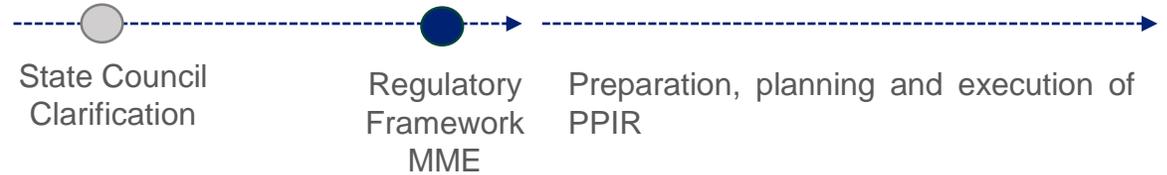
Middle Magdalena Valley (MMV)



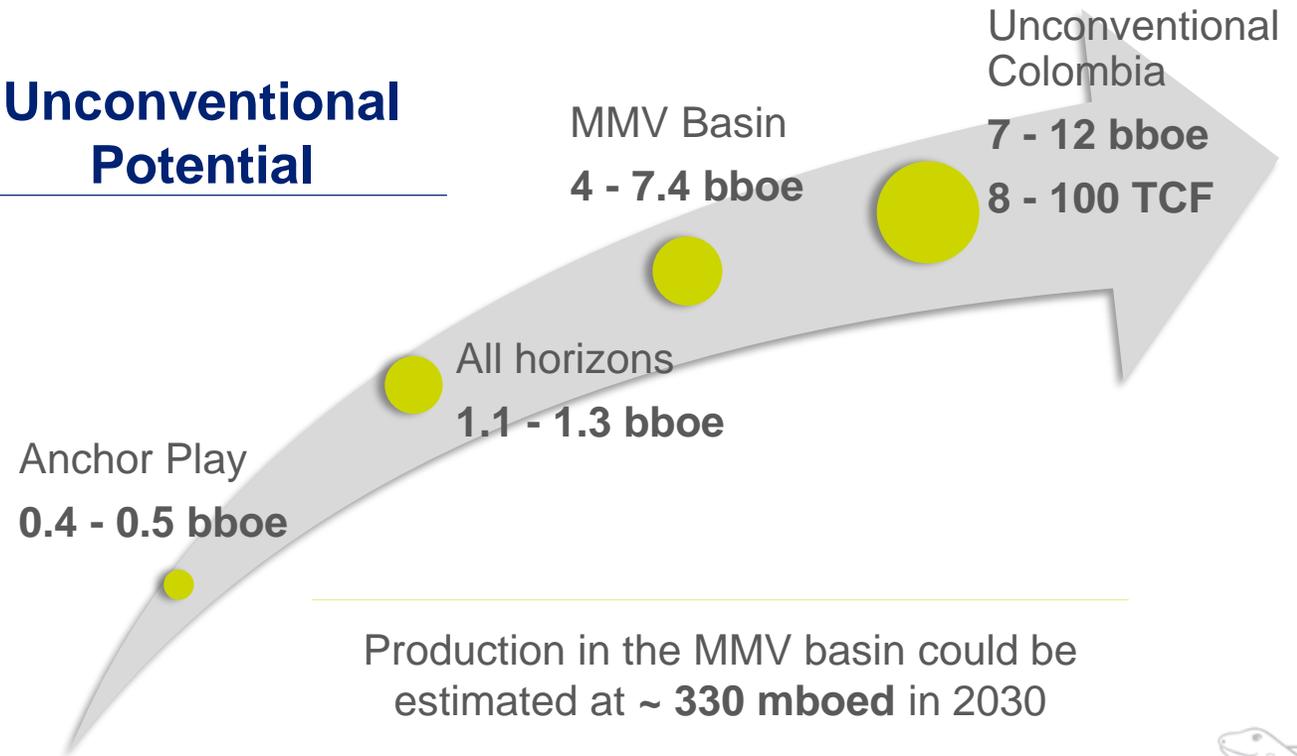
Prospective Area
1.3 m acres

Ecopetrol's Area
~730 k acres

Ecopetrol prepares for PPIR



Unconventional Potential



Production in the MMV basin could be estimated at ~ **330 mboed** in 2030

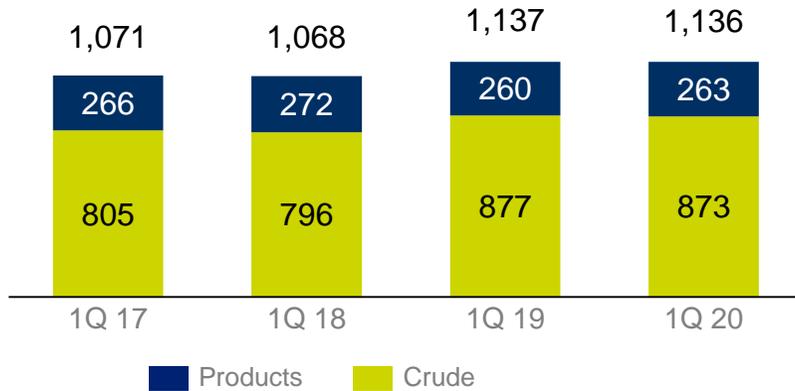




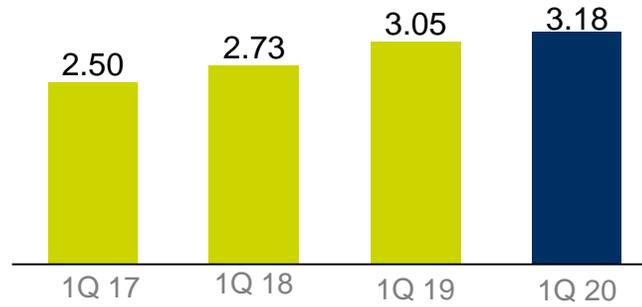
Midstream

Stability and flexibility amid a challenging environment

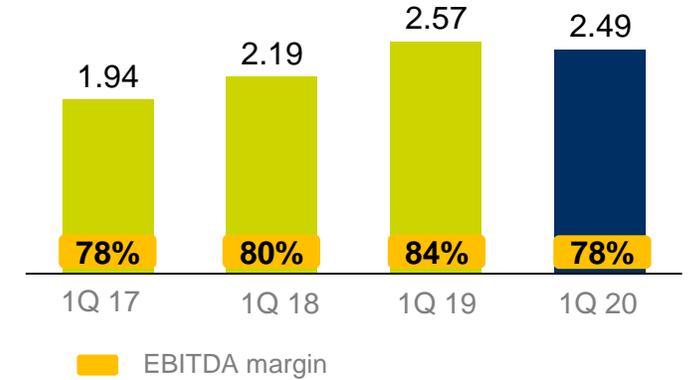
Transported volumes (mbd)



Revenue (COP Tn)



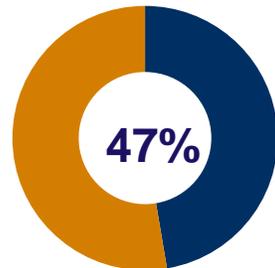
EBITDA (COP Tn)



2020 Milestones



Strategic storage in the transport network supports the continuity of E&P operations



47% share of Group's **EBITDA** in 1Q 20



Relief measures agreed upon **provide liquidity** to oil producers

Growth Opportunities

Refined Products

Support demand growth



Protect market share and increase reliability through strategic investments

Maximize synergies between segment companies



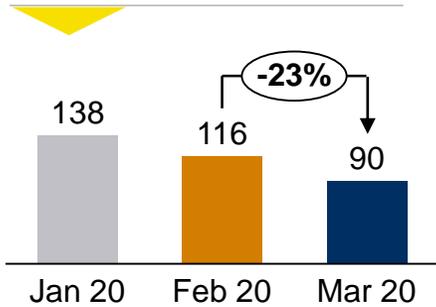


Downstream

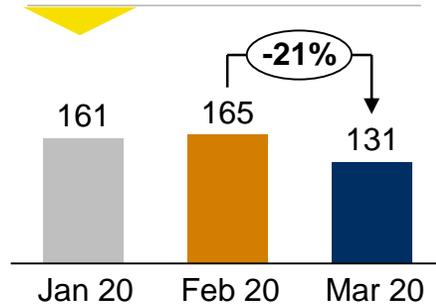
Adapting operations to demand

Sales Volume (MBD)

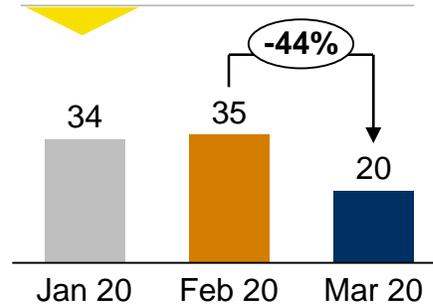
Gasoline



Diesel

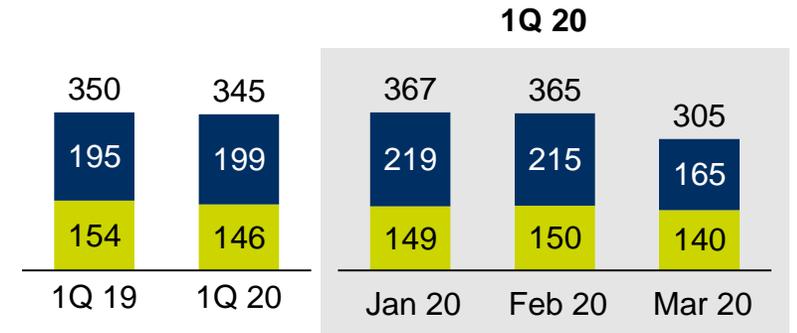


Jet

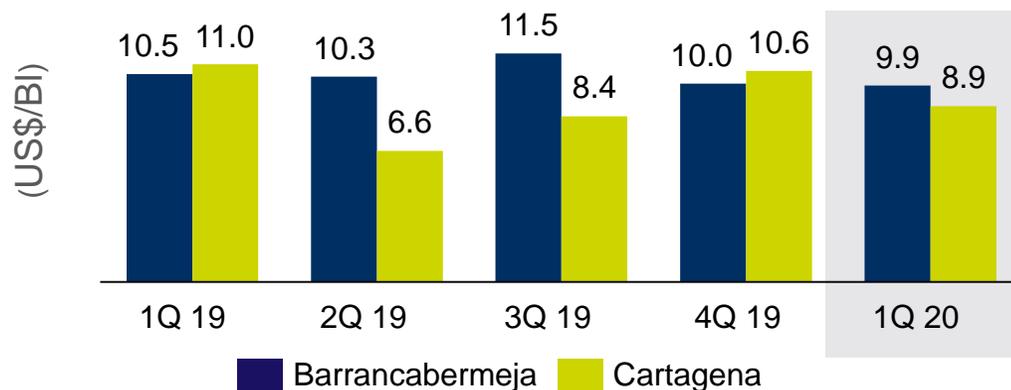


Throughput (MBD)

■ Barrancabermeja ■ Cartagena



Gross Refining Margin



Growth Opportunities

Barrancabermeja
Increase of conversion capacity



Cartagena
Asset optimization and higher value of gasoline components

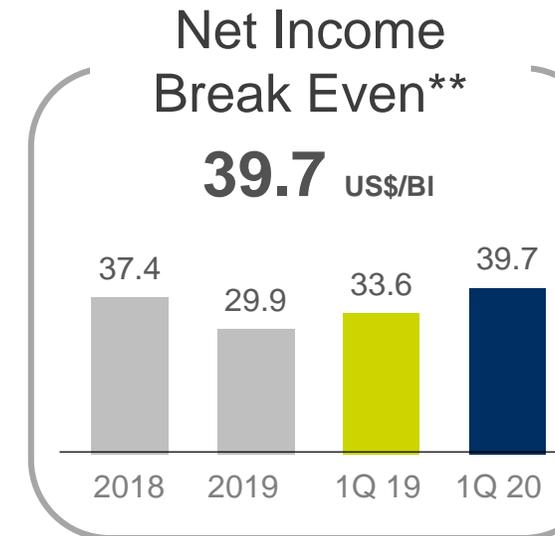
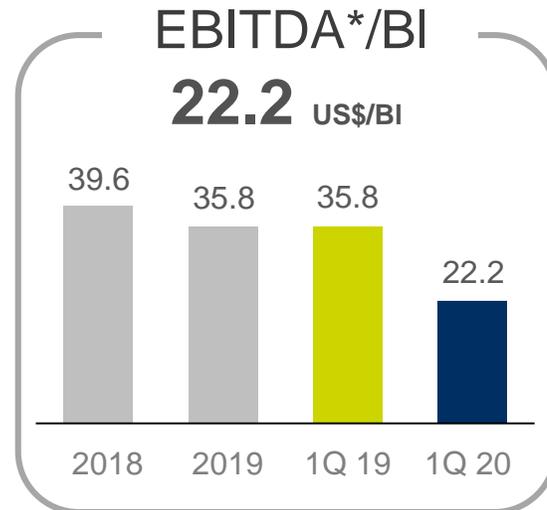
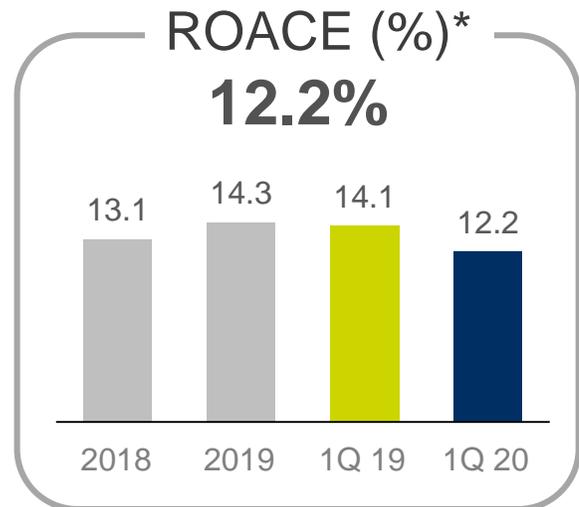
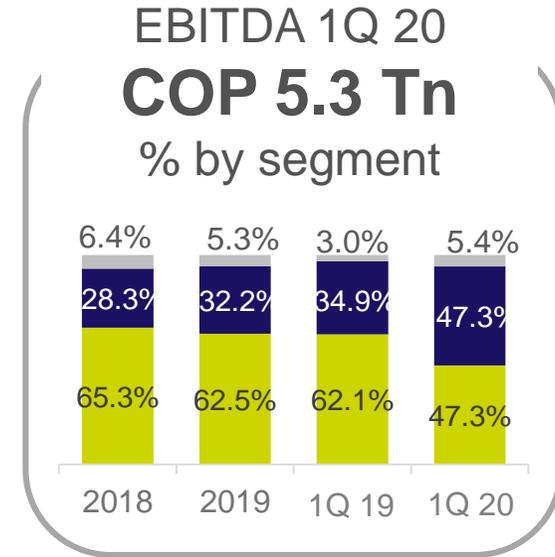
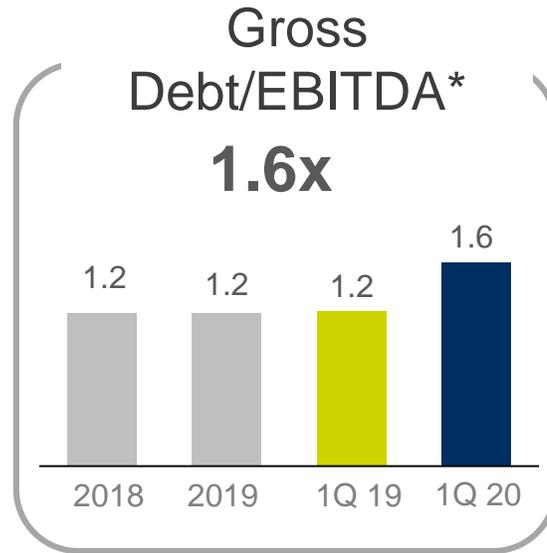
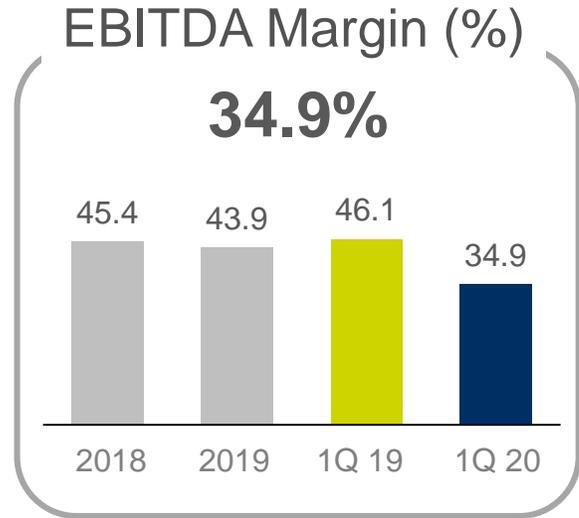
Maximize synergies between refineries



Financials

The image features a person's hand in a white shirt sleeve typing on a laptop keyboard. The laptop screen displays several financial charts, including a candlestick chart at the top with price points like 1121.43, 1126.87, 1119.06, 1123.77, 1119.27, 1117.32, and 1116.71. Below this is a line chart with a blue shaded area and orange lines, with values such as 1353.02, 1370.86, 1411.62, 1425.71, and 1457.11. A bar chart is visible in the middle, and another line chart is at the bottom with values like 61.98, 46.98, 31.98, and 16.98. The background is a blurred cityscape at night.

1Q20 KPI's reflect changing market conditions



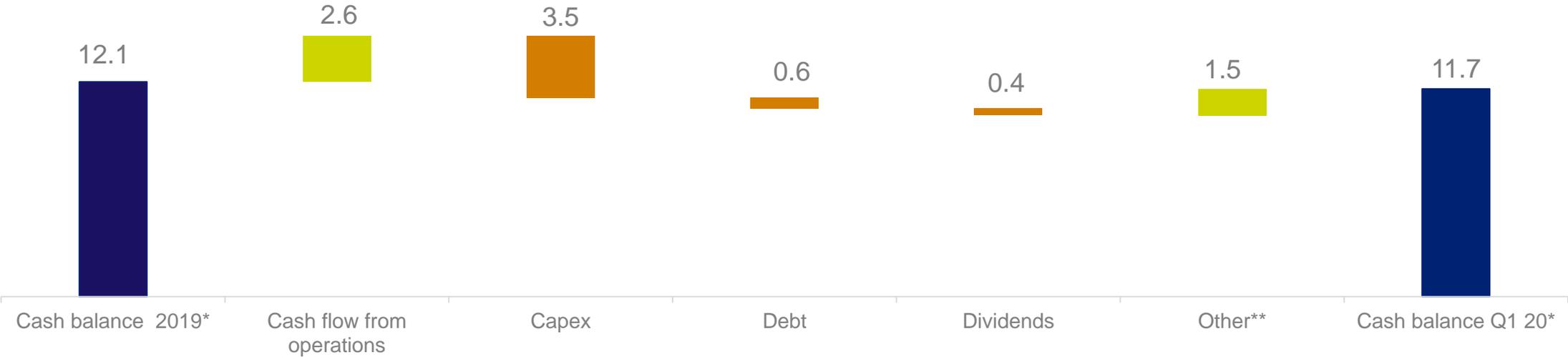
*Last 12 months

** Without impairments effect.



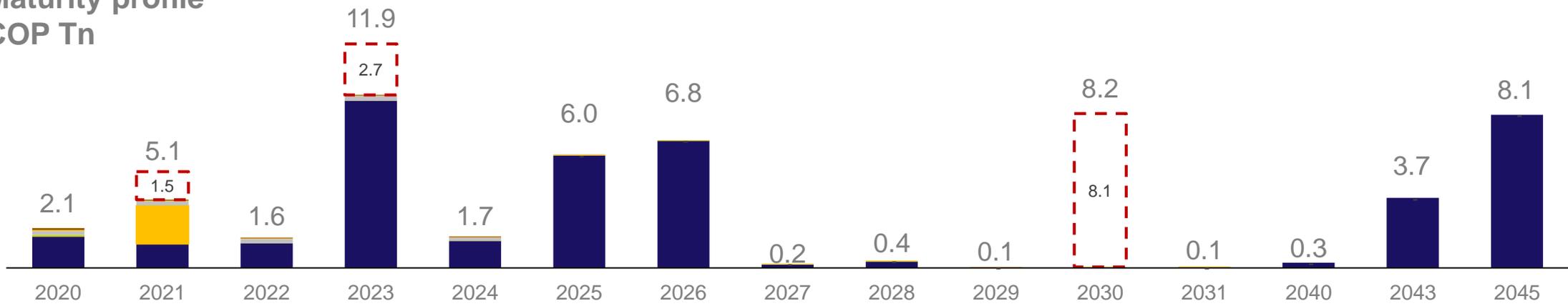
Robust cash position to face volatility

Cashflow COP Tn



■ Ecopetrol ■ Ocesa ■ ODL ■ Bicentenario ■ Invercolsa ■ Financing

Maturity profile COP Tn

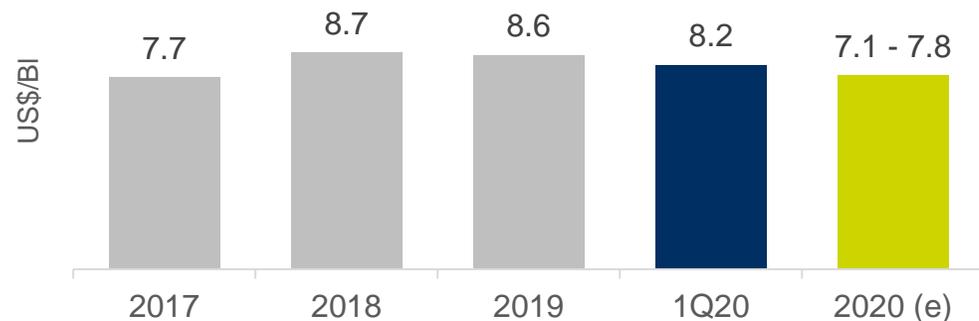


*Includes: Cash and Cash Equivalents and Other Current and Non-Current Financial Assets. ** Includes variation between periods of Other Current and Non-Current Financial Assets



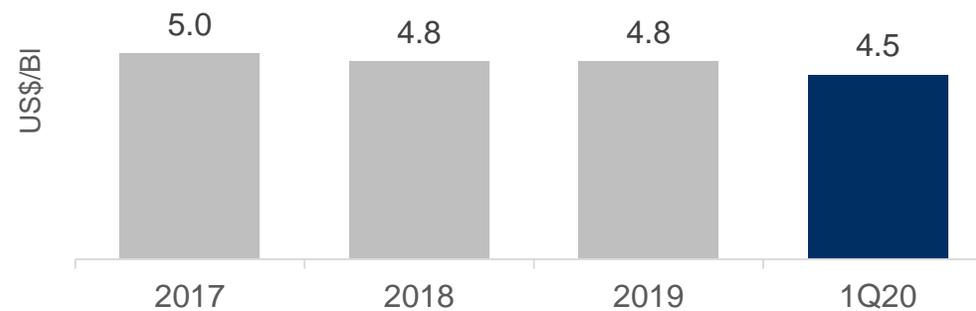
Continued focus on cost efficiency

Lifting Cost



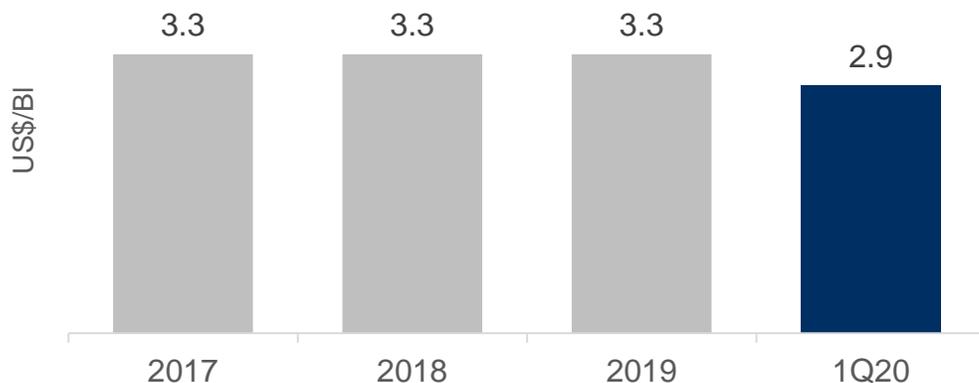
Efficiencies in operational processes (Energy, Subsurface and Dilution) and entry of new production facilities

Refining Cash Cost



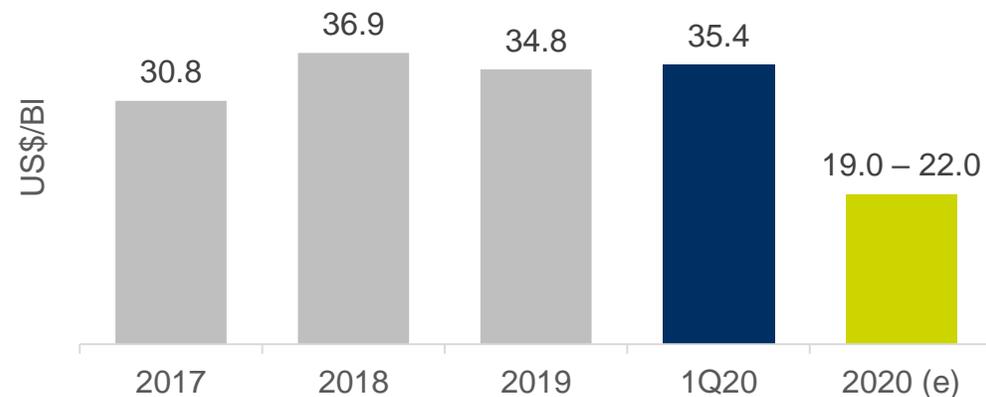
Operational efficiencies and capture of synergies between both refineries

Transported Barrel Cost



Costs and expenses optimization

Total Cost*



Following the premises of the business transformation plan and OPEX cuts

* Includes: Cost of Transport, Operational Expenses, Operational Costs. Calculated over Barrels Sold.



Short-term financial framework

@ 30 - 40 US\$/BI



CASH PROTECTION

Sustainable Production
@ <US\$ 30 /BI

OPEX Optimizations
COP 3.5 - 4.5 Tn

Debt
+US\$ 3.1 Bn

Dividends Payable 2H 2020
COP 5.5 Tn



CAPITAL DISCIPLINE

CAPEX
US\$ 2.5 – 3.0 Bn
Previous US\$ 4.5 - 5.5 Bn

Staggered Sanction
Price

US\$ 37 /BI
Average 2020 - 2022

US\$ 50 /BI
2023+



RESILIENCE / FLEXIBILITY

Cash Flow
Breakeven
~US\$ 26 /BI

Net Income
Breakeven
<US\$ 30 /BI



2020 Perspectives

@ 30 – 40 US\$/BI

	2Q 2020 (e)	2020 (e)
Production (mboed)	660 - 680	664 - 710
Transported Volume (mbd)	800 - 1,000	850 - 1,100
Crude Differential (US\$/BI)	- 9.0 / - 13.0	- 9.0 / - 11.0
Throughput (mbd)	215 - 240	285 - 320

Our priorities:

- ✓ Commitment to life
- ✓ Adapting to a new reality
- ✓ Cash protection and capital discipline
- ✓ Strategic imperatives remain



Social & Environmental
COP 300 Bn
in 2020



De-carbonization
1.8- 2.0 MtCO₂e
by 2022



Innovation and Technology
US\$92 Mn
in 2020



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Definitions

Acronym	Definition
bboe	Billion barrels of oil equivalent
Bl	Barrel
boed	Barrels of oil equivalent per day
CAGR	Compound Annual Growth Rate
CEOR	Chemical Enhanced Oil Recovery
CFFO	Cash Flow From Operations
EOR	Enhanced Oil Recovery
ESG	Environmental, Social and Governance
Gbtud	Giga BTU per day
GHG	Greenhouse Gas
HCIP	Hydrocarbons Initially In Place
JV	Joint Venture
KtCO ₂ e	Thousand Metric Tons of Carbon Dioxide equivalent
mbd	Thousand barrels per day
mboe	Thousand barrels of oil equivalent
mboed	Thousand barrels of oil equivalent per day
Mbtu	Million BTU
Mmboe	Million barrels of oil equivalent
mm ³	Million Cubic Meters
MtCO ₂ e	Million Metric Tons of Carbon Dioxide equivalent
MW	Megawatts
NFE	Near Field Exploration
PPIR	Pilot Projects for Integral Research
PPM	Parts Per Million
ROACE	Return on Average Capital Employed
RRR	Reserves Replacement Ratio
SOGI	Sexual Orientation and Gender Identity
TCF	Trillion Cubic Feet
TRIF	Total Recordable Case Frequency
US\$ B	Billion dollars
US\$ M	Million dollars

