



2nd

INVESTOR DAY 2020

2Q20 RESULTS AND 20-22 PLAN





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OPERATIONAL AND FINANCIAL RESULTS

Second Quarter 2020



OUR SPEAKERS



Felipe Bayón
CEO



Jaime Caballero Uribe
CFO

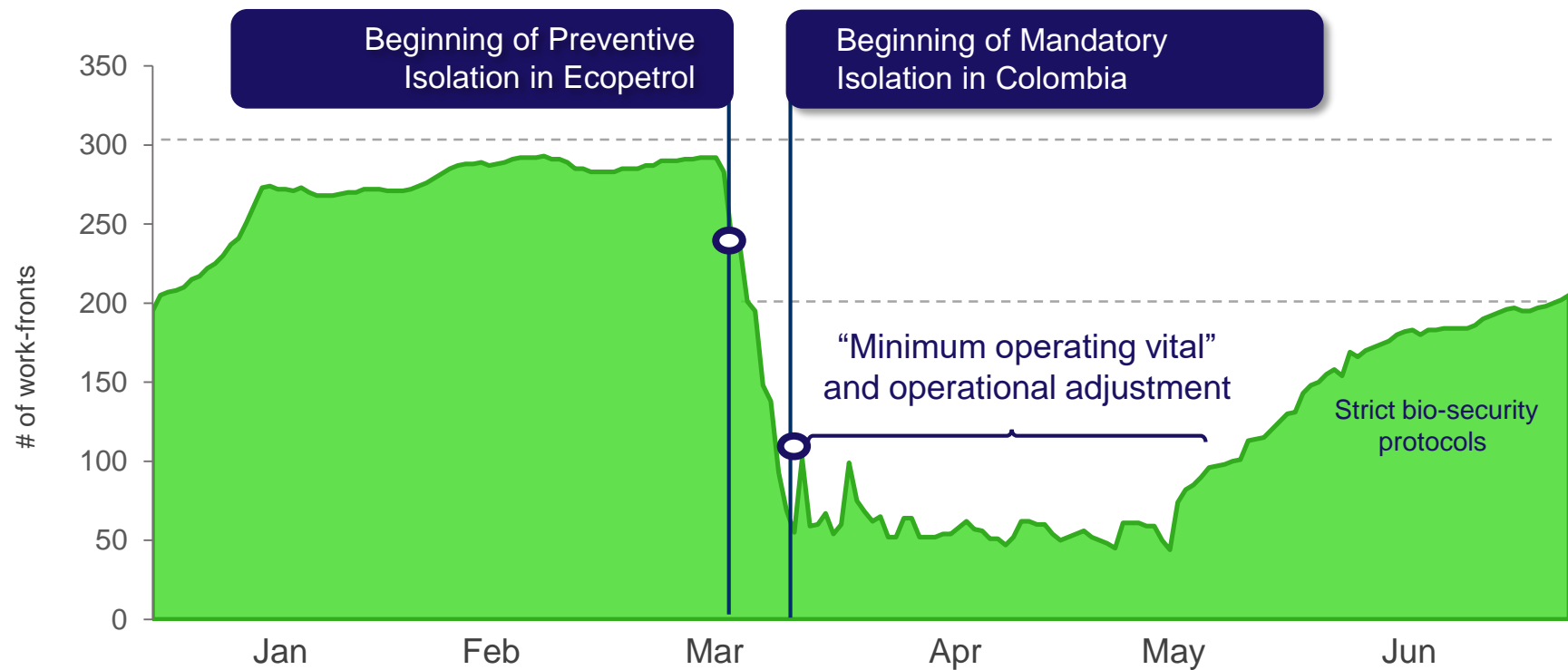


Alberto Consuegra
COO

Committed to life and business continuity

Gradual increase in operating activities

of work-fronts in worksites*



SOCIAL INVESTMENT APPROVED
COP \$88 B

- Humanitarian aid
- Healthcare system
- Social aid to vulnerable population
- Protective equipment donations

DIGITAL TRANSFORMATION



~ 9,000

Employees with secure digital connectivity



+1,000

Average daily virtual meetings



+5,000

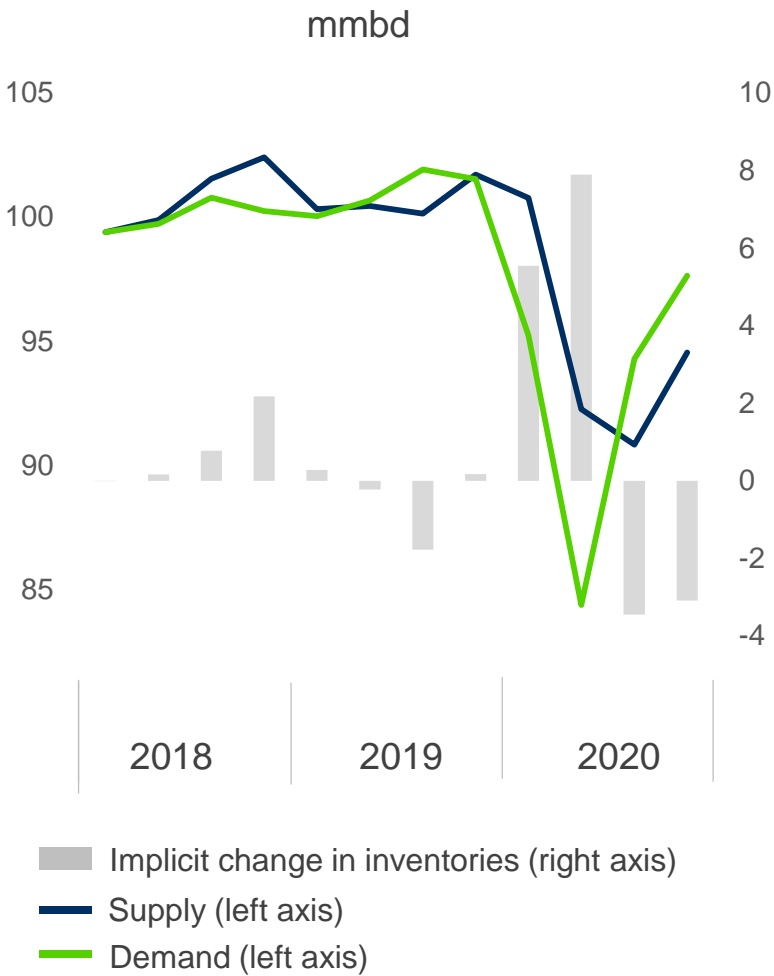
Average daily recurring connections

* Include Ecopetrol S.A (Upstream and Downstream)

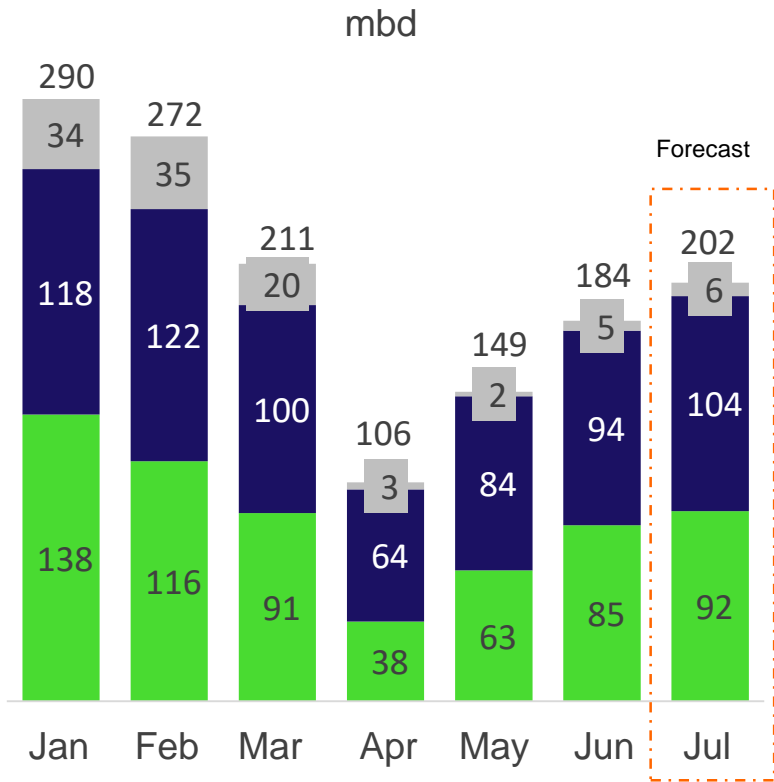


Unprecedented contraction with gradual recovery

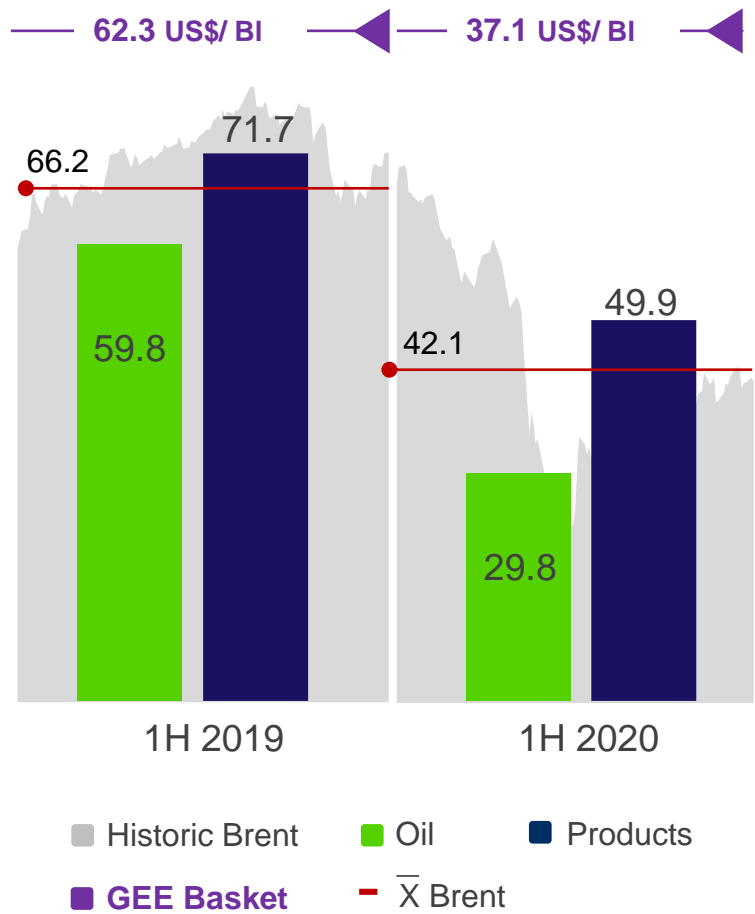
GLOBAL OIL SUPPLY AND DEMAND*



DOMESTIC FUELS DEMAND**



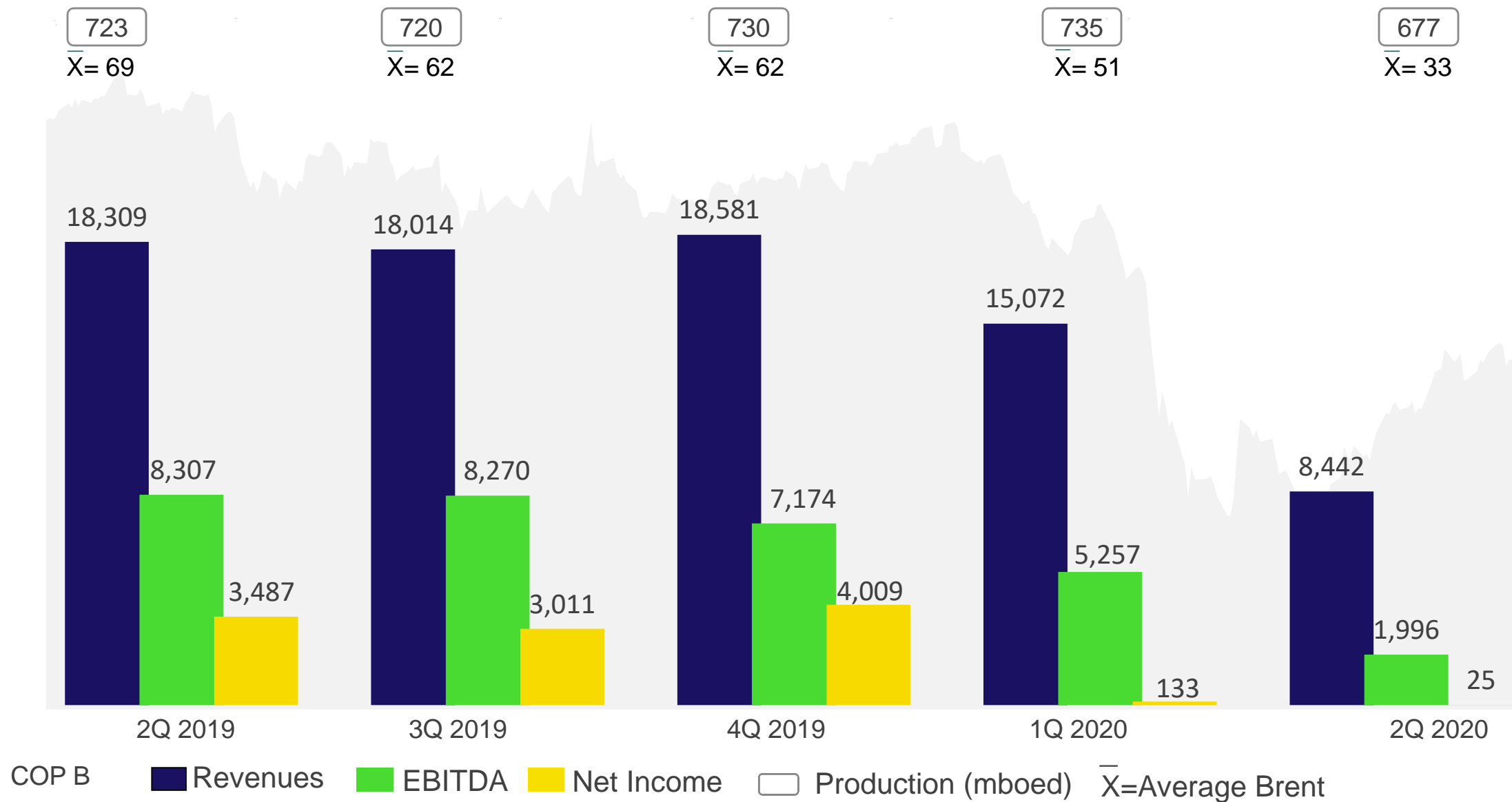
BASKET PRICE US\$/BL ***



* Source: U.S. Energy Information Administration. July 2020. ** Ecopetrol Group national fuel sales as of June 30, 2020.***Ecopetrol calculations



Results impacted by market conditions



Operating milestones

Exploration

Colombia

- ✓ Merecumbé-1 gas well discovery* (Dep. Atlántico)

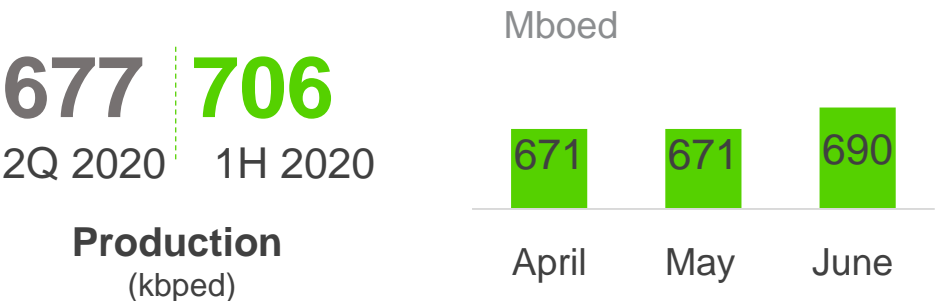


International

- ✓ Ecopetrol's entry in Gato do Mato discovery formalized



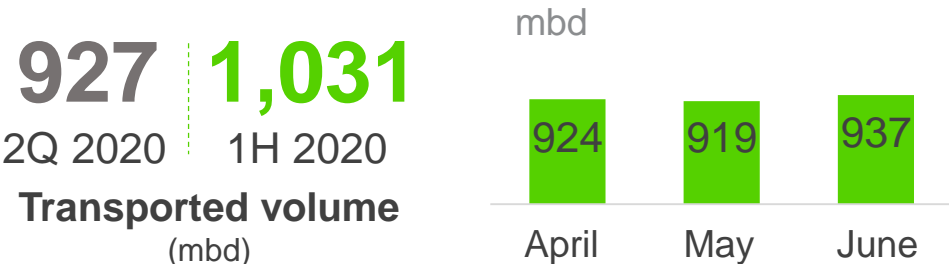
Production



- ✓ Hocol's operation of Guajira asset (43%)**

- ✓ Profitable production at <30 US\$/BI

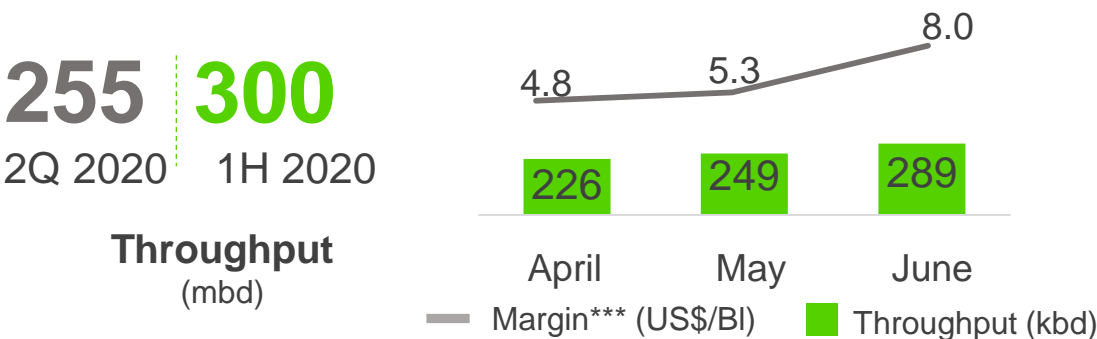
Midstream



- ✓ Relief to producers to incentivize demand

- ✓ Stable volumes

Downstream



- ✓ Operational continuity with minimum vital

* Well drilling completed in July 2020. **43% Hocol, 57% Ecopetrol. *** Refining gross margin

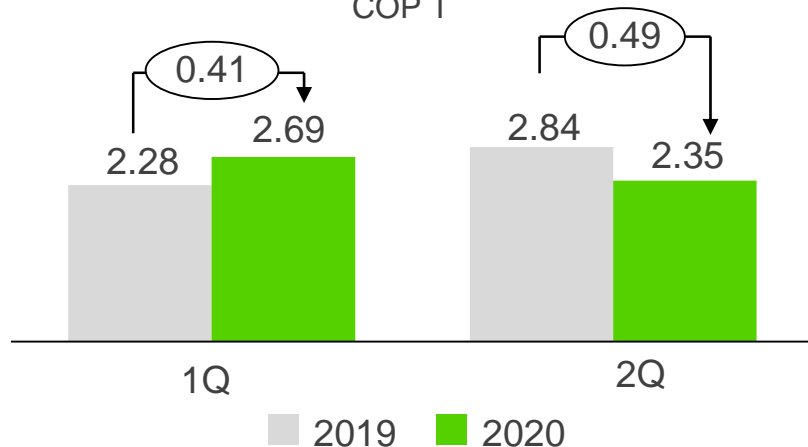


Interventions reflected in cost trend change

Group operating costs and expenses*

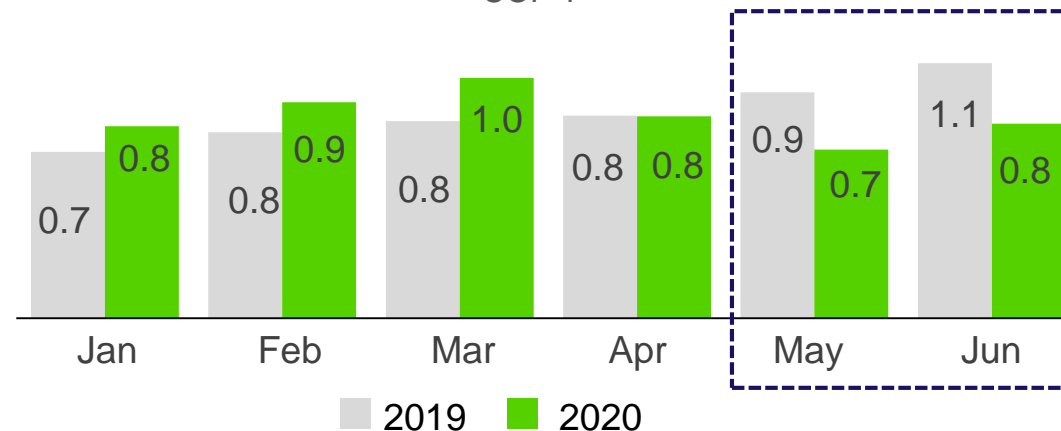
Quarterly trend

COP T



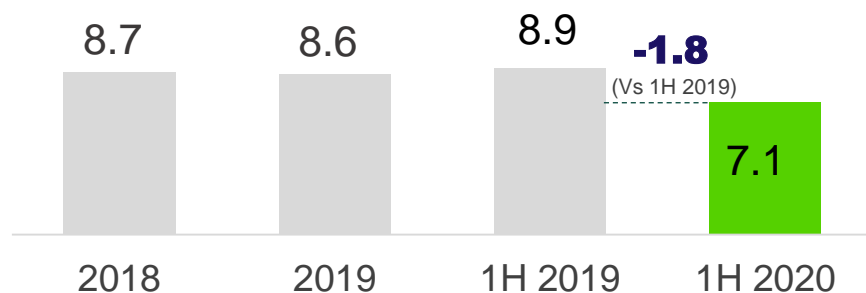
Monthly trend

COP T



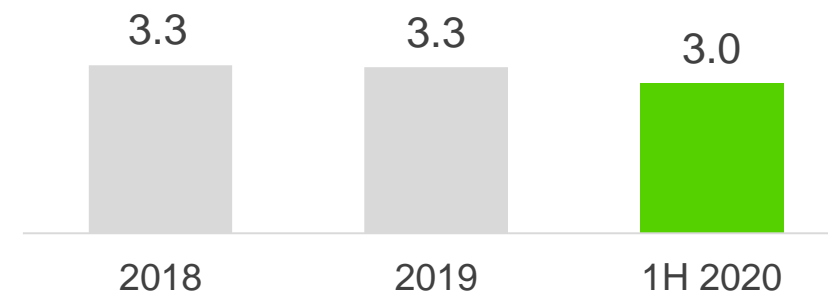
Lifting cost

(US\$/BI)



Transportation cost per barrel

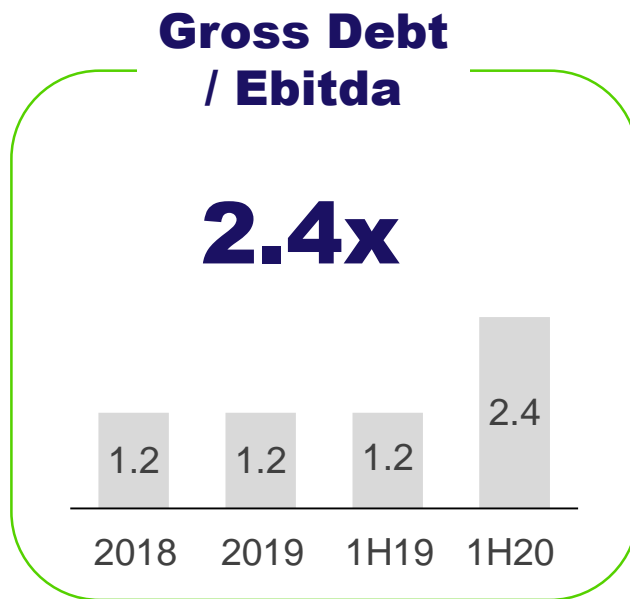
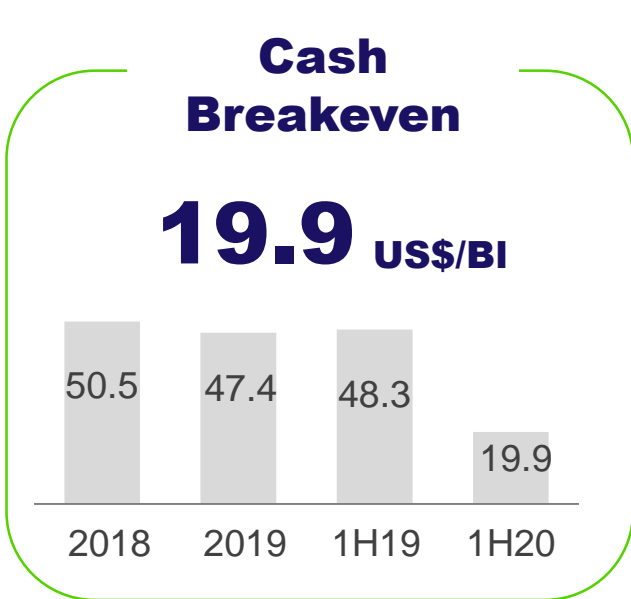
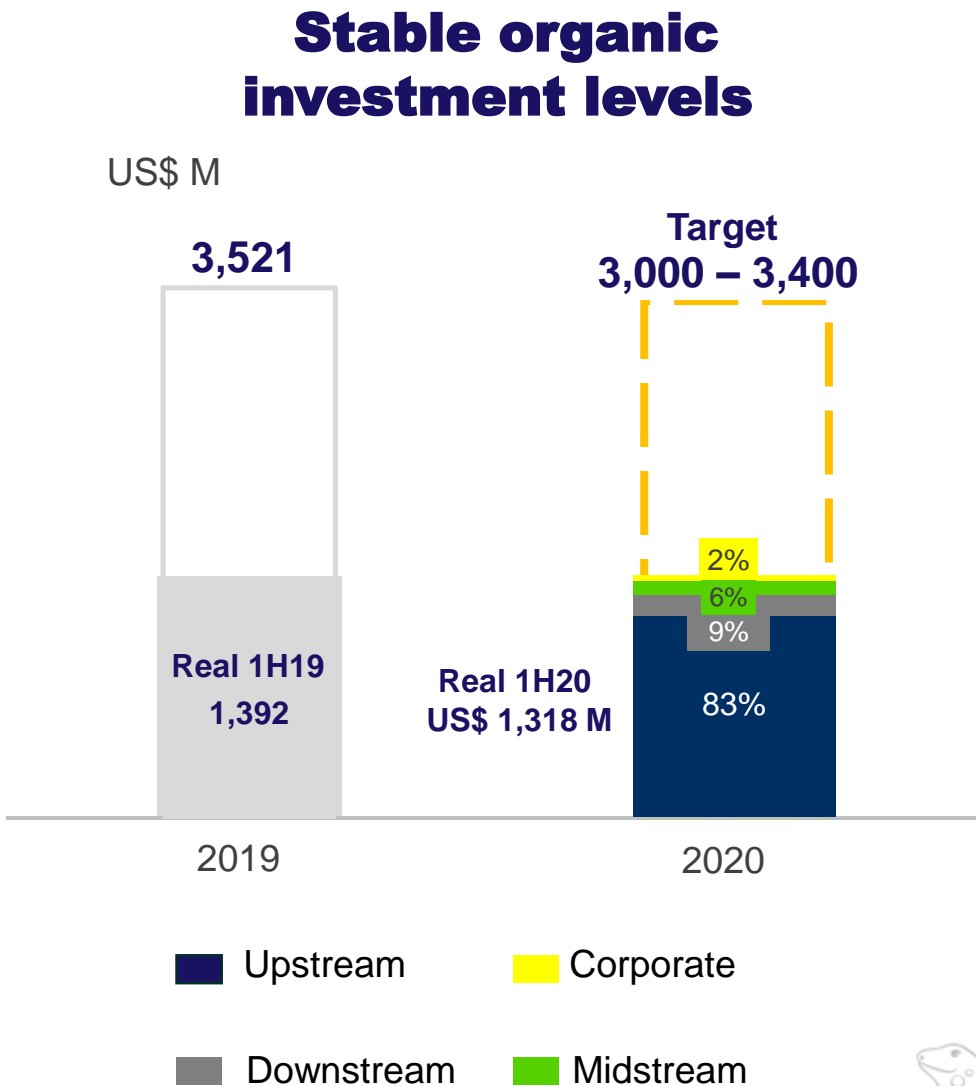
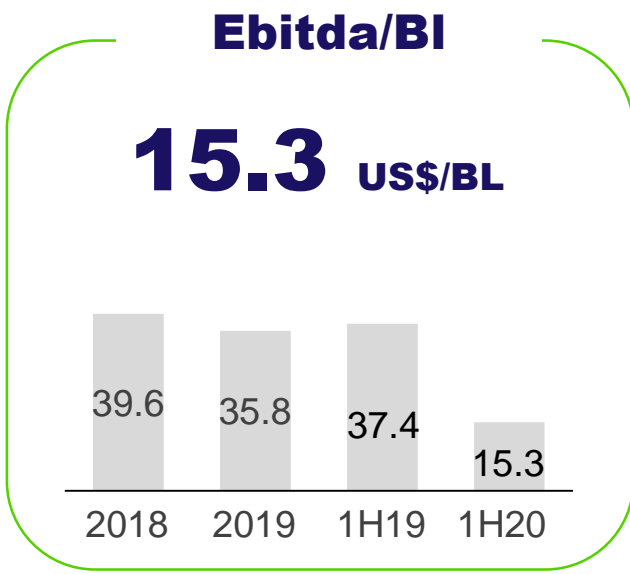
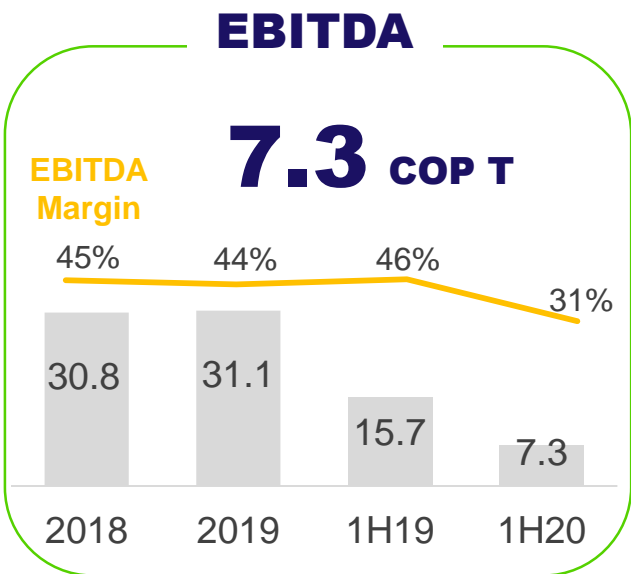
(US\$/BI)



*Operating costs and expenses excluding depreciation, amortization, taxes, labor costs, purchases and imports of crude oil and products

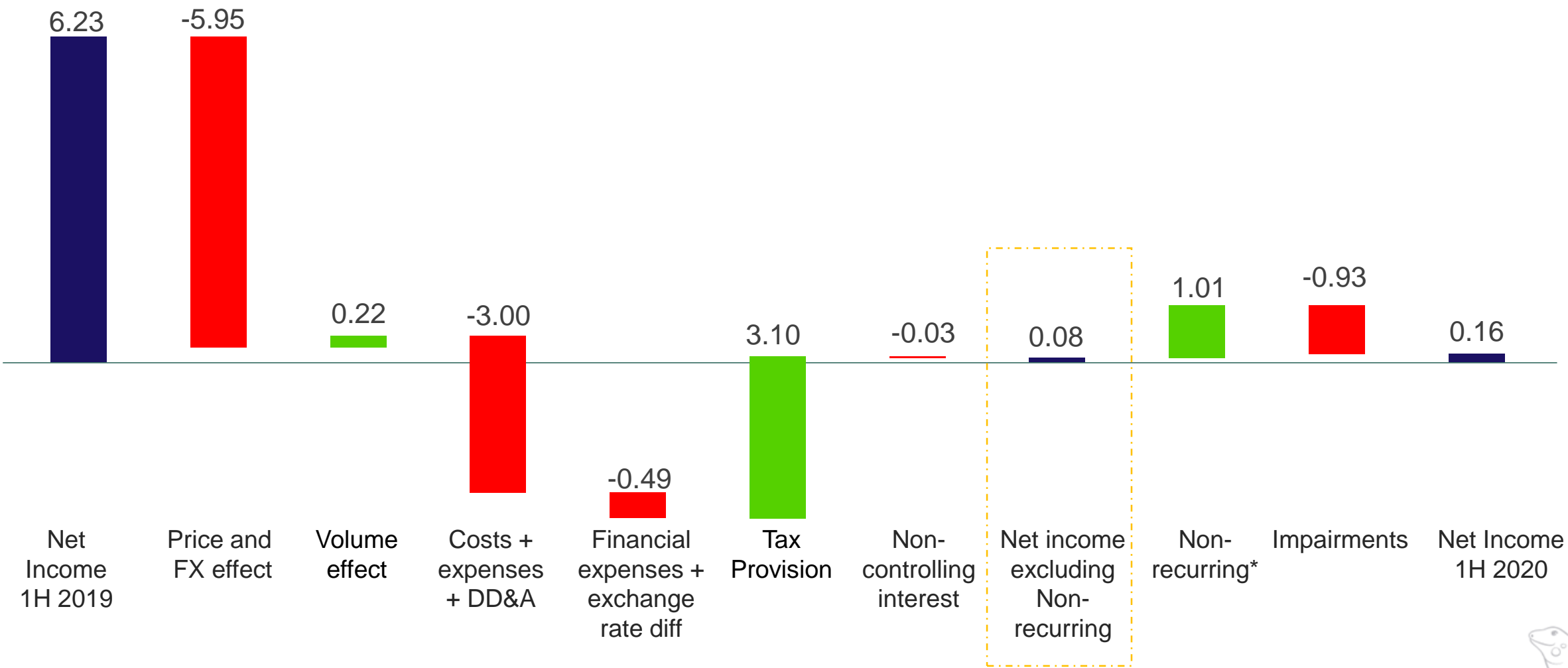


Financial metrics adjusted to current juncture



Positive net income despite worst conditions on record

COP T
(Variation between periods)



* Non-recurring after taxes includes: Guajira asset (COP + 1,144 B), Bioenergy (COP + 56 B), Retirement Plan (COP-117 B) and Covid 19 humanitarian aid (COP-74 B)



BUSINESS PLAN UPDATE

2020 – 2022



COOPERemos

Plan responds to crisis and protects pillars of 2020+ Strategy



RESERVES AND PRODUCTION GROWTH

- ✓ **Existing Fields:** enhanced recovery technology and focus in opportunities that generate the most value
- ✓ **Exploration in Colombia:** drilling of +30 wells during 2020-2022
- ✓ **Unconventional:** PPII* in the MMV** program is ongoing; optimized Permian development plan
- ✓ **International:** investments in development of areas with high potential (Brazil and Permian)



PROGRESS IN ENERGY TRANSITION

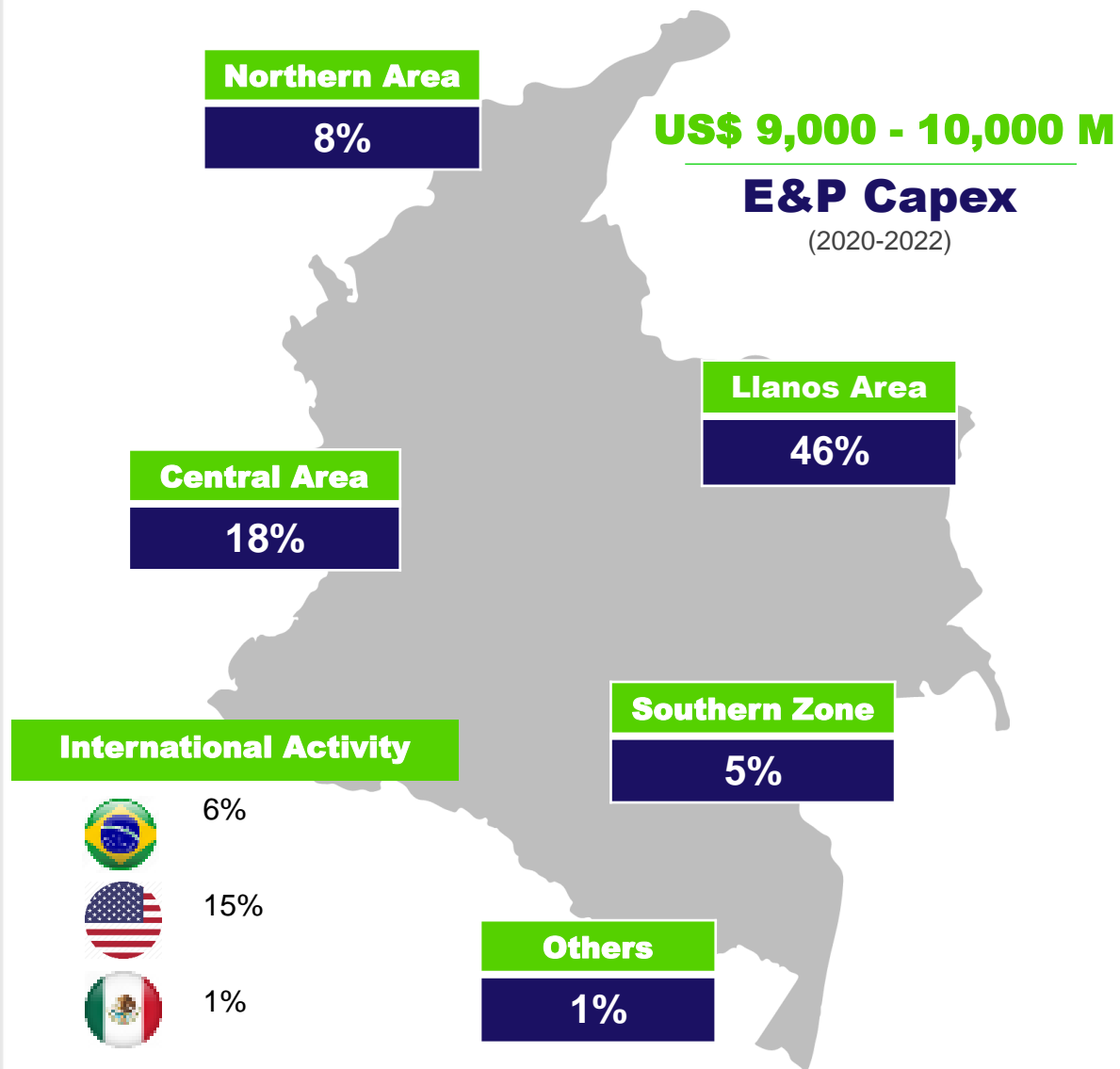
- ✓ **Gas:** investments in Piedemonte, Caribbean Offshore and existing fields
- ✓ **Energy efficiency**, decarbonization and renewable energies





Upstream

Upstream investments focused on sustainability



Exploratory wells
(2020-2022)

+30

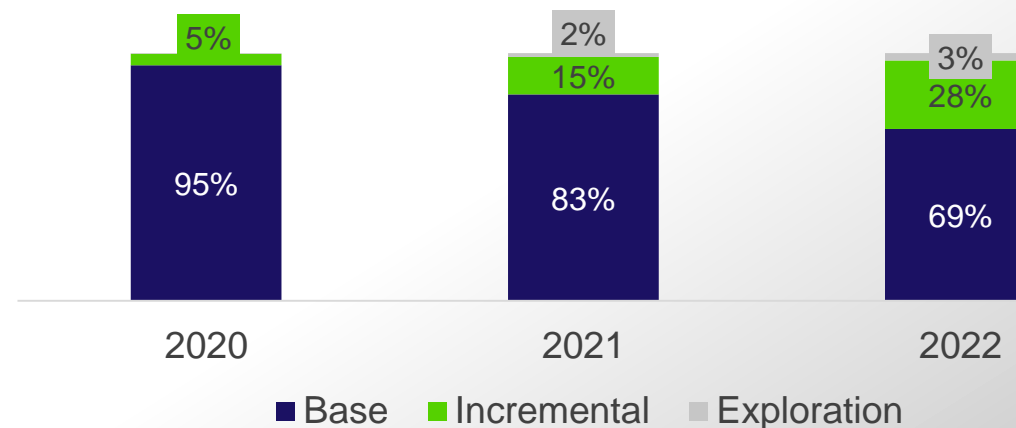
Resources to delimit
(2020-2022)
mmboe

+400

PRODUCTION

700-720 mboed
(2020-2022)

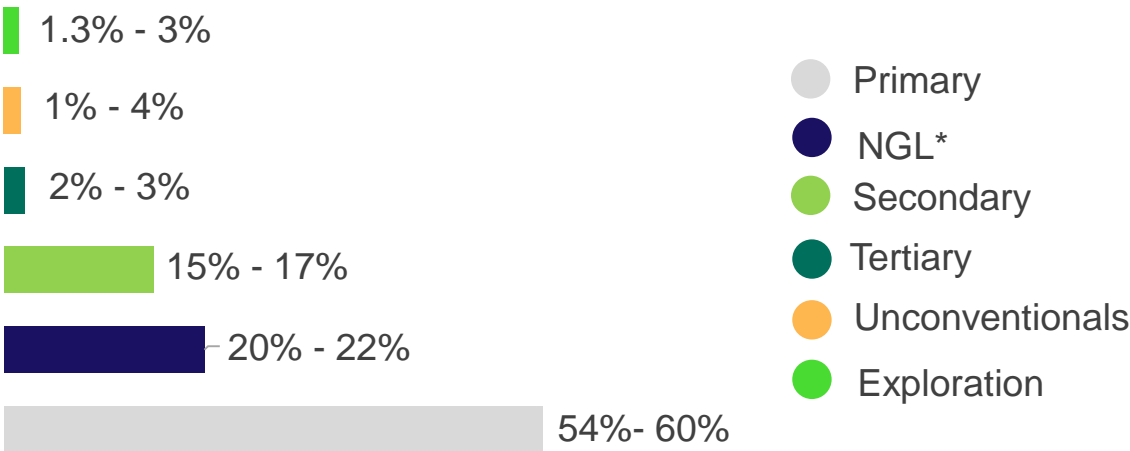
Base vs incremental production %



Profitable production and reserves protection

FOCUS ON VALUE AND OPTIONALITY

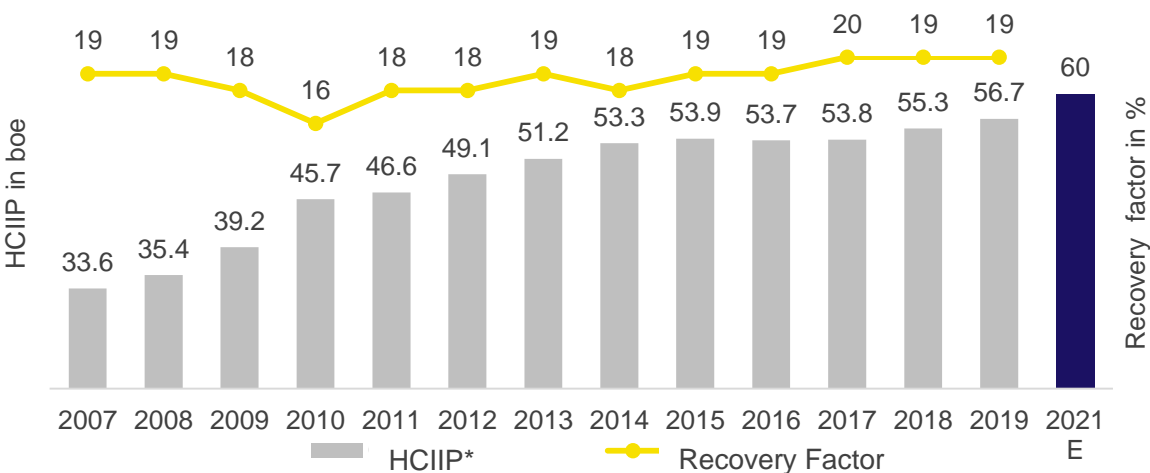
(%) Percentage share in production volumes 2020-2022



*Includes NGL production by secondary recovery

RESERVES POTENTIAL UNCHANGED

**HCIIP and Recovery Factor - Ecopetrol S.A.-



**HCIIP: Hydrocarbons Initially In Place

MAIN ASSETS
CONTRIBUTING TO RESERVES ADDITION:



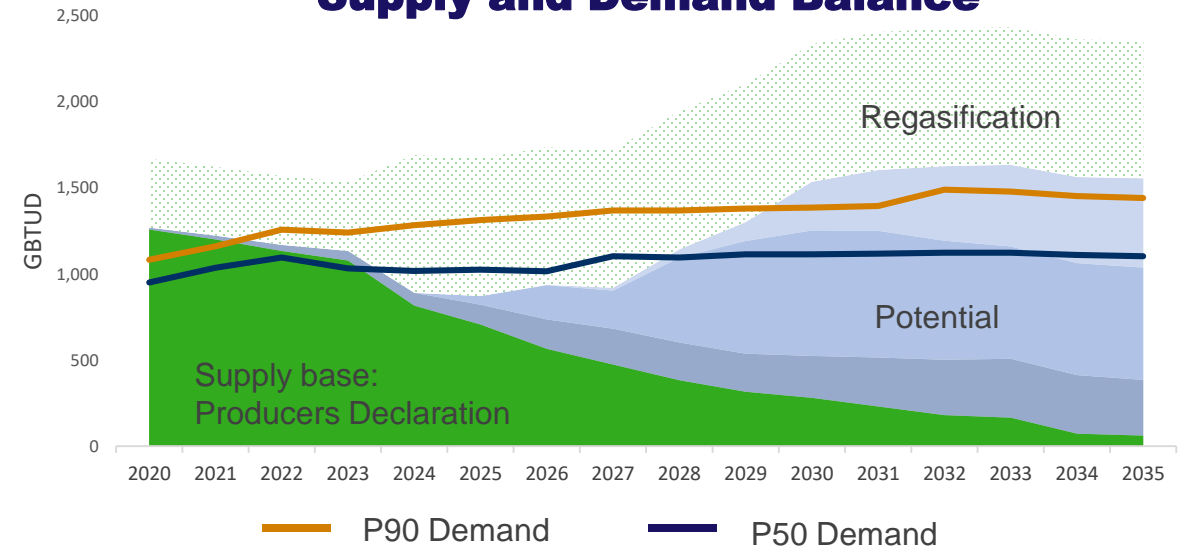
- ➔ Tren Piedemonte
- ➔ Water injection in Castilla, Chichimene, Apiay, Llanito and Yariguí
- ➔ Near Fields
- ➔ Gato do Mato and Permian

Gas is a strategic priority

FOCUS:

- Development of Piedemonte
- Strengthening of Guajira assets
- Development of Offshore Colombian Caribbean
- Time to Market

Supply and Demand Balance*



INVESTMENTS

US\$
780-870 M
2020 - 2022

- Piedemonte (Casanare, Arauca and Boyacá)
- Continental Caribbean Coast (Atlántico, Guajira and Sucre)
- Colombia Offshore

EBITDA margin

53%
2 Q 2 0 2 0

Gas Prices

Colombia
4.4**
US/MBTU

2 0 2 0 - 2 0 2 2

Henry Hub*** @ Cartagena
1.8 - 3.1 **3.5- 7.0**

*Source: MME (Gas Production Statements 2020), UPME (Regasification), Ecopetrol's estimates (Potential)

** Average natural gas price in Colombia as reported by the Market Manager *** Source: IHS Agency

Progress in unconventional reservoirs

P P I I s *

MID - MAGDALENA VALLEY (VMM)

Prospect Area
1.3 m acres

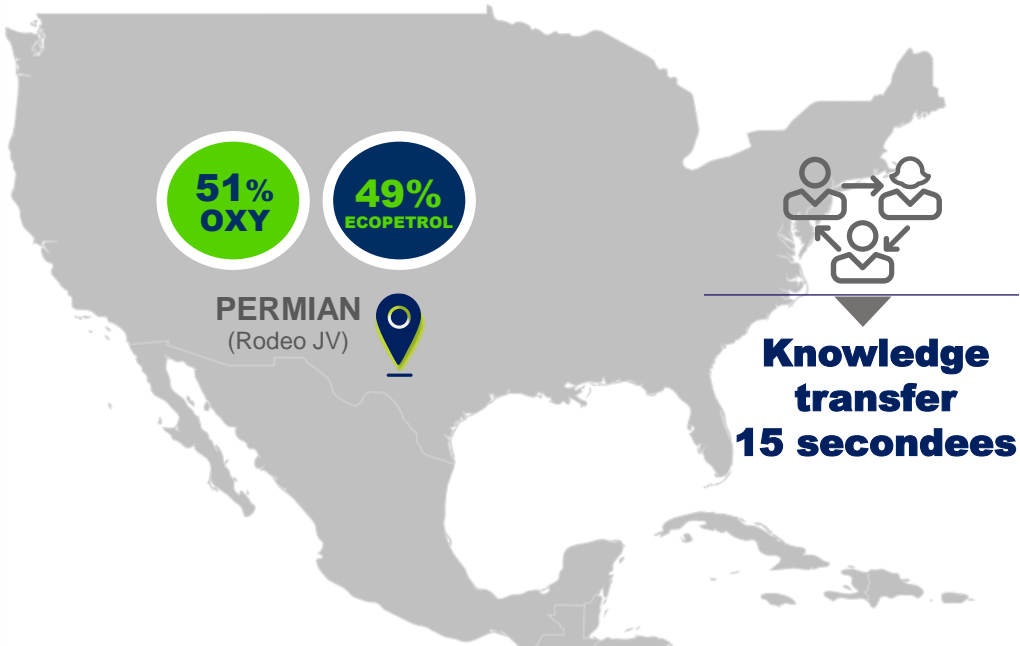
Ecopetrol Area
~730 k acres



- ✓ Preliminary agreement with ExxonMobil
- ✓ PPIIs' technical regulations
- ✓ Structuring Social & Environmental investment plan

CAPEX
2 0 2 0 - 2 0 2 2
~127 USD M

P E R M I A N



2020

~5.5
mboed

Ecopetrol's average net production

~22

Wells to be drilled in 2H 2020

~221

Net Capex ECP US\$ M

~22

Producing wells as of 1H 2020

*Comprehensive Research Pilot Projects for Unconventional Reservoirs in Colombia

Note: 2 rigs in operation expected by year-end 2020



A photograph of an oil pipeline stretching across a field, with industrial structures visible in the distance. The image is overlaid with a semi-transparent green rectangle containing the word 'Midstream'.

Midstream

Focus on integrity and reliability of supply

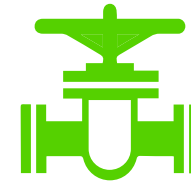
STRATEGIC PRIORITIES

- Integrity and reliability of infrastructure
- Logistical flexibility and efficiency in transportation of heavy crudes
- Cost Efficiency

US\$
780–830 M
2020 - 2022

INVESTMENTS

- Maintenance
- Geotechnics
- Reliability of tanks
- Operating storage of refined products

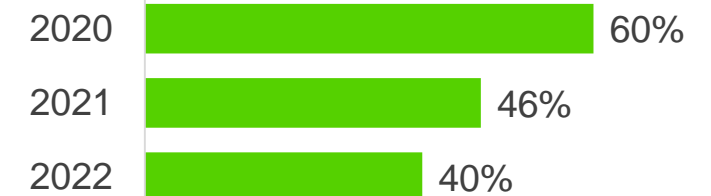


2020 - 2022 TARGETS

1,000 - 1,025
Transported volumes (kbd)



EBITDA contribution to EG*





Downstream

Picture: Barrancabermeja Refinery

Competitiveness in low price environment

STRATEGIC PRIORITIES

- Initiatives to improve margin and capacity
- Reliability of the operation
- Maximizing value of existing assets
- Cost efficiency

INVESTMENTS

US\$
1,200-1,300 M
2020 - 2022

- IPCC*
- Quality of fuels
- Major maintenance
- Waste water treatment plan in Barrancabermeja Refinery

TARGET 2020-2022

300 - 380

Throughput (mbd)

Cartagena Refinery

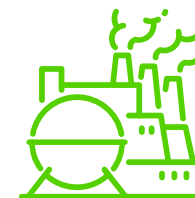
Current

With IPCC*

Throughput capacity (kbd) **150** ► **200**

Processing units **34** ► **35**

Heavy and medium crude throughput



Quality of Fuels

Gasoline with less than 50 ppm in Colombia by 2021

*IPCC: Interconnection of Cartagena Crude Units





Financials

Optimized portfolio that safeguards value proposition

- ✓ Safe, reliable and profitable production
- ✓ Cash flow protection
- ✓ **STRATEGIC THEMES:**
gas, energy transition and unconventional

INVESTMENT PLAN 2020-2022

11,000 – 13,000

2020 -2022 (US\$ M)

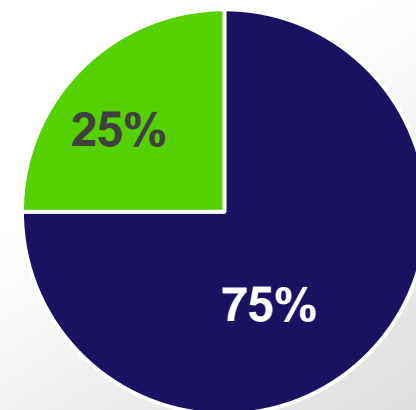
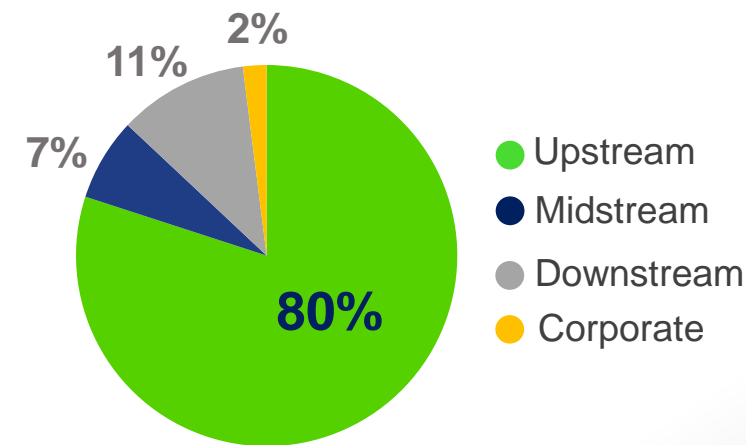


90%

ONSHORE

10%

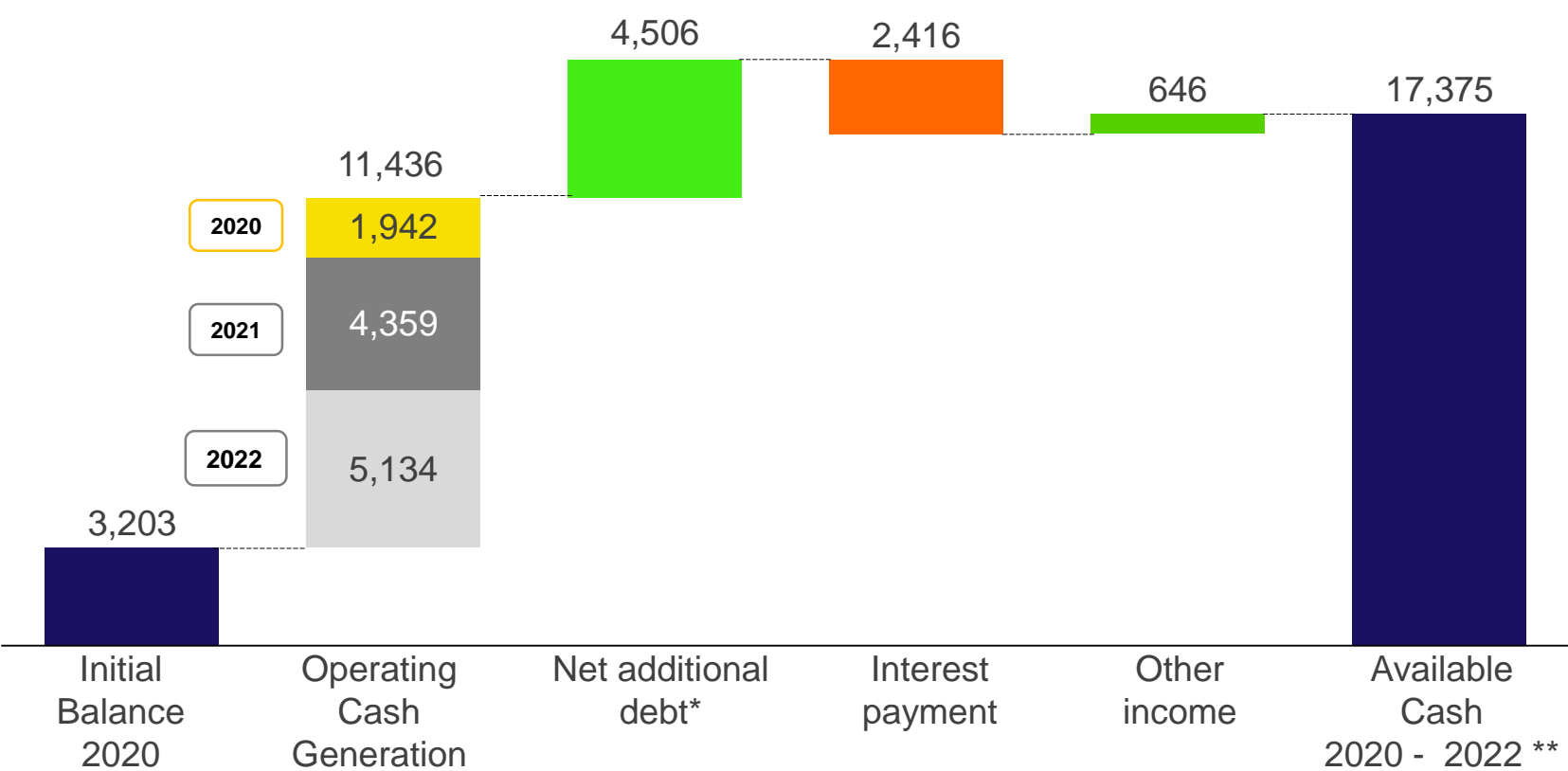
OFFSHORE



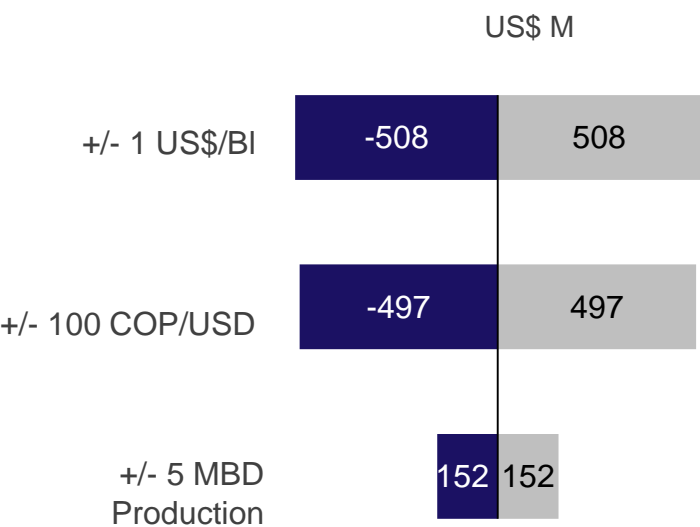
● Growth opportunities
● Reliability and integrity

Investment plan underpinned by cashflow growth

2020-2022 Cashflow (US\$ M)



Cashflow Sensitivity



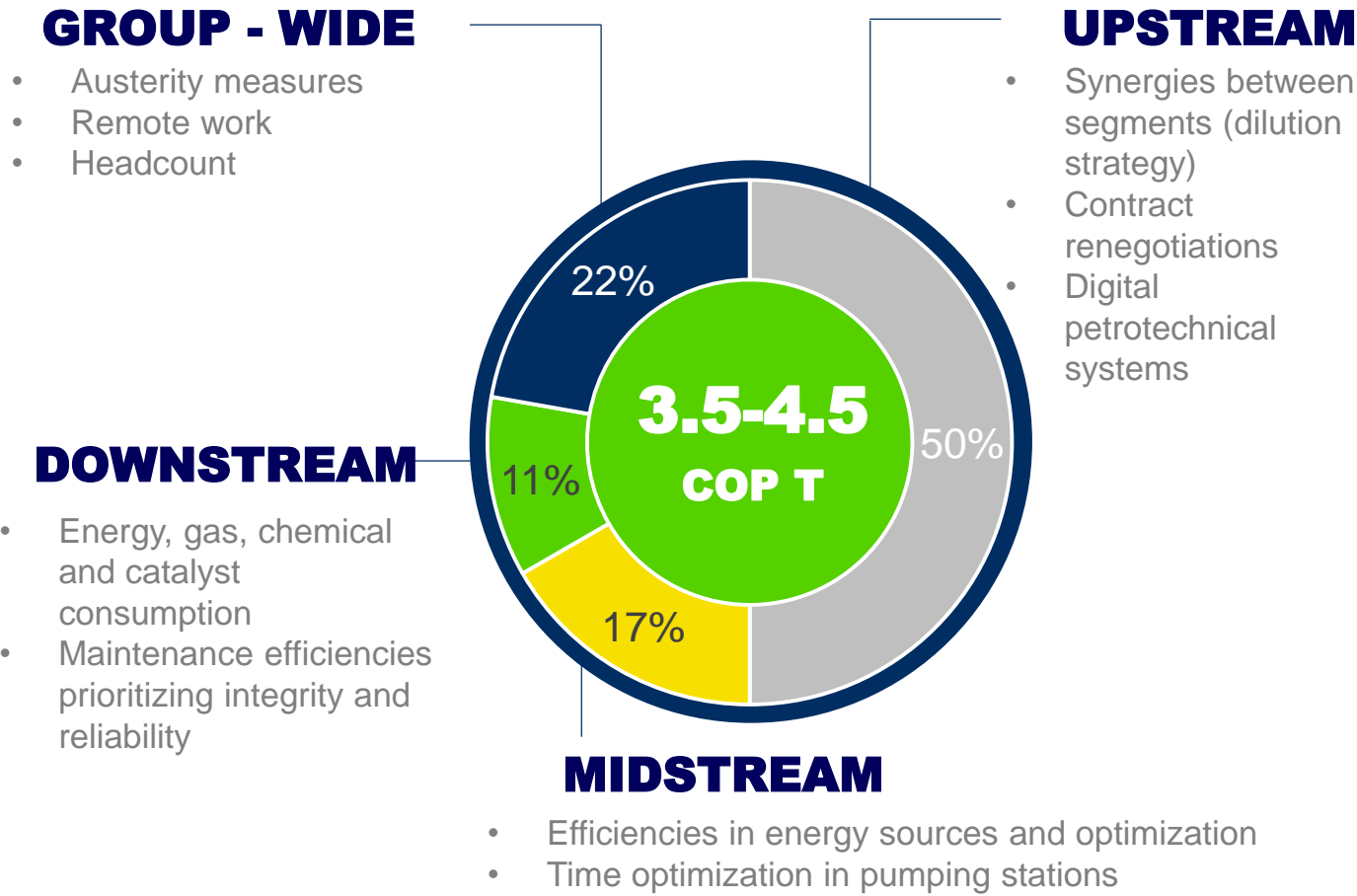
Assumptions		
	Brent	FX
2020	38	3.743
2021	45	3.600
2022	50	3.500

*Includes financing raised in 2020 for US\$ 3.1 B and debt repayments 2020 - 2022. ** Cash available for Capex and dividends.



Intensified focus on cost efficiency

2020 COST SAVINGS

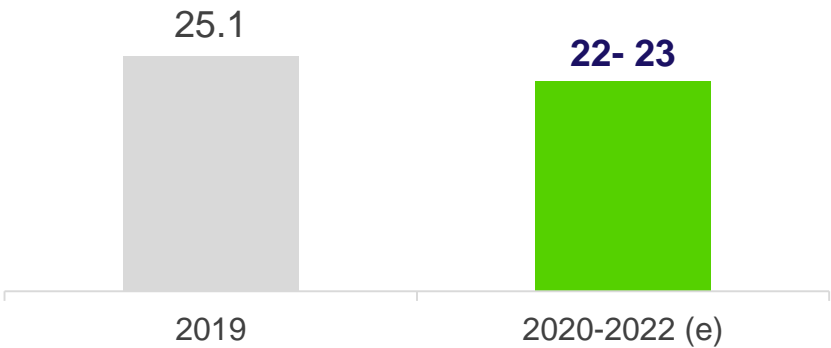


INCREMENTAL TARGET BY 2022

2.5 – 3.0

2021 -2022 (COP T)

TOTAL COST PER BARREL* US\$/BI

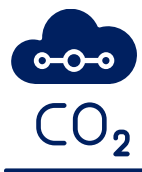


*Includes: Cost of Transportation, Operating expenses and Operating Costs, calculated on barrels sold and normalized with 2020 Plan prices (Brent 38 TRM 3,743).



TESG* commitment

DECARBONIZATION



Reduction of

CO₂

20% emissions by 2030

Initiatives in place:



Renewable energy portfolio:
300 MW** by 2022



3% increase in energy
efficiency by 2022



WORLD BANK

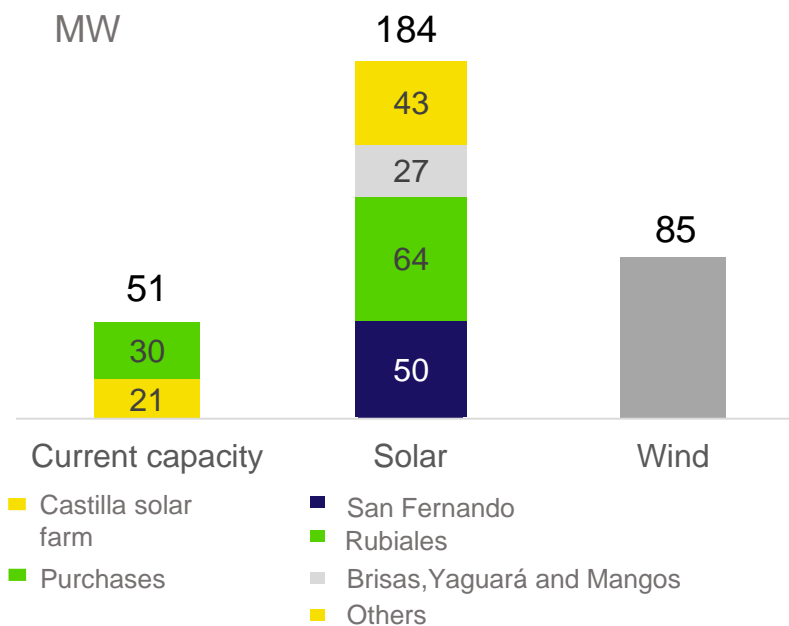
Zero Routine Flaring***
by 2030



Nature based solutions
to capture CO₂

RENEWABLE ENERGY

MW



Approval of fugitive
emissions (CH₄)
management strategy

INNOVATION AND TECHNOLOGY

INVESTMENT 2020-2022

~158
US\$ M

SOCIO-ENVIRONMENTAL INVESTMENT






COP 1.7 T
2020- 2024

ESG REPORTING AND DISCLOSURE



Growing value creation

		TARGET		
METRIC		2020	2020- 2022	
FINANCIAL 	Organic Investments	US\$ 3,000 – 3,400 M	US\$ 11,000 – 13,000 M	
	Operating Cashflow	~US\$ 1,900 M	US\$ 11,000 M – 12,000 M	
	Cash Breakeven*	< US\$30 /BI	US\$ 30 - 40 /BI	
	Gross Debt / EBITDA (x)	<3.5x	<2.5x	
OPERATIONAL 	Production (mboed)	~700	~700 - 720	
	Transported Volume (mbd)	~1,000	~1,000 - 1,025	
	Throughput (mbd)	300 - 320	~300 - 380	
TESG** 	Decarbonization	Social & Environmental investment	Innovation and Technology	
	1.8 – 2.0 MtCO2e/ by 2022	COP\$ 1.7 T 2020 - 2024	~US\$ 158 M 2020 - 2022	
BRENT (US\$/B)		2020 38	2021 45	2022 50

*Calculated as the Brent price variation that will drive year end cash balance, after operating cash generation, capex, dividend and financing, to its minimum level, as defined by Ecopetrol.

**Technology, Environmental, Social and Governance. Estimated Exchange FX 2020: 3,743. 2021: 3,600. 2022: 3,500



20-22 Plan summary

- ➔ Responds to the crisis and protects pillars of **2020+ Strategy**
- ➔ Stable investment levels and profitable production that protects **EG's sustainability**
- ➔ Growing **value creation**
- ➔ Ratified **commitment to T ESG**





Q & A

2nd INVESTOR DAY 2020

2Q20 RESULTS AND 20-22 PLAN



Q&A PARTICIPANTS



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Jorge Calvache
VP Exploration



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VP Downstream



Milena López
Director of Strategy and
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Juan Manuel Rojas
VP Strategy and Business
Development



Pedro Manrique
VP Commercial and Marketing



DE TODOS, PARA TODOS

ecopETROL