

**INVESTOR
PRESENTATION
Bank of America - 2021**



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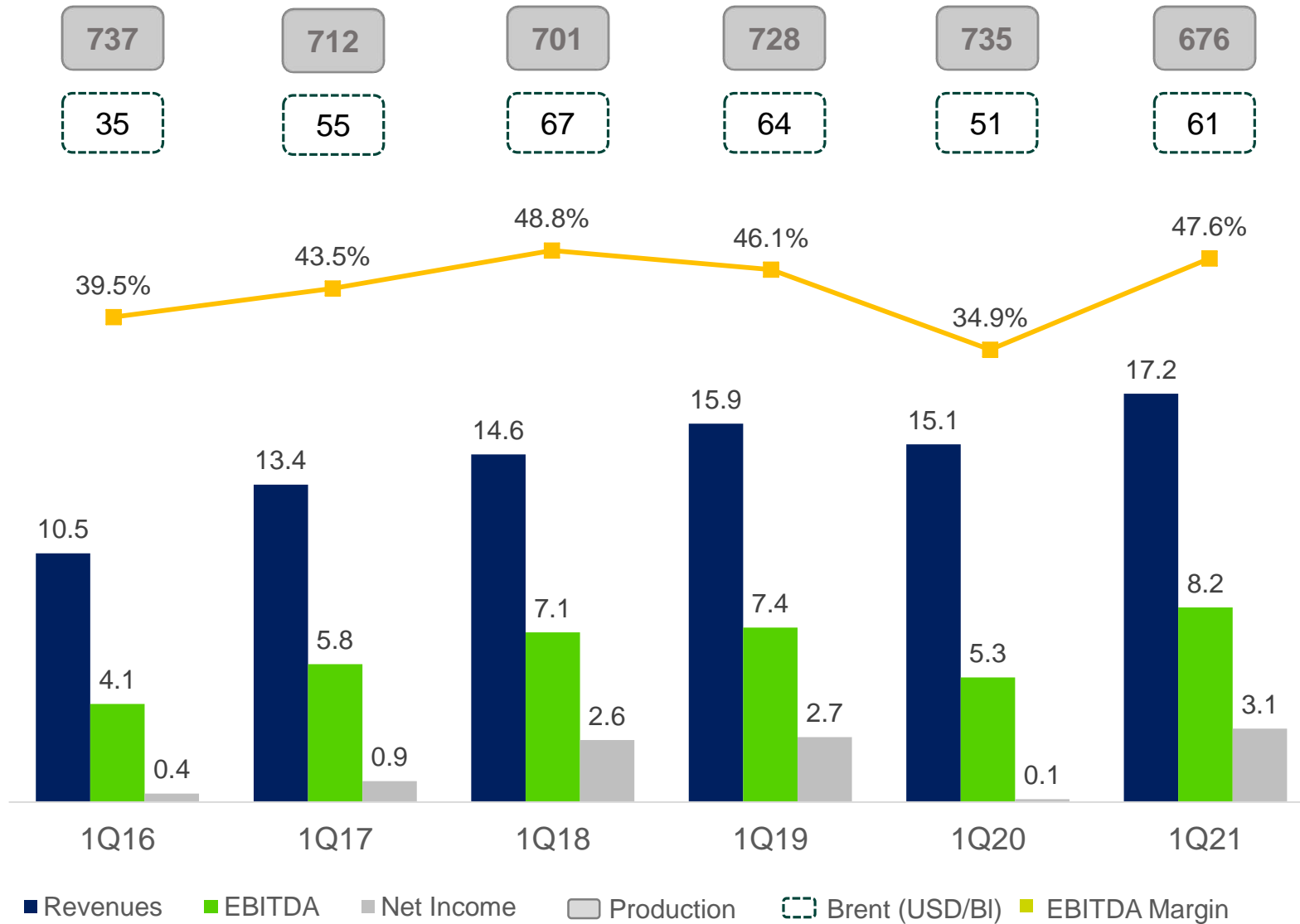
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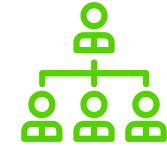
The information contained in this earnings report relating to operational information, financial information and/or statistical data pertaining to companies or institutions that might be considered peer group companies to Ecopetrol has been obtained from public sources available to the general public and is being used solely for informative and statistical purposes. We have not independently verified any such operational information, financial information and/or statistical data, although we believe such operational information, financial information and/or statistical data has been obtained from reliable sources. Ecopetrol S.A. is not liable and does not assume any responsibility for the accuracy, veracity or authenticity of any such operational information, financial information and/or statistical data.



Extraordinary recovery after the crisis



Relevant Milestones of the Quarter



Shareholders Meeting
 100% Virtual
 COP 17 Dividend / Share



Successful Commercial Strategy
 continues to enable new
 export destinations



Due Diligence Process Progress
 for possible acquisition of
 controlling interest in ISA



Making progress towards the energy transition



Efficiencies
COP 263.7 B



Digital Benefits
USD 12 M



Transmission Sector Entry
Offer to acquire controlling stake
in ISA



Hydrogen Strategy
First Molecule
Production 2022 - 2025



Net Zero Emissions
2050 Commitment



Solar Parks
San Fernando: 46% Progress



Flaring Reduction
52%: 2017 - 2020



Cecilia María Vélez White
Appointment in BoD



BoD Special Committee
ISA's Valuation



SASB, TCFD and SCM
Publication in ISMR* and 20F



Exploration

Increased asset contribution

5 Exploratory wells completed drilling phase

Exploratory success

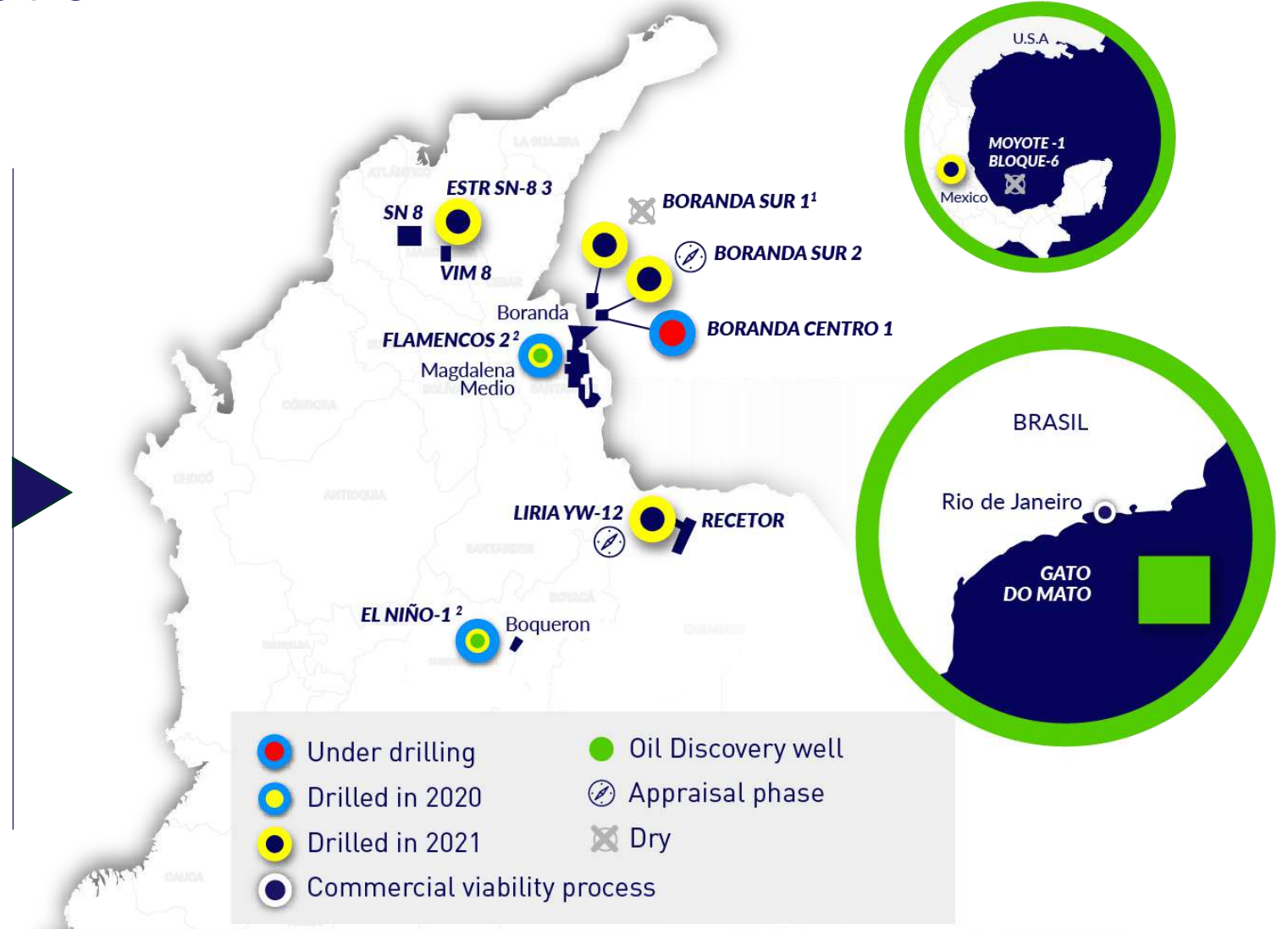
Flamencos-2
El Niño-1

Production

+39% vs 1Q20

Discoveries delineation

Boranda Sur-2
Flamencos-2

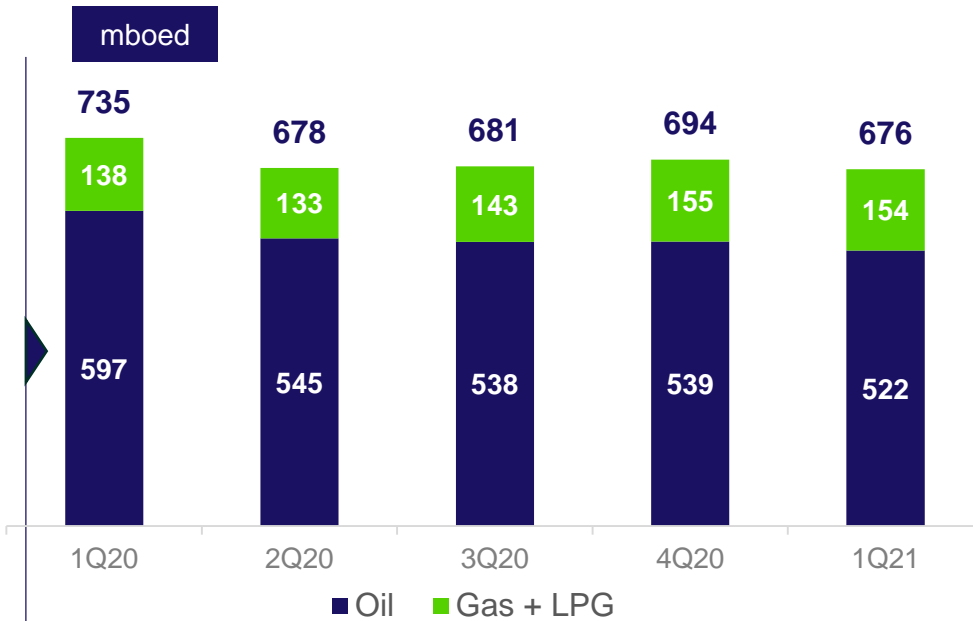


(1) Well abandoned due to technical problems, failed to reach the section of interest.
(2) Flamencos-2 and El Niño-1 wells were drilled in 2020, declared successful in 2021.
(3) Est SN-8 well is a study well that does not prove the presence of hydrocarbons.

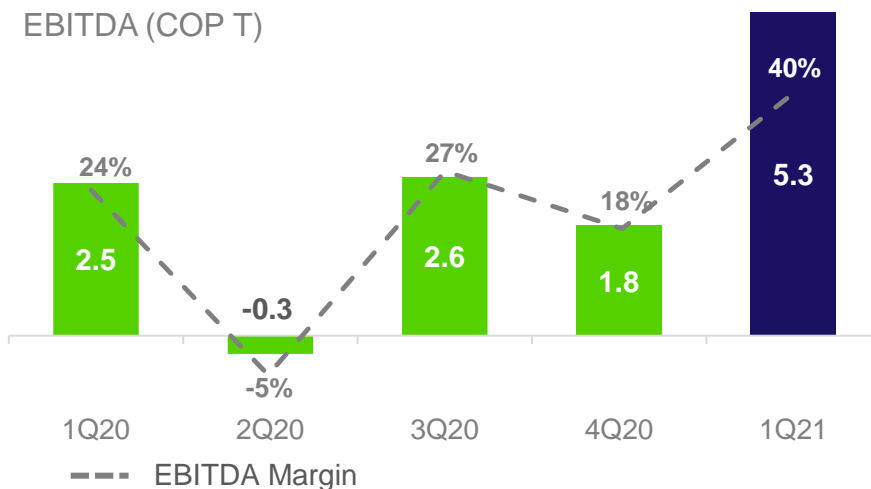


Production

Robust value generation amidst operational challenges



EBITDA (COP T)



65.2%**

Contribution to the Group's EBITDA

* Number of development wells drilled and completed

** Corresponds to the contribution of the upstream segment (Exploration + Production)

Current Forecast



RISKS

- Near-term gas demand (COVID-19 3rd wave)
- Water restrictions in Quifa

Production

Development of gas portfolio in line with strategy

GAS + GLP

23%

of the Group's
production

11%

Contribution to
Upstream EBITDA
Margin

53%

Gas and LPG
EBITDA
Margin



**Greenhouse Gas Emissions
Reduction**

Reduction of **88.980 tCO₂e**

Key Projects Progress

- Development wells and maturing prospects in **Piedemonte**
- Drilling activities in **Liria YW12**
- **Delimitation of discoveries and extensive tests** with Hocol

Hydrogen Strategy Definition



- **Pilots**
- **Public Policy and regulations**
- **Suppliers and partners**
- **Commercialization to third parties**
- **The Group and country's roadmaps**



Production

Progress in the development of unconventional reservoirs

KALÉ PROJECT

PERMIAN

2021



Puerto Wilches



Readiness stage



Environmental monitoring



Relations with Stakeholders and communities



320 meetings to date



Guidelines, protocols and licenses

51% OXY

49% ECOPETROL



44
Wells in production



EBITDA MARGIN
56%



PERMIAN
(Rodeo JV)



6.2 mboed
ECP net pre royalties

5.1 mboed
ECP net post royalties

Operative Milestones

2020

1Q21

Spud to Rig Release

9.7 days

9.25 days

Average time per well

14 days

12.2 days

Pumping per day

1962 ft per day

1975 ft per day

Pumping hours per day
(completion operations)

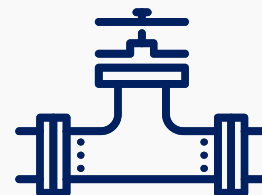
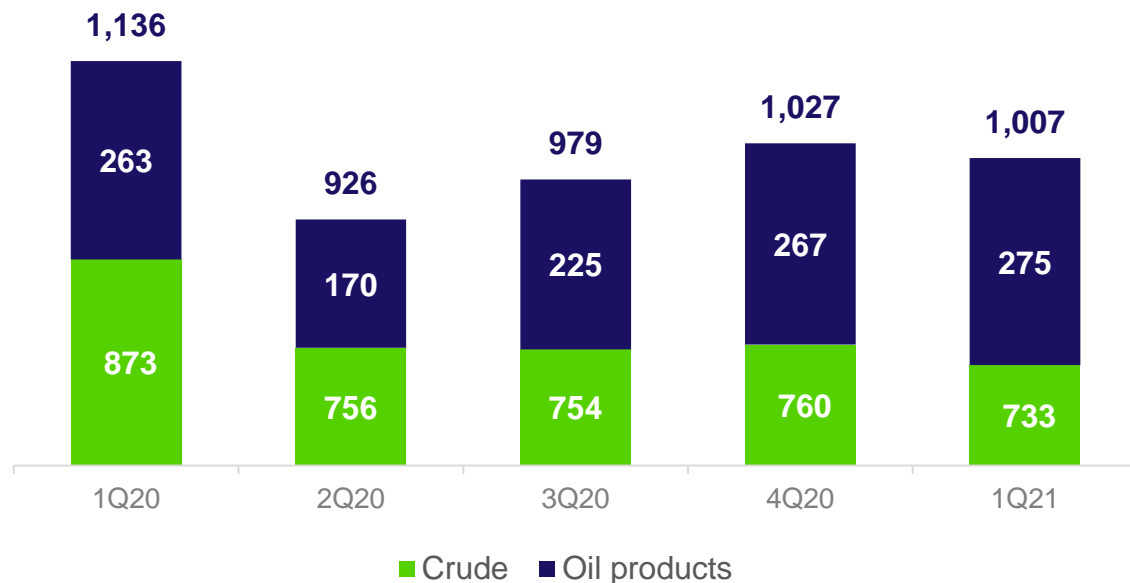
19.7 hours

22.3 hours

Midstream

Continued focus on reliability and efficiency

TRANSPORTED VOLUME (mbd)



Approval of the General Attorney's Office to the settlement agreement between Cenit and Frontera

16 consecutive months with no reversal cycles in the Bicentenario pipeline

New Operational Model of Cenit

26.7%

Contribution to the Group's EBITDA



Crude oil volumetric trend aligned with domestic production



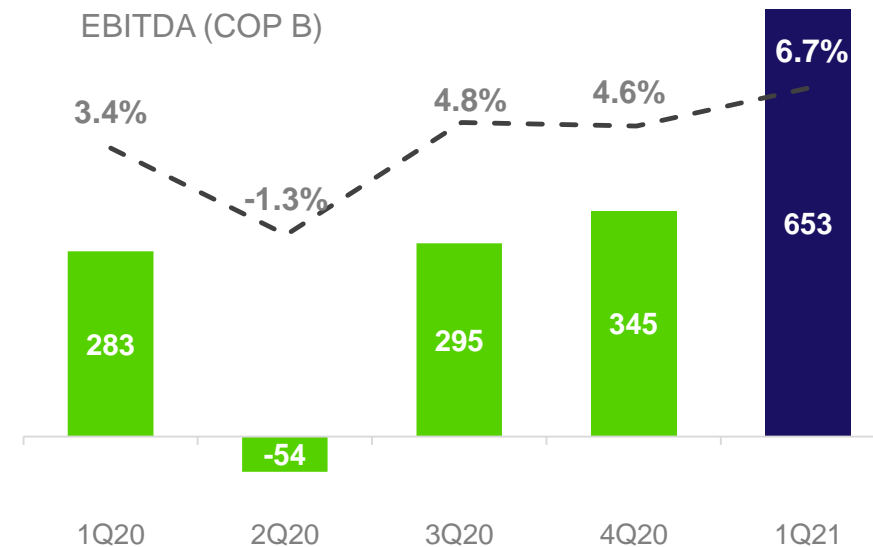
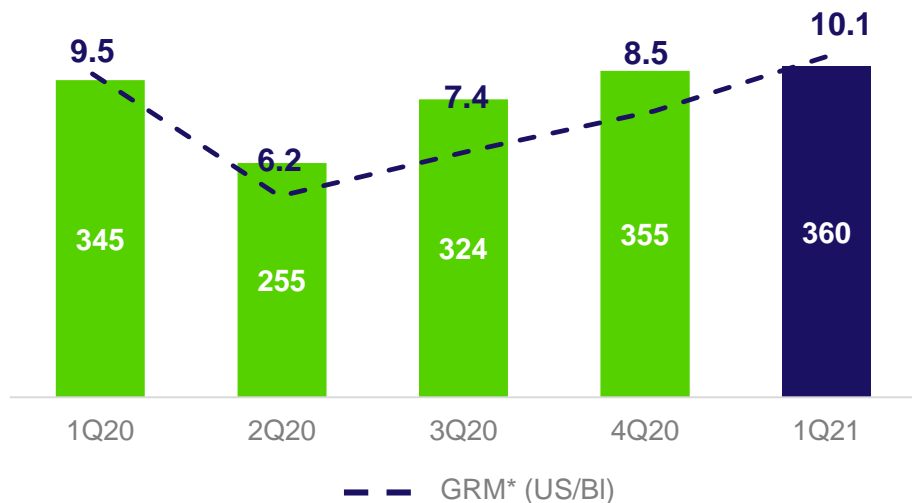
Pipeline Network Expansion Plan (MME)*
8 projects



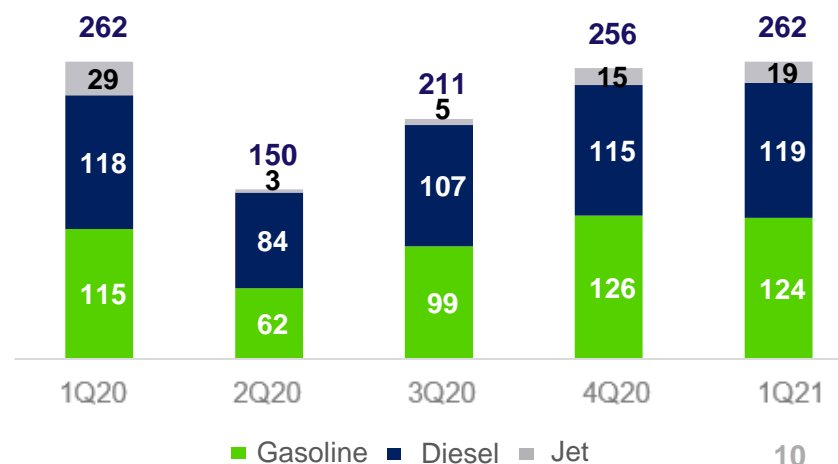
Downstream

Performance exceeds pre-pandemic levels

THROUGHPUT (mbd)



SALES VOLUME OF REFINED PRODUCTS (mbd)



8.0%

Contribution to the Group's EBITDA



GRM* and throughput levels higher than 2020

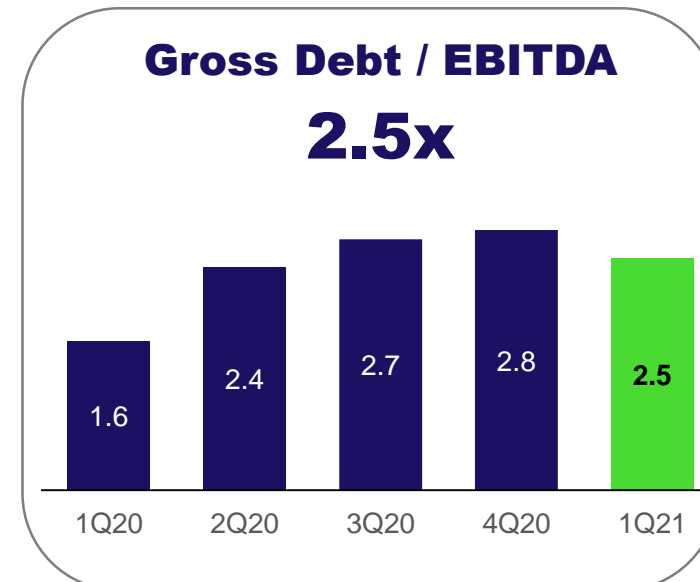
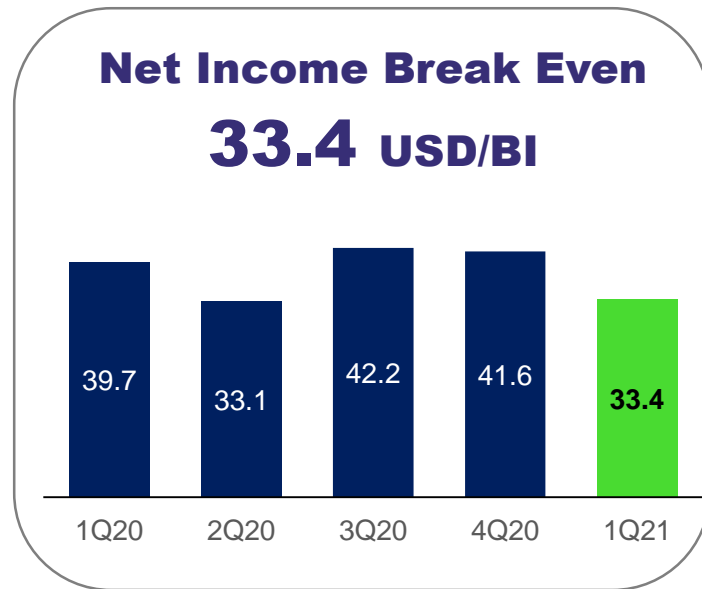
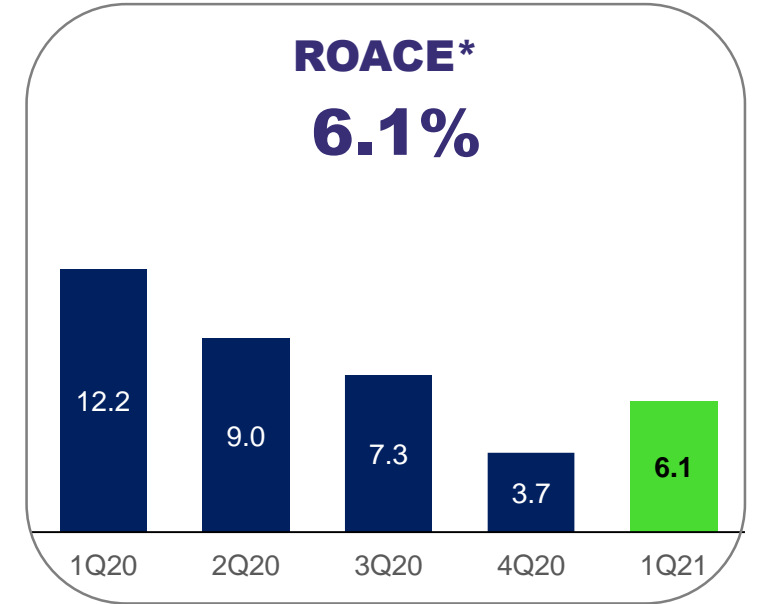
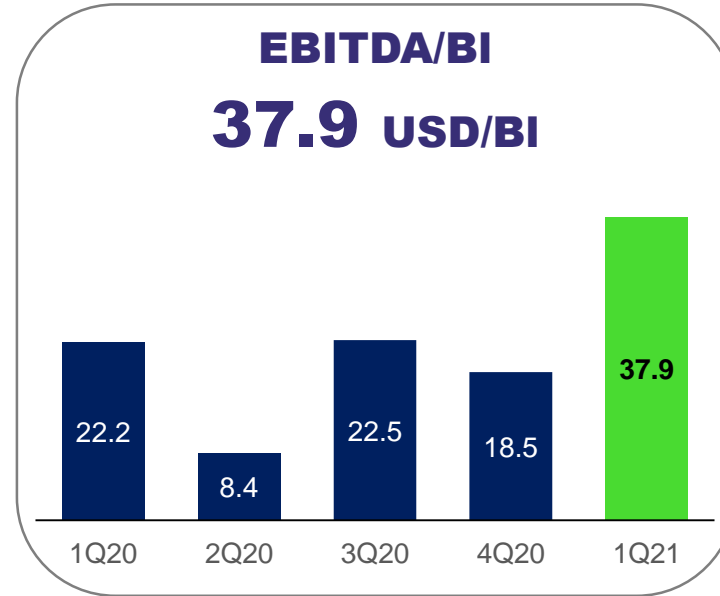
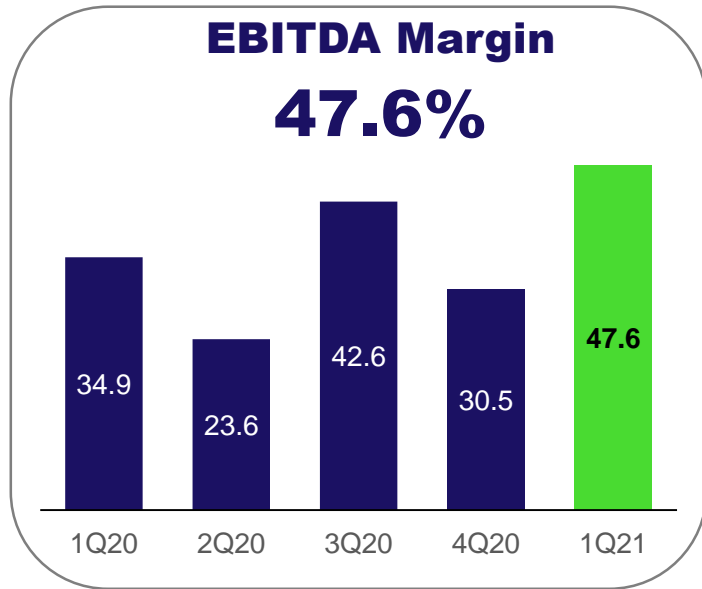
Demand of **refined products** largely recovered

Best segment EBITDA in the last 5 quarters

* Gross Refining Margin



Strengthened financial indicators

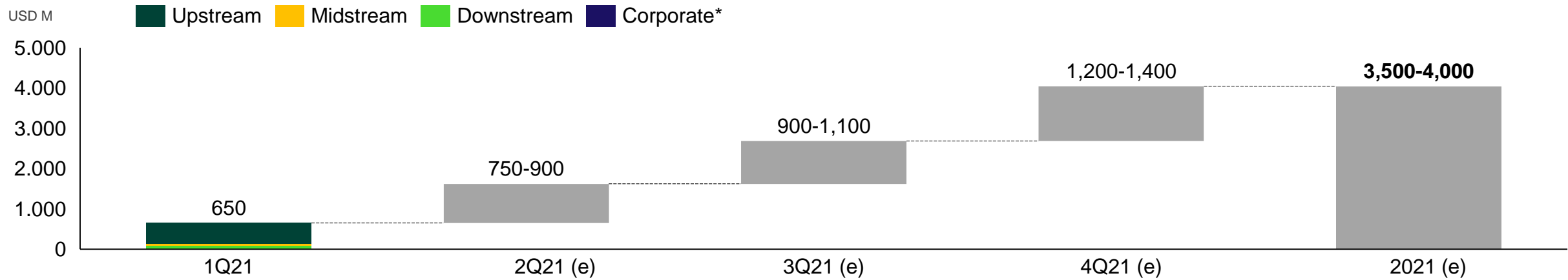


* Return On Average Capital Employed



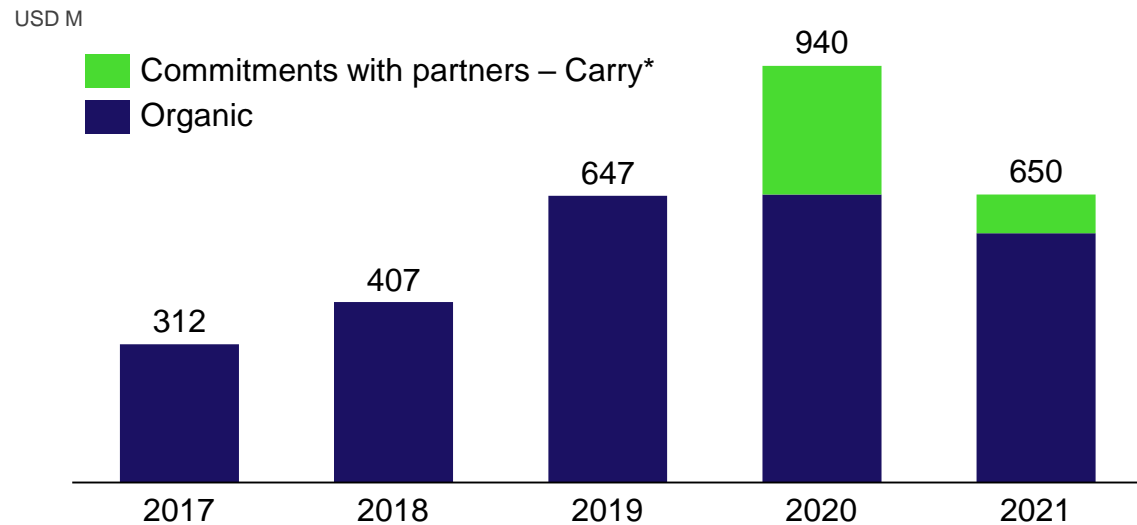
Investment Plan execution is on track

Execution consistent with 1Q's seasonality



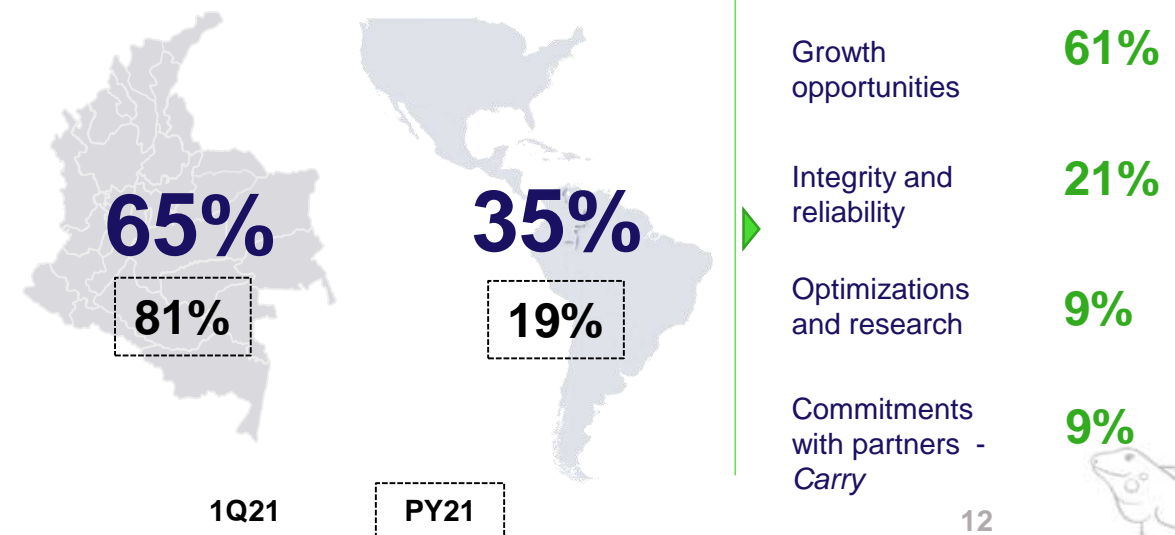
* Includes investment in energy transition projects

One of the largest 1Q executions in the last 5 years



* Commitments with partners mainly related to Gato do Mato in 2020; to Permian in 2021

Main focus on domestic chain growth



In summary...



Robust start to the 2021 – 2023 Business Plan

Results above our expectations



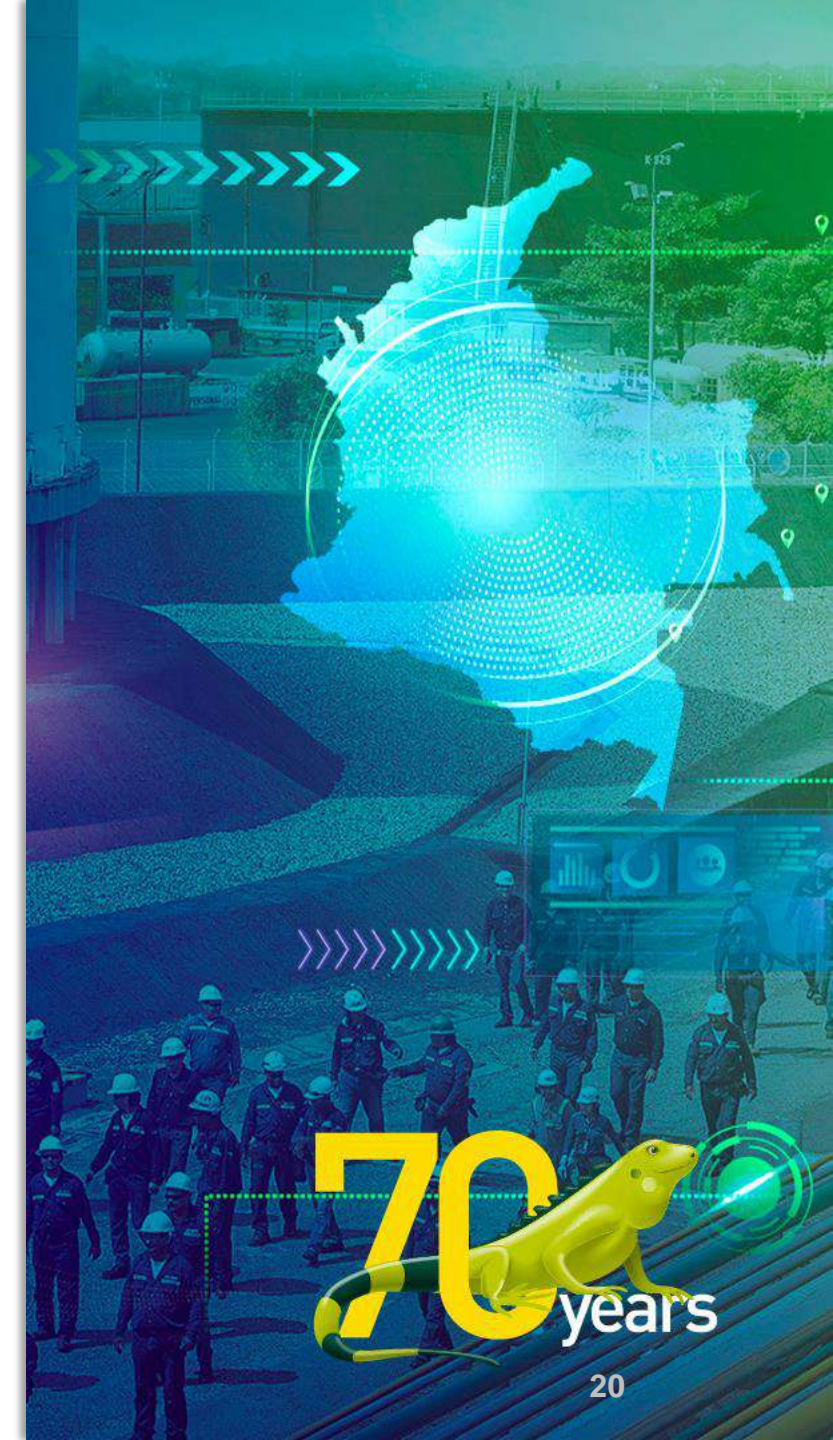
Concrete steps in the Ecopetrol Group's energy transition

Decarbonization Plan, TCFD - SASB, Progress in Due Diligence of ISA



Commitment to life as the highest priority

Employees safety and social investment “*Apoyo País*” / COVID-19



USAMOS NUESTRA ENERGÍA PARA
CONSTRUIR UNA **EMPRESA Y UN PAÍS**
———— **DE TODOS, PARA TODOS** ————

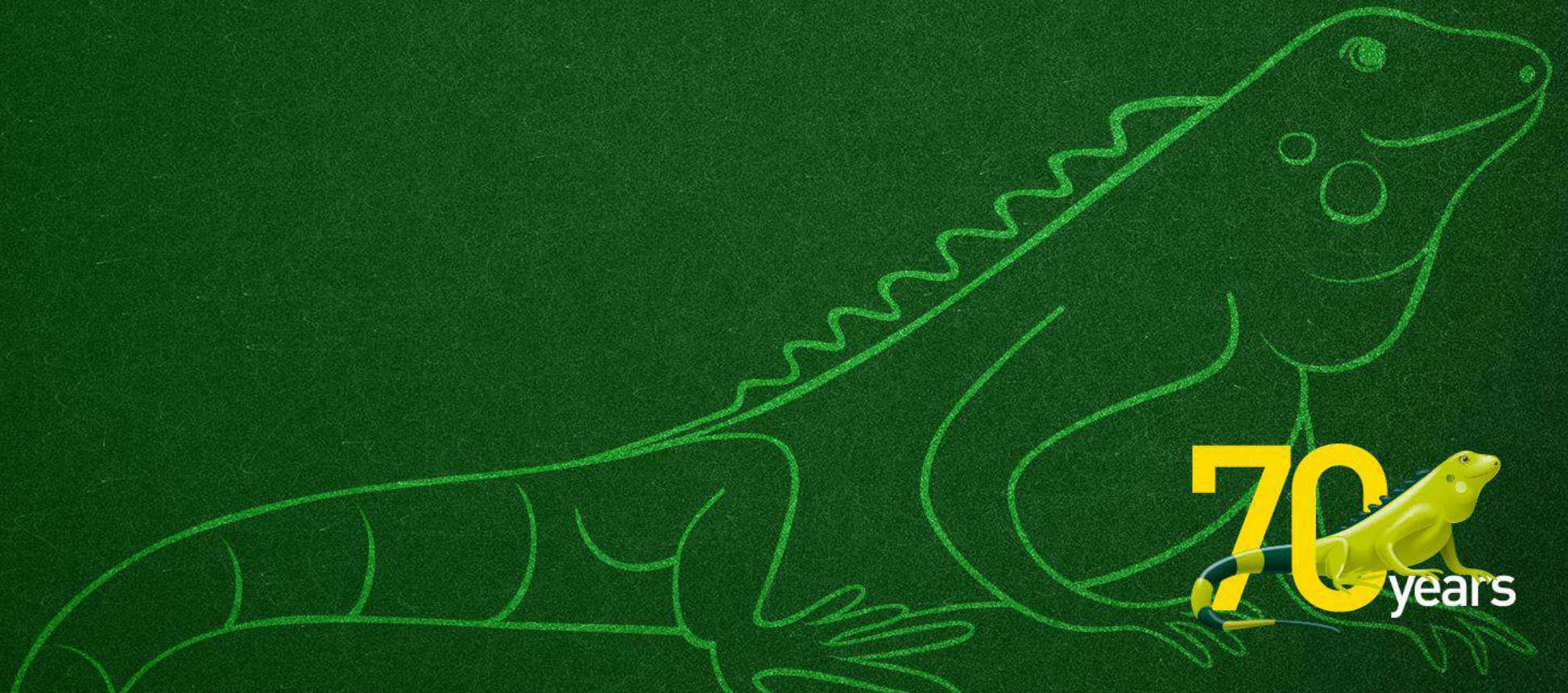


GLOSSARY

Acronym	Definition
Bl	Barrel
bped	Barrels of oil equivalent per day
COP B	Billion Colombian Pesos (Nine zeros)
COP M	Million Colombian Pesos (Six zeros)
COP T	Trillion Colombian Pesos (Twelve zeros)
FCF	Free Cash flow
JV	Joint Venture
Mbd	Thousands of barrels per day
Mboed	Thousands of barrels of oil equivalent per day
MtCO ₂ e	Million Metric tons of Carbon Dioxide equivalent
OCF	Operating Cash Flow
ROACE	Return on Average Capital Employed: Operating income after tax / Capital Employed. Calculated in pesos
TESG	Technology, Environmental, Social and Governance
USD	US dollar
USD B	Billion dollars
USD M	Million dollars



Annexes



70 years

ECOPETROL AIMS FOR NET-ZERO CARBON EMISSIONS

BY 2050

TARGET BY

2030

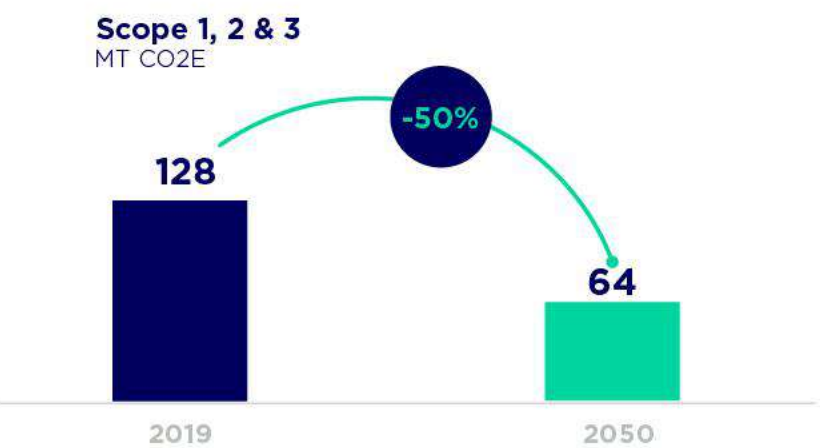
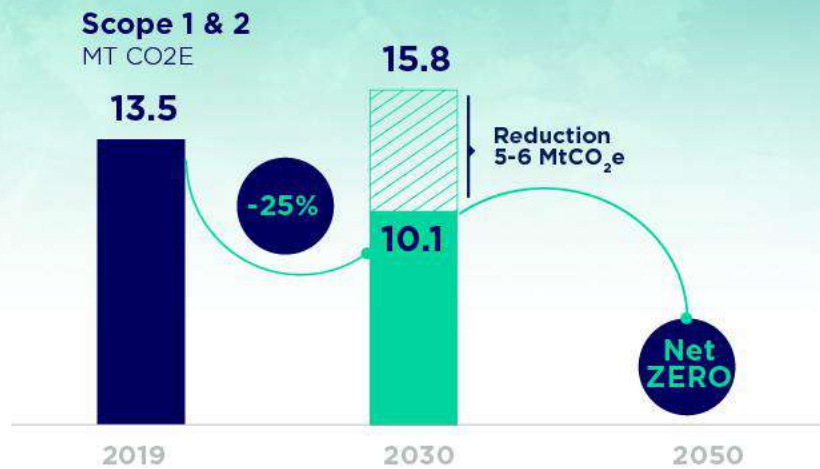
REDUCTION
25% vs. 2019
scope 1 & 2

TARGET BY

2050

NET - ZERO EMISSIONS
scope 1 & 2

REDUCTION
50% vs. 2019
scope 1, 2 & 3



INITIATIVES

- Reduction of fugitive emissions, venting, and flaring**
- Energy efficiency**
- Renewable energies** (solar, wind, geothermal and biomass)
- Hydrogen initiatives**
- Natural climate solutions**
- Carbon Capture, Usage and Sequestration**
- Energy storage** in batteries



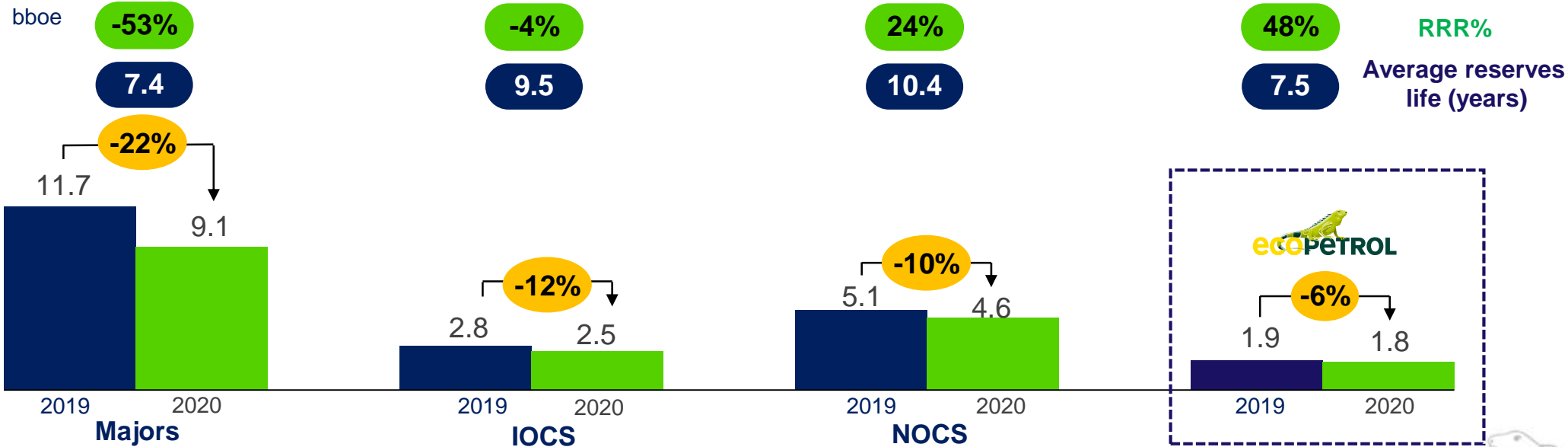
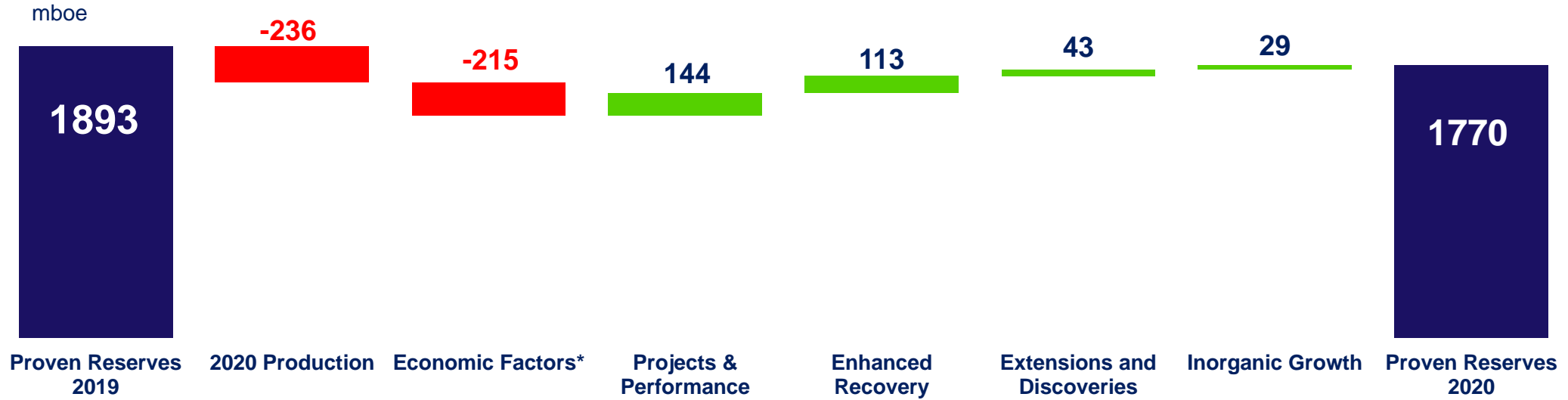
Increasing resilience of our reserves portfolio

AVERAGE RESERVES LIFE
7.5 YEARS
 2020 | Last 3 years average

RRR
115%
 Last 3 years average

INCORPORATION
113 MBOE
 2020

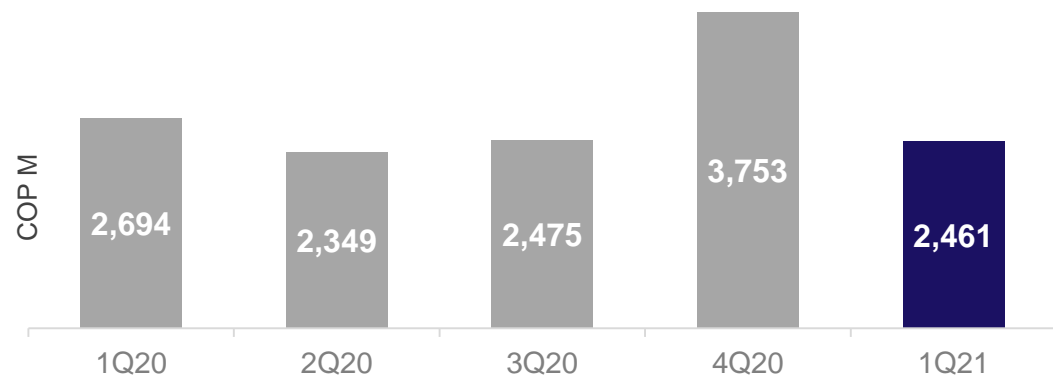
COMPOSITION
71% LIQUIDS | **29% GAS**



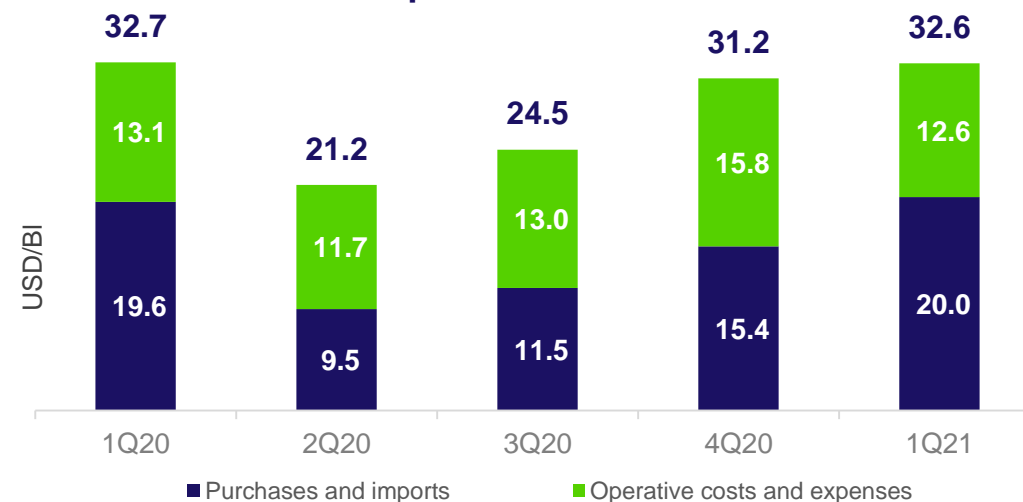
*Economic factors include Price effect and reevaluated projects.
 Majors: Shell. IOCS: Hess, Repsol, ConocoPhillips. NOCs: Equinor, PTTEP, ENI. Reserves information for Exxon, Total, Chevron, BP is not available as to date.

Cost trends reflect focus on efficiencies

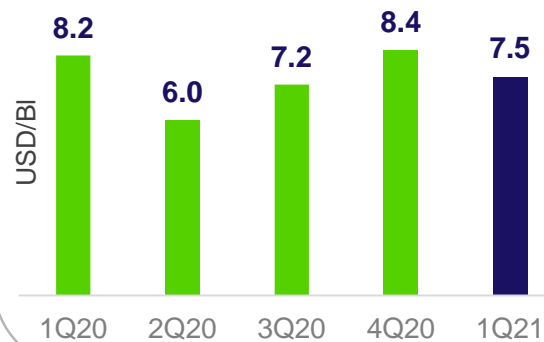
Group's Operative Costs and Expenses*



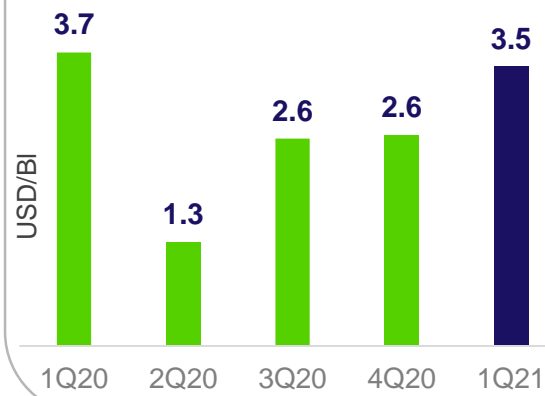
Group's Total Unit Cost **



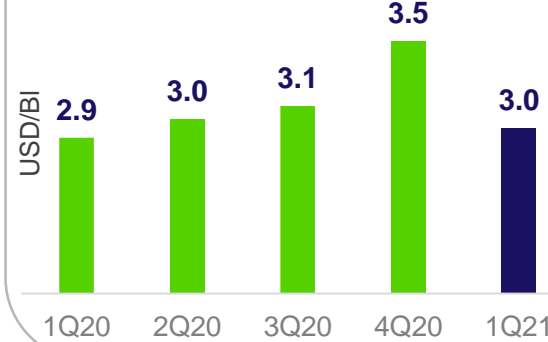
Lifting Cost



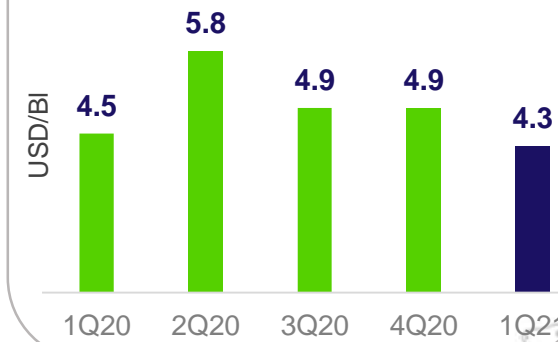
Dilution Cost



Transportation cost per barrel



Downstream cash cost



* Costs and operational expenses without depreciation and amortization, taxes or purchases and imports of crude and oil products

** It includes transportation, operational costs and operating costs for this quarter. Calculated over barrels sold during the quarter

First quarter captures benefit of improved price environment

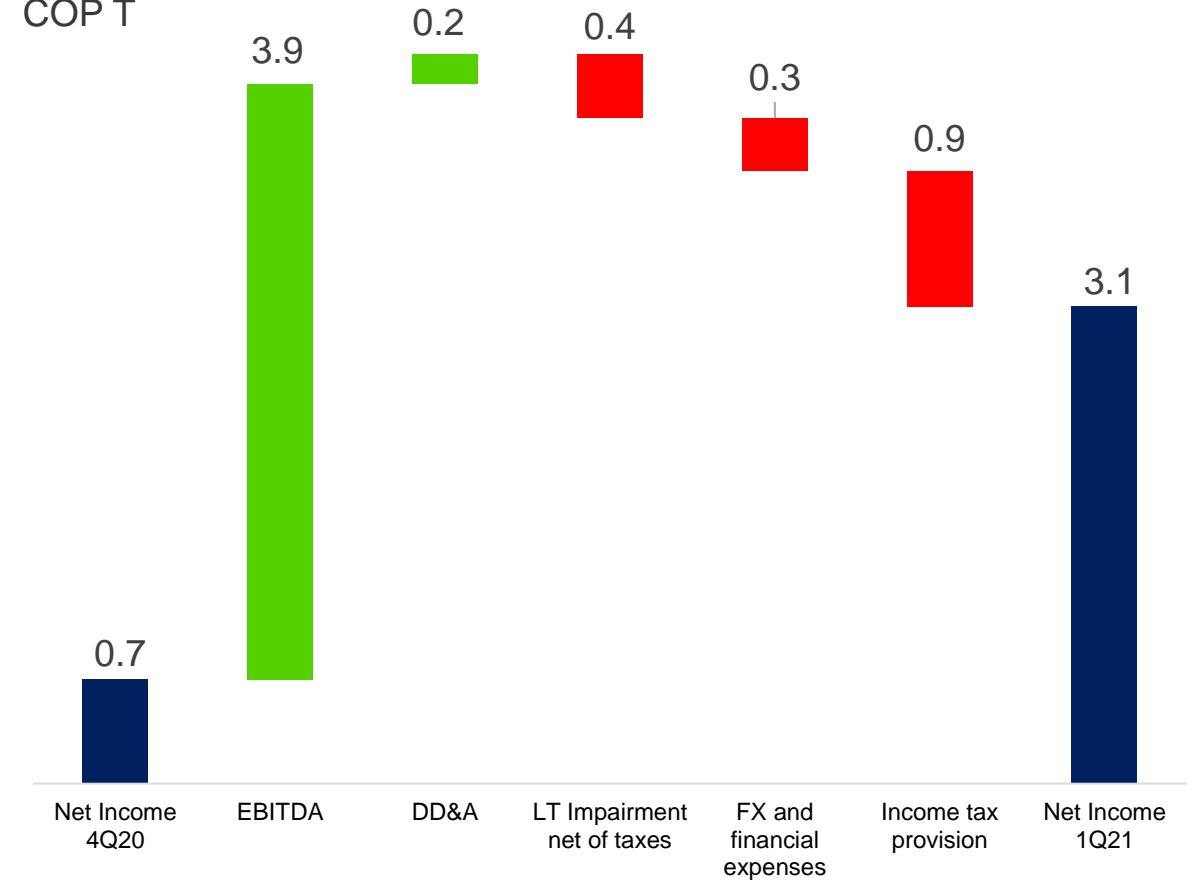
Net Income 1Q20 vs 1Q21

COP T



Net Income 4Q20 vs 1Q21

COP T



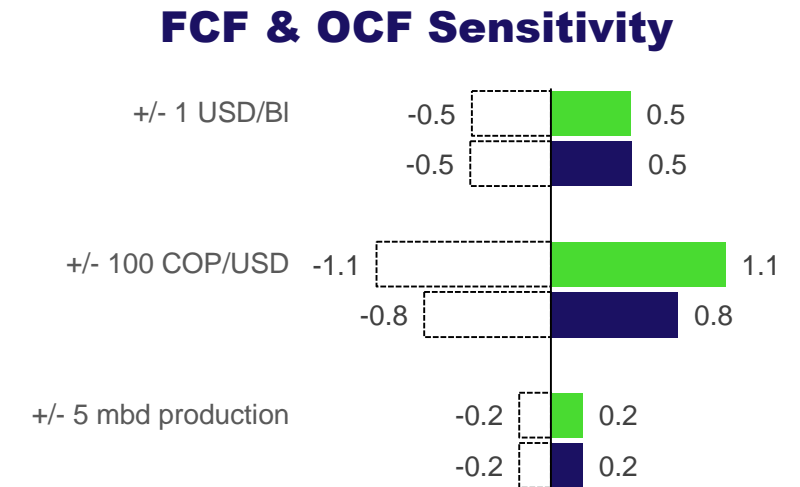
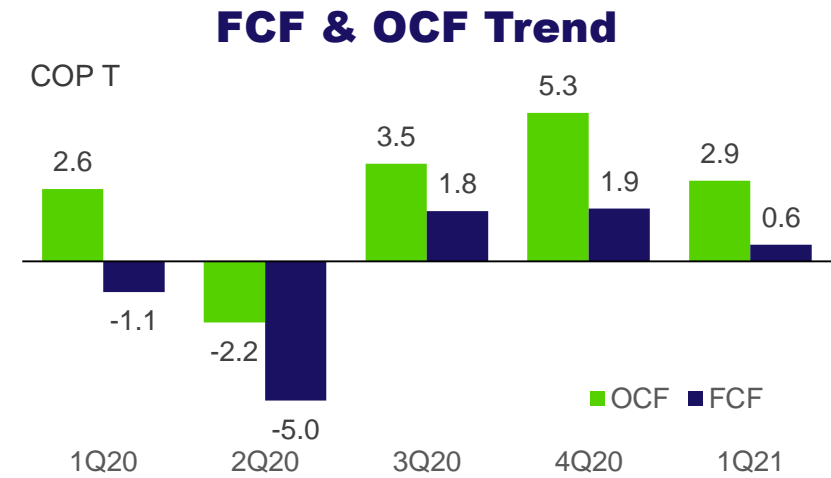
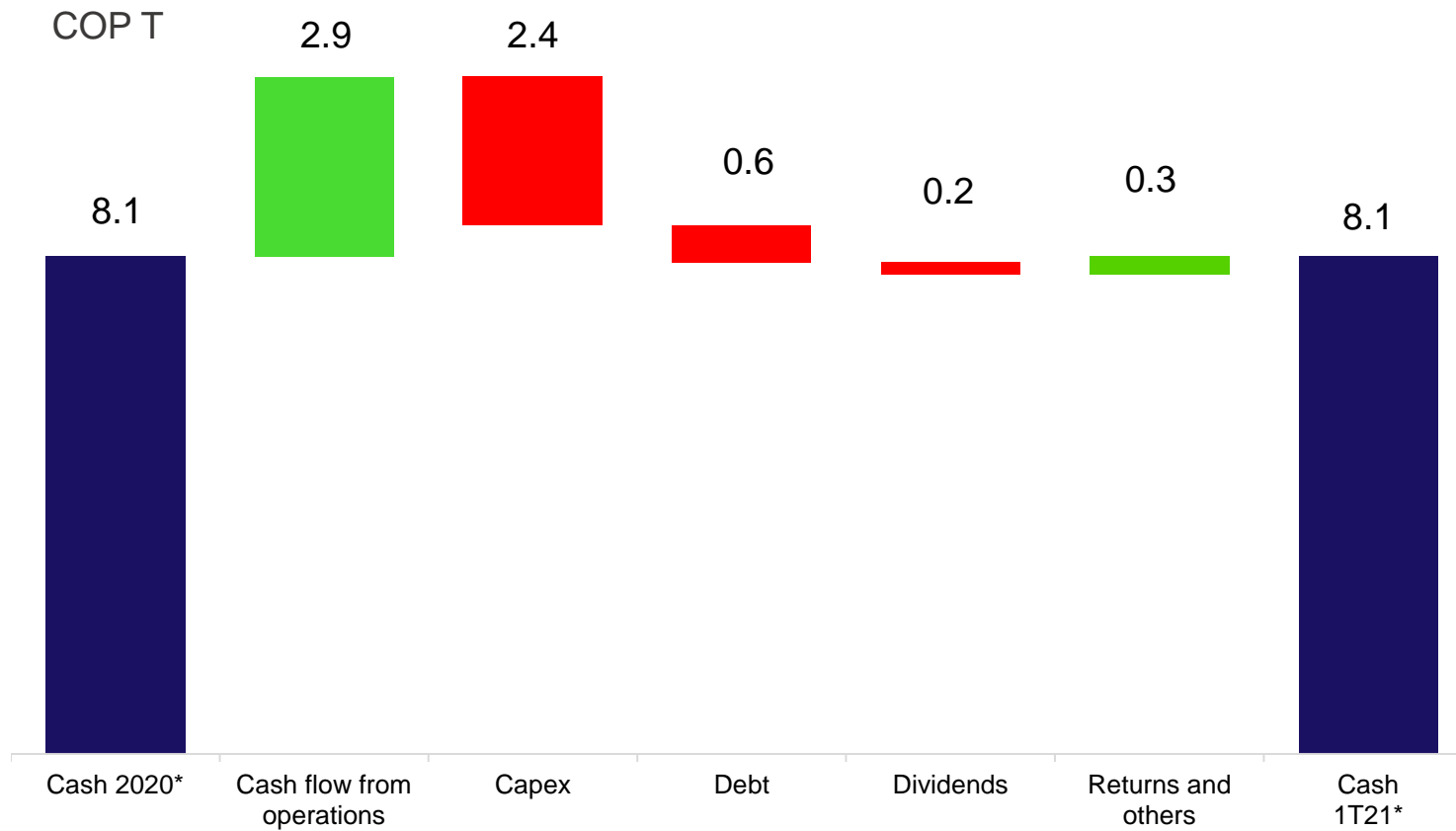
* Non-recurring, before taxes, of COP 364 billion due to currency conversion adjustments in the sale of Savia.

** Includes: i) COP 230 billion in FX expense; ii) COP 121 billion of financial expense ; iii) DD&A for COP 72 billion; and iv) Non-Controlling Interest (positive) for COP 55 billion.

*** No recurring, net of taxes, of COP 271 billion (Savia adjustment).



Investment supported by internal cash flow generation



* Declared and estimated dividends to minority subsidiaries. FCF: Free Cash Flow. OCF: Operating Cash Flow





BUSINESS PLAN UPDATE

2021-2023

Organic plan responds to market conditions and maintains value proposition



METRICS	2021	2021- 2023
Organic Investment	US\$ 3,500 – 4,000 M	US\$ 12,000 – 15,000 M
Operating Cash Flow	US\$ 3,500 – 5,000 M	US\$ 14,000 – 16,000 M
EBITDA Margin	35% - 38%	
Gross Debt/Ebitda	<2.5x	
Production (mboed)	~700-710	~700 - 750
Exploratory wells	~9	~40
Transported Volume (mbd)	>1,000	
Throughput (mbd)	~340 - 365	~340 - 420
Decarbonization	Innovation and Technology Investment	Social and environmental Investment
US\$ 600 M	US\$ 100 – 150 M	COP\$ 1.7 B
2021-2023	2021-2023	by 2024

BRENT (US\$/B)	2021	2022	2023
	45	50	54



Focus on growth and addition of production and reserves competitive at ≤ US\$ 45 - 50/bl

E&P Investment

(2021-2023)

US\$ 9,000 -11,000 M

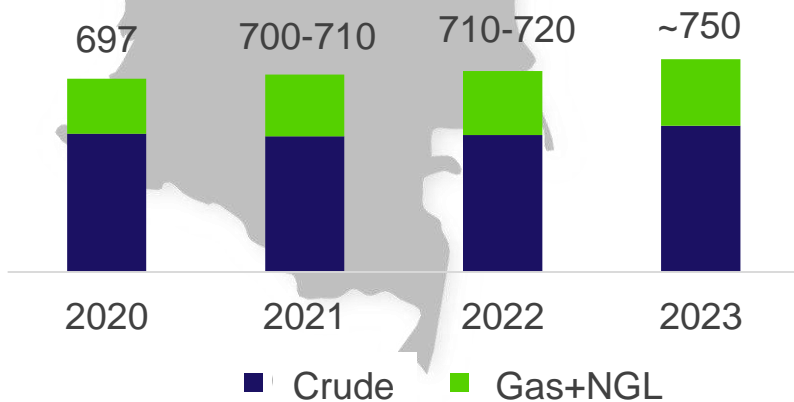
Gas Investment

(2021-2023)

~US\$1,300 M

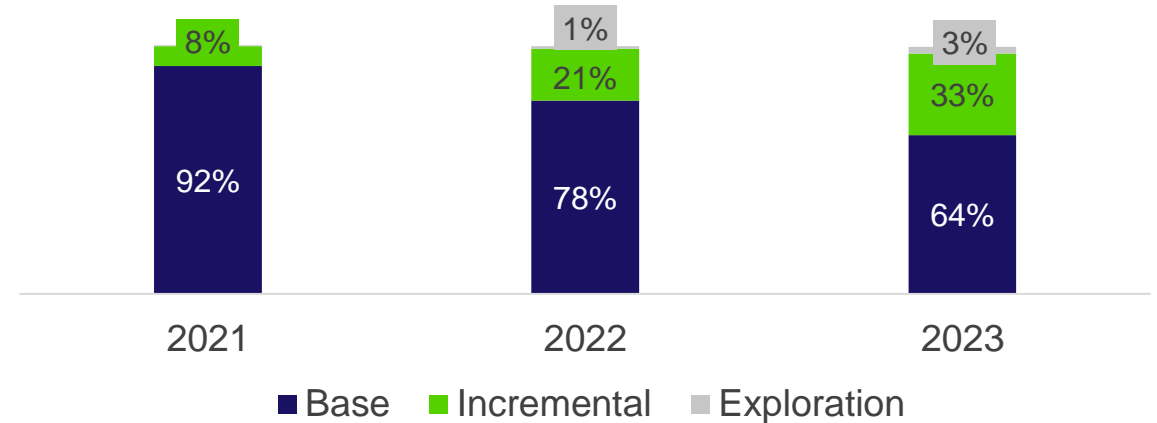
PRODUCTION

(mboed)

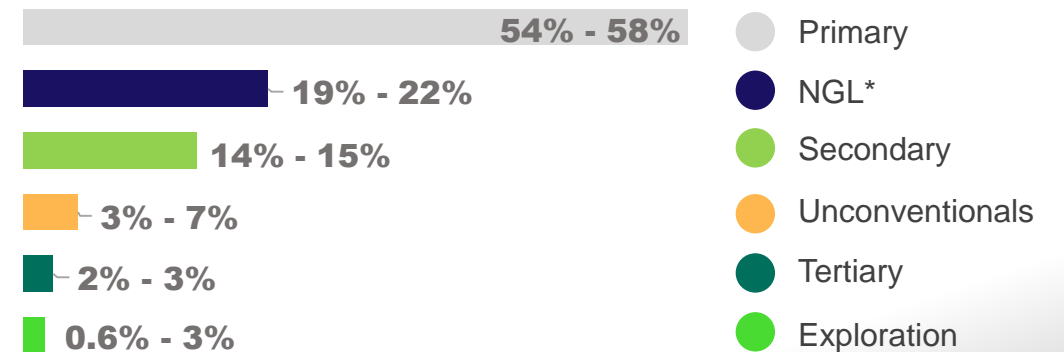


Base vs incremental production trend

(%)



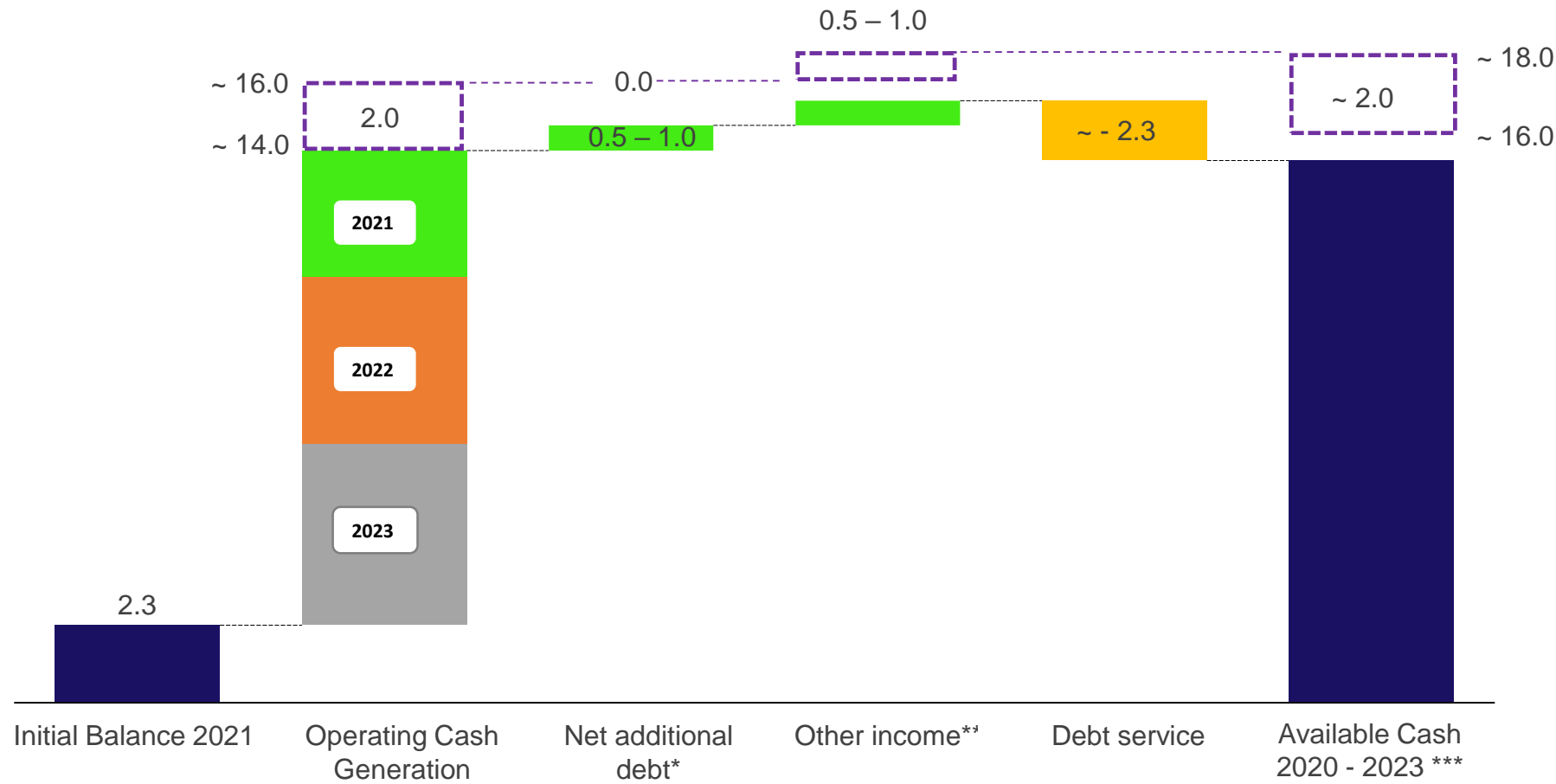
Percentage share in production volumes 2021-2023



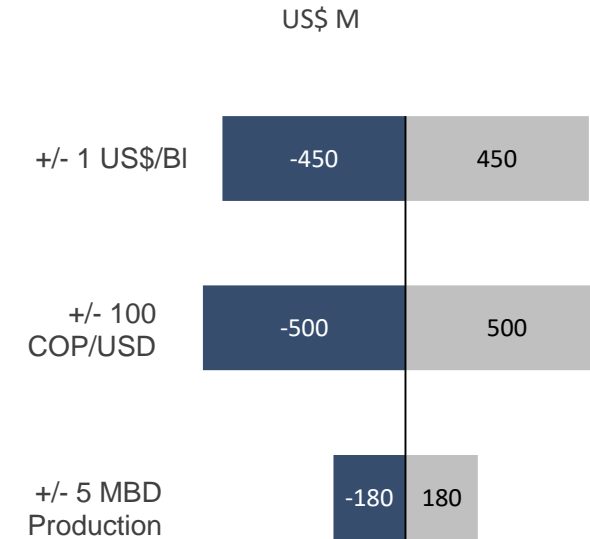
*Includes NGL production by secondary recovery

Growing operating cash generation underpins the business plan

2020-2023 Cashflow (US\$ Bn)



Cashflow Sensitivity



	Assumptions	
	Brent	FX
2021	45	3,600
2022	50	3,500
2023	54	3,400

Brent sensitivity ~ 55 US\$/BI 2021-2023

*Includes amortization and incremental debt. ** Includes divestments and financial returns. *** Cash available for Capex and dividends.



We increased our T ESG ambitions

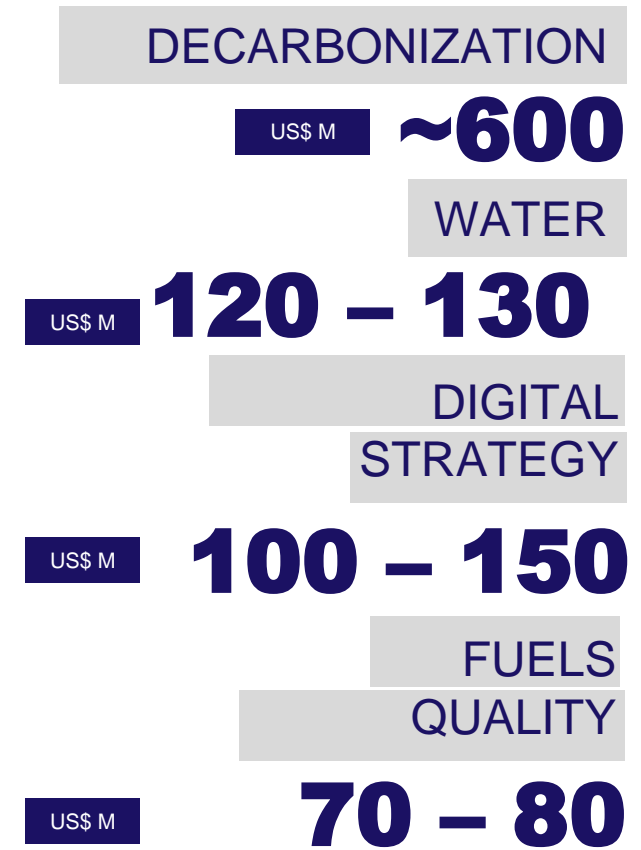
2021

- 6** Award **SOLAR PARKS 45 MW**
- Adopt **SCM** World Economic Forum
- 55%** VARIABLE COMPENSATION linked to T ESG targets
- Launch **TESG STRATEGY**

2023

- RENEWABLE ENERGY** 400 MW portfolio
- CUMULATIVE EMISSION REDUCTION** of 3.0 MtCO₂e
- 20% CO₂e reduction by 2030
- Join World Bank initiative of "Zero Routine Flaring by 2030"

2021 – 2023 INVESTMENTS



INNOVATION AND TECHNOLOGY

Benefits of US\$ 39 M in 2020

Strategic Alliances:

iNNpulsia, Ecopetrol & Microsoft
 Plug and Play
 MinCiencias

REPORTING AND DISCLOSURE

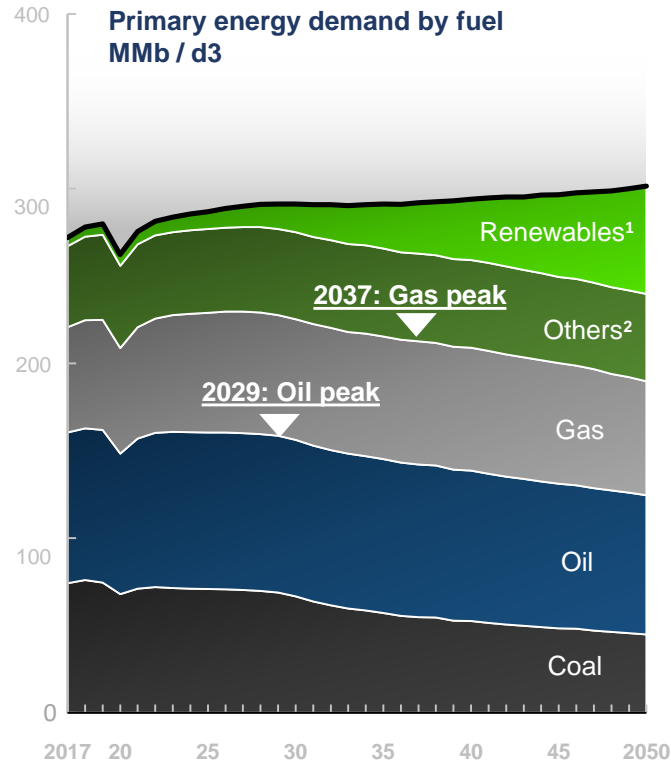


POTENTIAL ACQUISITION OF ISA

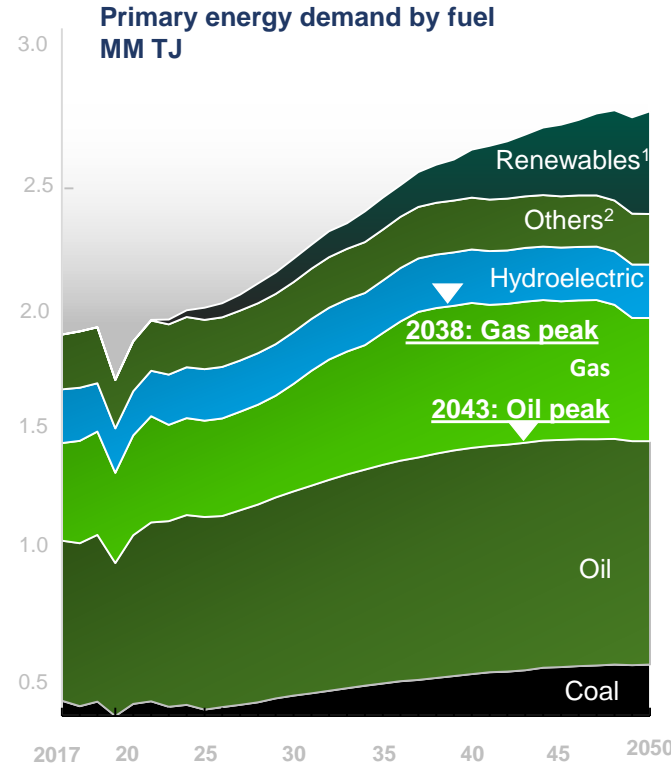


The energy transition comes with challenges and opportunities

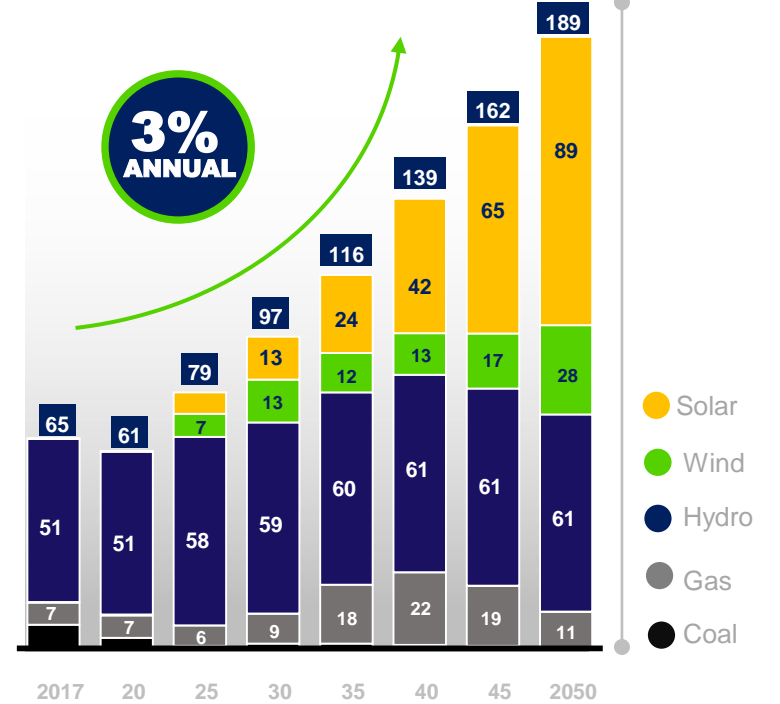
Global View



Colombia View



Energy generation TWh



1 Renewables includes wind and solar; 2 Others include biomass, hydroelectric and nuclear; 3 Conversion is an approximation: 1 mmTJ is 0.467 MMB / d
Source: Ecopetrol based on Mckinsey Energy Insights, October 2020.



FOSSIL FUELS
will remain vital



RENEWABLES
will increase participation as a primary energy source



ELECTRIFICATION
will grow from 61 TWh to 89 TWh



NO SINGLE ROUTE
Different markets, speed and technologies



Ecopetrol defined 4 axes to respond to energy transition



COMPETITIVENESS

- Improve costs and production times
- Gas value chain opportunities
- Pursue value in refining and fuel markets



DIVERSIFICATION

- Reposition new businesses in O&G
- Increase energy business portfolio



DECARBONIZATION

Accelerate and prioritize decarbonization and energy efficiency



TESG

Harmonize economic, social and environmental development under a transparent and ethical governance framework

O & G PORTFOLIO COMPETITIVE DEVELOPMENT

1st Horizon

Early 2020s

Increase resilience of core portfolio and diversify to existing businesses resilient to energy transition

- **ISA / Transmission**
- **Gas Strategy**
- **Renewable self-supply**
- **Decarbonization agenda**

2nd Horizon

Late 2020s

Capture business opportunities in emerging value pools

- **Renewable**
- **Green hydrogen**
- **Carbon capture**
- **Nature-based solutions**

3rd Horizon

Post 2030

Businesses in emerging technologies

- **Energy services**
- **Advanced materials**

ISA is a profitable, unique, regional energy infrastructure platform with attractive growth prospects

ENERGY TRANSITION



Strategic position in the energy value chain



Transmission grid will play a key role in the future: provide system stability, connect with new renewable sources



Low emission business



Scale vs opportunities in renewables in Colombia

GROWTH



Potential growth in EBITDA
CAGR: 15% 2014-2019



Attractive growth prospects in power transmission and road concession businesses



Materiality: ISA EBITDA represents ~27%* of GE EBITDA as of 3Q20



Attractive combined ROACE (ECP + ISA)

IMPROVES RISK PROFILE



Regulated and long term concession revenues provide stable and predictable cash flow



Better resiliency to oil price volatility



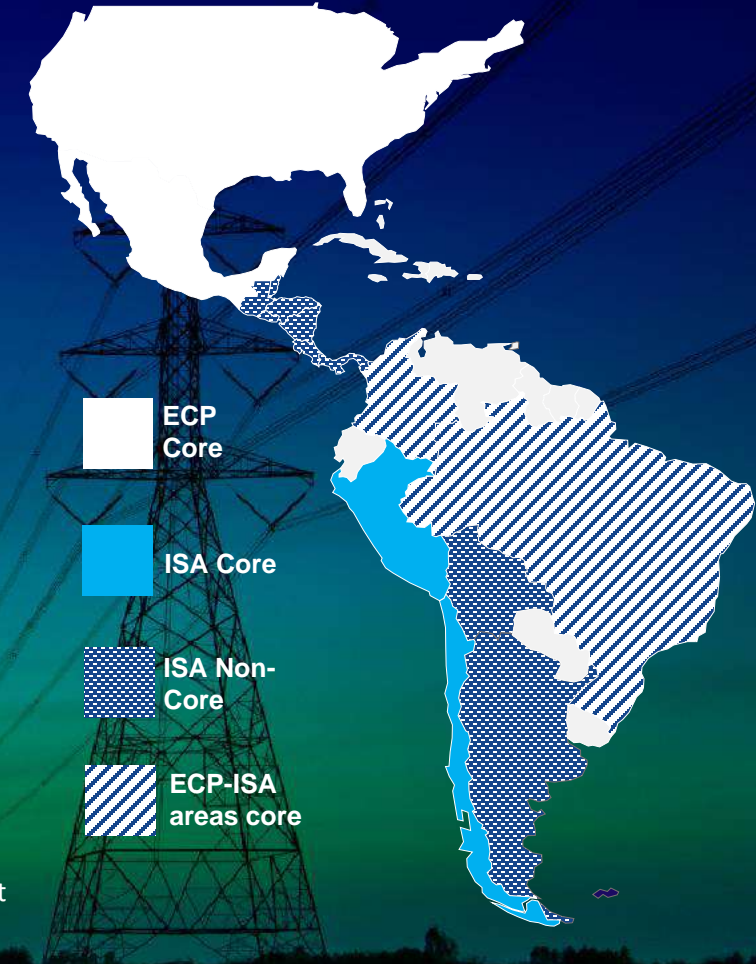
Presence in markets with stable regulatory framework



Transmission has similar characteristics to Ecopetrol Group midstream assets



Diversified infrastructure platform by country and asset class



*Last 12 months

Financial structure creates value and leverages stability

PROFORMA

Accretive*

- **EPS:** Incremental 2021+
- Float: ~US\$ 2.7 B → ~US\$ 5.4 B (improves liquidity and stock support)
- Market liquidity
 - 2020: largest equity issuance on record ~US\$ 530 B**
 - Investors looking for higher returns given low interest rates environment
 - New sources of capital



- Post transaction Gross Debt/EBITDA*** (times)

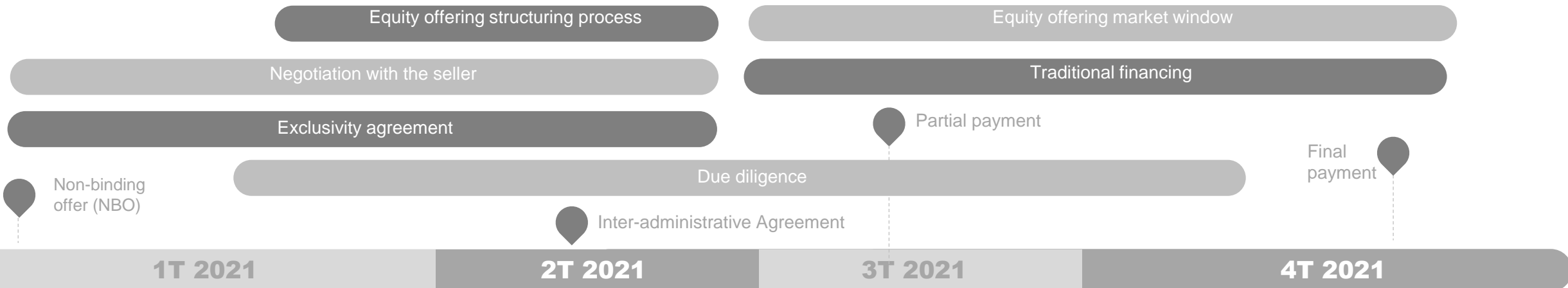
Year	Gross Debt/EBITDA (times)
2020	2.8
2021	2.5
2022	2.4
2023	2.0
- **Credit Positive/Neutral**
 - Rating agencies
 - ~25 bps spread compression vs Treasuries (10Y) since NBO announcement

* Under current market conditions – Projections assume business performance “as is”

** Source: Dealogic.

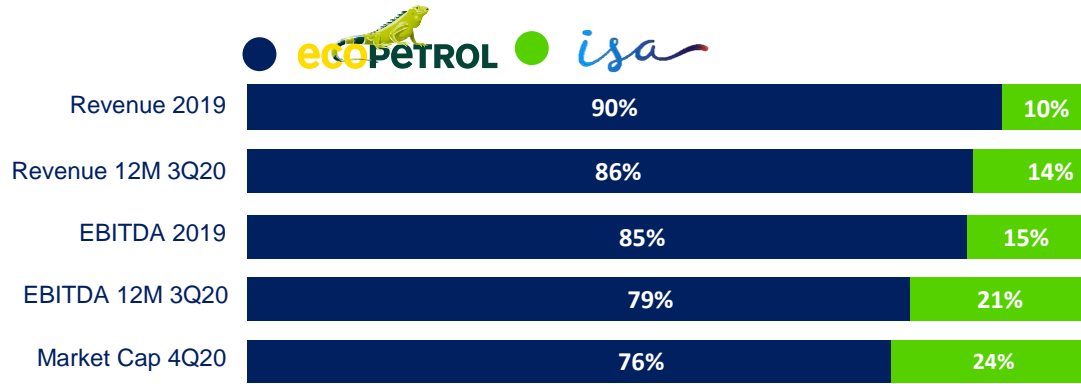
*** Gross Debt /EBITDA assumption: Brent price 50 US\$/Bbl in 2021 and US\$ 1.7 B debt.

ASSUMPTIONS MAY VARY SIGNIFICANTLY VS FINAL CONDITIONS OF THE POTENTIAL TRANSACTION.

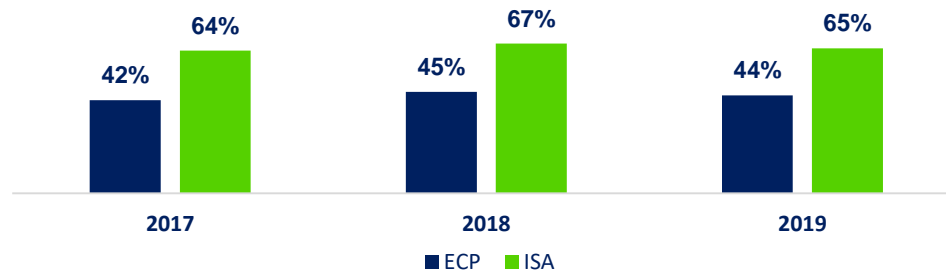


A more robust GE with greater capacity to generate value

SCALE AND MATERIALITY CONTRIBUTION ANALYSIS



COMPETITIVE PROFITS EBITDA MARGIN

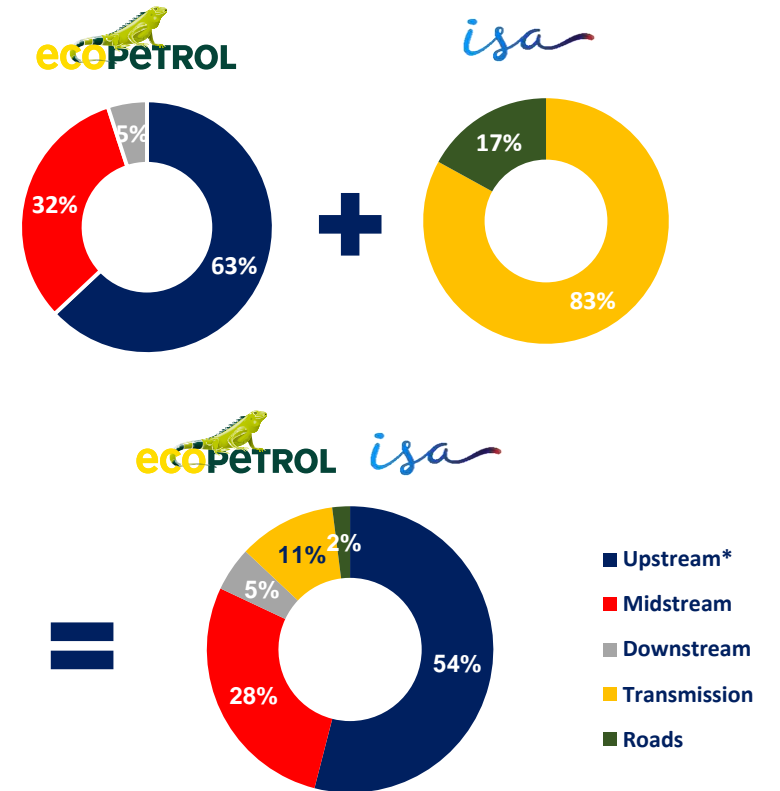


LOW CARBON REVENUE EMISSIONS / EBITDA (MtCO2/Sbn.)



STABLE CASH FLOWS ARE INCORPORATED WITHOUT REDUCING EXPOSURE TO BRENT

EBITDA per Line of Business



*In 2019 ~9% of EBITDA is attributable to gas. In 2020 this percentage rises to ~31%.
Source: Ecopetrol calculations based on public information as of Dec/2019.