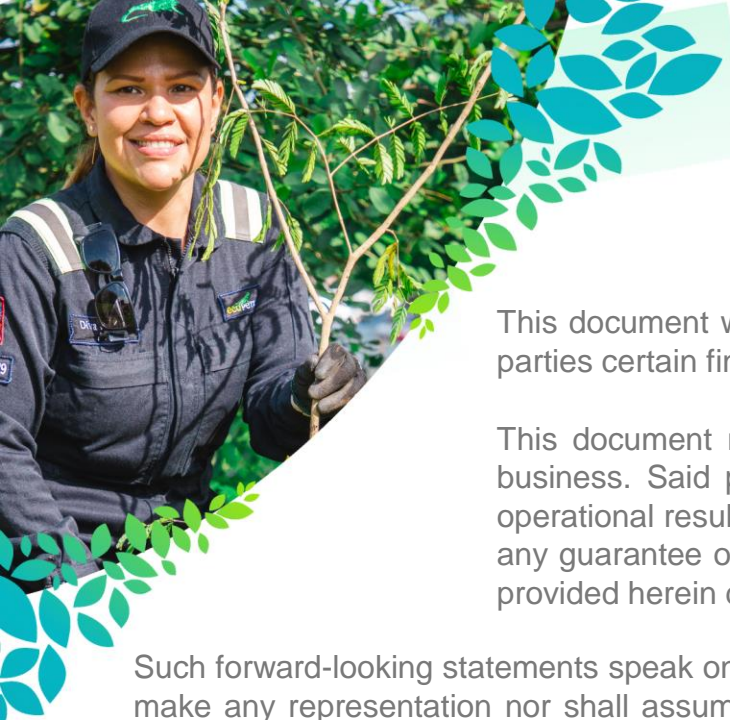


BofA Securities 2023 Emerging Markets Debt and Equity Conference

May 30 - June 2, 2023





Legal disclosure

This document was prepared by Ecopetrol S.A. (the “Company” or “Ecopetrol”) with the purpose of providing the market and interested parties certain financial and other information of the Company.

This document may include strategy discussions and forward-looking statements regarding the probable development of Ecopetrol’s business. Said projections and statements include references to estimates or expectations of the Company regarding its future and operational results. Potential investors and the market in general should be aware that the information provided herein does not constitute any guarantee of its performance, risks or uncertainties that may occur or materialize. Actual results may fluctuate and differ from those provided herein due to several factors outside of the control of the Company.

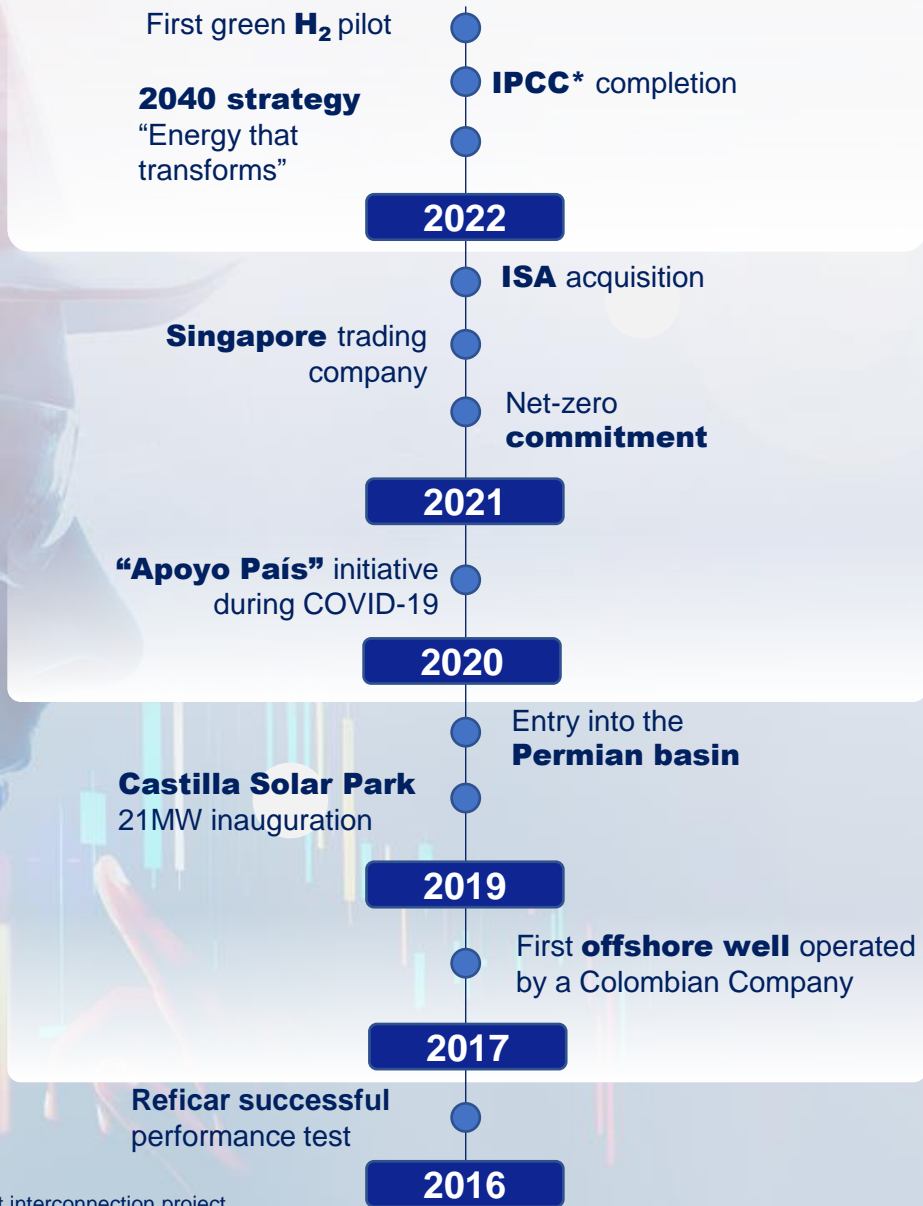
Such forward-looking statements speak only as at the date in which they are made and neither Ecopetrol nor its advisors, officers, employees, directors or agents, make any representation nor shall assume any responsibility in the event actual performance of the Company differs from what is provided herein. Moreover, Ecopetrol, its advisors, officers, employees, directors or agents shall not have any obligation whatsoever to update, correct, amend or adjust this presentation based on new information or events occurring after its disclosure. Additional factors that may affect the future results of Ecopetrol are set forth in the section entitled “Risk Factors” in the Company’s Report on Form 20-F for the year ended December 31, 2022, and in the Company’s other filings with Securities and Exchange Commission (the “SEC”), which are available at www.sec.gov.

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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.

Ecopetrol is today a diversified energy group

Leader in LATAM



*Crude plant interconnection project

3 SOLID BUSINESS LINES

HYDROCARBONS

#1 in Colombia



Production **719 mboed in 1Q23** (+27.3 mboed vs 1Q22)



Record evacuation in multi-purpose pipelines in 1Q23: 306.3 mbd



Record in **consolidated throughput** 412 mbd 1Q23

LOW-EMISSION SOLUTIONS

#1 Self-generator with renewables



Offshore discoveries **Gorgon-2 and Uchuva-1**



208 MW incorporation of **renewable energies**



First **green H2** molecule in Colombia

TRANSMISSION AND TOLL ROADS

#1 Energy transmitter in Latin America



Construction of projects **>4,600 km** additional network circuit

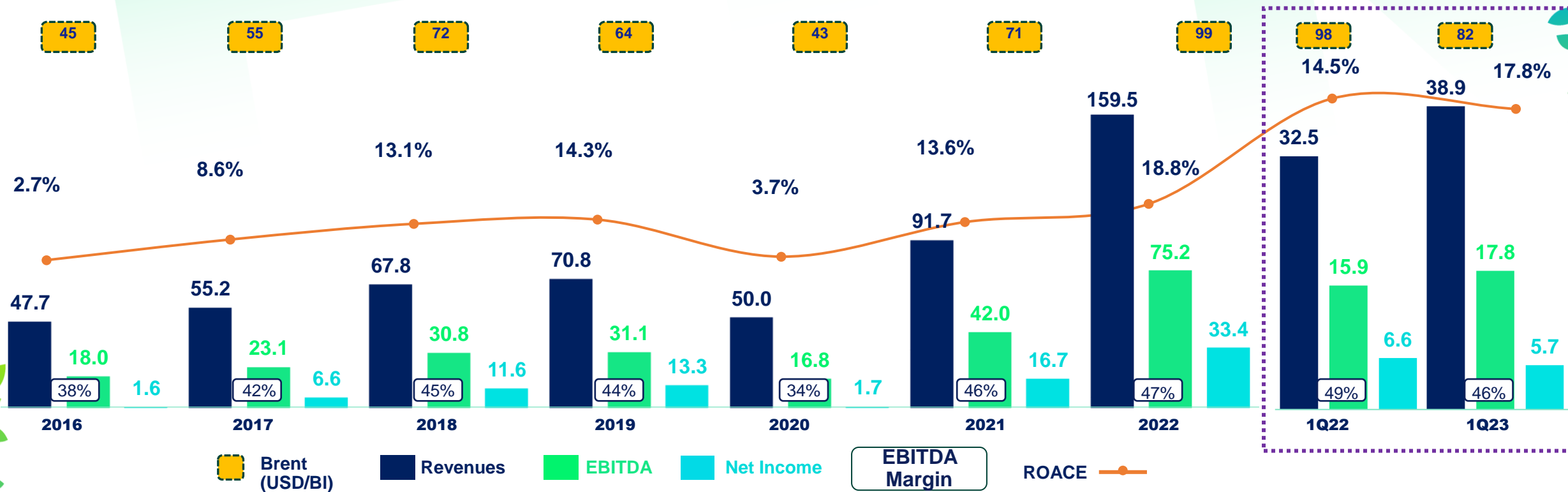


32.2% net income growth **vs 2021**



Carbon neutrality certification for 11 of ISA's companies

Record results, beyond the financials



RESULTS THAT EXCEED THE SET TARGETS

ENERGY SECURITY

Production mboed	RRR*	Transported volumes mbd	Refineries throughput mbd
------------------	------	-------------------------	---------------------------

ESG

Renewables incorporation MW	Social and Environment Investment	ST+I investment
-----------------------------	-----------------------------------	-----------------

FINANCIALS

CAPEX	Gross Debt/ EBITDA	Operating cash flow
-------	--------------------	---------------------

TARGET 2022	700 - 705	100%	>1,000	340 - 360	400 – 450 to 2024	COP T 1.5 2022 - 2024	58 MUSD	4,800 – 5,800 MUSD	<2.5x	COP T 26.6
ACTUAL 2022	709	104%	1,071	358	208 to 2022	COP 615 billion	62 MUSD	5,488 MUSD	1.5x	COP T 36.2

*Reserves Replacement Ratio

Governance and corporate responsibility

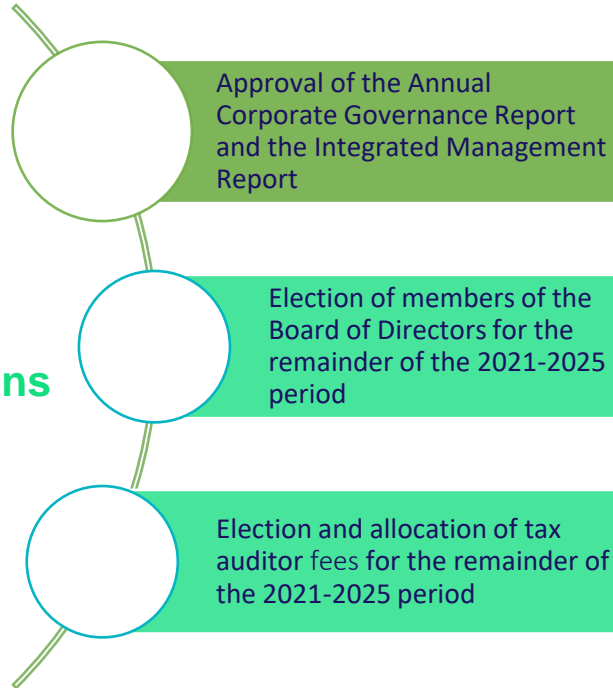
General Shareholders Meeting

First Carbon Neutral Meeting with more than **2,000 people** in Colombia

Board of Directors

- 77.7% independent members
- 3 women, 2 more than the statutory minimum required

Main Decisions



- Business lines defined to **respond to the challenges** of the 2040 Strategy
- Advances in the **TESG** driver
- **Results for Financial Year**

Board of Directors Ecopetrol S.A



Saúl Kattan
Independent
Since October 2022
Chief Officer



Mauricio Cabrera
Independent
Since October 2022
Vicepresident BoD



Mónica De Greiff
Non Independent
Since October 2022



Sandra Ospina
Independent
Since October 2022
Hydrocarbon Producing
Departments



Juan José Echavarría
Independent
Since March 2023
Minority Stockholders
Representative



Gonzalo Hernández
Non Independent
Since October 2022



Claudia Gonzáles
Independent
Since March 2023



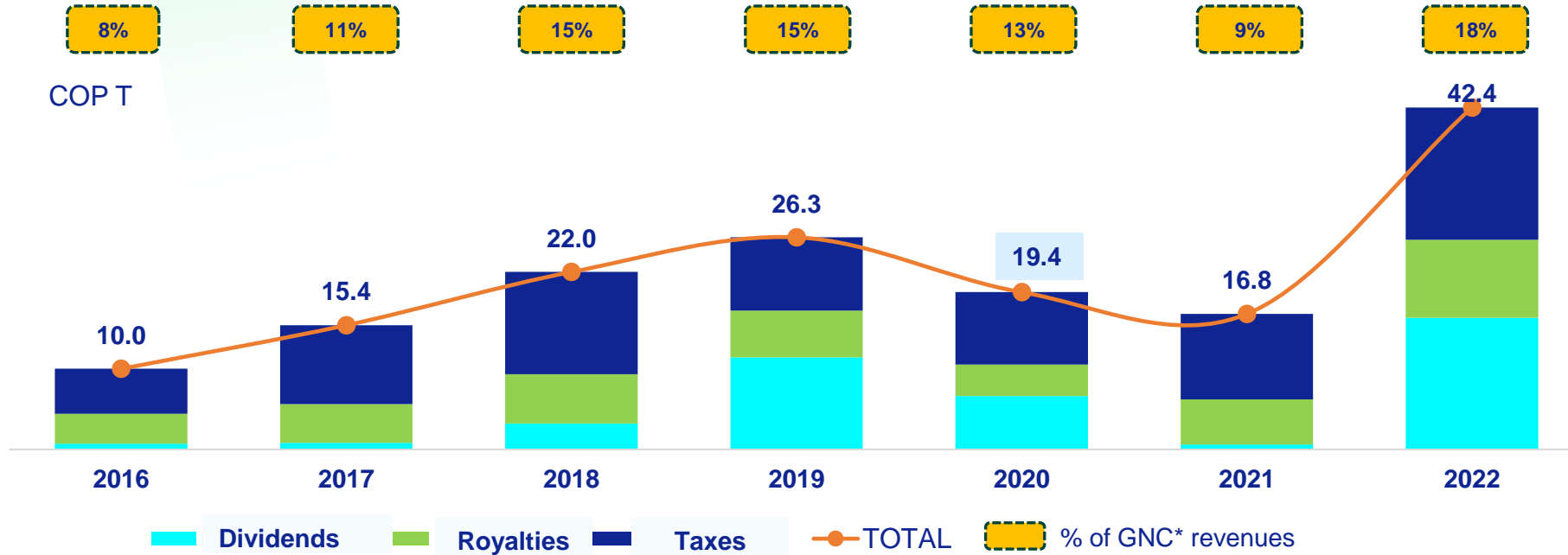
Luis Alberto Zuleta
Independent
Since March 2023



Esteban Piedrahíta
Independent
Since April 2019

- Non independent members
- Members of Ecopetrol's Board of Directors in previous periods

Ecopetrol's growing contribution to national development



COP 25.4
trillion average per year
transfers to the Nation for the
last 5 years

112% increase
5-year average vs 2007

Transfers to the Nation in
2022 were the **highest in
history**

SOCIAL AND ENVIRONMENT INVESTMENT

COP 615 billion
in 2022

- **2,179 farmer families**
- **128,258 students**
- **204 km** of roads intervened
- **~764,000 people** with access to drinking water and sanitation

SHAREHOLDERS

COP T 2.1
Dividends

~ **255 thousand** minority
shareholders
~ **18 million**
Indirect shareholders
through Pension Funds

BALANCE OF PAYMENTS

Ecopetrol Group accounted for
~**30% of national
exports** in 2022

**71% of the internal
demand** for fuels - locally
produced

HUMAN TALENT

>560 people with
disabilities

7% identification with
ethnic minorities

5% victims of the armed
conflict

PROCUREMENT

~**130 thousand jobs**
generated through contractors
by 2022

8% increase in **local
goods and services
procurement**
vs 2021



HYDROCARBONS

IN 2022, AT 2,011 MBOE, THE ECOPETROL GROUP ACHIEVED THE HIGHEST OIL AND GAS RESERVES OF THE PAST 8 YEARS



Reserve Replacement Ratio

Amount of barrels produced vs barrels incorporated

104%

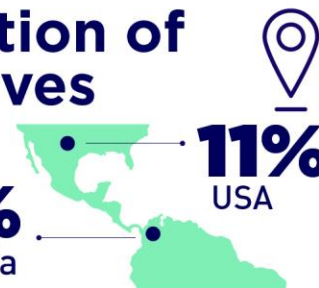
Exceeding 100% 2022 target

130%

Average over the past 5 years

Location of reserves

89%
Colombia

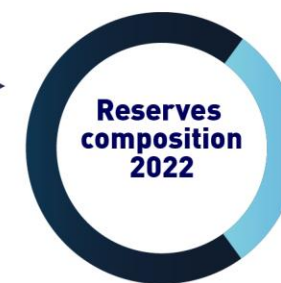


Crude

75%

Average reserve life

8.3
years



Gas

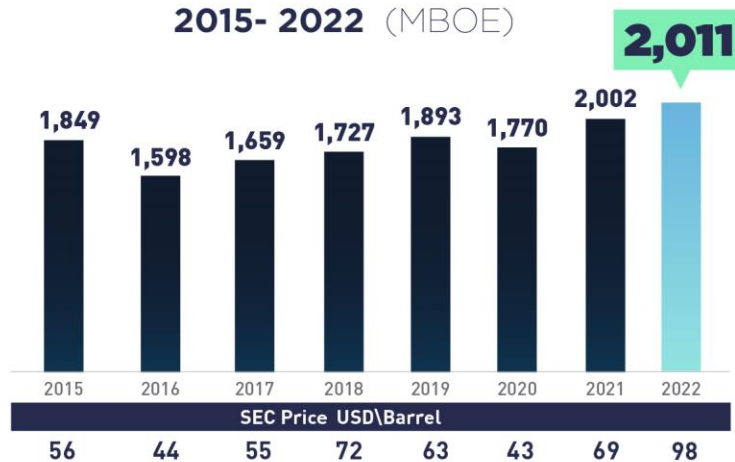
25%

Average reserve life

8.8
years

Timeline of proven reserves

2015- 2022 (MBOE)



215
MBOE

Organic growth

-14
MBOE

Variation

48
MBOE

Price effect

MBOE

2,002

Production

-240

249
Incorporated

2,011*

2021 Reserves

2022 Reserves

2022 Reserves

MBOE

1P Proven

2,011

Probable

486

Scenario 2P
(Proven + Probable)

2,497

Possible

369

Scenario 3P
(Proven + Probable + Possible)

2,866

Contingent Resources

Uncertainty range

1C
(Low)

2C
(Medium)

3C
(High)

Contingent resources MBOE

601

1,169

2,305

Average reserve life

(years)

8.4

Time for which reserves would be sufficient at current production, if no new activities are undertaken

The Securities and Exchange Commission permits oil and gas companies to disclose thereto only their proven, probable and possible reserves according to the SEC's definition thereof and disclose the relative uncertainty associated with these classifications. Ecopetrol only discloses its proven reserves in its SEC filings. As a result, the information pertaining to reserves in the Company's SEC files may differ significantly from the information in this press release. The reserves estimates provided in this document are only estimates, and there is no guarantee that the reserves estimated will be recoverable. The actual recovered reserves could result in higher or lower results than those estimates mentioned here. By their nature, forward-looking statement regarding reserves are only forecasts. Said estimates are included here to provide readers additional measures by which to assess the Company; however, said reserves estimates are not reliable indicators of the future results of the Company, and past performance is not indicative of future results.

¹ Million barrels of oil equivalent

*Decimals are rounded off to the nearest whole number

Diversified exploratory portfolio focused on energy security

2022

Strengthening the exploratory portfolio

Discovered resources:

- Uchuva-1
- Tejón-1
- Coralino-1

Contingent resources:

- Gorgon-2
- Lorito

Prompt progression to commerciality

- Liria YW12
- Niño-2
- Ibamaca-1

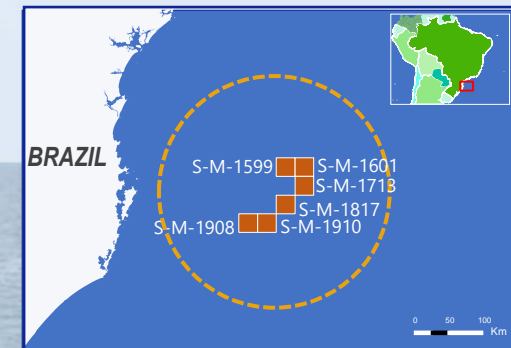


Exploratory Successes 1Q23

**Arrecife Norte-1
Tororoi-1**

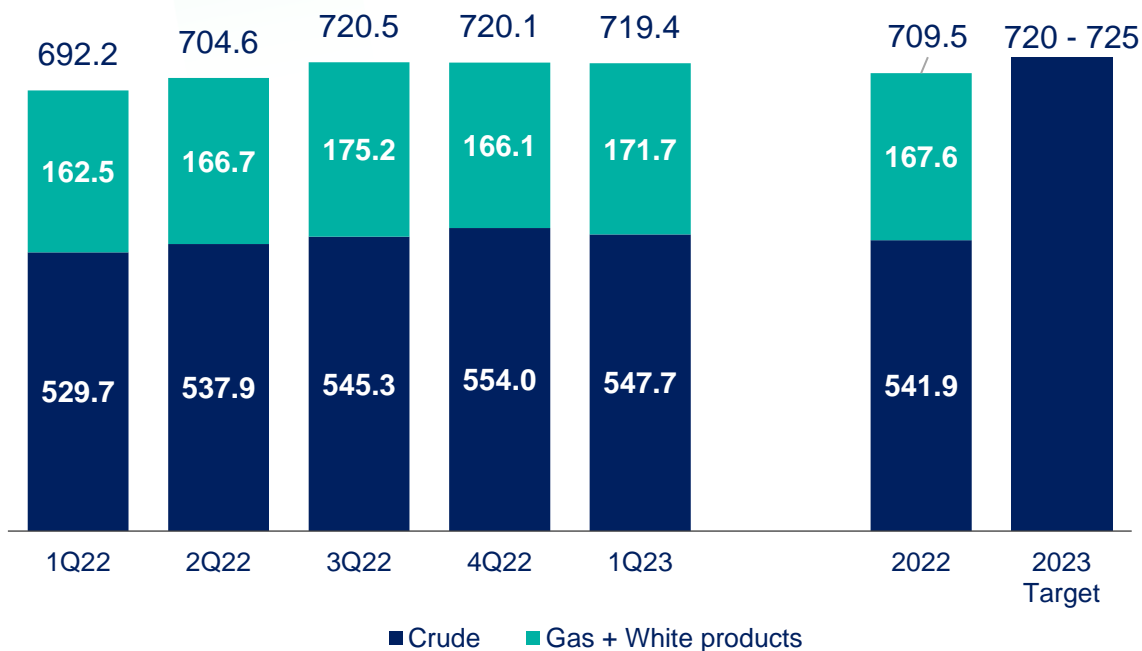
2023 Drilling Campaign

**25 exploratory wells
8 drilled wells in 1Q23**



Outstanding production performance

Production (mboed)



1Q23 impact for security and roadblocks ~9 mboed

Key Growth levers

- CAÑO SUR** **+21.2mboed** 1Q23 vs 1Q22. Entry into operation of first fluid treatment train
- PERMIAN** Outstanding contribution to GE production and reserves

Increased Execution Capacity

	2021	2022
# Development wells	395	536
# Workovers	443	555
# Rigs	20	28

Contributing to T ESG Strategy

Decarbonization
325 KTonCO2e reduced in 2022
+167% vs 2022 target Upstream

Water Neutrality in Chichimene

28% Reuse of total produced water (2 MBWPD) **+20%** vs 2021
52% Reduction of freshwater withdrawal vs 2021 (87.7 KBWPD)

Permian: a success story

	2019	2022
1P Reserves (Mboe)	164	207 *
Wells on Production	4	209
Annual Average ECP's Production (Kboed net before royalties)	0.9	37.8
Cumulative Production (Mboe net before royalties)	0.1	22.8
EBITDA (MUSD)	1.4	644
EBITDA MARGIN (%)	69.8	87%
OPEX (US / boe)	4.5	3.8

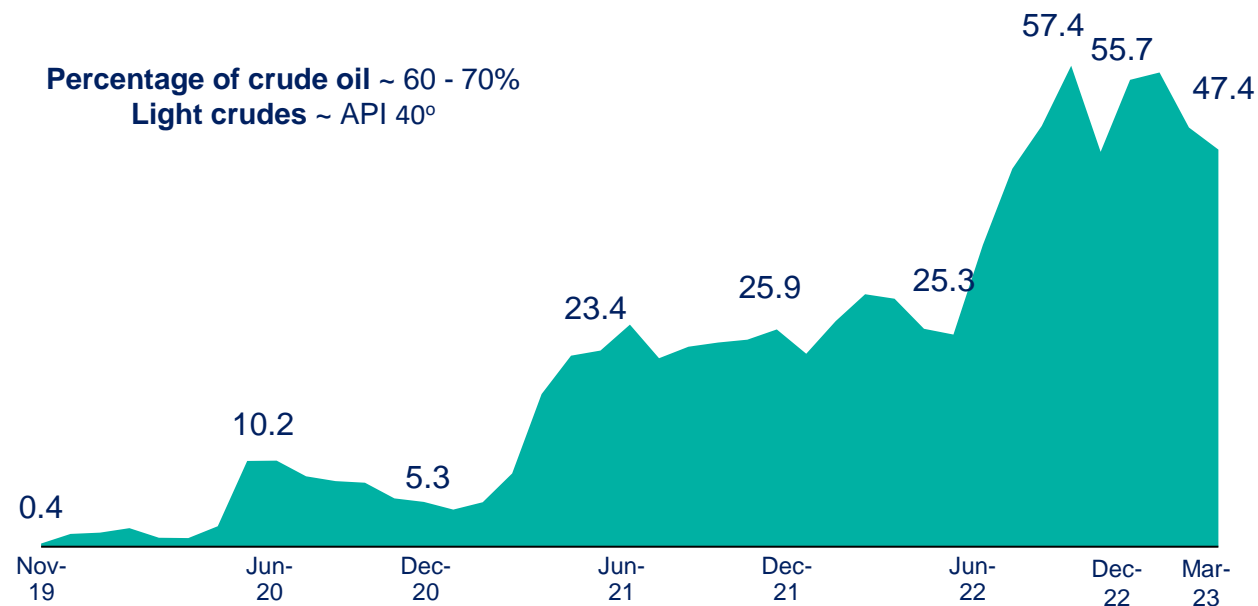
(*) YE 2022 Reserves

Mboe: Million barrel of oil equivalent

Kboed : Thousand barrels oil equivalent per day

Includes EBITDA & EBITDA margin 2019 for Nov & Dec.

Production Monthly Average ECP net before royalties (Mboed)



~8 KgCO₂e/boe
Low CO₂e emission intensity

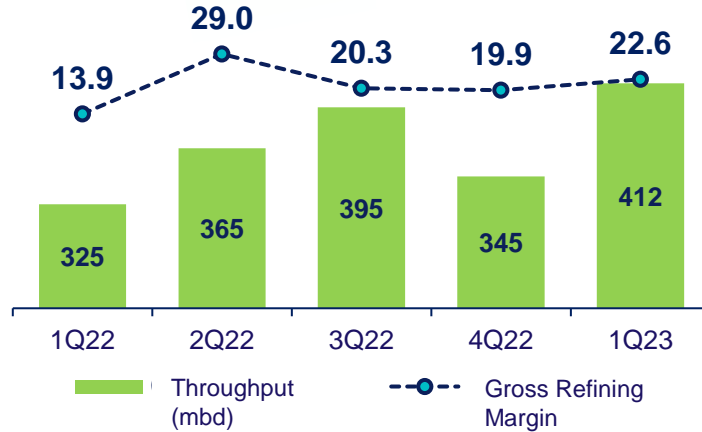
18.6%
ROACE
2022

Start of drilling operations in Delaware area

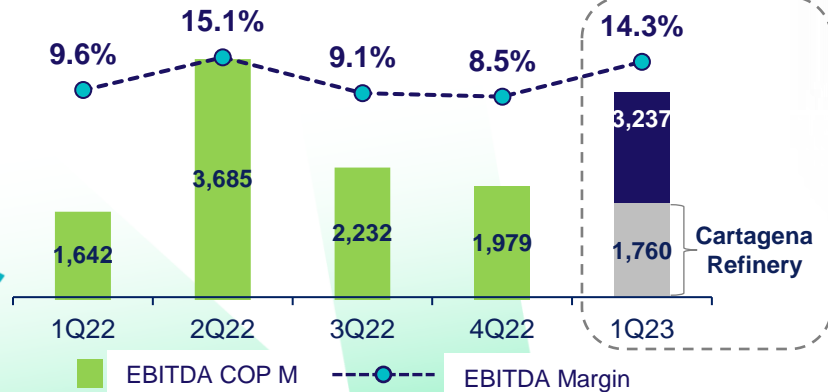
First tankless facility reducing venting emissions

Outstanding Performance and T ESG Standards

Gross Refining Margin and Throughput



Financial Performance



+1,500
People hired

93% local workforce from Cartagena



150 to 200 mbd
Increase in production of clean fuels

Crude Plant Interconnection Project Cartagena Refinery (IPCC)

Increase in Refining Capacity (mbd)

Gasoline	Diesel	Jet Fuel	Naphtha	Fuel Oil	Other
7	12	9	13	12	7

Barrancabermeja Refinery

“Best Refinery in Latin America” World Refining Association (2022)



Renewable diesel pilot in 4Q22



Energy efficiency



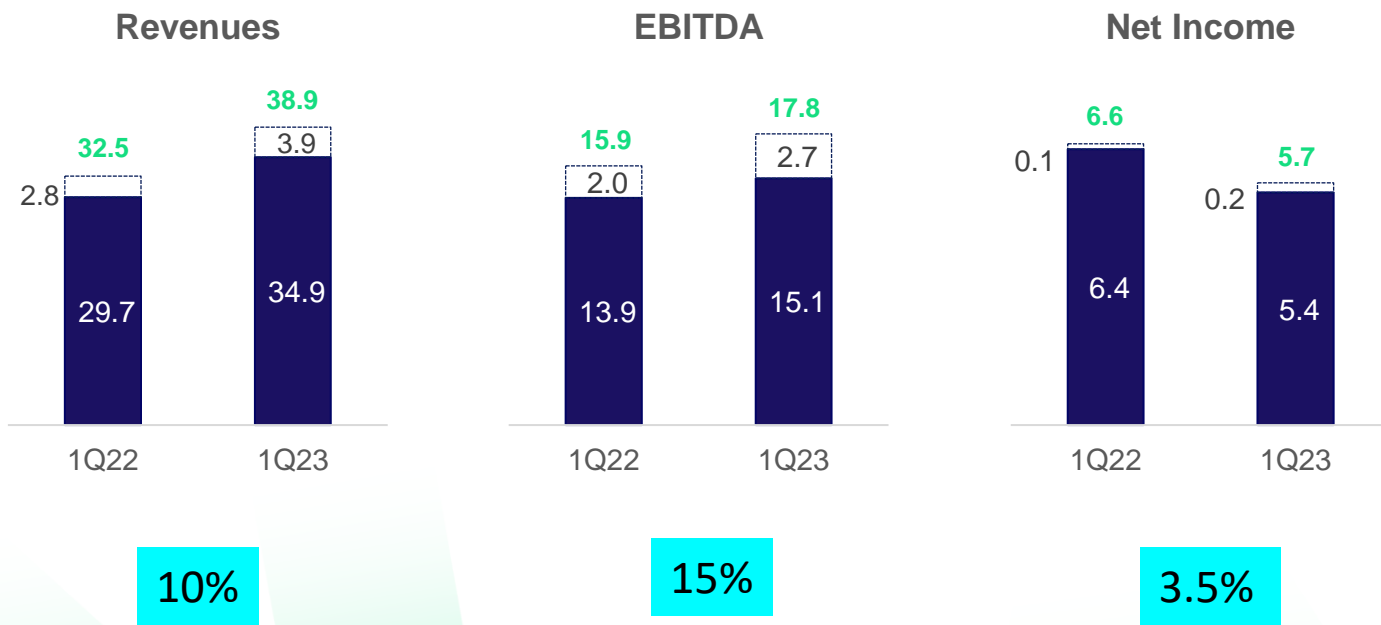
Contribution to energy transition and technology



On the path to profitable growth

BUSINESS LINE CONTRIBUTION 1T23 (COP T)*

■ GE without Transmission and Toll Roads
 □ Transmission and Toll Roads Contribution
 Total Ecopetrol Group



OPERATING MILESTONES



Award of **13** red extensions in Brazil and **8** connections in Brazil, Colombia and Peru



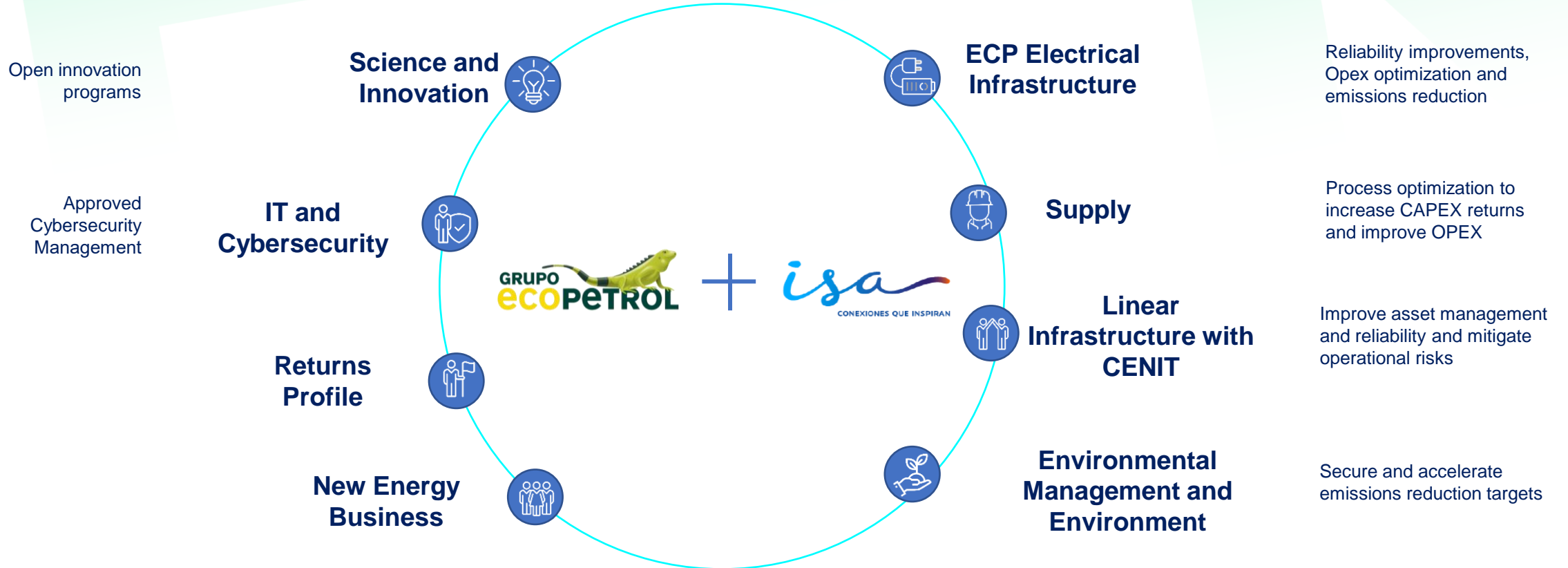
Energization of **15** upgrades and **1** reinforcement in CTEEP, and partial start-up of Itaúnas IE in Brazil



Termination of Ruta del Bosque road concession in Chile

* Totals may not exactly equal the sum of the individual entries due to rounding.

Synergies that contribute to the growth of EG



Main lines of work with synergies and estimated benefits for the EG of up to ~USD 360M

Reliability Initiatives

It will capture benefits for reliability improvement and deferred production reduction

USD ~9-15 M Benefits

Commercial Offers

- 6 initiatives of new connections
- 1 storage initiative
- 2 photovoltaic projects

USD ~115 M Benefits

New Business

- Infrastructure for Green Hydrogen
- Gas to Power – International Interconnections

Energy Transition

- Energy Communities
- Roadmap for energy transition (MME*)

Expansion Plan

Structuring and management of the electric-energy plan of the EG 2023 - 2040

USD 190 - 230 M Benefits

*Ministry of Mines and Energy



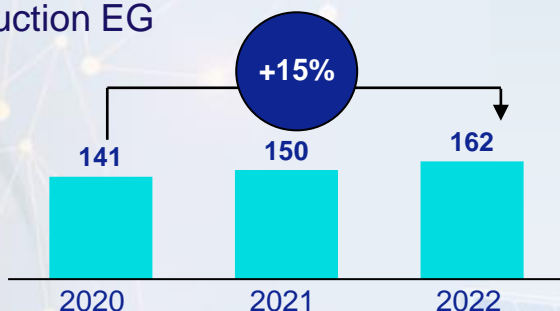
LOW EMISSION SOLUTIONS

Profitable growth in low emissions

Gas and LPG production EG (mboed)

160.2 KBED

Gas & LPG* production +1% 1Q23 vs 1Q22



~23% contribution of Gas and LPG to 1Q23 production

Main gas findings:



Gorgon-2 (Ultra Deep water)

Uchuva-1 (Deep water)

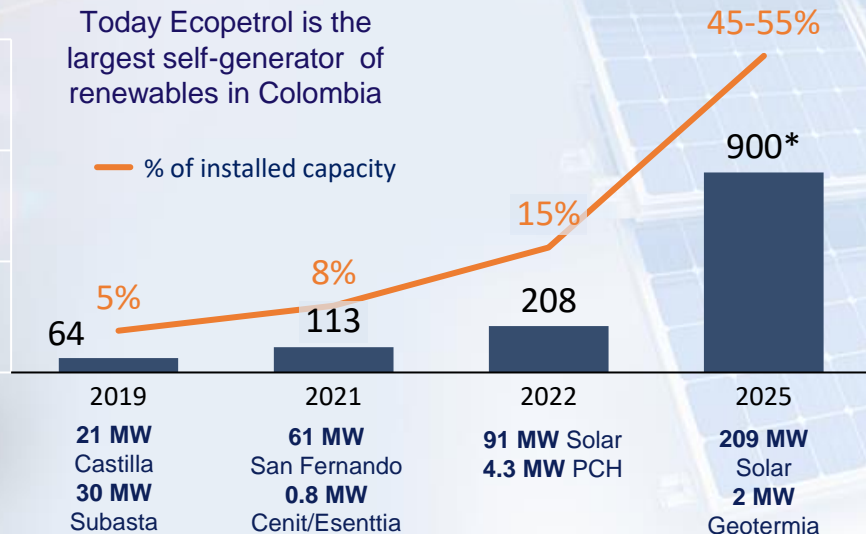
Investments in Gas and Unprecedented Activity

	2021	2022
Gas Investments (MUSD)	250	539
#Gas wells (exploratory+development)	5	16
Exploratory successes	2	2
Marketing process (GBTUD)	58	134

- Renewal of **100% of the contracts.**
- **+32 GBTUD** of new demand.

Renewable Energy (MW)

Today Ecopetrol is the largest self-generator of renewables in Colombia

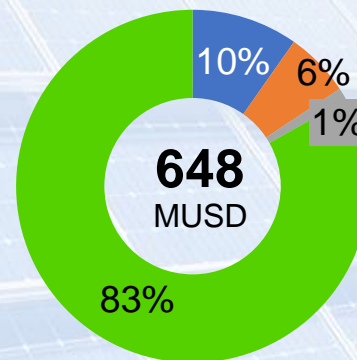


2019
21 MW Castilla
30 MW Subasta

2021
61 MW San Fernando
0.8 MW Cenit/Esenttia

2022
91 MW Solar
4.3 MW PCH

2025
209 MW Solar
2 MW Geothermia



Investments in Low Emission Solutions 2022

- Decarbonization
- Energy efficiency
- Hydrogen
- Gas

Social Gas & LPG

2,379

Connected Users

+198% vs 1Q22

*In operation and construction.

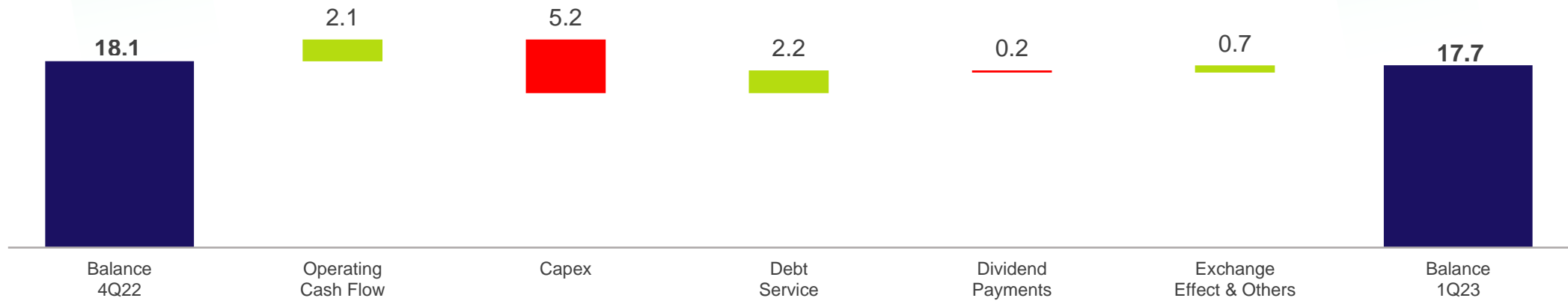


BALANCED SCORECARD

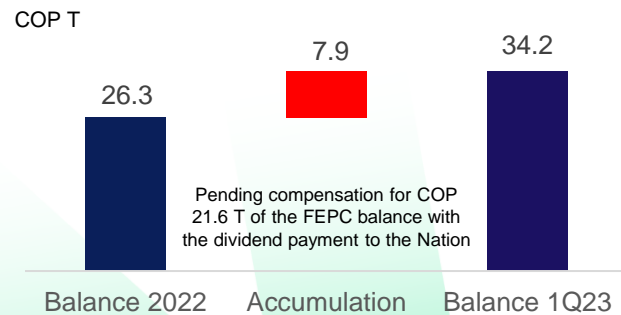


Strong financials aligned with investment grade*

Cash Balance (COP T)



FEPC Balance



Liquidity

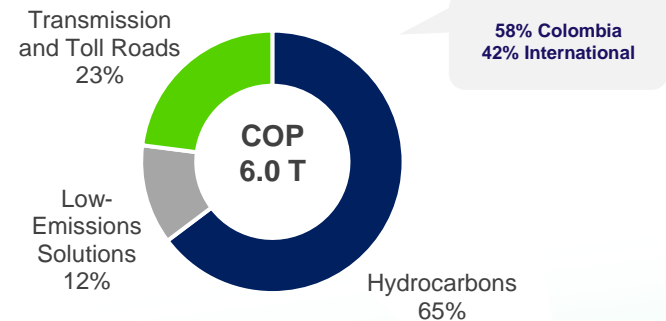
Quick Ratio

1.0x
(1.0x Peers*)

OCF/ Current Liabilities

0.4x
(0.8x Peers*)

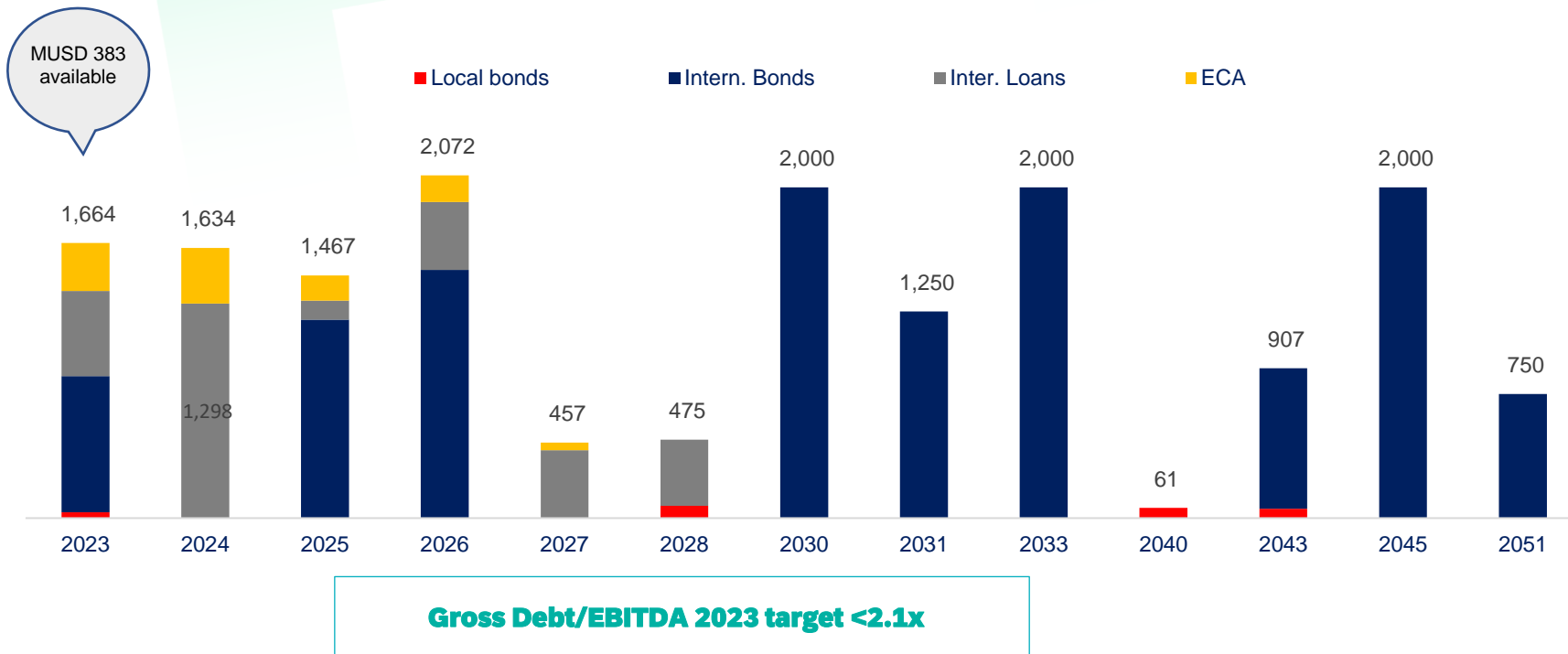
Capex



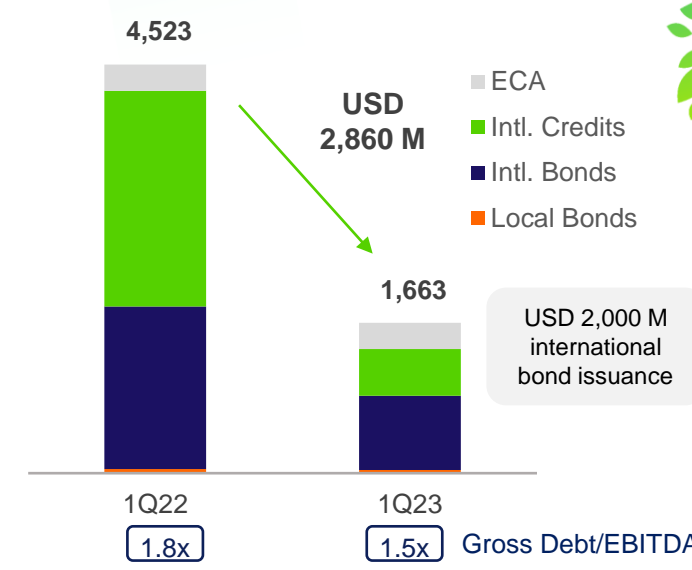
Cash Balance includes: Cash and Cash Equivalents and Other Current and Non-Current Assets. * Moodys Rating: Investment Grade; S&P and Fitch Stand Alone: Investment Grade. **Figures as of 1Q23. Peers: Shell, Chevron, Exxon, TotalEnergies, BP, PTTEP, Equinor, Repsol, Hess, Marathon y ConocoPhillips.

Debt Portfolio – Ecopetrol S.A.

Maturity profile by type of instrument - Ecopetrol S.A. (MUSD)

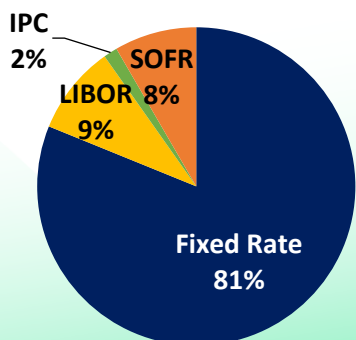


2023 Debt Management (USD M)

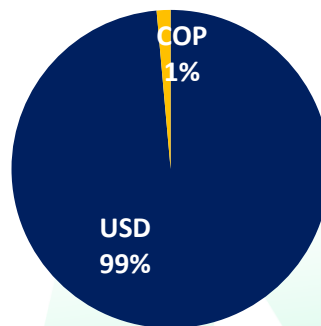


Debt composition - Ecopetrol S.A. (MUSD)

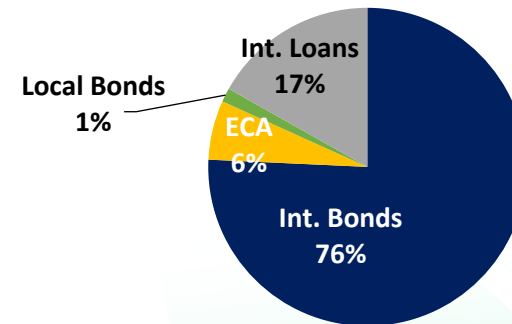
Interest Rate



Currency

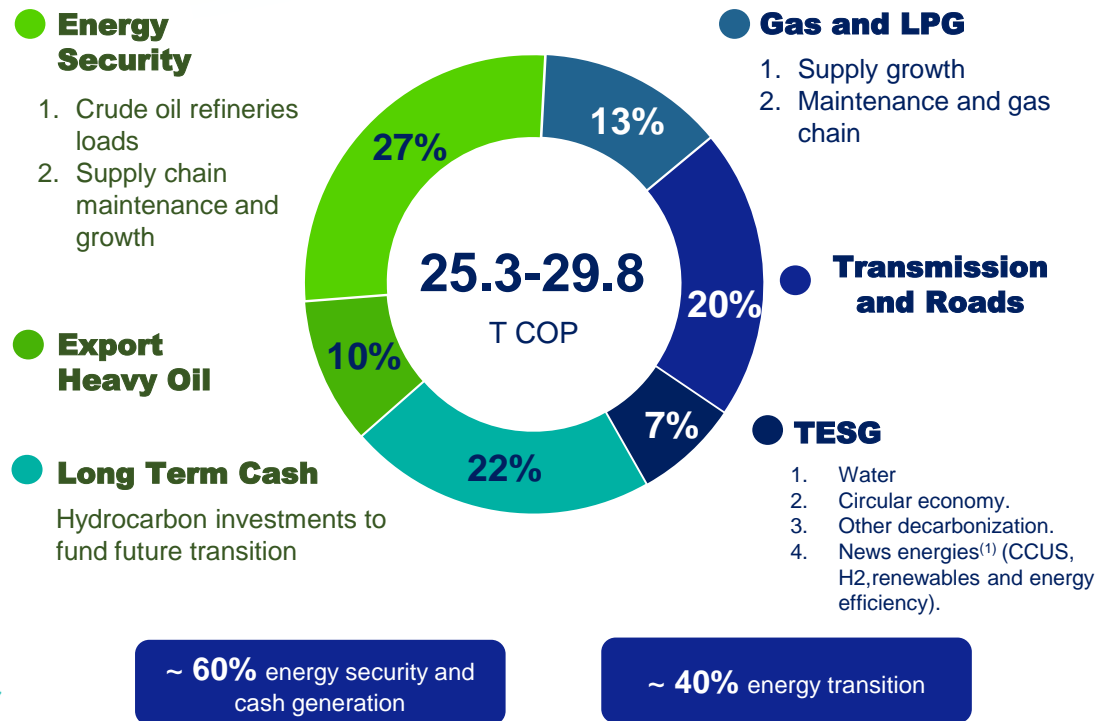


Instrument

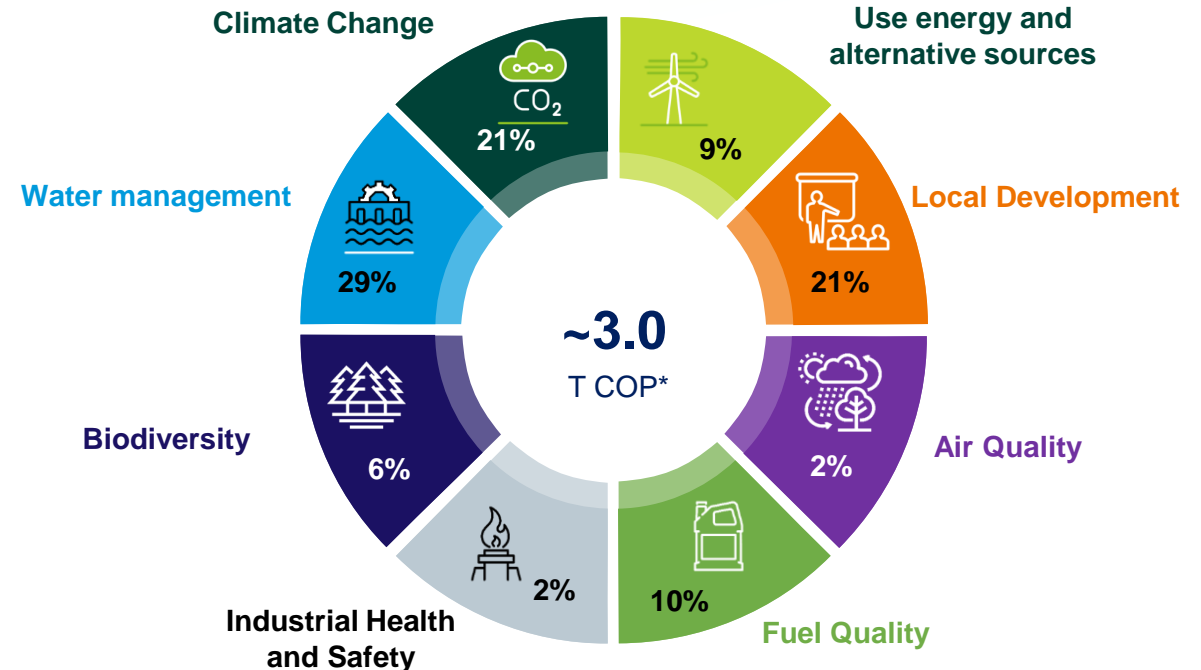


The 2023 financial and investment Plan is geared towards the energy transition and value creation

40% of the investments in 2023 are oriented towards the energy transition



The Ecopetrol Group allocates resources from the 2023 Plan in its commitment to TESG



*Includes ~2.2TCOP of Capex resources and ~0.8TCOP of Opex resources.

Main Indicators 2023 Plan EG⁽²⁾:

>40	>11	<2.1	720-725	25.3-29.8	>40
EBITDA Margin (%)	ROACE ³ (%)	Gross Debt/EBITDA (x)	Production (MBOED)	Investments (T COP)	Transf. Nation ⁴ (T COP)

(1) Does not include LBCC project that has H₂ component, (2) Assumptions Plan 2023: Brent: USD 80/B Exchange Rate: 4,500. (3) Normalized FEPC. (4) Includes dividends, royalties and taxes.



ecopETROL
GROUP

TESG

EPA
CARTAGENA

ecopETROL

ecopETROL
CARTAGENA

ESCALONADO
EPA
CARTAGENA

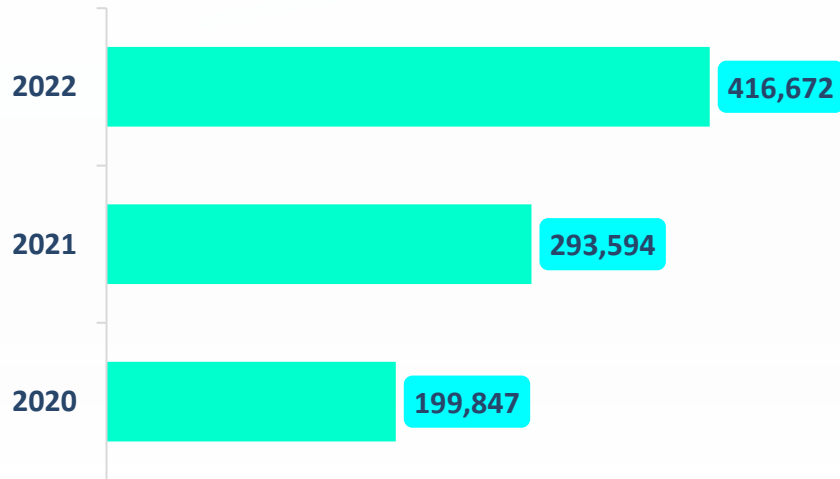
MANERA

MANO DE
TRABAJO

Decisive action in the fight against climate change

Reduced Emissions

910,113 tons of CO₂e between 2020 and 2022



NCS* portfolio
Cumulative capture potential >133% vs. 2021

*Natural Climate Solutions



Carbon-neutral subsidiaries



Decarbonization initiatives



Energy efficiency: optimization of **44.7 MW in electric power** (2018 - 2022).



Shutdown of ~1,700 identified methane leaks



Sale of 5.8 mmbbls in **carbon offset cargoes**

Responsible and Efficient Water Management

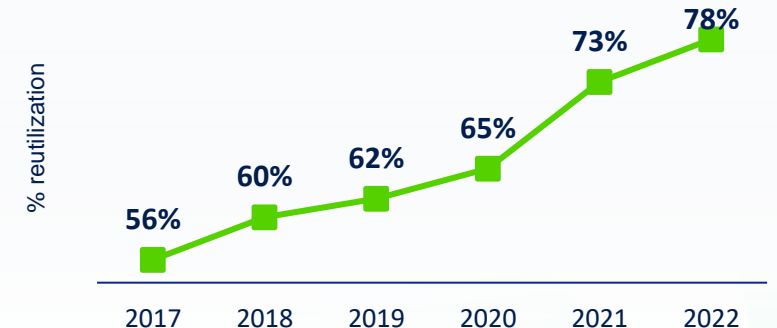
Water - neutrality

0

$$= \frac{\text{Volume of fresh water captured}}{\text{Volume of fresh water captured}} + \frac{\text{Volume of discharges into freshwater bodies}}{\text{Volume of discharges into freshwater bodies}} - \frac{\text{Compensated water volume}}{\text{Compensated water volume}}$$

IN 2045 ECOPETROL WILL BE WATER NEUTRAL

By 2022, we reutilized 78% of the water required to operate our facilities.



In summary...

- Strong 2023 start, **plan remains on track**
- Progress towards the **energy transition** and in line with the **pillars** of the **2040 Strategy**
- **Creating value** for our shareholders, employees and the communities with whom we work on a daily basis in our operation
- Many **opportunities** going forward, underpinned by **strong corporate governance**





Q&A

2040 CORPORATE STRATEGY

COMPETITIVE RETURNS

8%-10% Return on capital (ROACE)

< 2.5x Gross debt / EBITDA

13 - 20 TCOP
Annual transfer payments to the Nation *

CUTTING-EDGE KNOWLEDGE

20 - 30 BUS\$
(~76 - 114 TCOP)

Cumulative EBITDA by 2040 enabled by technology and innovation

70% of personnel in reskilling by 2030 (to face new challenges)

GROW WITH THE ENERGY TRANSITION

13,000 - 14,000 MUS\$
(~49 - 53 TCOP)
Annual EBITDA by 2040 **

30%-50%
Share of low-emission business in GE EBITDA

GENERATE VALUE THROUGH TEG

Zero CO2 emissions by 2050 (Scopes 1 and 2)
-50% cutback of total emissions by 2050

Zero Water discharges by 2045

230,000 Non-O&G positions by 2040

Assumptions: Brent (2025- 2040) 45 -55 US\$/Bl. Exchange rate: \$3,800/ cop

*Includes: Royalties, taxes and dividends **6,500 -8,500 MUS\$ O&G Annual EBITDA by 2040

Ecopetrol Group's resources and reserves progression



More uncertainty ●

● Less uncertainty

Exploration

Production

Seismic acquisition / reprocessing

Exploratory wells

Appraisal wells

Development wells and facilities

Prospective resources
(Potential)

Discovered resources¹
(Potential)

Contingent resources²
(Potential)³

Total Reserves
(3P)⁴

+6.000
* MBOE

Gas
53%
~18 TCF

Offshore and onshore blocks

Potential upside of gas

70 - 100 TCF
(Net Ecopetrol)

~3.000
MBOE

Gas
30%
~5 TCF

Include, among others



UCHUVA

2.305
MBOE

Gas
14%
~1,9 TCF

Include, among others



GORGON

2.866
MBOE

Gas
21%
~3,5 TCF

Possible

369

Probable

486

Proved (1P)

2.011

Gas

25%
~2,8 TCF

Average R/P ratio (1P)

Crude: 8,3 years

Gas: 8,8 years

*TCF: Tera cubic feet *MBOE: millions of barrel of oil equivalent

¹ Ecopetrol classification and estimation.

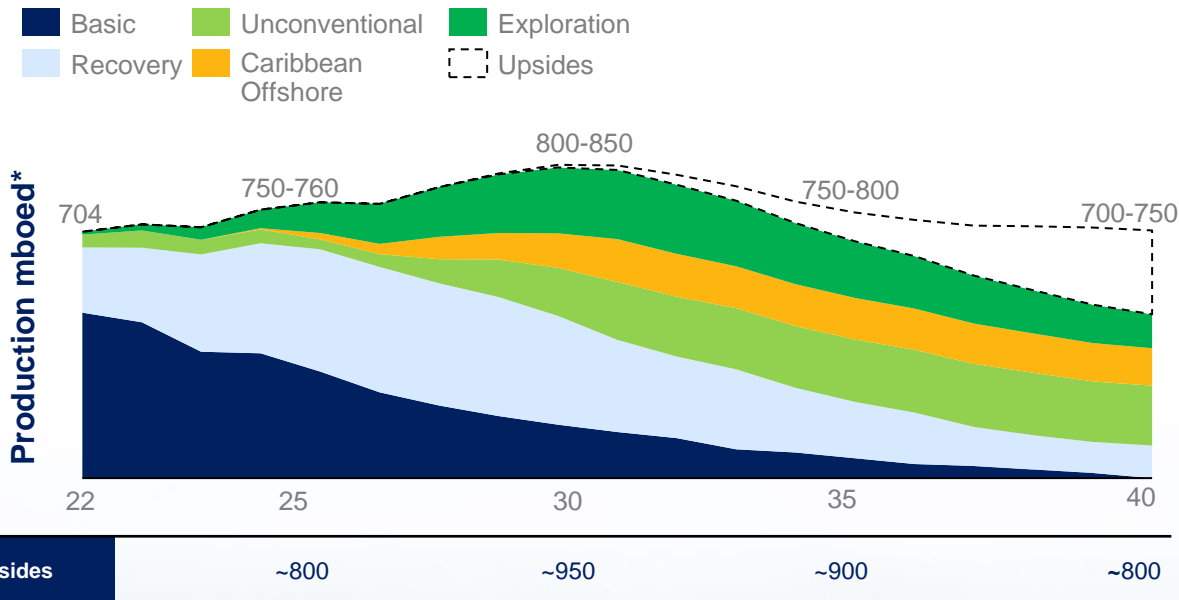
² Independent verification (86% of resources) and internal verification.

³ The volumes will progress to reserves as economic and technical, as well as social and Environmental, contingencies are completed.

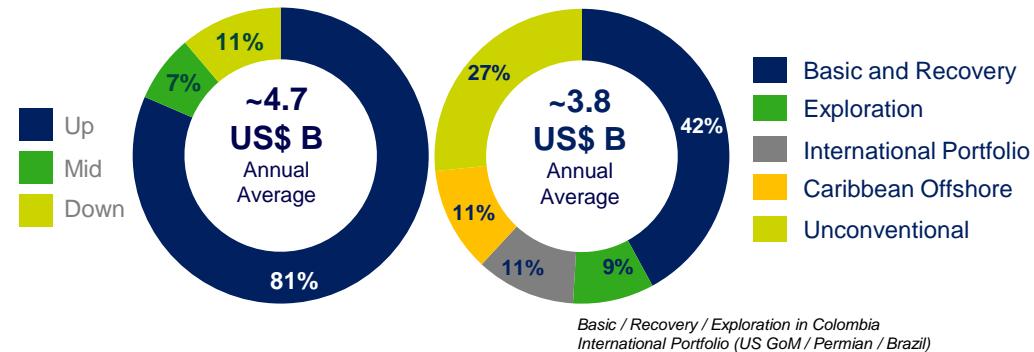
⁴ Independent verification (99,8%) of reserves.

HIGHLY COMPETITIVE UPSTREAM BUSINESS

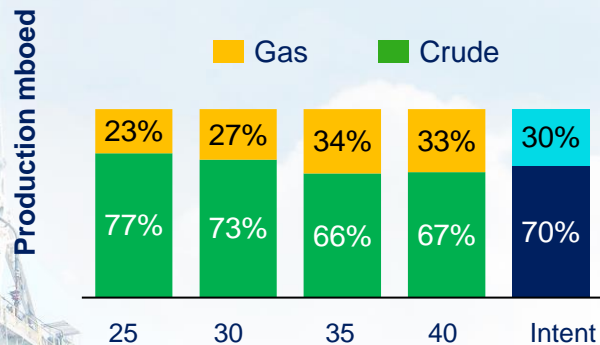
enables production growth and diversification



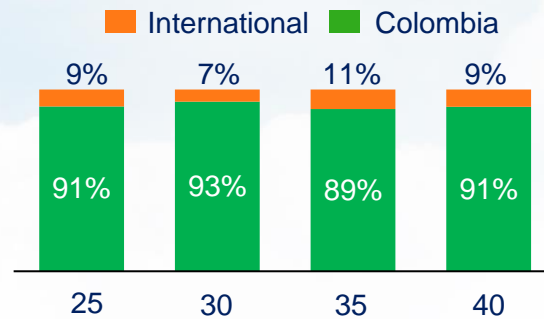
CAPEX 2022-2030



Production by type of product



Production by geography

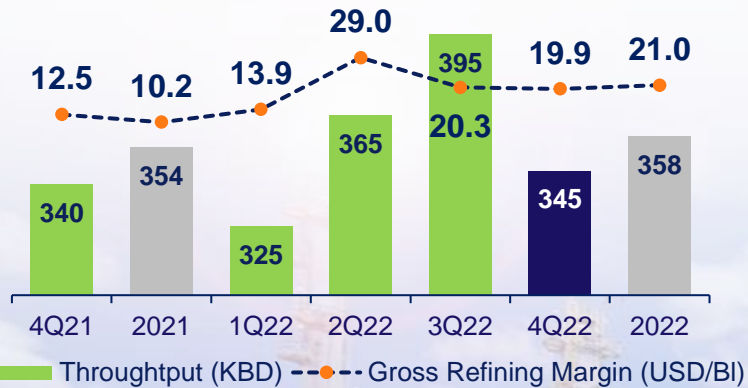


*Assumptions: Brent 45 -55 USD\$/Bbl; High prices: 55-65 USD\$/Bbl

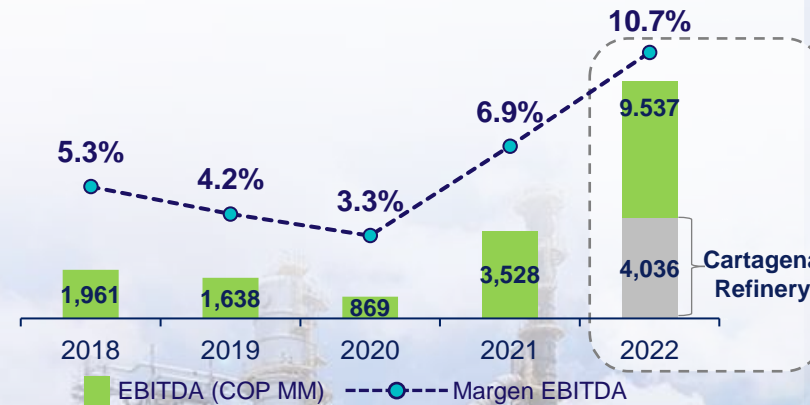
** IIPP: Comprehensive Research Pilot Project

Record contribution from a growing downstream

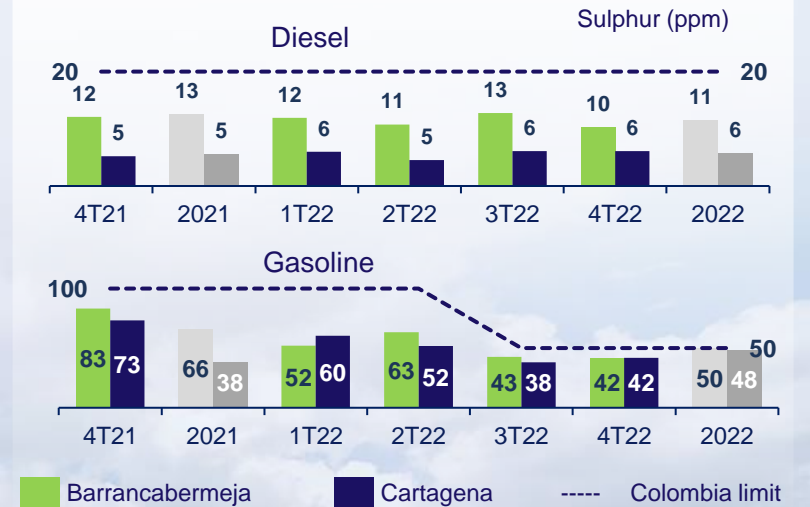
Gross Refining Margin and Throughput



Downstream Financial Performance



Clean Fuels Production



Barrancabermeja Refinery "Best Refinery in Latin America" World Refining Association" (2022)



Record financial results in gross refining margin, EBITDA and net income



Cartagena Refinery record financial results



Expansion of the Cartagena Refinery (IPCC) +50 mbd capacity



94% operational availability



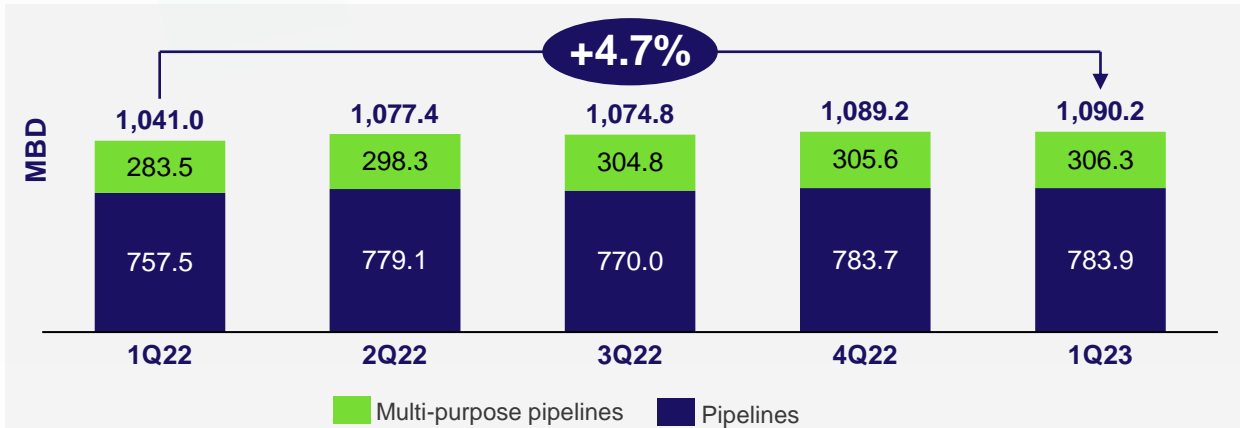
Execution of pilot tests: Renewable diesel in October 2022
H2 green in 3Q22



Construction of a recycled plastic resin plant in Esenttia started

Logistical excellence addressing demand requirements

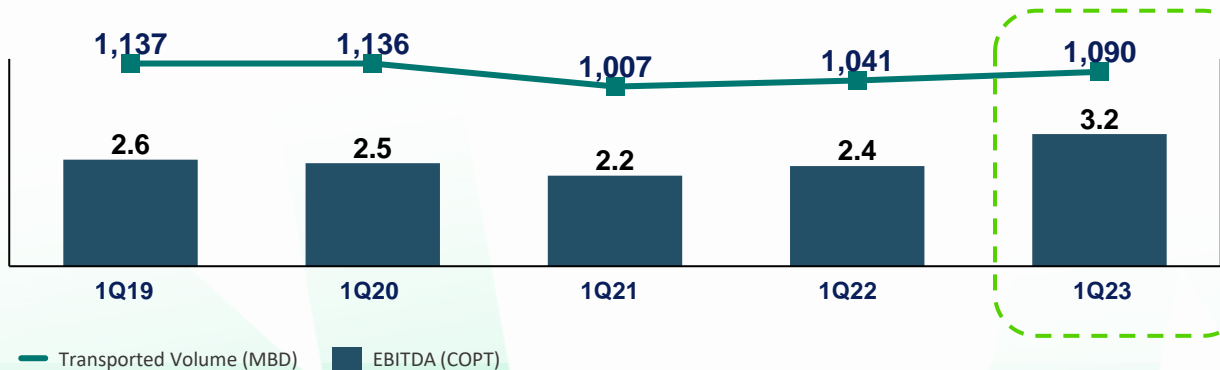
Transported Volume



Third quarter with record evacuations in multi-purpose pipelines of 306 mbd

Midstream Financial Results

EBITDA vs Transported Volume



Cabotage operation - support for fuel supply in the south of the country:



Cabotage from the Buenaventura Maritime Terminal to the Tumaco Maritime Terminal.

Partial blockage of the Panamerican Highway: Cenit enables new routes to meet the demand for products.

11 Vessels | 119 Diesel MBL | 180 Gasoline MBL

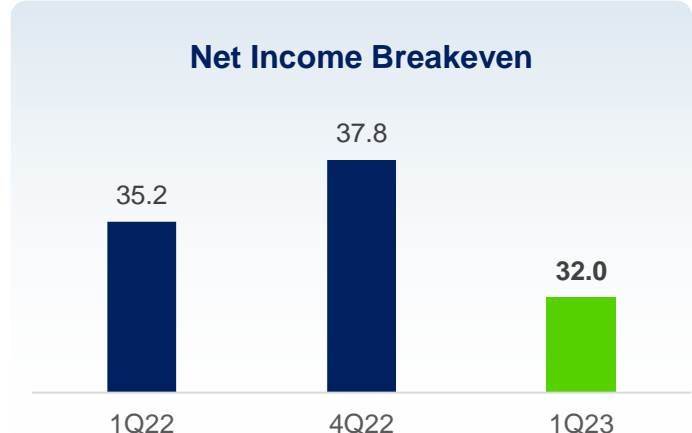
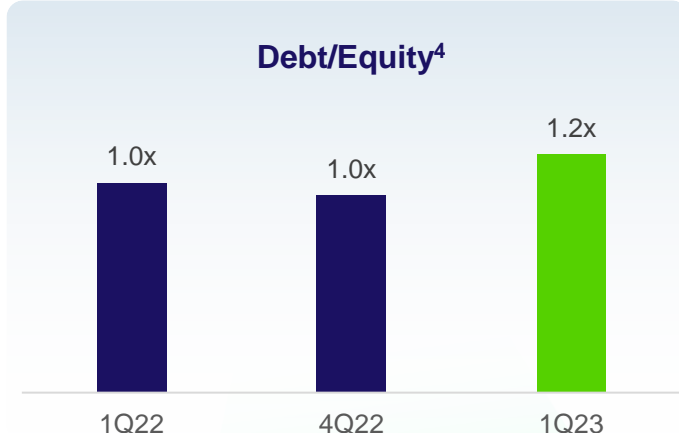
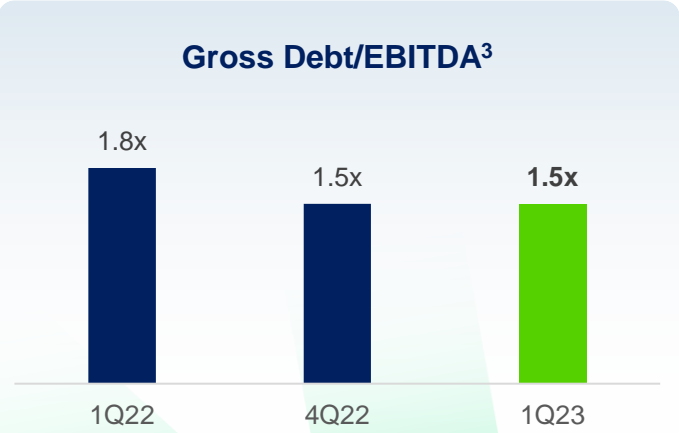
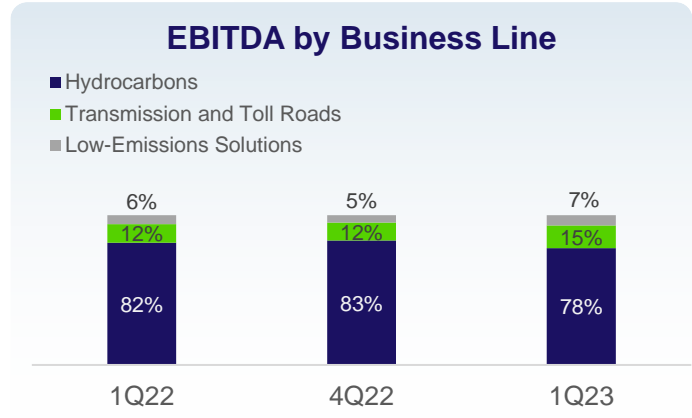
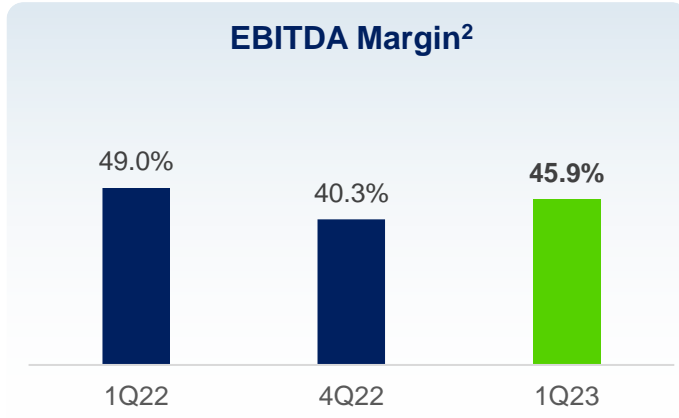
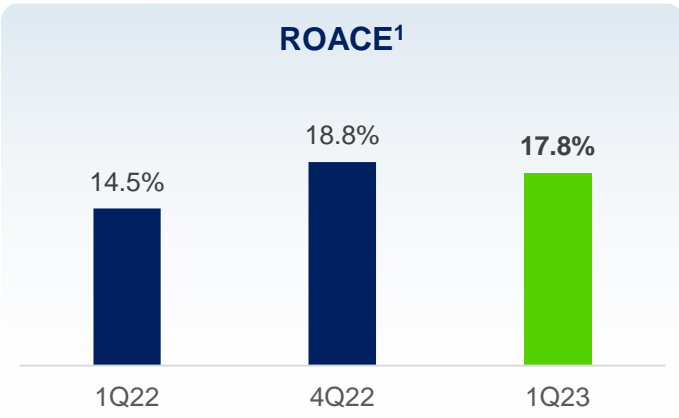
Yumbo storage tank

60 MBL increase in storage capacity in Yumbo "TK- 8000"



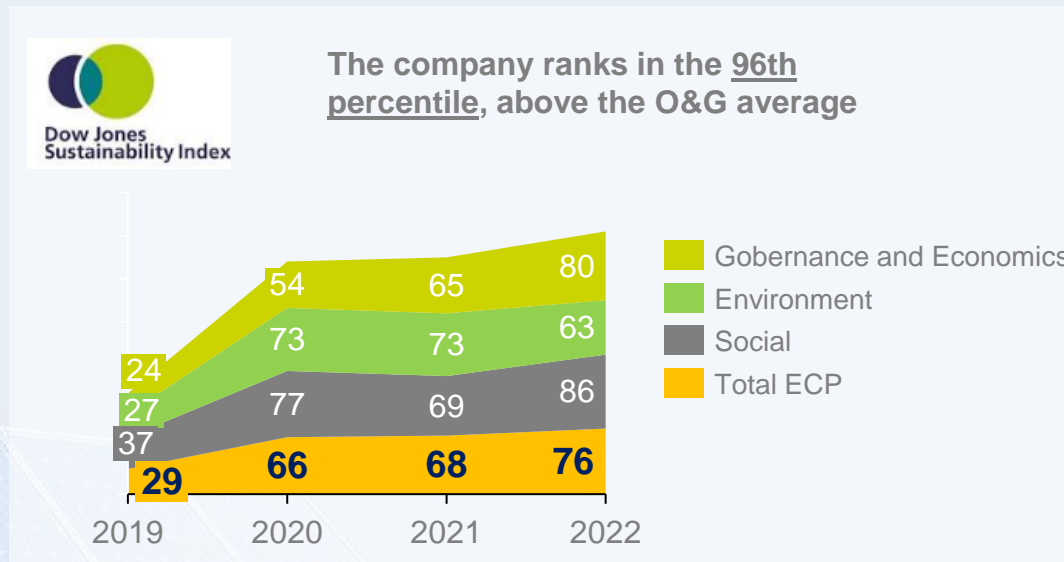
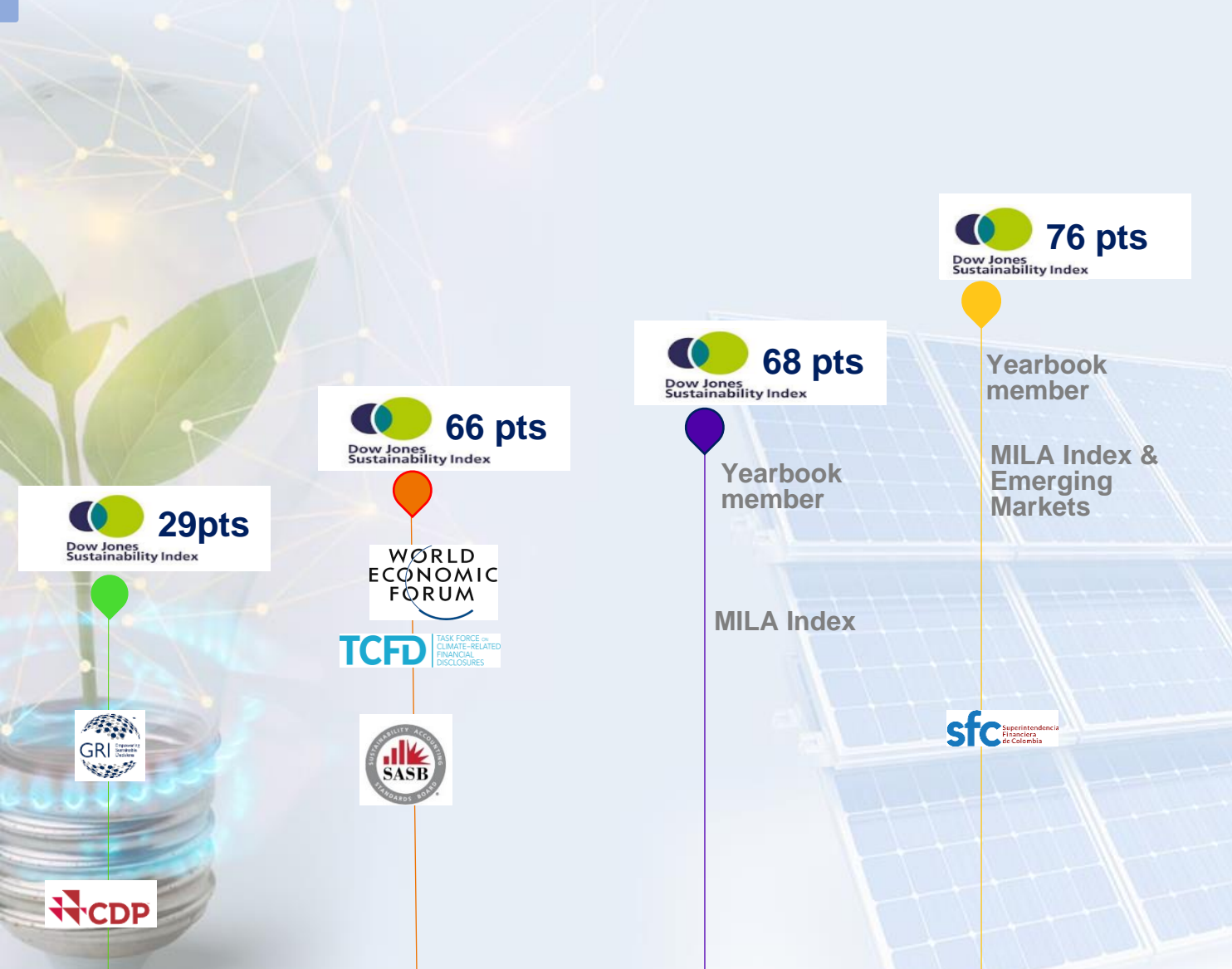
Outstanding results despite changes in market environment

Ecopetrol Group's Indicators 1Q23



1. Return on Average Capital Employed. 2. Calculated using Ecopetrol's Group methodology (incorporation of results of co-controlled companies) as of 01/01/2022. 3. LTM EBITDA. 4. Accounting Equity.

Ecopetrol evolution in TESG®



	2016	2020	2021	2022
Climate Change				
Ecopetrol	D	C	C	A-
O&G Average	C	C	B	B
Water				
Ecopetrol	B	B	B	B
O&G Average	B-	B	B	B



- i. ECP is part of the 44% of Oil & Gas companies that are at the leadership level.
- ii. CDP gave a rating (A) to the components: water policies, water in the corporate business strategy, and assessment of risks associated with water.