



Ecopetrol: leading Colombia's and Latin America's energy transition

JUNE 2023





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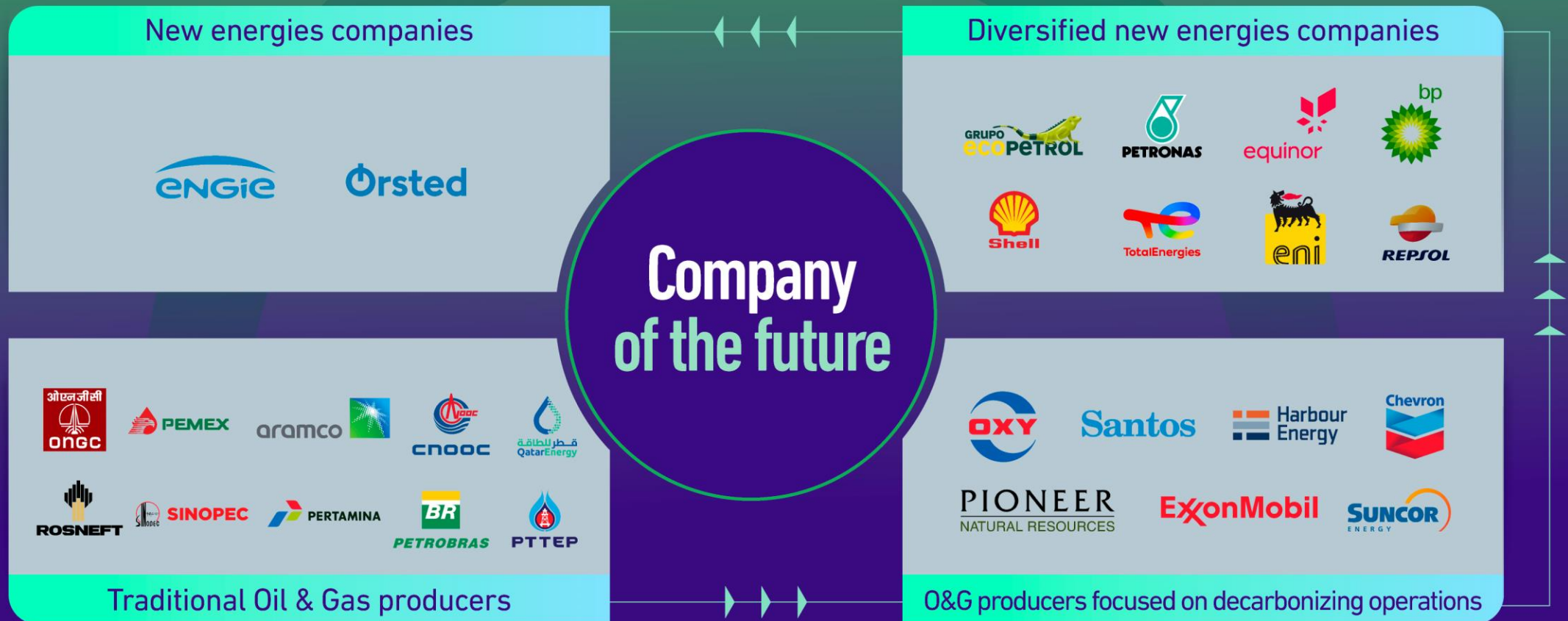
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Ecopetrol is transitioning to become the company of the future



Future energy companies' archetype



Through time companies will migrate from one archetype to other

Source: S&P Global Commodity Insights.

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 BUSD\$
(~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
MUSD\$

(~49 - 53 TCOP)
Annual EBITDA by 2040**

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

GENERATE VALUE THROUGH TESG

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

Water Neutrality by 2045

230.000 Non-O&G jobs by 2040

We grow with the energy transition as a diversified Energy Group

+9 countries

+18 thousand employees



Hydrocarbons

EBITDA
contribution

82%
2022 → **60%**
2040



**Low-emission
solutions**

EBITDA
contribution

14%
2040

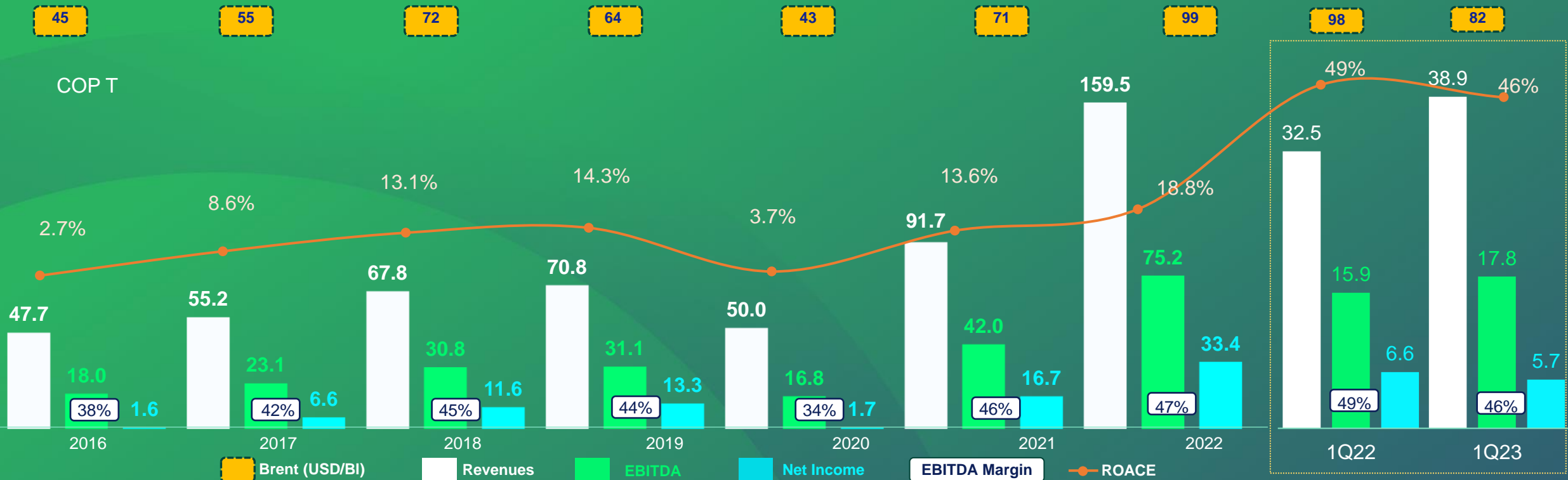


**Energy transmission
and toll roads**

EBITDA
contribution

17%
2022 → **26%**
2040

Record results after two crisis in less than a decade



2022: RESULTS THAT EXCEED TARGETS SET

ENERGY SECURITY

| Production mboed | RRR* | Transported volumes mbd | Refineries throughput mbd |
|---------------------|------|----------------------------|------------------------------|
| 709 | 104% | 1,071 | 358 |

TESG

| Renewables incorporation MW | Social and Environment Investment | ST+I investment |
|--------------------------------|-----------------------------------|-----------------|
| 208 to 2022 | COP 615 billion | 62 MUSD |

FINANCIALS

| CAPEX | Gross Debt/ EBITDA | Operating cash flow |
|------------|--------------------|---------------------|
| 5,488 MUSD | 1.5x | COP T 36.2 |

*Reserves Replacement Ratio

We transformed ourselves, to be able to transform the region



2016

- Cartagena Refinery successful performance test



2017

- First offshore well operated by a Colombian Company



2019

- Entry into the Permian basin
- Castilla Solar Park 21MW operational start - up



2020

- “Apoyo País” program during COVID-19



2021

- ISA acquisition
- Singapore trading company
- Net-zero commitment



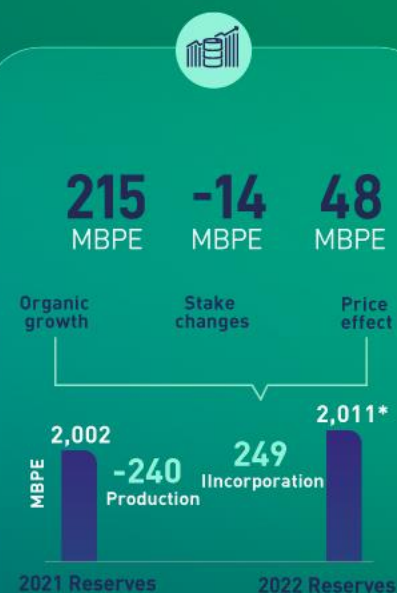
2022

- First green H2 pilot
- IPCC* completion
- 2040 strategy “Energy that transforms”

*Crude plants interconnection project

We reached the highest level of reserves in 8 years

Evolution of proved reserves (MBPE)



Location of Reserves



Liquids
75%
Average life
8.3
years



Gas
25%
Average life
8.8
years

Million barrels of oil equivalent

*Decimals are rounded to the nearest whole number

We improved our execution capacity and got production to pre-pandemic levels



Total production of hydrocarbons
Thousand barrels per day



Main growth drivers

→ Caño Sur: (*green field*) → Permian.
+15 mboed vs. dec 2022.



Investment in production:
3,100 MUSD
(+40% vs. 2021)



Well maintenances:
555
(+25% vs. 2021)



Development Wells
536 (+35% vs. 2021)



Drilling teams:
28
(vs. 20 in 2021)



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

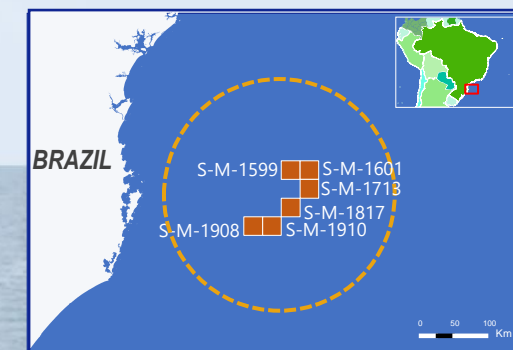


Exploratory Successes 1Q23

Arrecife Norte-1
Tororoi-1

2023 Drilling Campaign

25 exploratory wells
8 drilled wells in 1Q23



Colombia has privileged capabilities and resources to set the pace in the energy transition in the region



→ **Colombia's competitive advantage:**
Diversity of clean energy sources

→ **Our proximity to markets**
is key to reduce the carbon footprint



Water

Top 10 of countries accountable for **46%** of global supply



Wind

Wind potential is **>2x** in the northern region than the global average (**9m/s**)



Solar

Above the global radiation average (**4.5 kWh/m²**)



Geothermal

Stored geothermal resources equivalent to **1,170 MW**



We are making progress in renewables



Brisas solar park (26 MW)



Cantayús small hydroelectric power plant (4.2 MW)



Measurement of wind power potential Huila and Casanare

Renewable energy supply capacity (MW)



**750 MW in operation and 150 under development*

Signed agreement with Baker Hughes and CHEC to evaluate technical and economic feasibility of a **geothermal project in the Nereidas Valley** in Caldas **50-100 MW**

Hydrogen diversifies the energy mix and is key to decarbonization

→ Successful pilot of green H₂ in the downstream

→ Allies



→ Hydrogen Council Board of Directors

→ White H₂ studies

→ **Sustainable mobility:**

First Transmilenio bus (March)

→ Mobility pilot in Cartagena (Toyota-Mirai)



→ **Own operations (growth)**

• Refinery megaprojects (9,000 tn/year of H₂ea.)

→ Land mobility
→ White hydrogen

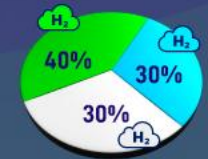
→ H₂+gas

→ Own operations (conversion)

→ New products (National)

→ Maritime mobility

1,000,000
Tons per year of H₂



H₂ type



Destination

+2,500 MUSD
In projects

+400 MUSD
EBITDA* per year

2022

2023











2030

2040

✓ **130,000**
H₂tons



TESG in support of long-term value creation

| | Strategic Commitments | | Target | 1Q23 Results Plan | Results Real | 2023 Projection |
|---|--|---|---|----------------------|--|-------------------------|
| T | SCIENCE, TECHNOLOGY AND INNOVATION TESG accelerator |  | ST+i Value Generation (USD M) | 168.3 | 176.9  | 2,950 ¹ |
| E | CLIMATE CHANGE Net zero emissions <ul style="list-style-type: none"> • 25% scope 1 and 2 by 2030 • 100% scope 1 and 2 by 2050 • 50% scope 3 - total emissions by 2050 |  | Cumulative GHG reduction against 2019 baseline (MtCO2e) | -0.97 | -0.98  | -1.34 |
| | COMPREHENSIVE WATER MANAGEMENT <ul style="list-style-type: none"> • Water neutrality by 2045² |  | Water withdrawn for industrial use (mbod) | 724 | 651  | 651 |
| | | | Discharge reduction (mbwpd) | - | 0.12 ⁴ | Maturing of initiatives |
| S | LOCAL DEVELOPMENT 230,000 non-oil jobs by 2040 |  | Non-oil jobs | - | 6,008 ⁴  | 25,000 ⁵ |
| G | CORPORATE GOVERNANCE Generate trust, as well as reputational and financial returns |  | Corporate Governance rating in the DJSI | 80 | 80  | 80 |
| | TESG INVESTMENTS (COP T) | | | 0.32 | 0.34 | 2.2 |
| | ENERGY TRANSITION INVESTMENTS / TOTAL INVESTMENTS | | | 39% | | 40% |

Circular economy in the Ecopetrol Group: contribution of roads

Implementation of Green asphalt

section at
El Dorado airport
125,000 plastic
bags



Section in Medellin
200,000
tapas de envases plásticos



Section in Lorito Road
(Guamal, Meta)
1.5 km – 850,000
plastic bags



Sustainable and efficient asphaltic mixes



Ruta del Maipo –
test in 2.5 km



Pilot tests in Chile with
4 different asphaltic mixes

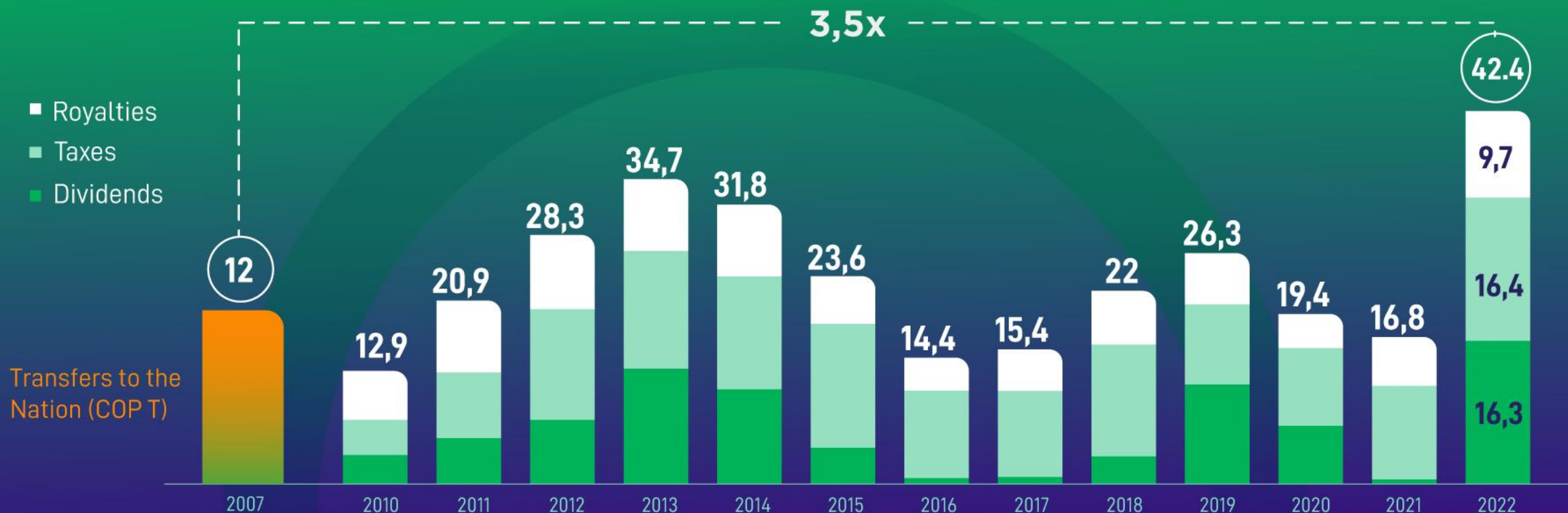
- Recycled rubber
- reclaimed asphalt material (RAP 15%)
- Plastic
- warm asphalt mix



test section
Ruta Costera (2023)

2,600 Ton recycled plastic 2023

Ecopetrol's growing contribution to national development



Social & environmental investment

COP B 615
in 2022

+31% vs 2021

Shareholders

COP T 2,1
Dividends

~255 thousands
minority
shareholders

Balance of payments

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

71% of the internal
demand for fuels attended

Human talent

+20 thousand
inclusive Jobs

>560
people with disabilities

Procurement

~130
thousand jobs

Generated through
contractors by 2022

Ecopetrol is a key player in Colombia's socioeconomic development



QUALITY, COVERAGE AND SCHOOL RETENTION

Programs: 'Ecopetrol Educa', 'Bachilleres Ecopetrol' and 'Ella es Astronauta'



We operate in more than 45% of the national territory.

Plan 2023 Sustainable Development Portfolio
COP 773 bn

PEACE CONSTRUCTION



Interest in new projects in Colombia through the program "Works for taxes"

ENTREPRENEURSHIP AND BUSINESS DEVELOPMENT



'Ecopetrol Emprende' program: Increase in clients and sales



ENERGY TRANSITION

First 'eco-sustainable' wagon in a Transmilenio station

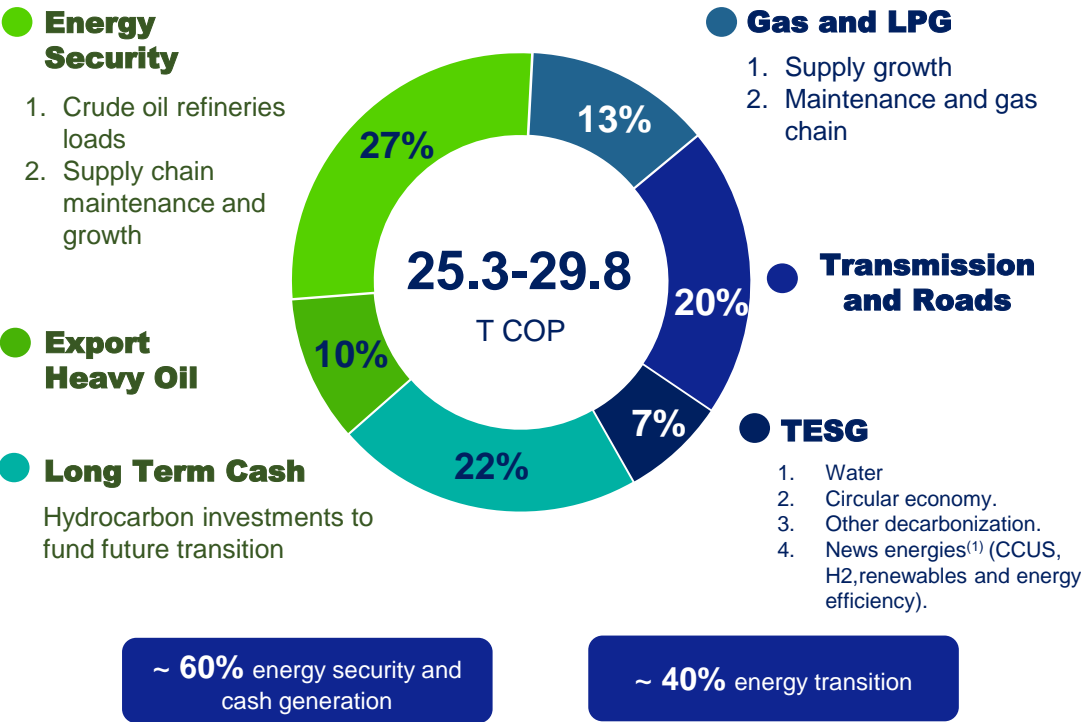
TERRITORIAL RELATIONSHIPS AND DIALOGUE

- 9 social dialogue processes
- National People's Meeting
- Methodological routes with reservations and indigenous communities
- Volunteering on Tierra Bomba Island, with pedagogy on the responsible use of plastic

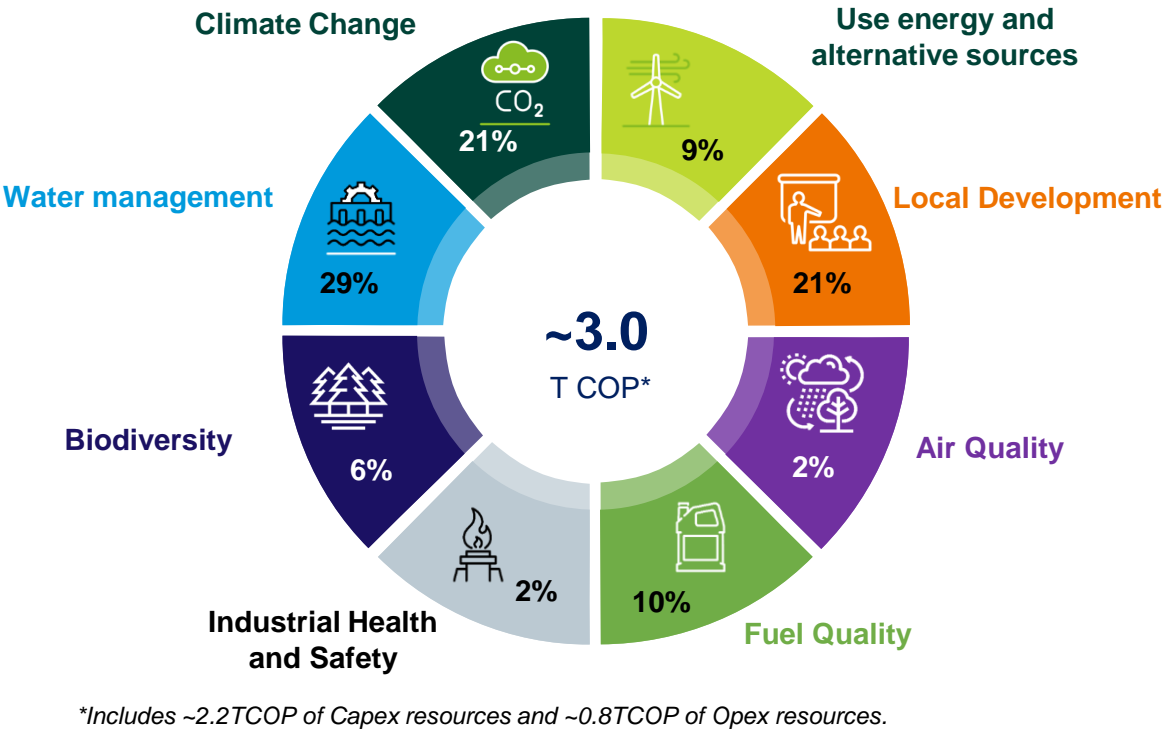
The 2023 financial and investment Plan is geared towards the energy transition and value creation



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



Main Indicators
2023 Plan EG⁽²⁾:

>40

EBITDA Margin
(%)

>11

ROACE³
(%)

<2.1

Gross Debt/EBITDA
(x)

720-725

Production
(MBOED)

25.3-29.8

Investments
(T COP)

>40

Transf. Nation⁴
(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.

Contact Information
Nicolás Ramirez | IRO
investors@ecopetrol.com.co

Thank you!

