



# J.P. Morgan Global Emerging Markets Corporate Conference

March 2022

GRUPO  
**ecopETROL**



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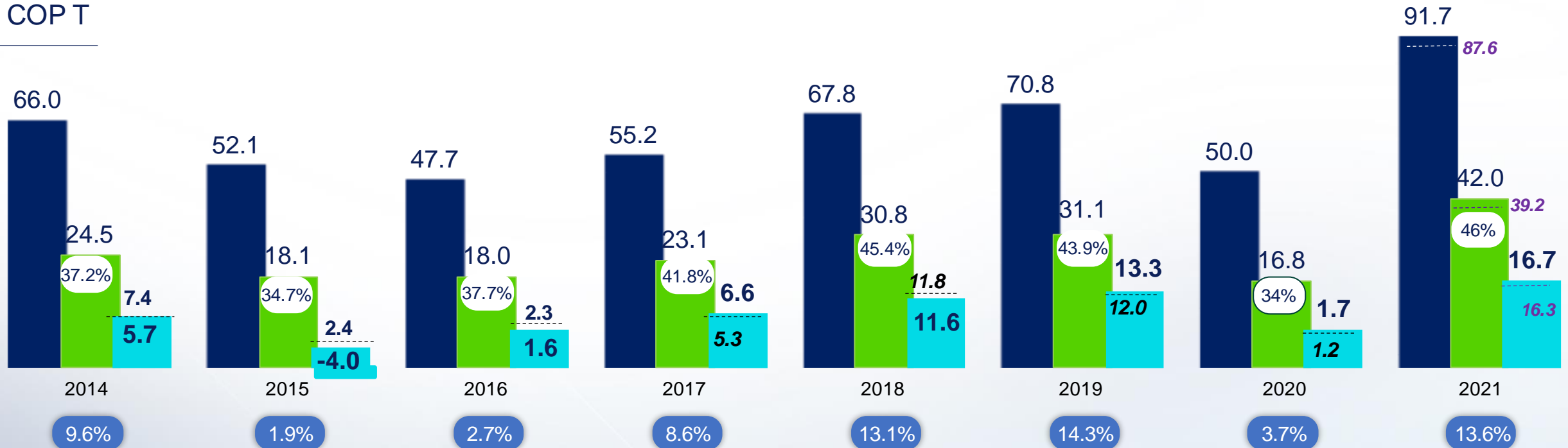
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# BEST RESULTS EVER

COP T



Revenue
  EBITDA
  Net Income
 EBITDA Margin
ROACE\*

\*Last 12 months

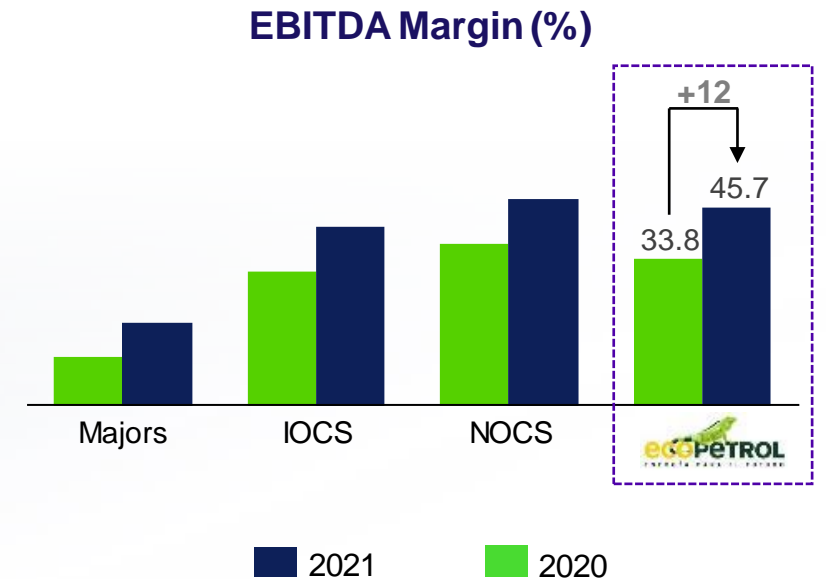
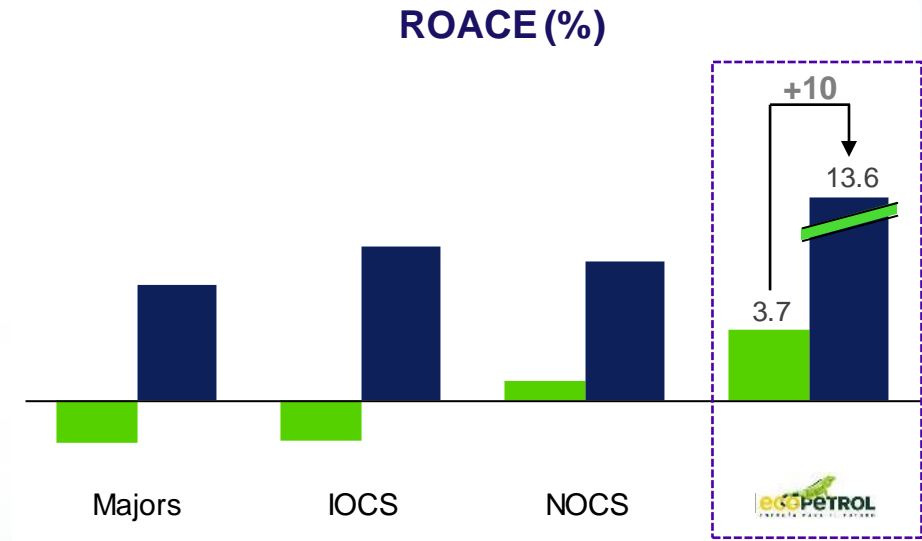
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# ECOPETROL CONTINUES TO DELIVER SUPERIOR RESULTS

METRICS	2021 TARGET	2021 REAL
Organic Investment	USD 3,500 – 4,000 M	USD 3,243 M*
Operating Cash Flow	~USD 3,500 – 5,000 M	✓ USD 5,660 M
EBITDA Margin	35% – 38%	✓ 46%
Gross Debt/EBITDA	<2.5x	✓ 2.3x
Reserves replacement ratio	100%	✓ 200%
Production (mboed)	~680 - 690	✓ 679
Exploratory wells	~9	✓ 13
Transported volume (mbd)	>1,000	✓ 1,007
Throughput (mbd)	~340 - 365	✓ 354
Social and environmental Investment	COP 1.5 T (by 2024)	COP 469 M
Decarbonization	USD 600 M (by 2023)	USD 177 M

✓ Equal to or greater than target



Majors: Exxon, Shell, Chevron, BP, TotalEnergies. IOCs: Hess, ConocoPhillips, Repsol, Marathon. NOCs: Equinor, PTTEP, ENI  
 \* In 2021 efficiencies were achieved in the maturation and execution of projects for US\$ 225 M, mainly in development and production projects.

# 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

# THE 22-24 PLAN INCREASES FOCUS ON PROFITABLE GROWTH OF OUR CORE BUSINESS AND ON THE DIVERSIFICATION OF THE ECOPETROL GROUP

		2022	2022 - 2024
<b>Grow with the Energy Transition</b> 	Organic Investments (US\$ M)	4,800 - 5,800	17,000 - 20,000*
	Production (mboed)	700 - 705	~730
	Throughput (mbd)	340 - 360	420 - 430
	Transported Volume (mbd)		~1,000
	Organic Investments ISA (US\$M)	~1,100	~2,600
<b>Generate Value Through TESG</b> 	TESG investment (US\$ M)		1,400
	GHG Reduction (from 2020)		1'600,000 tCO2
	Social investment		COP 1.5 B
	Renewable energies		400 - 450 MW
<b>Cutting-edge Knowledge</b> 	Innovation and Technology (US\$ M)	80	>240
<b>Competitive Returns</b> 	ROACE		>8.5%
	EBITDA Margin		>40%
	Efficiencies (TCOP)		~4 by 2024

\*\*Organic investments up to US\$ M 17,000 and USD M 20,000 including organic and inorganic growth optionality  
 Assumptions: Brent 2022: USD 63/BI, 2023 and 2024: USD 60/BI. Exchange rate 2022: COP 3,800: 1 USD, 2023 and 2024: COP 3,750: 1 USD.



# **OPERATING RESULTS**

# ECOPETROL'S GROWTH IS LEVERED

on our ever more resilient reserves

## Proven reserves evolution (MBOE)



## Average reserve life (years)

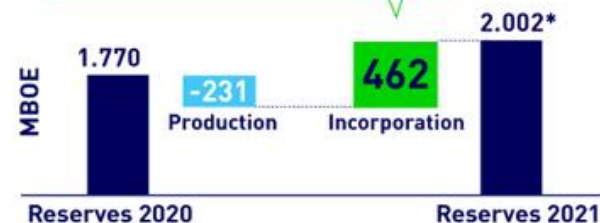
Remaining amount of reserves, expressed in time, assuming no new activity



**+282 MBOE** • Performance of fields  
• Maturity of new projects

- Greater execution capacity
- Recovery projects

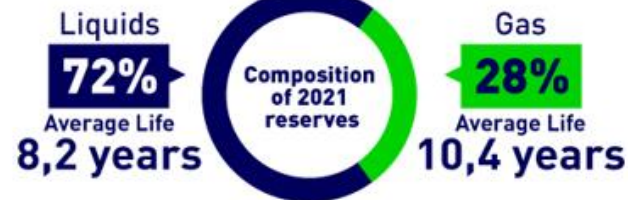
**+180 MBOE** Favorable price effect



## Reserve-Replacement Ratio

The ratio of barrels produced vs. barrels incorporated

**The highest in 12 years**



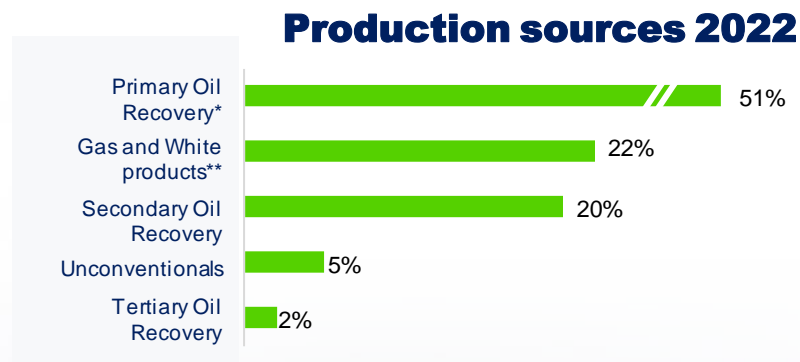
## Location of reserves



\*Million barrels of oil equivalent  
\*Decimals round to the nearest whole number

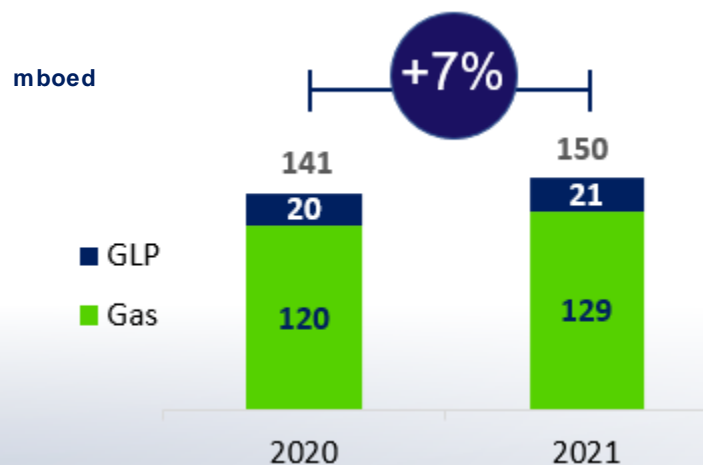


# ON THE ROAD TO RECOVERY



\* Includes basic curve \*\* Includes recovery. Permian not included as it adds up as unconventional. Including Permian, gas and white products is estimated at 23% over total GE production.

## GAS AND LPG\*



2022e  
Domestic demand recovery  
~6% vs. 2021

**21%**  
Contribution of Gas and LPG\*\* to 2021 Production

- Supply strengthening with potential of ~84 GBTUD (9% of national demand 2021).
- Start of exploratory campaign in Piedemonte.
- Social gas and LPG: **6,132 new connections** in 2021
- Gas and LPG EBITDA growth (+21% vs 2020).

\*Includes refined LPG production for sale. Does not include internal consumption of LPG as fuel gas

\*\* Calculated as a % of GE production, does not include refined LPG nor white products.

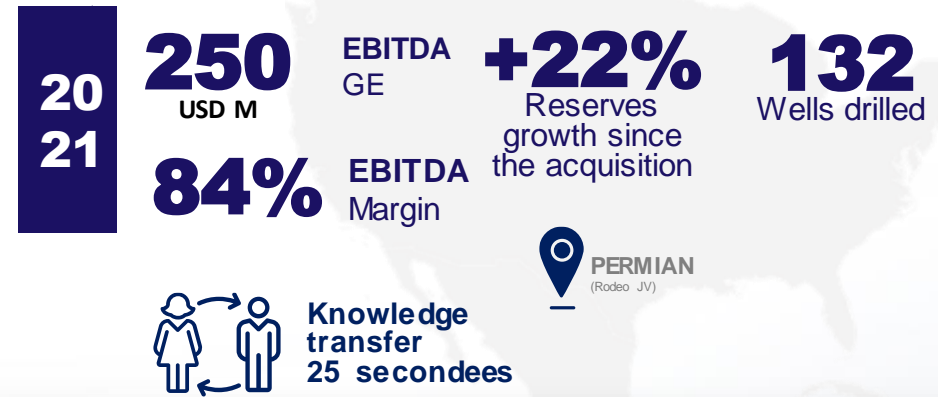
# PROGRESS IN UNCONVENTIONAL RESERVOIRS

## PPII

## PERMIAN (U.S.A.)



Rigorous environmental impact assessment



Operative Milestones		
	2020	2021
Spud to Rig Release	9.7 days	8.15 days
Average time per well	14.5 days	13.4 days
Pumping per day	1,420 ft/day	1,610 ft/day
New wells in production	22 wells	82 wells

New state-of-the-art water recycling facility  
7.7 mmbls capacity



# ISA: A PROMISE DELIVERED

## 2021 RESULTS EXCEEDING EXPECTATIONS

REVENUES	COP 11.2 T (+ 9.8% vs 2020)
EBITDA Margin	76%
EBITDA	COP 7.1 T (+ 8.4% vs 2020)
Dividends	COP 749 per share (+17% vs 2020)
ROE	11.6%

## CONTINUED GROWTH INORGANIC SUCCESSES

- **Awarded line Kimal-Lo Aguirre** +1,400 km transmission
- **Acquired 100% of PBTE\*** in Brazil
- **First large-scale energy storage project** awarded in Brazil

\*PBTE: Piratininga-Bandeirantes Transmissora de Energia



## SUCCESSFUL INTEGRATION

**Financial consolidation:** September 2021 and 4Q21

**People and Culture:** Focus on management change

**Corporate Governance:**

- New Board of Directors
- Met XM's legal Compliance
- Interaction between Ecopetrol and ISA



## UNLIMITED POTENTIAL

**Synergies:**

**2030 CAPEX pipeline**  
(total opportunities identified)

**36**

USDB

- New energy transition related businesses
- ISA's entry to the US market
- Optimize procurement costs
- Ecopetrol's Electrical infrastructure
- Linear infrastructure with CENIT
- Science and innovation
- Environmental and communities' management



# FINANCIAL PERFORMANCE

# OUR INVESTMENT LEVELS INCREASE IN LINE ALONG WITH OUR GROWTH AND DIVERSIFICATION STRATEGY

## Transition Agenda

US\$ M ~ 1,400



### Decarbonization

Optimization of energy sources, wind and solar farms, geothermal energy,



### Energy efficiency



### Water management



### Quality of fuels



### Hydrogen

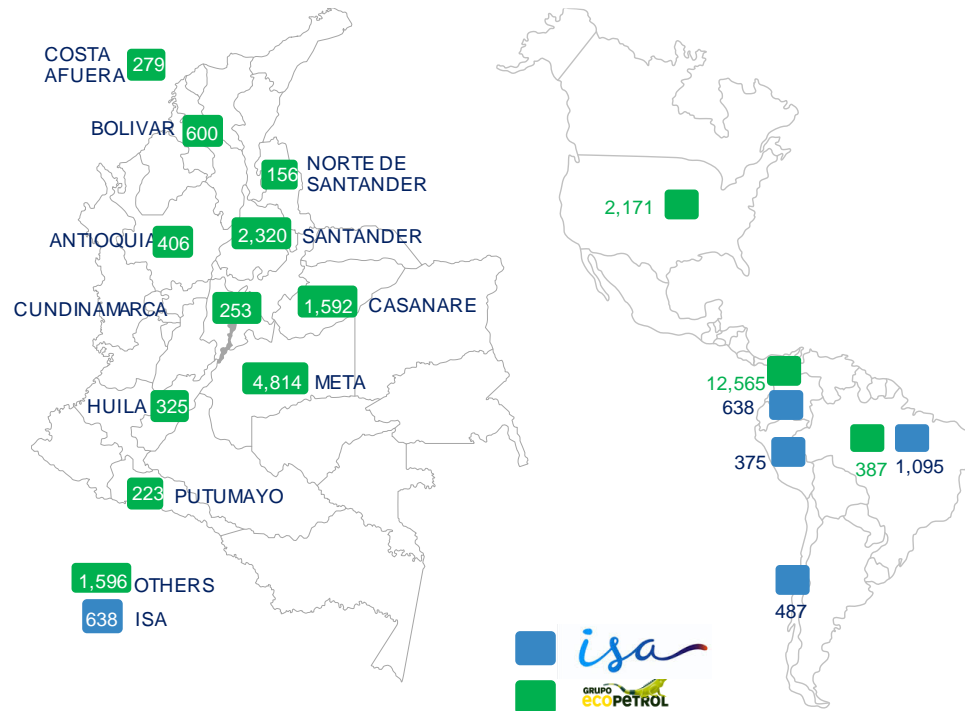
22-24

## INVESTMENT PLAN\*

**17,000 – 20,000** US\$ M

### Investment by Region

US\$ M



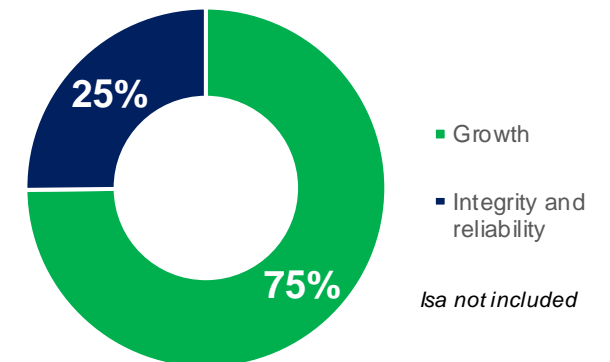
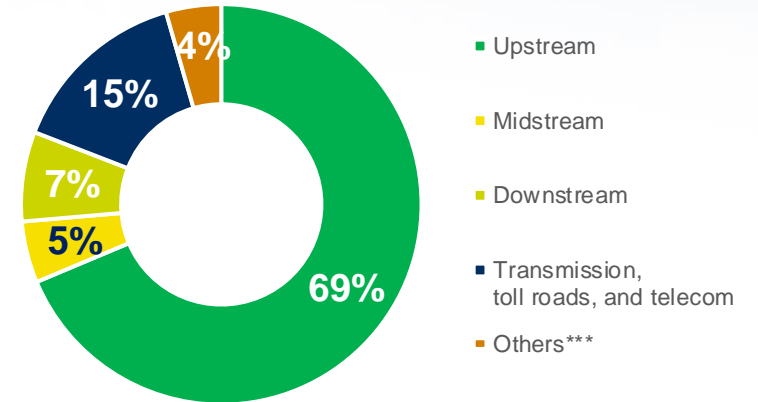
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**82%**

O&G

**18%**

Diversification\*\*

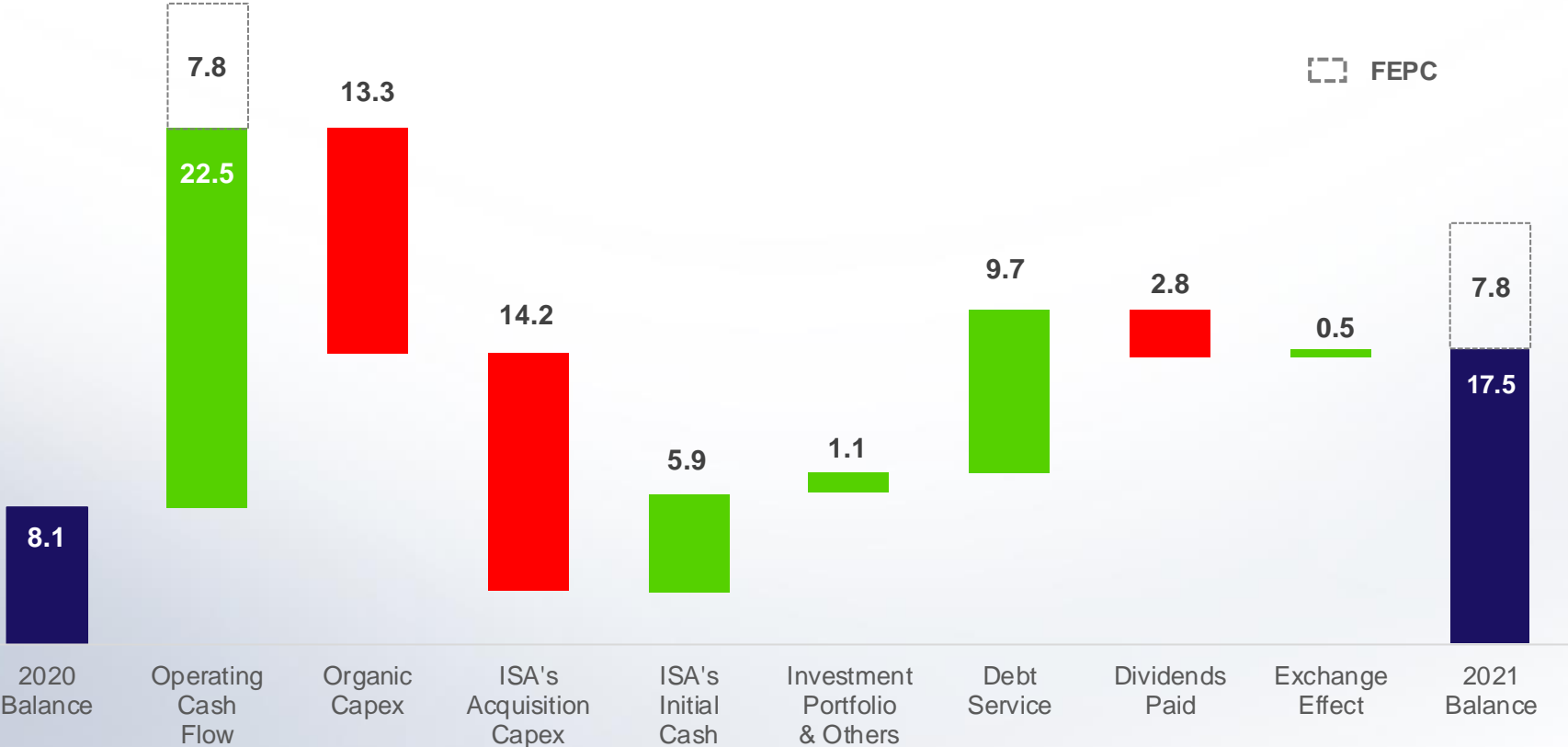


\*Organic investments up to US\$ M 17,000 and USD M 20,000 including organic and inorganic growth optionality

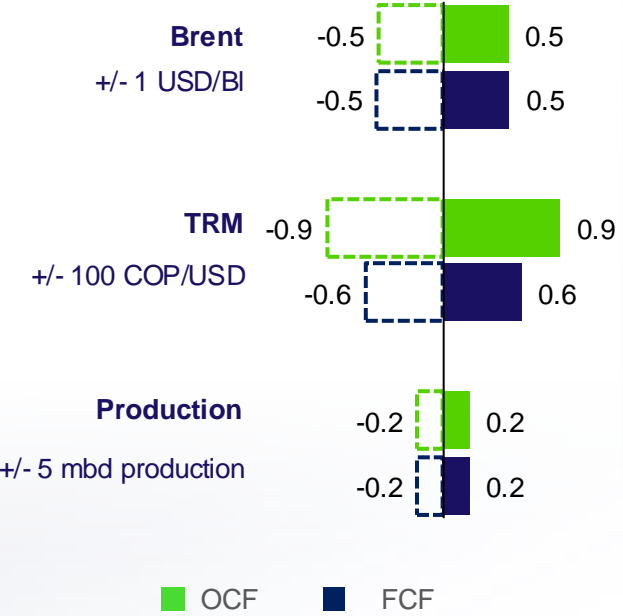
\*\*Transmission, toll roads, telecom, renewable energies, hydrogen  
\*\*\*Corporate, commercialization

# ROBUST CASH BALANCE

COP T

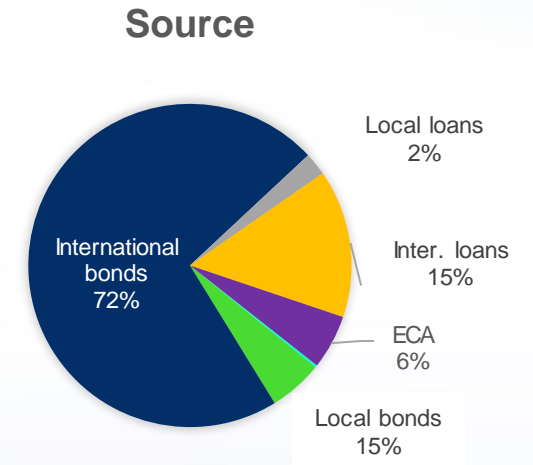
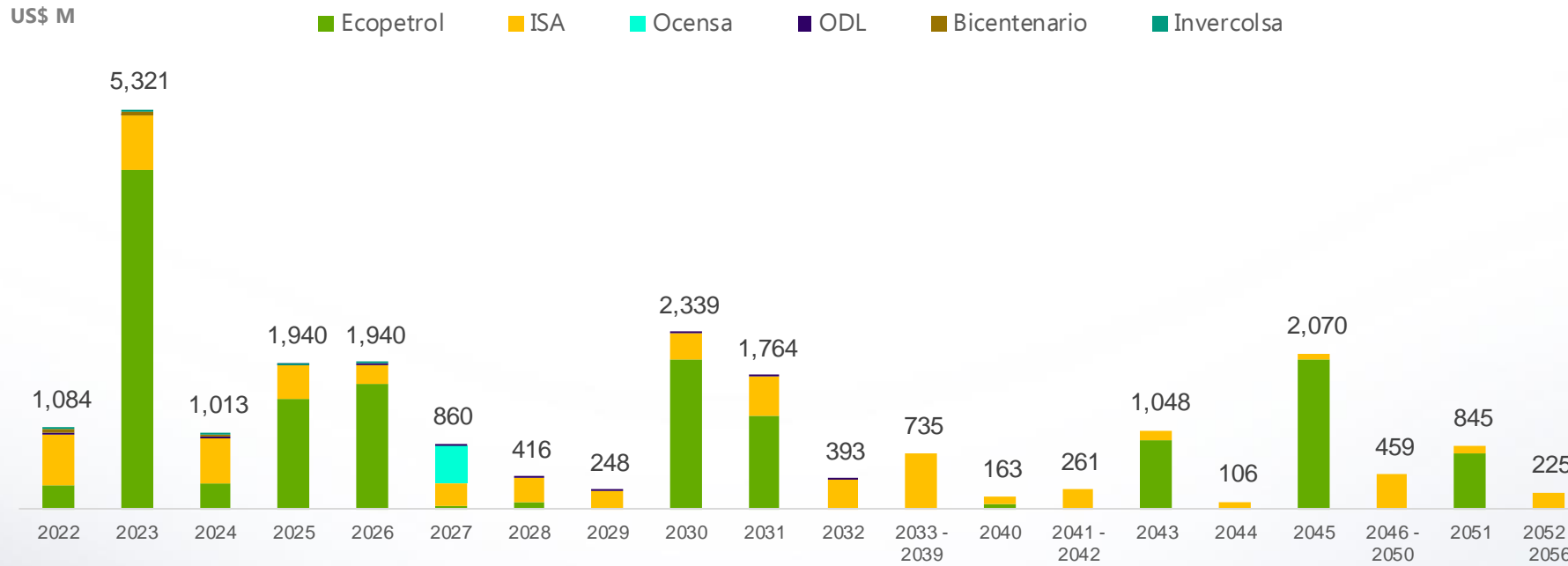


## FCF and OCF Sensibility



Cash balance for 2020 and 2021 includes: Cash and Cash Equivalents and Other Current and Non-Current Financial Assets.

# DEBT PROFILE



## Group's Consolidated Debt – December 2021

Company	Debt in US\$ M*	Debt in COP*	Total* US\$ M
Ecopetrol	15.180	267	15.447
Ocesa	500	-	500
Bicentenario	-	149	149
ODL	-	48	48
Invercolsa	-	84	84
ISA	3.078	3.942	7.020
<b>Total</b>	<b>18.758</b>	<b>4.490</b>	<b>23.247</b>

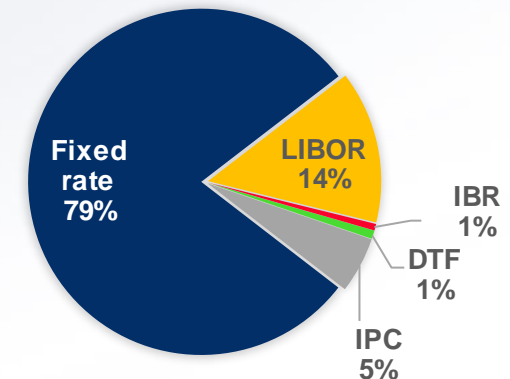
\*\*Nominal Value in US\$ M (FX 3.981,16)

Average life  
**10 Y**

Average cost in COP  
**11.45%**

Average cost in US\$  
**4.75%**

### Interest Rate





**TESG**



# ECOPETROL'S SOCIO-ECONOMIC IMPACT

**~26** COP T  
2021 Contribution

## GOVERNMENT

**+16.7**

COP T

Dividends, taxes and royalties

**+32%**

National exports (crude)

## SHAREHOLDERS<sup>1</sup>

**80.4**

COP B

Dividends<sup>2</sup>

**~ 254 thousand**

Direct shareholders

**~ 18 Million**

Indirect shareholders  
(Pension funds)

## COMMUNITY

**0.5**

COP T

Social and environmental investment

**+160**

Municipalities benefited

**~711,000**

Colombians benefited

## EMPLOYEES<sup>4</sup>

**+5.3**

COP T

Salaries, benefits and variable compensation

**+18,000**

Direct employees

## SUPPLIERS

**3.1**

COP T

Local contracting

**+3,000**

Local contractors

**+55,000**

Dedicated employees<sup>1</sup>

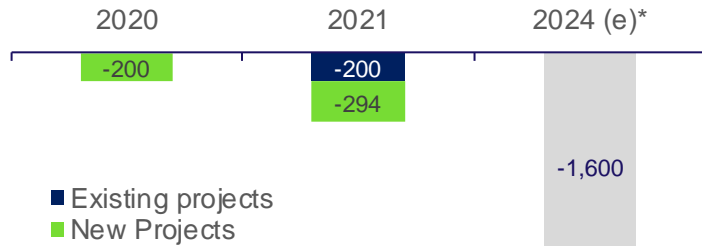
**Dividends proposal 2021: Payout 69%<sup>3</sup>**

<sup>1</sup>Excluding ISA <sup>2</sup> COP 2,418 B accumulated dividend 2019-2021 of the minority shareholder <sup>3</sup> Includes ordinary dividend (59.8%) and extraordinary dividend (9.1%) on 2021 net income <sup>4</sup> Includes Ecopetrol Business Group and four months of ISA: salaries and benefits, payroll taxes, variable remuneration, benefits, training and retirement plan. Retirees include: Ecopetrol S.A. pension and benefits.

# MOVING FORWARD IN OUR T ESG COMMITMENT

## ENVIRONMENTAL

Emission reductions (mtCO2e)



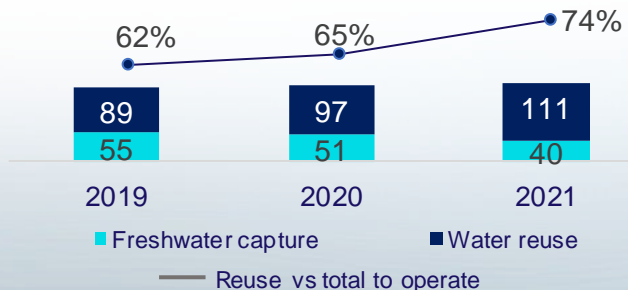
**112.5**  
8% energy matrix

**Renewable energy capacity (MW)**

Adherence to  
**↑ 1t.org**

## Water Neutrality

Water reuse and freshwater capture (Mm<sup>3</sup>)



## SOCIAL

### Regional development

**287** Executed Projects 2021 | **364** New Projects subscribed

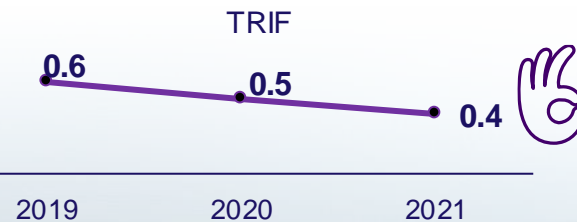
### Economic reactivation:



### Allies for territorial development



### Life first



**Zero fatalities**

## CORPORATE GOVERNANCE

Adherence to the program



Rating increased from 66 to 68



Transparency and disclosure



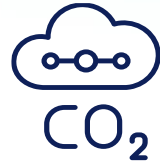
High standards of corporate governance and independence of BoD

- Succession policy and competencies matrix for BoD and CEO of Ecopetrol
- BoD status including diversity and gender criteria
- Company acknowledged by ALAS20

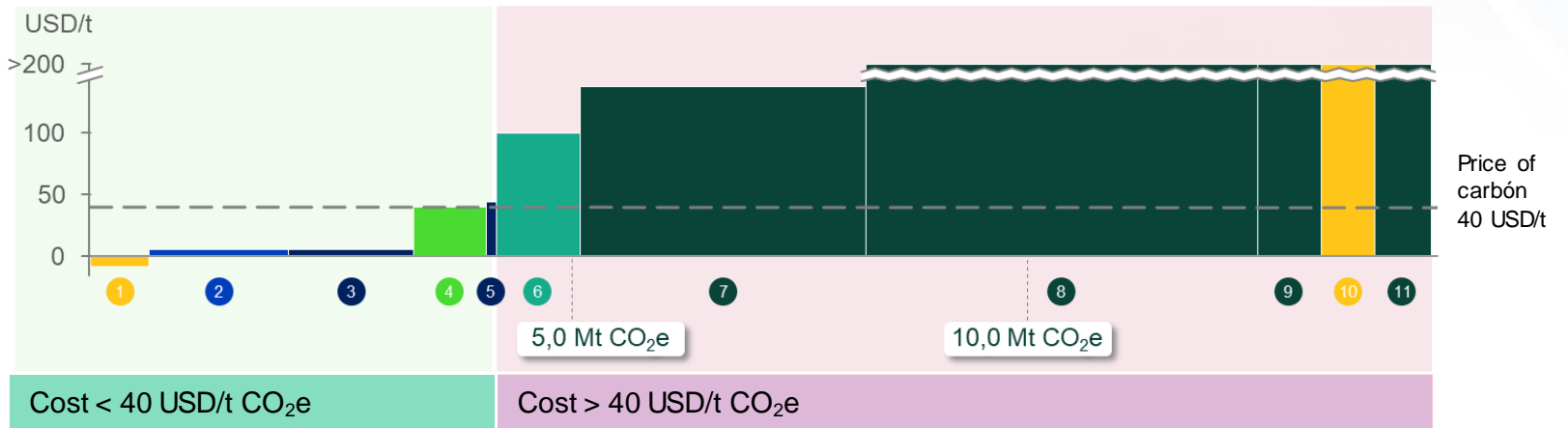
\*Reduction potential vs 2019 baseline

Technology and innovation captured \$93 MUSD in benefits

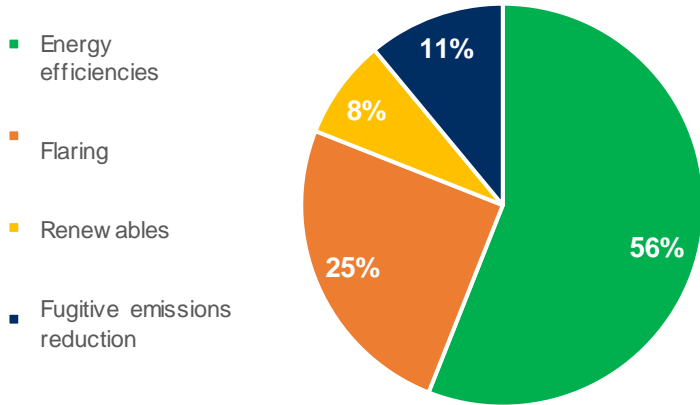
# ADVANCING IN OUR DECARBONIZATION GOALS



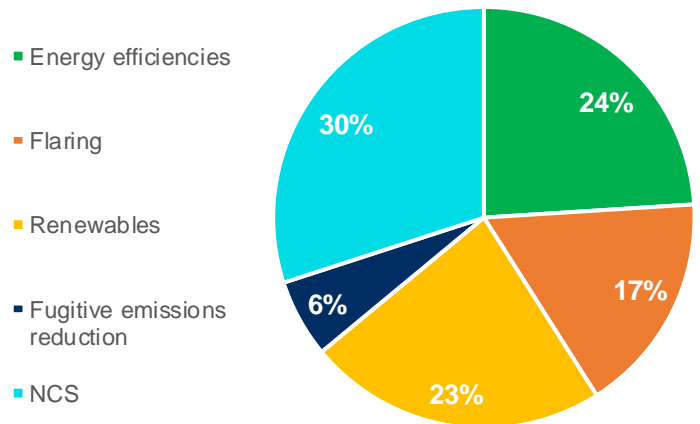
## Abatement Curve



DISTRIBUTION BY TYPE OF INITIATIVE 2025



DISTRIBUTION BY TYPE OF INITIATIVE 2030



### Prioritized initiatives

- |   |   |  |
|---|---|--|
| 1 Solar and wind power                    | 5 Heat recovery form combustion gases                               | 9 CCUS – Cartagena refinery Industrial Service capture & and EOR Venting |
| 2 Fugitive emissions, flaring and venting | 6 Green Hydrogen in Cartagena Refinery                              | 10 Solar and wind power with storage                                     |
| 3 Energy efficiency                       | 7 CCUS – Barranca Refinery capture Industrial Service & EOR Venting | 11 CCUS – Crude fields at a long distance from EOR                       |
| 4 Syngas from Biomass                     | 8 CCUS – Crude and gas fields at a low/mid distance from EOR        |  |

By 2030 Ecopetrol can reduce its emissions with competitive solutions below \$40/t CO<sub>2</sub>e (shadow price).

# SUMMARY...

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- We delivered record financial results in 2021
- Profitable growth underpinned by TESG
- Progress in diversifying through the new energy transmission and toll roads business (ISA)
- Competitive returns
  - ✓ Dividend proposal 2021  
COP \$280 per share (16x vs 2020)
  - ✓ Efficiencies of COP 3 T
  - ✓ EBITDA margin 46%
  - ✓ Socio-economic contributions for ~COP 26 T
- 2022 - 2024 Business Plan
  - ✓ Profitable production growth
  - ✓ Investments of ~USD 4,800 - 5,800 M/year
  - ✓ TESG investments of ~USD 1,400 M
  - ✓ Social investments for COP 1.5 T\*
  - ✓ ROACE > 8.5% (at plan prices)
  - ✓ EBITDA Margin > 40%



**Q&A**