Innovarpel 2025

TECHNICAL DAYS

DIGITAL TRANSFORMATION
& INDUSTRIAL CYBERSECURITY
IN THE OIL&GAS INDUSTRY

arpel 60 YEARS

JUNE, 24 & 25
Rio de Janeiro, Brazil

Decarbonization Progress

Santiago Martínez Ochoa

Sustainability Director-GeoPark

GEOPARK
CREATING VALUE AND GIVING BACK

Decarbonization Progress

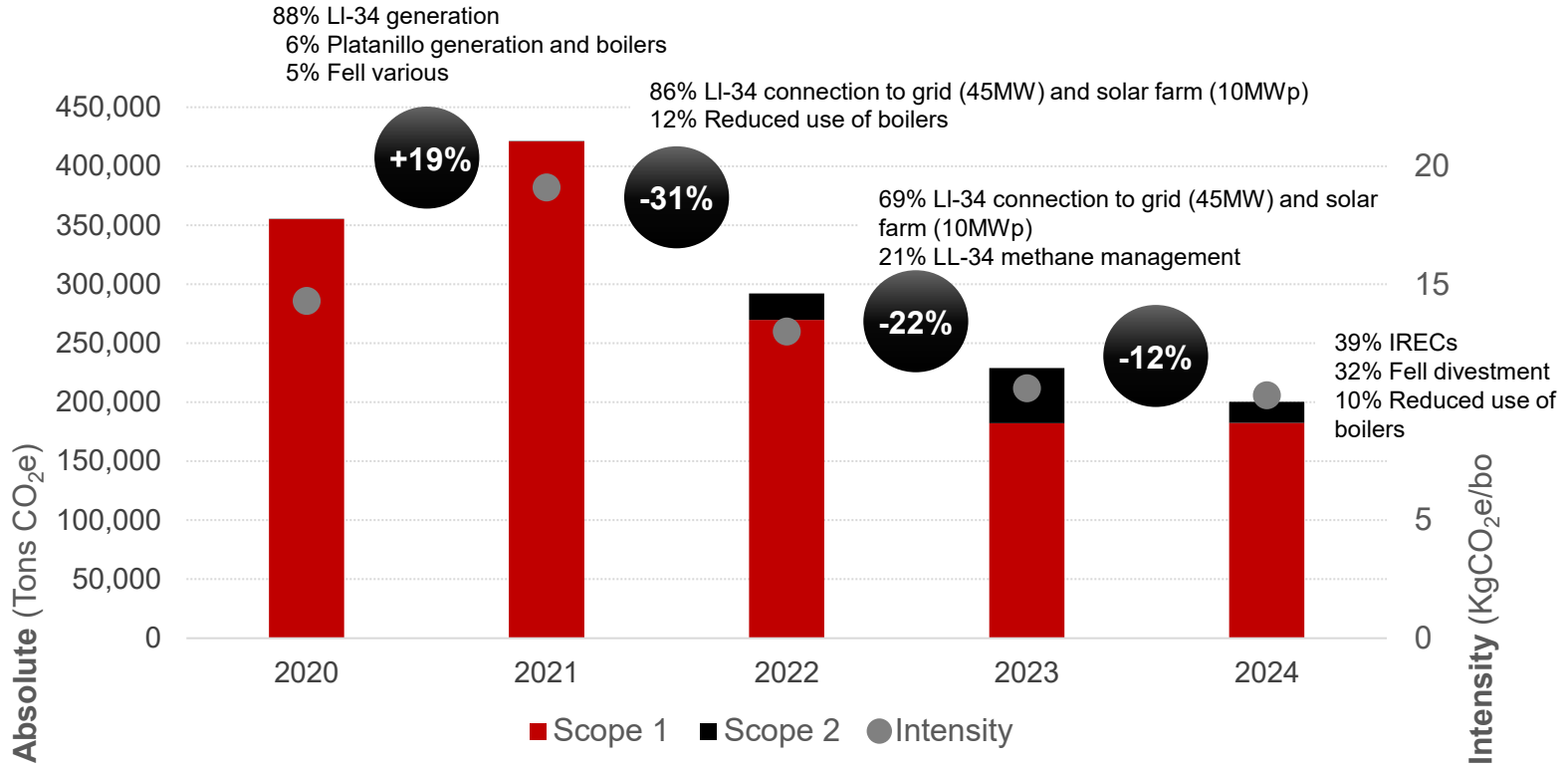
In 2021, we established decarbonization targets for the short, medium and long term

2025	2030	2050
35 - 40% <9,3 $kgCO_2$/boe	40 - 60% <8,6 $kgCO_2$/boe	Net ZERO

2024: 28% decrease compared to the baseline 2020, approaching the 2025 target.

Between 2020 and 2024, we reduced ~150,000 tons of GHG emissions, driven by:

- 51% Access to clean **energy sources**
- 23% **Methane** management
- 15% **Portfolio** management
- 11% **Energy** and operational **efficiency**



Our decarbonization path has been fast and cost-effective, allowing us to obtain a leading position among our South American peers

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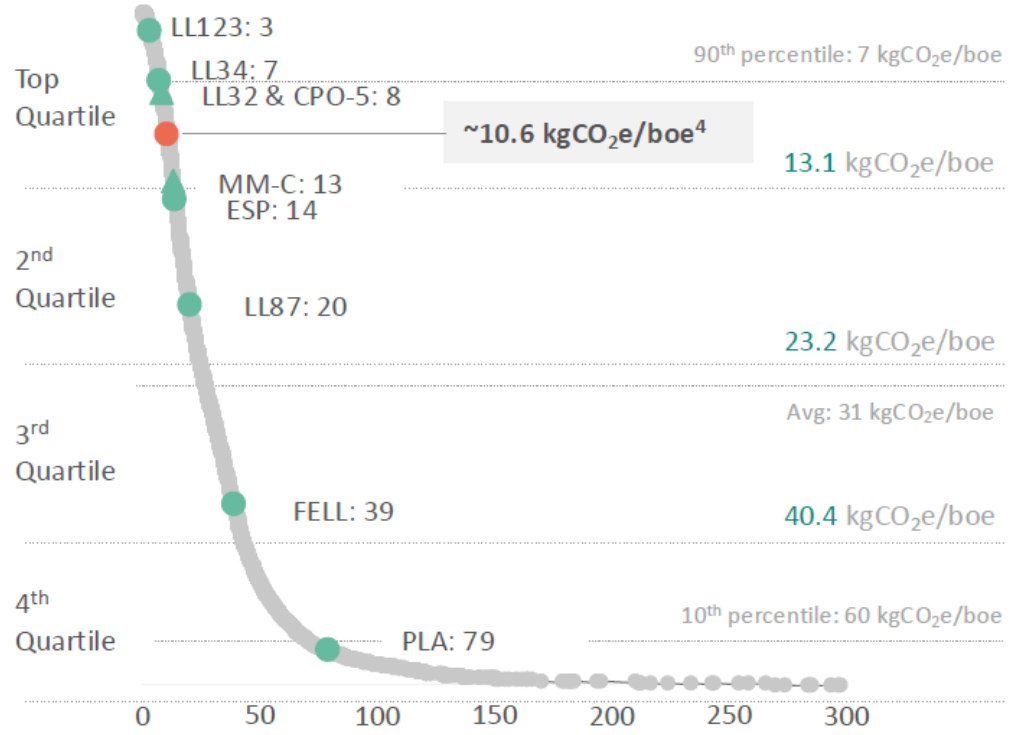
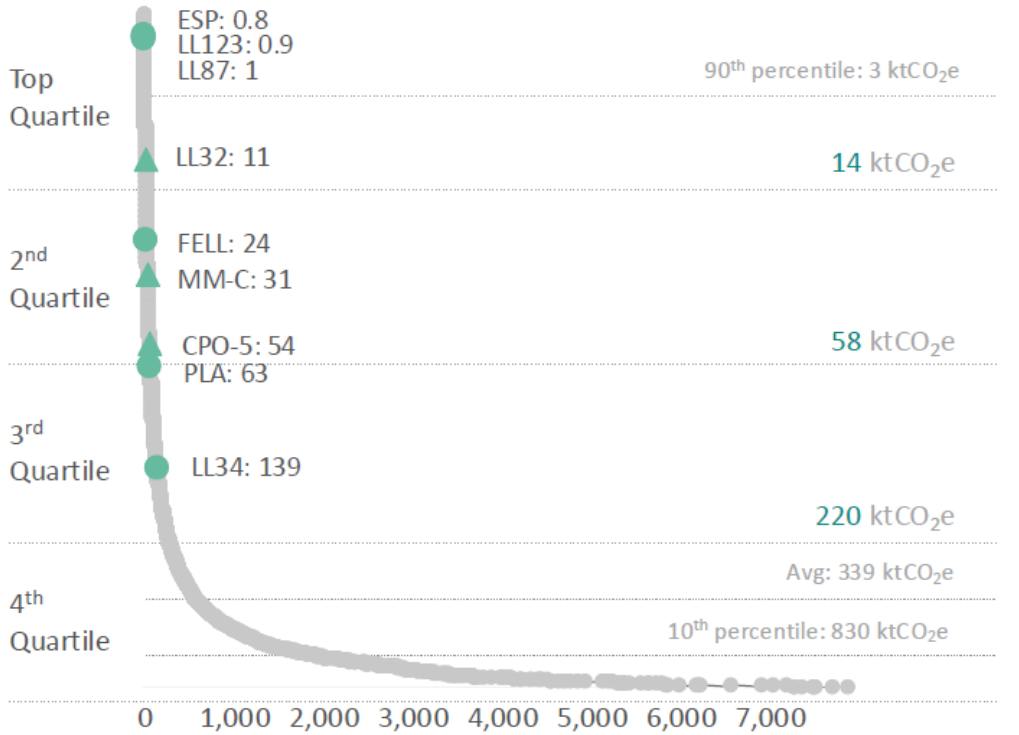
Decarbonization Benchmark

6 out of 8 operated and non-operated assets evaluated are in the 1st and 2nd quartile by less emissions intensity among industry.
Operated portfolio averages ~ 10.6 $kgCO_2e/boe$





1. Includes drilling, in-situ energy generation, flaring, methane, processing, production and venting emissions; only includes on-stream commercial assets 2. Emissions intensity capped at 300 kgCO2e/boe; 3. Gross absolute emissions capped at 8,000 ktCO2e; 4. Geopark's operated assets weighted average
Source: BCG Oil & Gas Decarbonization Benchmark 2024, Wood Mackenzie

Operated assets
Non- operated asset

Digital Tools Integration

Since 2024 we have implemented the digital emissions information management system (Aurion)

GHG inventories are ingested by GeoPark's Database

Primary Sources

- Files
- Databases
- Third-party software
- E-mails

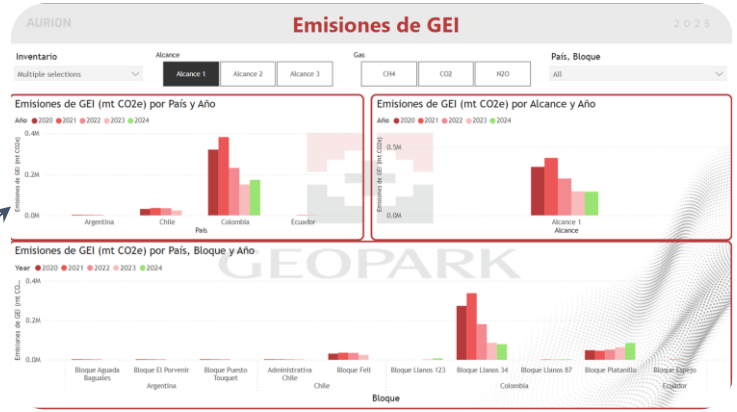
Geopark's Centralized Database

Azure Synapse Analytics

AURION

GHG Emissions Modeling, Forecasting, Reporting and Analysis

- Emissions Modeling for Scope 1, 2 and 3.
- Historical data (since 2020).
- Emissions Forecasting
- MACC
- Built-in visualizations.



Custom PowerBI dashboard

Aurion Analytics

Digital Tools Integration

Advantages and Benefits

- Facilitates the **compilation of information** from different sources
- **Minimizes** the possibility of **human error** as processes are automated
- Allows the **identification of significant anomalies** in the emissions inventory
- Substantially **decreases man-hours** in the elaboration of the emissions inventory
- Analysis with visualizations that contribute to faster and **better decision making**

Limitations and Opportunities

- **More Versatility needed in creating MACC curves** to compare different combination of scenarios and identify the status of projects
- Requires a **steep learning curve** in the use of the tool to get the best out of it.
- **Automation** of emission **forecasting**
- The process of integrating different sources works well with robust databases such as Zafiro (Production), SAP (Supply), however, it **shows challenges when connecting non-standardized databases** such as some Excel, pdf, etc.
- **Need for greater granularity to find specific areas for improvement**, however, this detailed information is often not available or is complex to work with.

Additional ongoing efforts: Use of AI to improve decarbonization roadmap, update company benchmarks and optimize climate reporting efforts.

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