SDG GOALS PROGRESS
THROUGH 2022
for Ecopetrol, YPF, Petrobras and Pemex

START

INSTITUTE OF THE AMERICAS®

INDEX

Low Carbon and Energy Transition Management

Financial Performance

Production Efficiency

Operational Excellence

Emission Reduction and Renewable Energy Investment

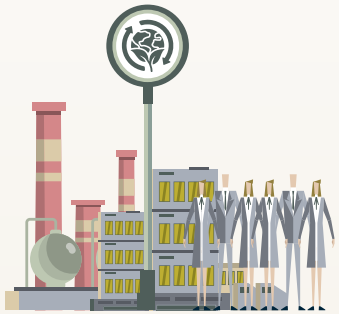
Sources

MANAGEMENT FOR ENERGY TRANSITION?

ECOPETROL

Sustainable Development VP

Has three Vice-President Level offices dedicated to decarbonization and energy transition: **Sustainable Development VP (Support Area) Low Emission Solutions VP (Operation Area) Science, Technology and Innovation VP (Corporation Area)**

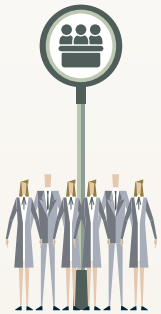


YPF

Department of Sustainability and Energy Transitions

Has a department focused on sustainability and energy transitions and Risk and Sustainability Committee, made up of six regular directors

NET ZERO PLAN

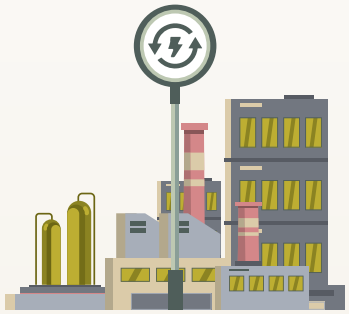


PEMEX

No Dedicated Office

Recently installed a Sustainability Committee

Currently lacks a dedicated office focused on decarbonization and energy transition. However, in May 2023, a Sustainability Committee was established. This committee, composed of members from Pemex's Administrative Council, including Executive Officers and High-Ranking Government Representatives, has been tasked with the mission of aligning the state company with ESG (Environmental, Social, and Governance) goals.



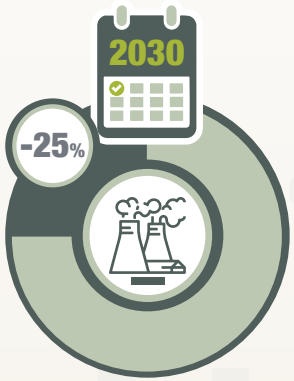
PETROBRAS

Office of Energy Transition and Sustainability

Has an office focused on energy transition and sustainability

MANAGEMENT FOR ENERGY TRANSITION?

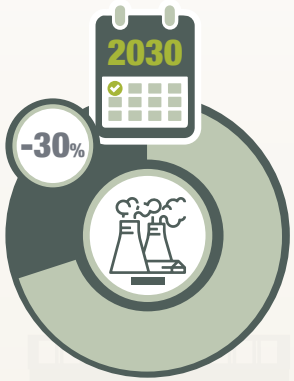
NET ZERO PLAN



ECOPETROL

Plans to be Net Zero by 2050

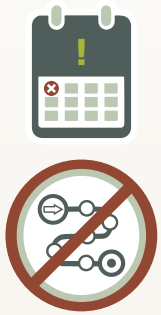
Yes–Midterm objectives include a 25% reduction in emissions by 2030 and a roadmap that will look to reduce fugitive emissions and venting from gas flaring, energy efficiency in operations, a renewable energies portfolio, hydrogen and CCS.



YPF

Plans to be Net Zero by 2050

Yes- Plans to be Net Zero by 2050 with goals to reduce methane emissions by 30% by 2030.



PEMEX

No mention of specific Net Zero Plan

No net zero road map. In its 2023-2027 business plan, Pemex acknowledges the impact that the energy transition is having on its operations. Though Pemex recognizes the need to address environmental concerns and make commitments to implement more sustainable practices, it sees the Oil and Gas industry having a long term optimistic outlook.

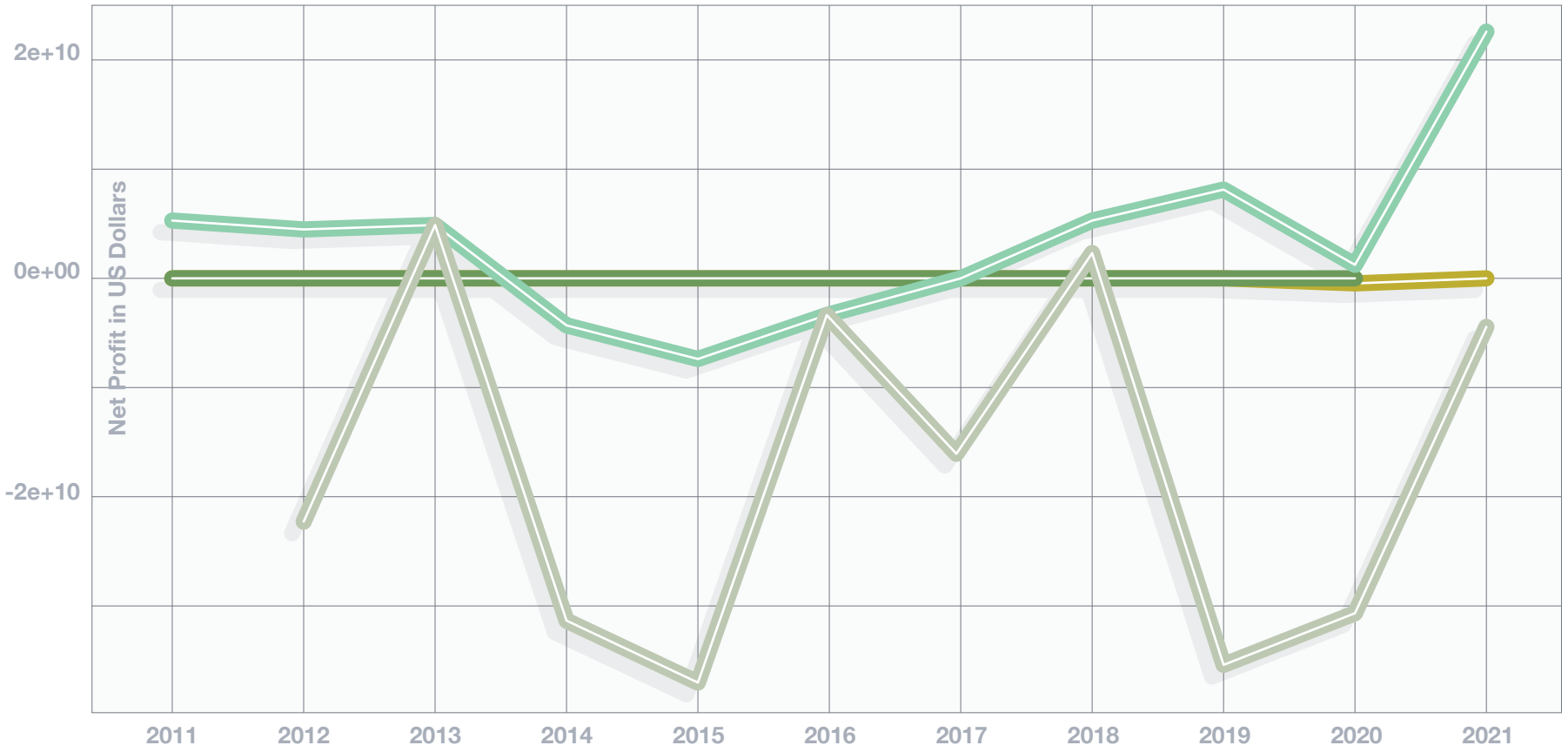
PETROBRAS

Year Not Specified

Yes-However the date for Net Zero is not specified. They have goals to reach 25% reduction in absolute operation emissions by 2030.

FINANCIAL PERFORMANCE

ECOPETROL YPF PEMEX PETROBRAS



GREEN BONDS?

GREEN BONDS?

ECOPETROL

NOC finances and Green Bonds

Within the observed timeline, Ecopetrol has not issued bonds that are specifically tied to Green Projects. However, the company has been successful in global bond markets, raising over **$1 billion** on two separate occasions this year. The funding obtained will be used to pay-off previous loans, boost oil and gas production, in addition to decarbonization efforts and accelerate Colombia's energy transition. Ecopetrol has operated at net profit in 9 of the last 10 years.

YPF

NOC finances and Green Bonds

YPF has recently had net negative profits but **received its first green bond in 2022** with a total amount of **63.9 million dollars** through YPF Luz.

PEMEX

NOC finances and Green Bonds

Within the observed timeline, Pemex has not issued bonds that are specifically tied to Green Projects. This year, Fitch Rating downgraded Pemex's Long-Term Foreign and and Local Currency Issuer Default Ratings (IDRs) to B+ from BB-. The downgrade reflects the company's continued weak operating performance further limiting its ability to source financing from banks, investors and suppliers. Pemex has received over **$40 billion** in government transfers over the last 5 years, while operating at a loss in 8 of the last 10 years.

PETROBRAS

NOC finances and Green Bonds

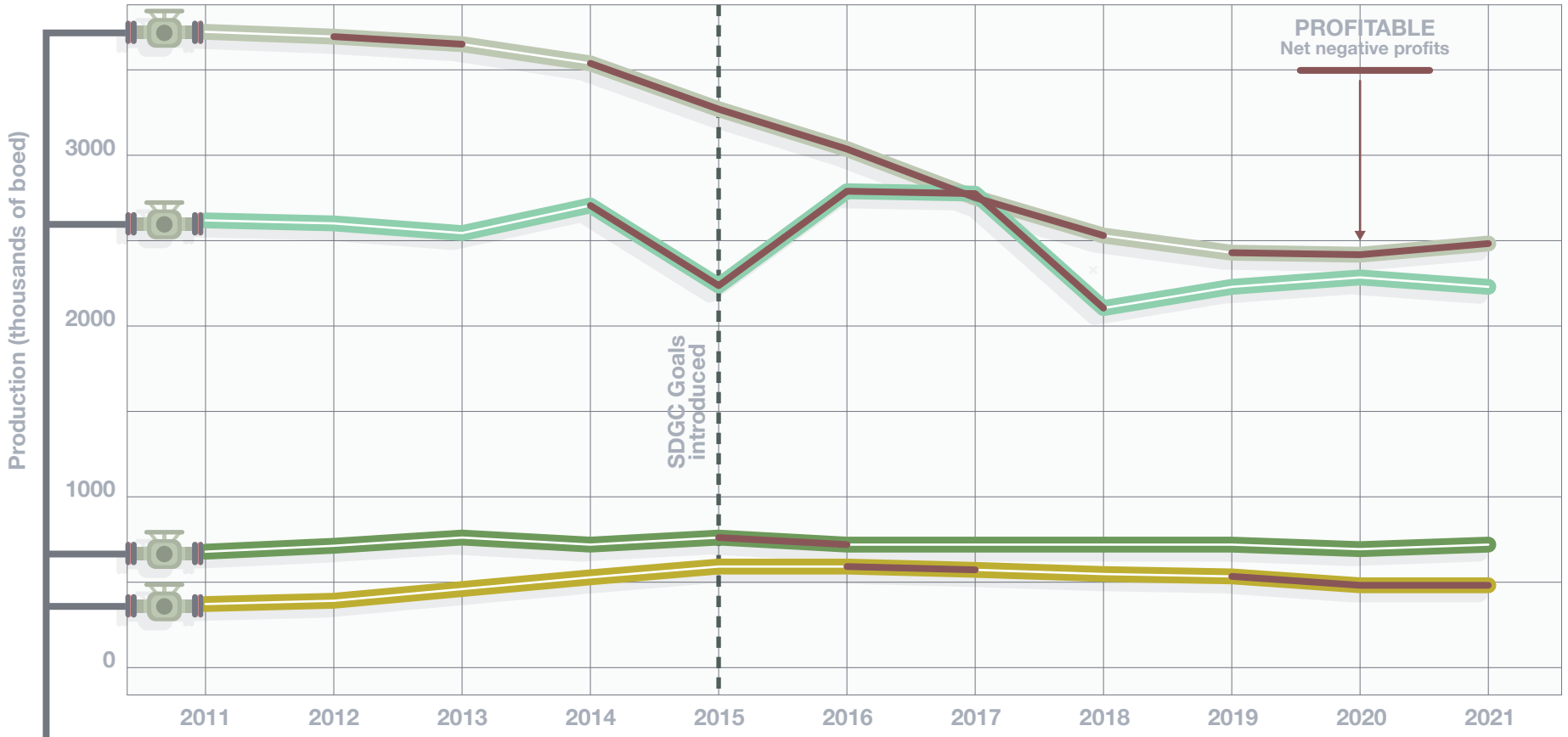
Petrobras has mantained its profit in the last few years and recently in 2022 pursued a **$1.25 billion** loan.

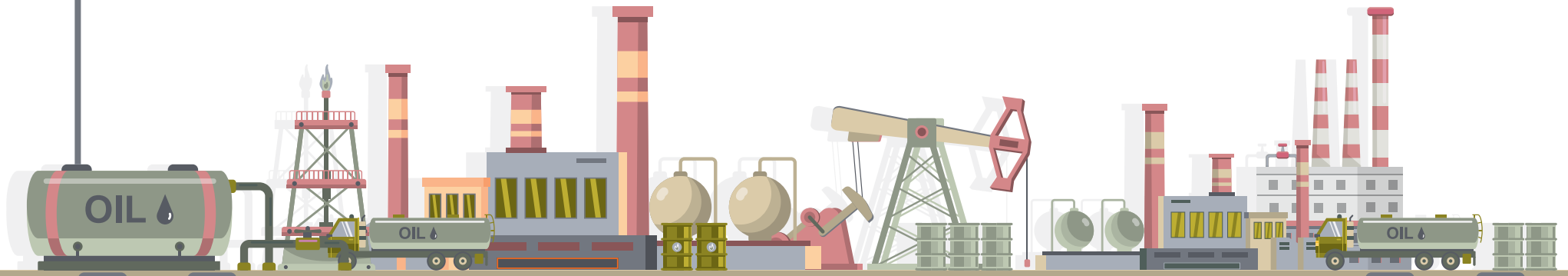
FINANCIAL PERFORMANCE

PRODUCTION EFFICIENCY

Total production of NOCs (thousands boed) from 2011-2021

ECOPETROL | YPF | PEMEX | PETROBRAS

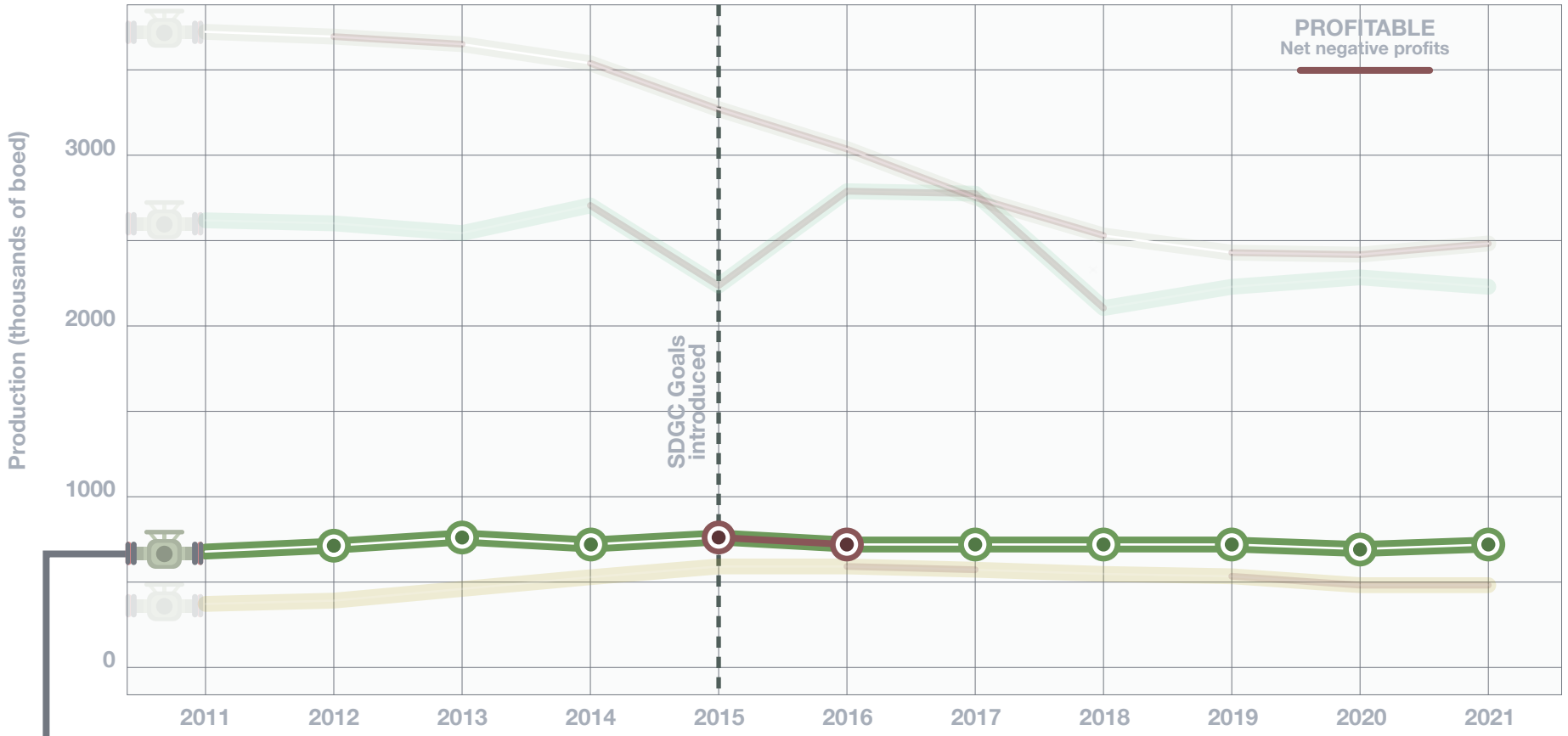




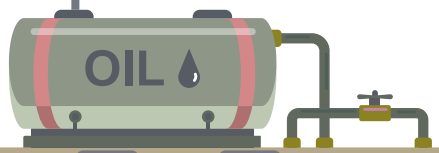
PRODUCTION EFFICIENCY

Total production of NOCs (thousands boed) from 2011-2021

ECOPETROL | YPF | PEMEX | PETROBRAS



ECOPETROL



REDUCED FLARING RATIO TO PRODUCTION?

IMPROVED

From 2017-2019

REDUCED EMISSION RATIO TO PRODUCTION?

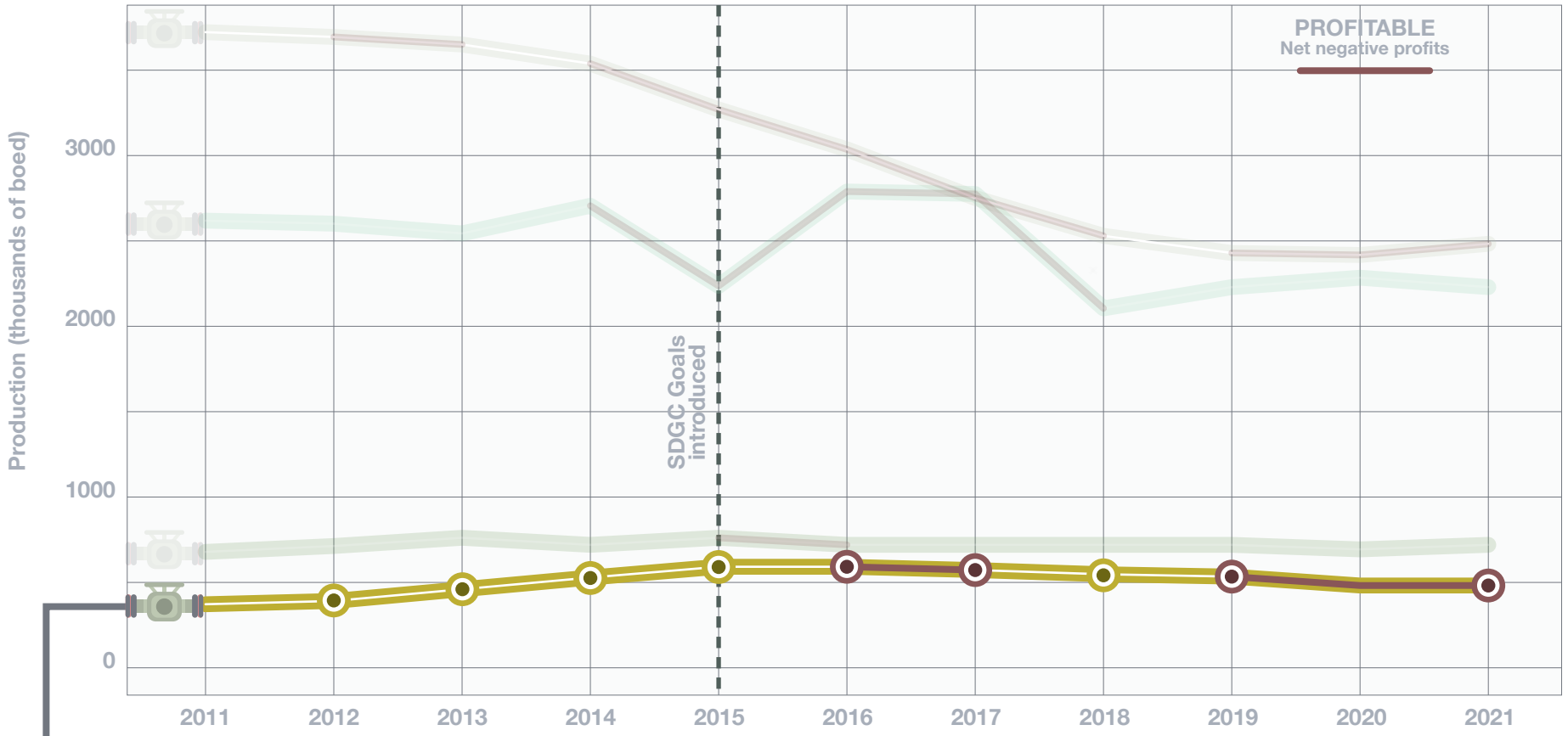
YES

Reduced Emission Ratio from 2019-2021

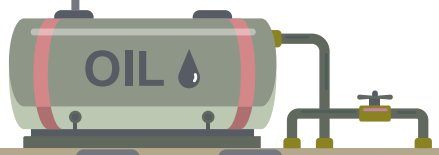
PRODUCTION EFFICIENCY

Total production of NOCs (thousands boed) from 2011-2021

ECOPETROL | YPF | PEMEX | PETROBRAS



YPF



REDUCED FLARING RATIO TO PRODUCTION?

INITIALLY IMPROVED

Returned to Previous Ratio of Production to Flaring

REDUCED EMISSION RATIO TO PRODUCTION?

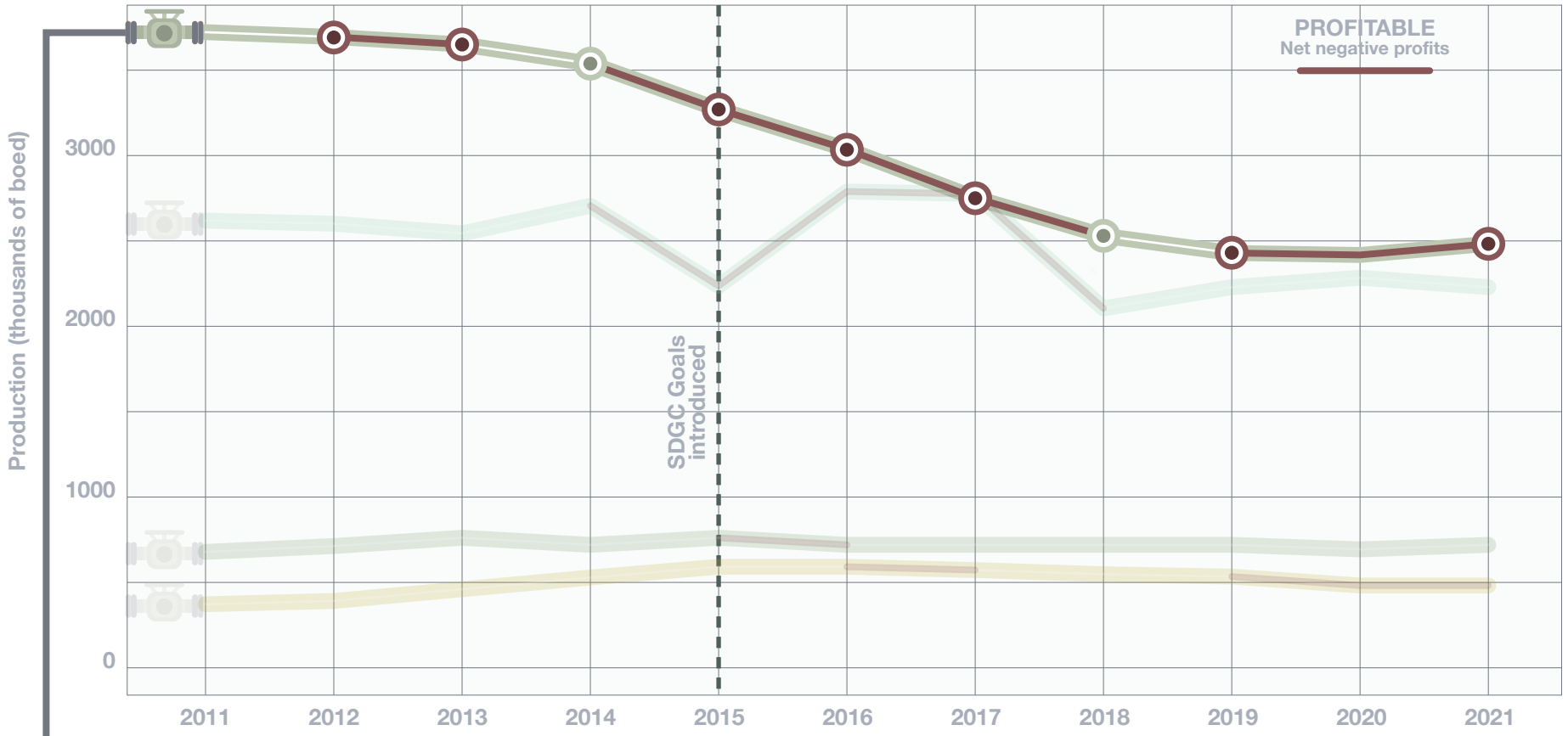
NOT SIGNIFICANTLY

Reduced Emission Ratio Minutely When Profitable

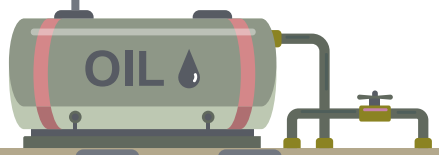
PRODUCTION EFFICIENCY

Total production of NOCs (thousands boed) from 2011-2021

ECOPETROL | YPF | PEMEX | PETROBRAS



PEMEX



REDUCED FLARING RATIO TO PRODUCTION?

NO

No Improvement

REDUCED EMISSION RATIO TO PRODUCTION?

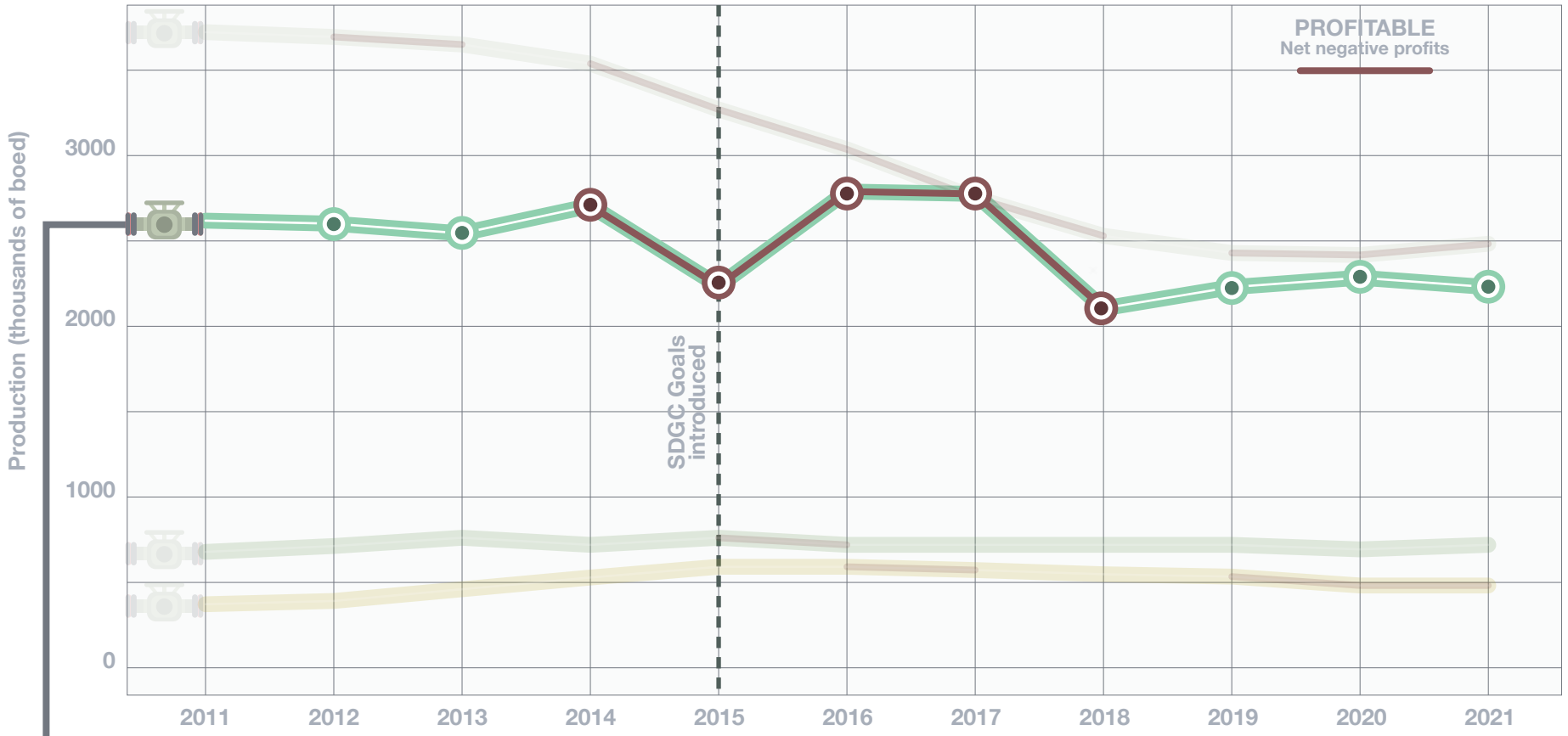
NOT CONSISTENTLY

Reduced Emission Ratio Significantly from 2015-2017, but Increased Back to Previous 2015 Levels

PRODUCTION EFFICIENCY

Total production of NOCs (thousands boed) from 2011-2021

ECOPETROL | YPF | PEMEX | **PETROBRAS**



PETROBRAS

REDUCED FLARING RATIO TO PRODUCTION?

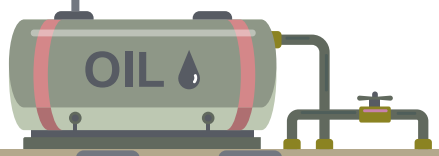
RECENTLY IMPROVED

Trend Uncertain

REDUCED EMISSION RATIO TO PRODUCTION?

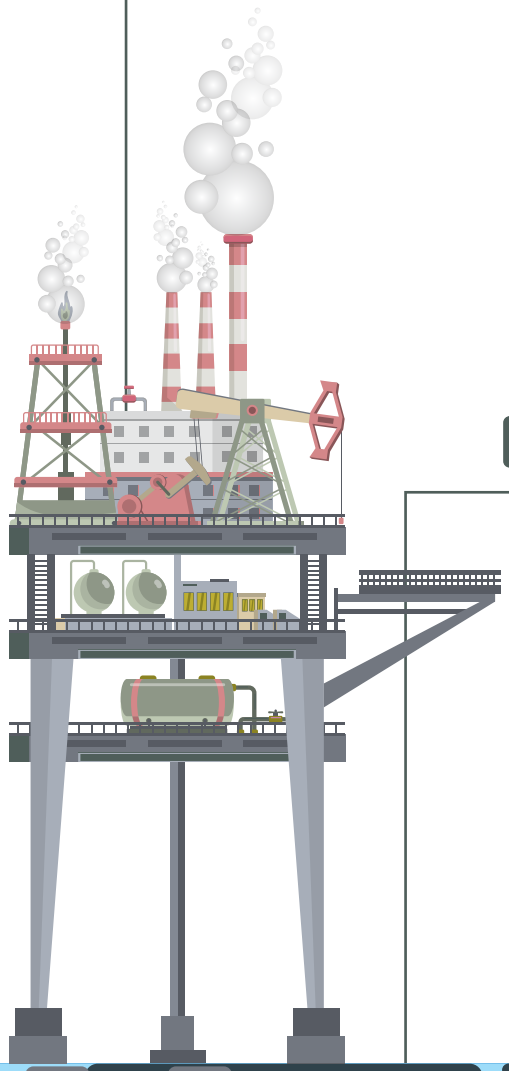
NOT CONSISTENTLY

Reduced Emissions from 2018-2020, Recently showed an increase in the emission ratio



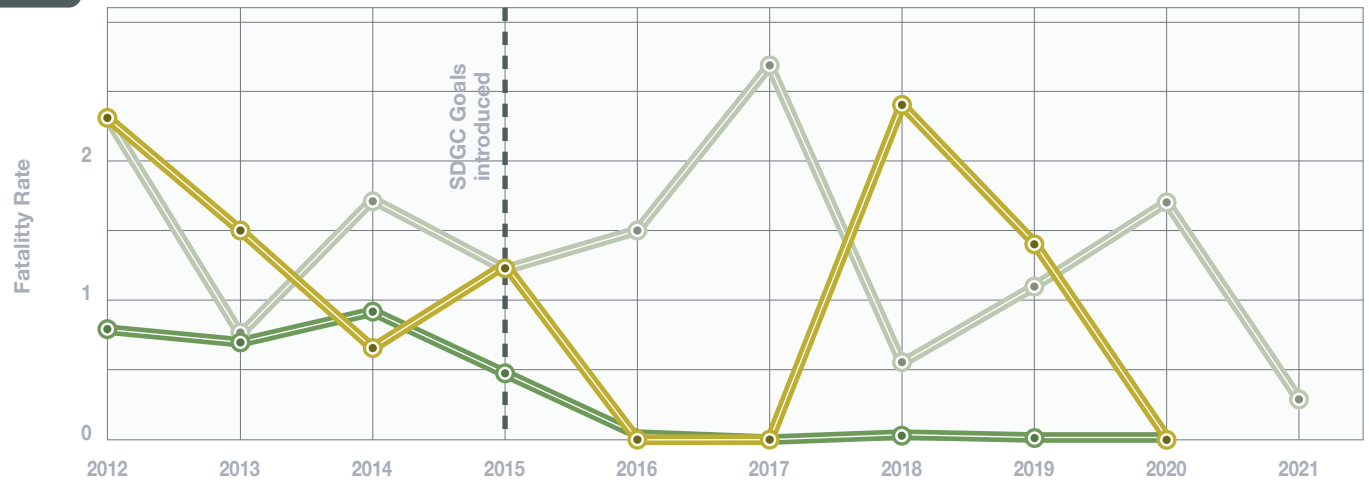
OPERATIONAL EXCELLENCE

ECOPETROL YPF PEMEX PETROBRAS



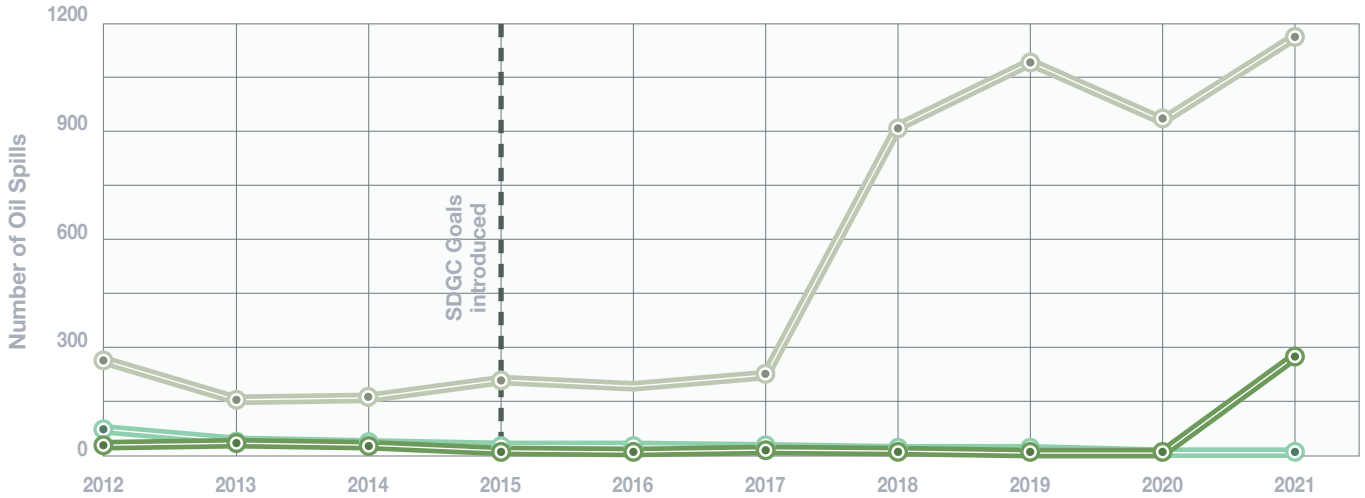
WORKPLACE

FATALITTY RATE PER MILLION HOURS WORKED OVER TIME



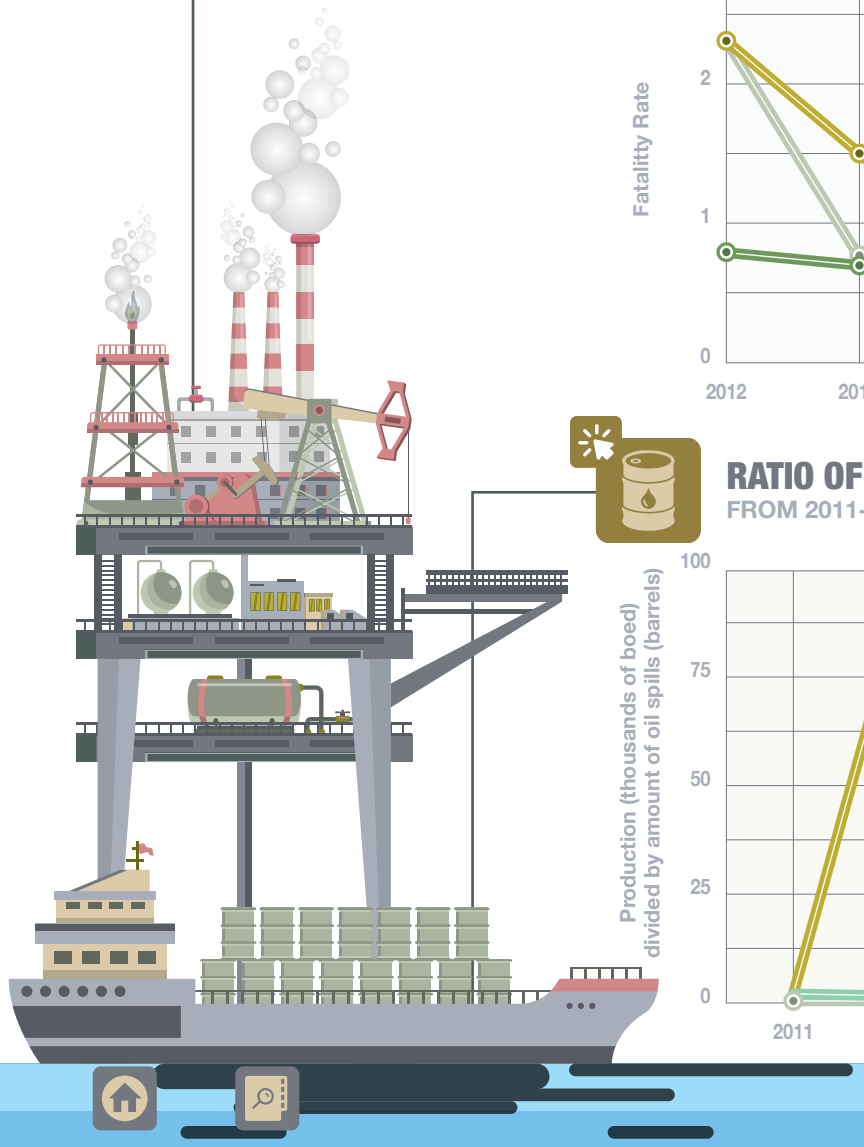
OIL SPILLS

TOTAL NUMBER OF OIL SPILLS



OPERATIONAL EXCELLENCE

ECOPETROL YPF PEMEX PETROBRAS



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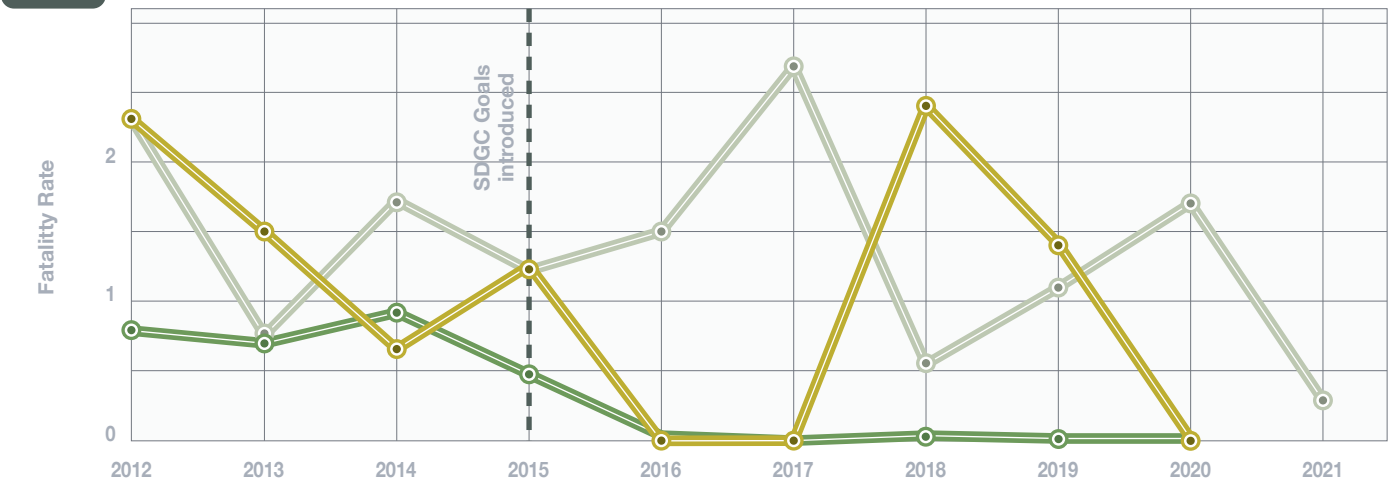
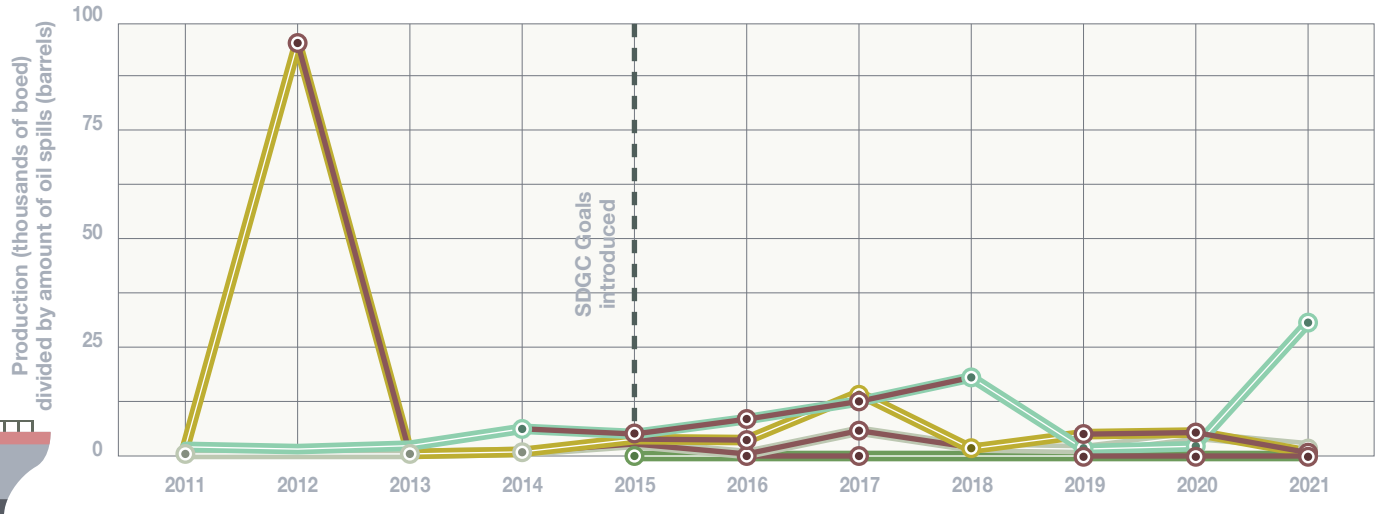


RATIO OF PRODUCTION TO AMOUNT OF OIL SPILLED

FROM 2011-2021 BEFORE AND AFTER SDG GOALS

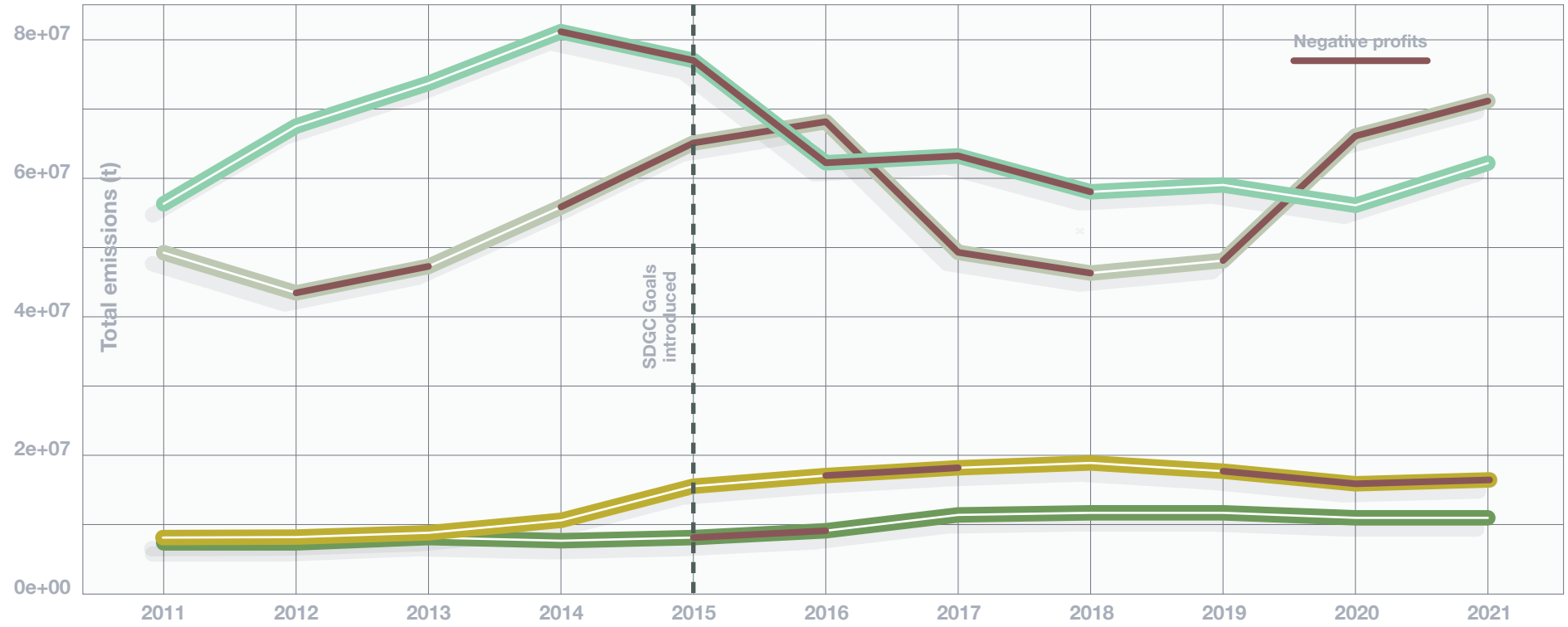
Negative profits



EMISSION REDUCTION AND RENEWABLE ENERGY INVESTMENT

Total direct and indirect CO2 emissions
from 2011-2021 before and after SDG Goals

ECOPETROL | YPF | PEMEX | PETROBRAS



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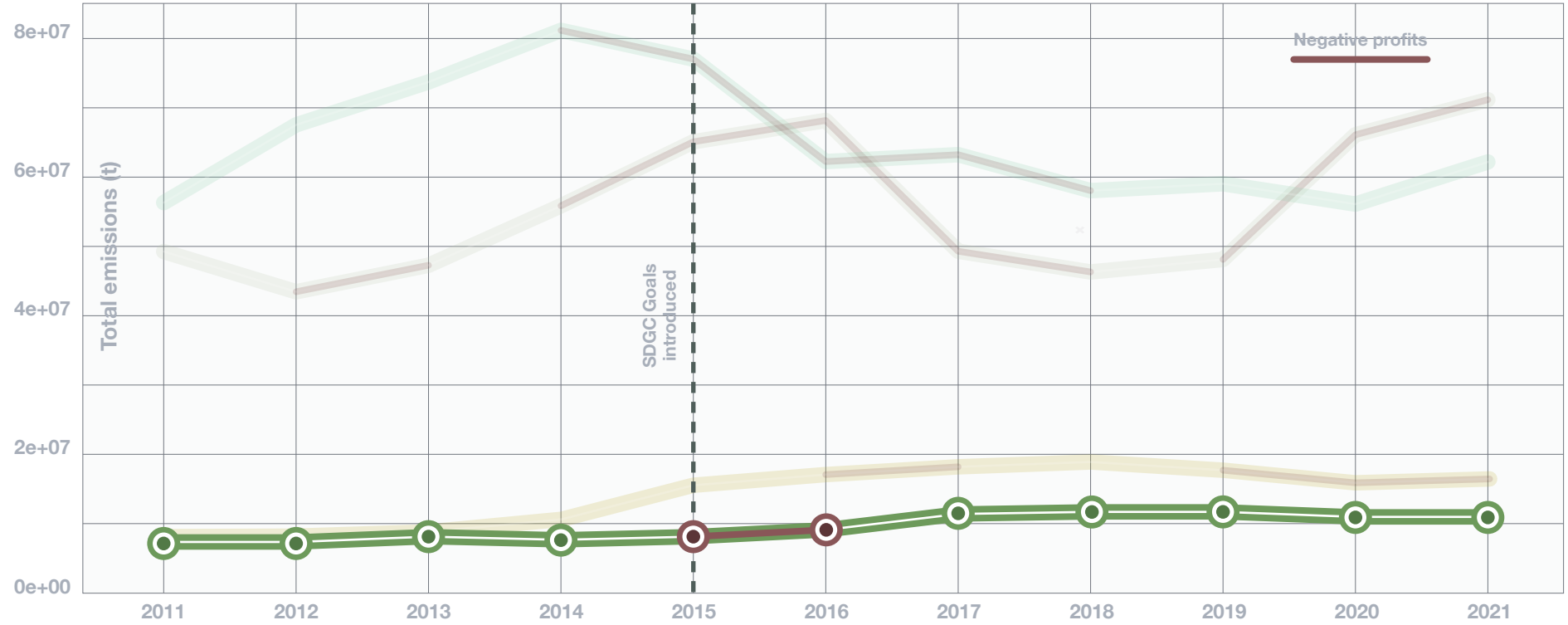
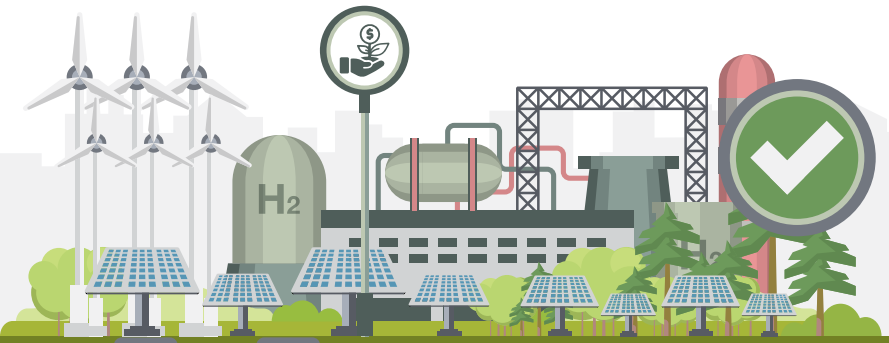




ECOPETROL

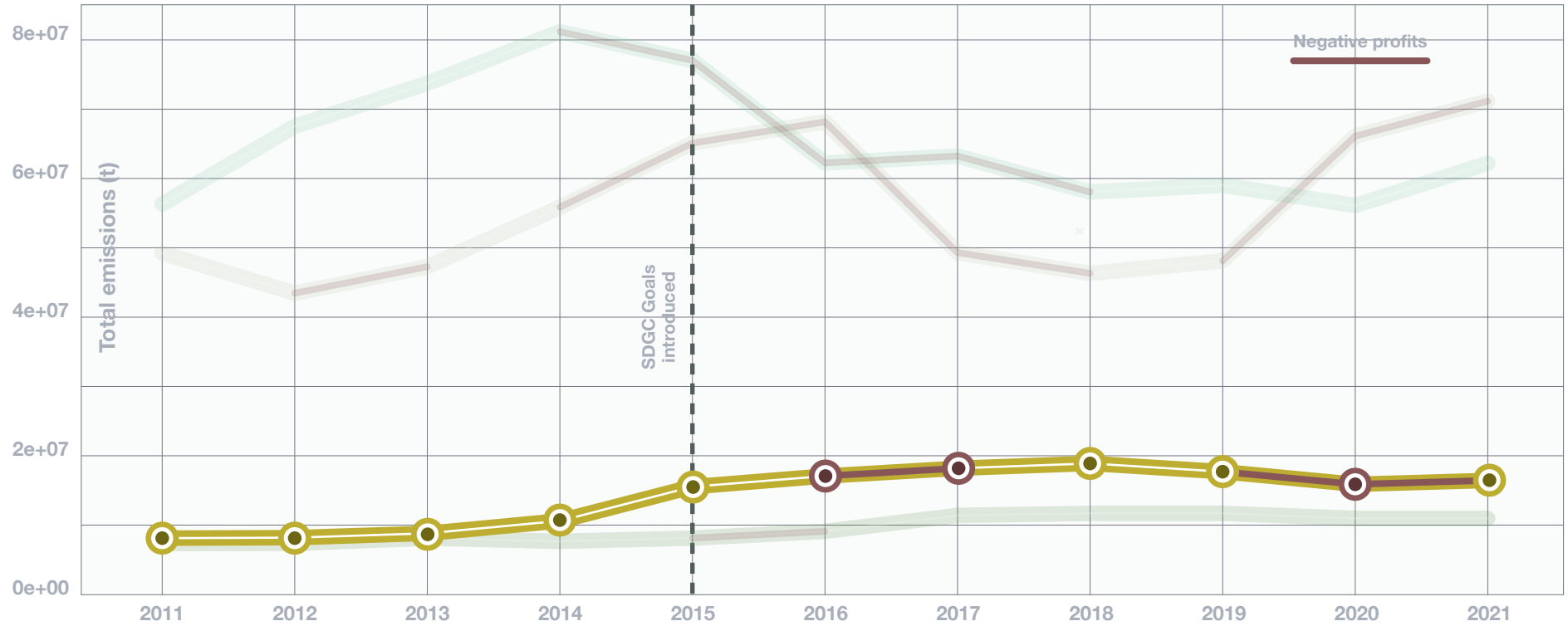
RENEWABLE ENERGY PROJECTS?

400 MW of installed capacity, 85% of which stem from solar projects.
Wind, RNG and hydrogen pilot projects are being developed.

EMISSION REDUCTION AND RENEWABLE ENERGY INVESTMENT

Total direct and indirect CO2 emissions from 2011-2021 before and after SDG Goals

ECOPETROL | YPF | PEMEX | PETROBRAS



YPF

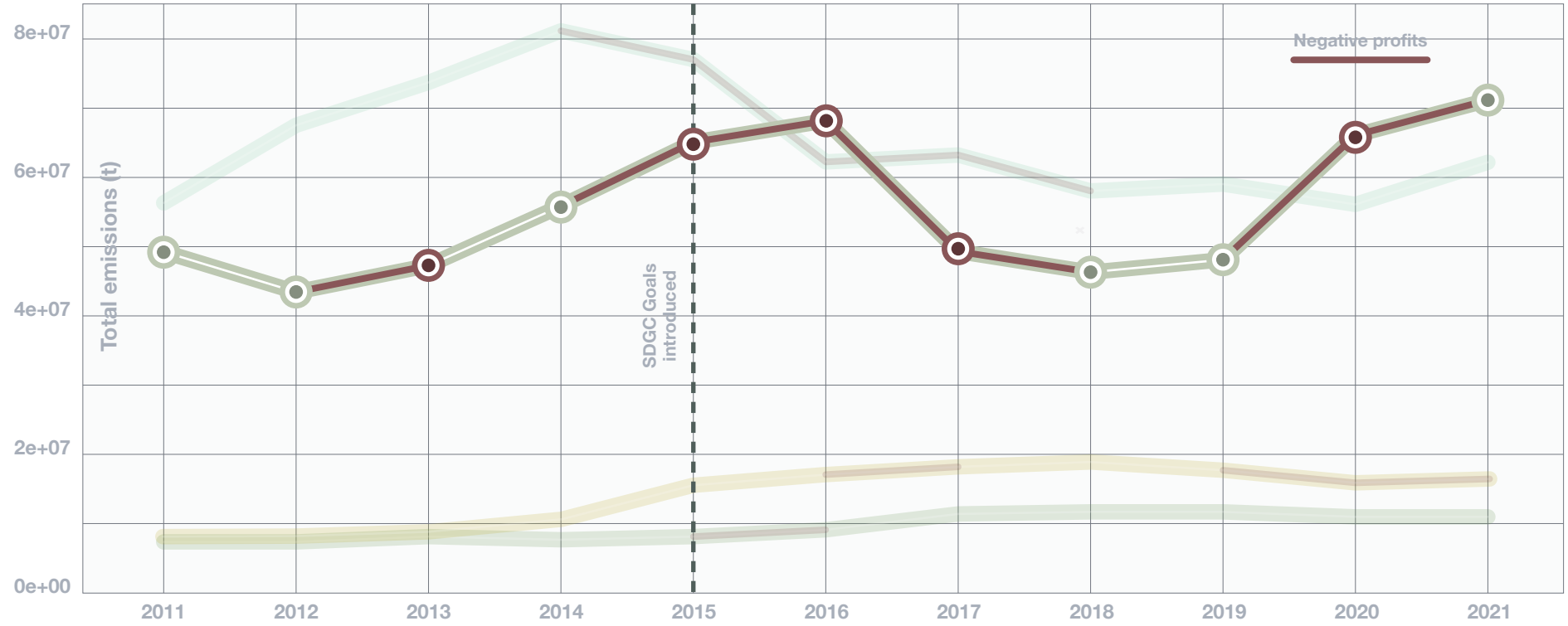
RENEWABLE ENERGY PROJECTS?

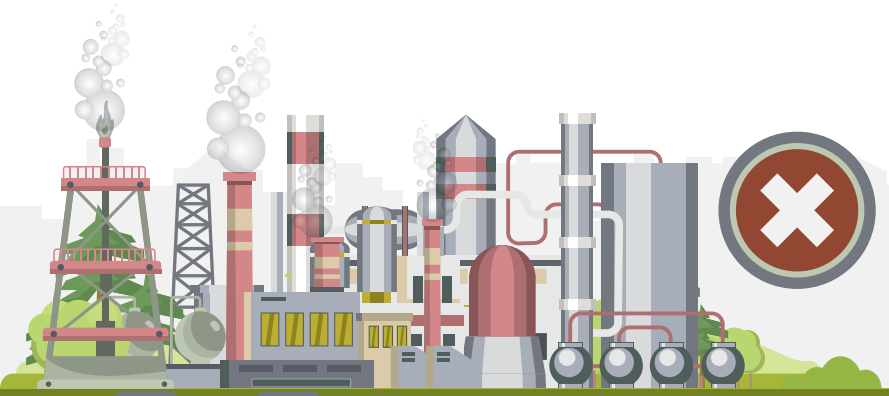
Demonstrated commitment to renewable energy with partnership with YPF Luz (222 MW renewable energy installed capacity), and continued expansion of wind farms (first wind farm in 2017, 3 wind farms in 2019, 2 new wind farms in 2021

EMISSION REDUCTION AND RENEWABLE ENERGY INVESTMENT

Total direct and indirect CO2 emissions from 2011-2021 before and after SDG Goals

ECOPETROL | YPF | PEMEX | PETROBRAS





PEMEX

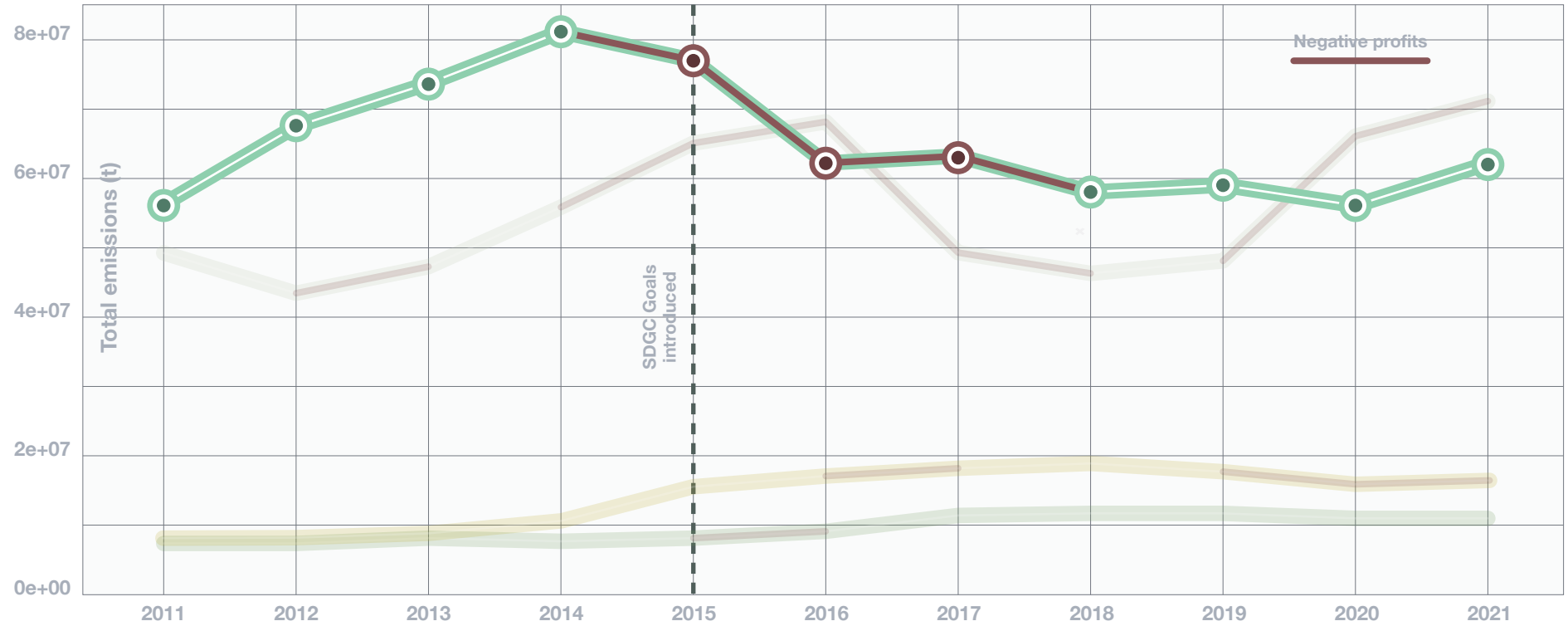
RENEWABLE ENERGY PROJECTS?

Increasing installed capacity falls under the responsibility of CFE, Mexico's electric state utility company. As provided by its laws, Pemex is a decentralized agency whose priority function is to carry out the activities of exploration, exploitation and other actions demanded by the operation and strategic management of the oil industry, in order for activities related to renewable or alternative energies to represent a smaller segment within the line of business.

EMISSION REDUCTION AND RENEWABLE ENERGY INVESTMENT

Total direct and indirect CO2 emissions from 2011-2021 before and after SDG Goals

ECOPETROL | YPF | PEMEX | **PETROBRAS**



PETROBRAS

RENEWABLE ENERGY PROJECTS?

Petrobras has diversely invested into renewable energy, investing diversely into biofuels, wind, solar and carbon recapture technologies.

SOURCES

Ecopetrol

- **Sustainability reports:**

https://www.ecopetrol.com.co/wps/portal/Home/tesg/reports-standards/reports

- **Organization Chart:**

https://www.ecopetrol.com.co/wps/portal/Home/es/NuestraEmpresa/QuienesSomos/EstructuraOrganizacional/Organigrama

- **Net Zero Plan:**

https://www.ecopetrol.com.co/wps/portal/Home/tesg/environmental/climate-action/greenhouse-gas-mitigation

- **Investments in Clean Energy and Renewables:**

https://www.ecopetrol.com.co/wps/portal/Home/es/noticias/detalle/inversion-ge-2023-transicion-energetica#:~:text=Cerca%20de%20COP%204.1%20billones,estudios%20de%20almacenamiento%20y%20captura

Pemex

- **Sustainability Reports:**

https://www.pemex.com/en/responsibility/sustainable/reports/Paginas/default.aspx

- **2023-2027 Business Plan:**

https://www.pemex.com/acerca/plan-de-negocios/Documents/business_plan_2023-2027.pdf

- **Statistical Directory:**

https://www.pemex.com/ri/Publicaciones/Paginas/AnuarioEstadistico.aspx

Petrobras

https://www.sec.gov/Archives/edgar/data/1119639/000129281421001152/pbraform20f_2020.htm

- **Sustainability Reports:**

https://sustentabilidade.petrobras.com.br/en/

- **Green Bond:**

https://www.bloomberg.com/news/articles/2022-07-11/petrobras-debuts-in-green-financing-with-1-25-billion-loan#xj4y7vzkg

YPF

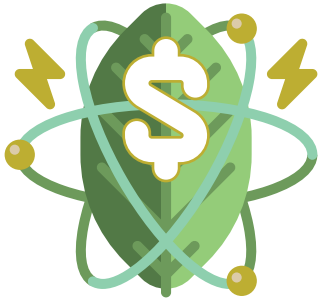
- **Green Bond:**

https://andinaenergy.com/en/noticias/san-juan-launches-the-first-ypf-luz-solar-park-in-argentina/

- **Sustainability Reports:**

https://sustentabilidad.ypf.com/index_en.html

RETURN



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