Update of upstream activities offshore Uruguay

AAPG | GESGB
Business of Energy Opportunities Show

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London, UK

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Energy Transition Manager

ANCAP

Uruguay featured in **The Guardian**

News | Opinion | Sport | Culture | Lifestyle | The Guardian | Int

Southern frontlines: Latin America and the Caribbean

This article is more than **1 year old**

Uruguay's green power revolution: rapid shift to wind shows the world how it's done

A wind farm in Florida, Uruguay. Up to 98% of the country's power comes from renewables. Photograph: Alessandro Cinque

Wed 27 Dec 2023

Stung by 2008's oil price spike, Uruguay now produces up to 98% of its electricity from renewables. Can other countries follow suit?

By Sam Meadows in Montevideo

https://www.theguardian.com/global-development/2023/dec/27/uruguays-green-power-revolution-rapid-shift-to-wind-shows-the-world-how-its-done

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The Latin oil rush

'Like dropping a bomb': why is clean energy leader Uruguay ramping up the search for oil?

Uruguay's push for 'black gold' has alarmed fishers and environmentalists who say it contradicts the country's green credentials. Illustration: X/The Guardian

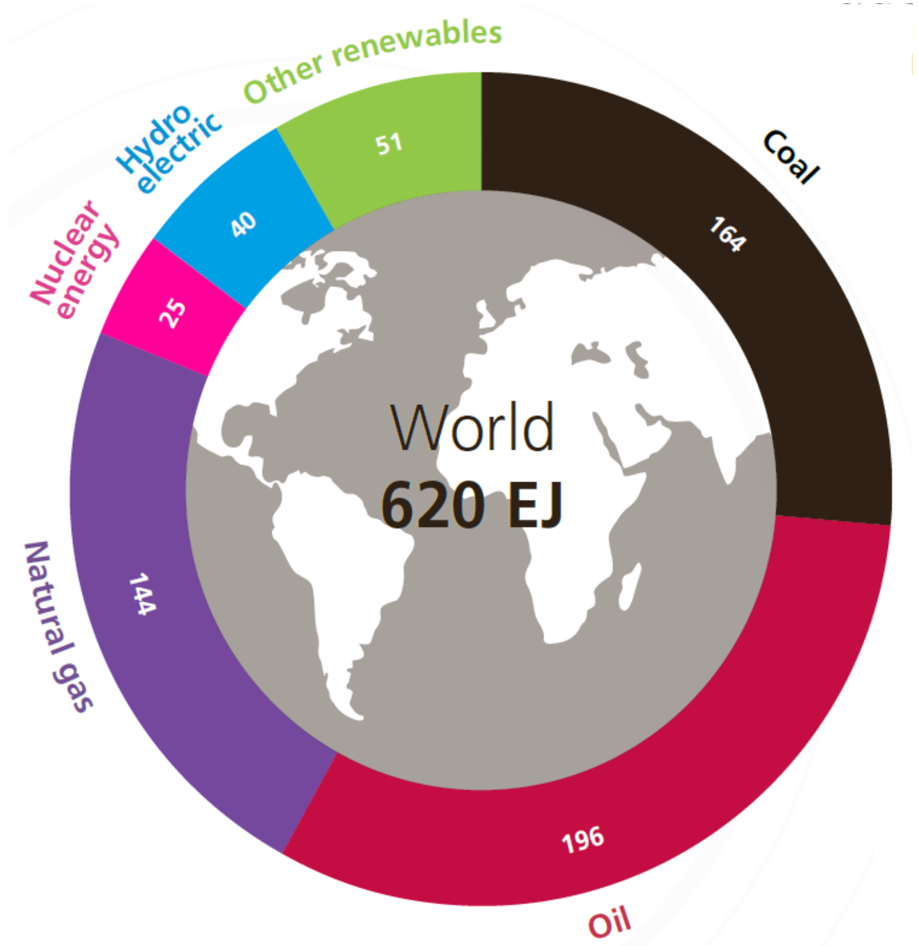
Thu 30 Jan 2025

The South American country has begun exploration in its Atlantic waters, with experts warning it is endangering livelihoods, marine life and climate goals

By Harriet Barber in Montevideo, Uruguay

https://www.theguardian.com/global-development/2025/jan/30/like-dropping-a-bomb-why-is-clean-energy-leader-uruguay-ramping-up-the-search-for-oil

Today's global energy system and the transition

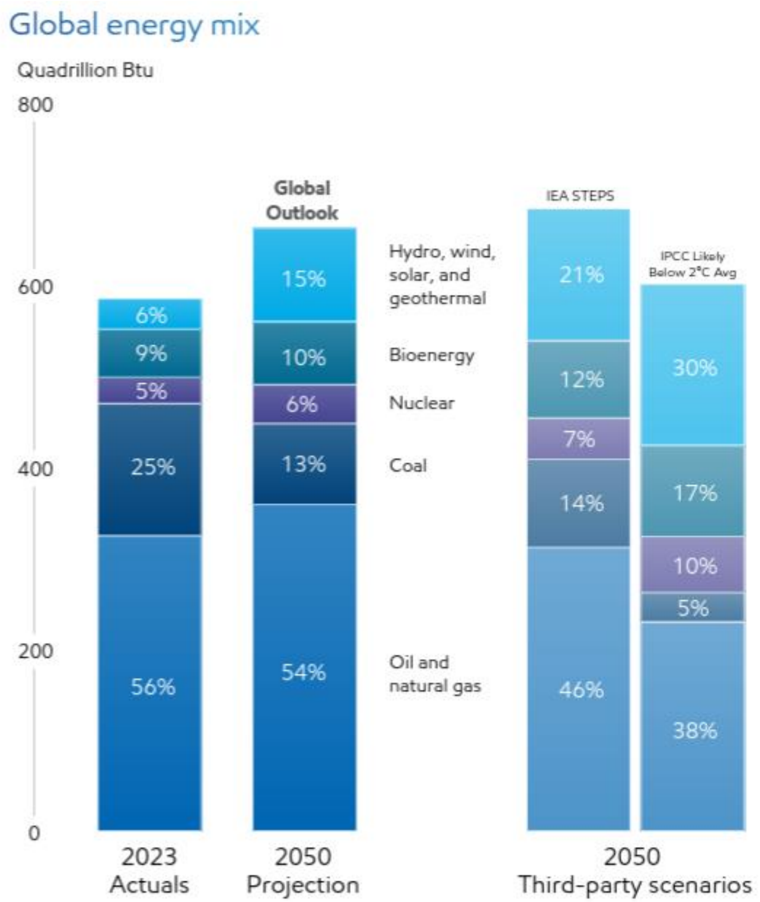


81,3% Fossil Fuels | O&G 54,8%

https://www.energyinst.org/statistical-review

And, not or

https://www.bp.com/en/global/corporate/what-we-do/our-transformation.html



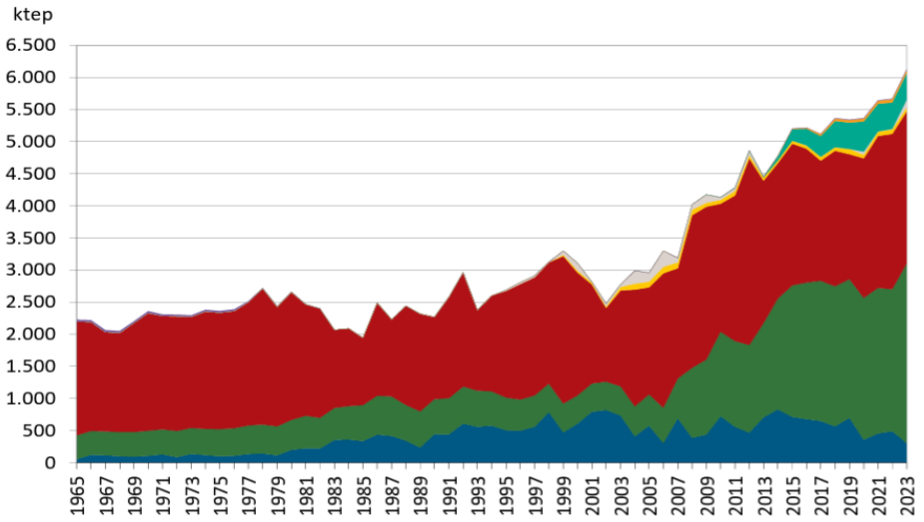
- All energy types will remain in the mix

https://corporate.exxonmobil.com/-/media/global/files/global-outlook/2024/global-outlook-executive-summary.pdf

Uruguay: First energy transition successfully completed

But petroleum still significant in our primary energy mix and our economy!

Primary matrix



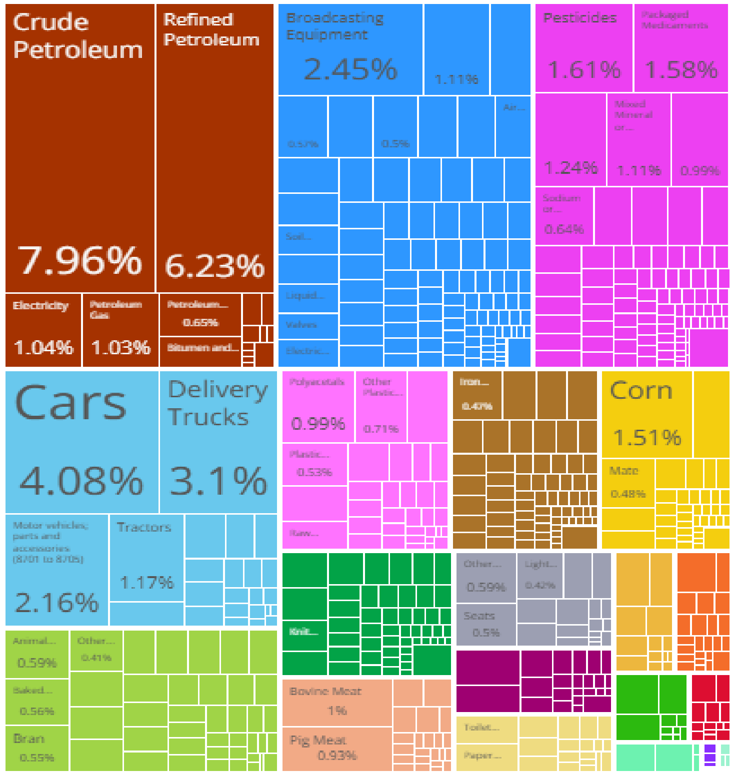
	2023
electricidad origen hidro	5%
biomasa	46%
petróleo y derivados	38%
gas natural	1%
electricidad importada	2%
electricidad origen eólica	7%
solar	1%
otros	0%

39% Fossil Fuels << 65% LAC << 81% Global

https://ben.miem.gub.uy/descargas/1balance/Presentaci%C3%B3n%20BEN2023.pdf

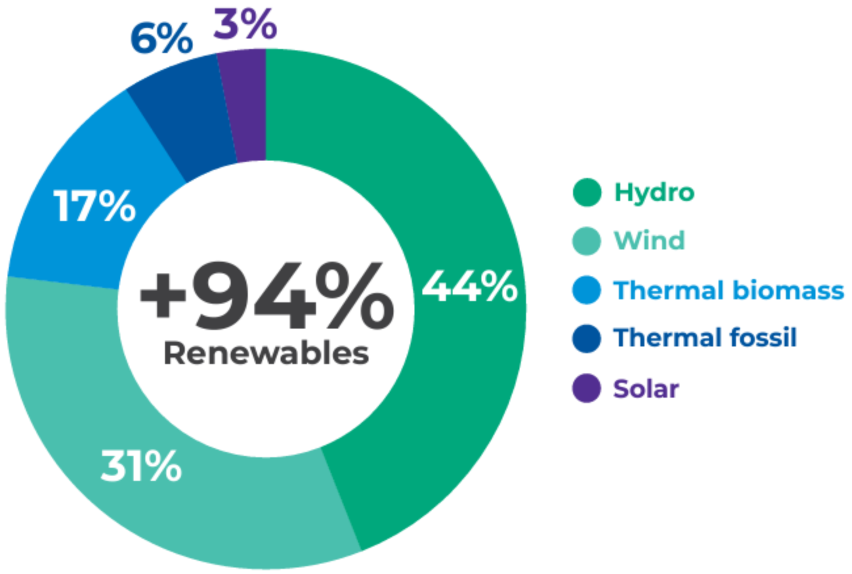
Uruguay Total Imports in 2023

Total: $13.5B



https://oec.world/profile/country/ury?yearlyTradeFlowSelector=flow1&yearSelector1=2023#yearly-trade

Electricity generation matrix Avg 2016 – 2022

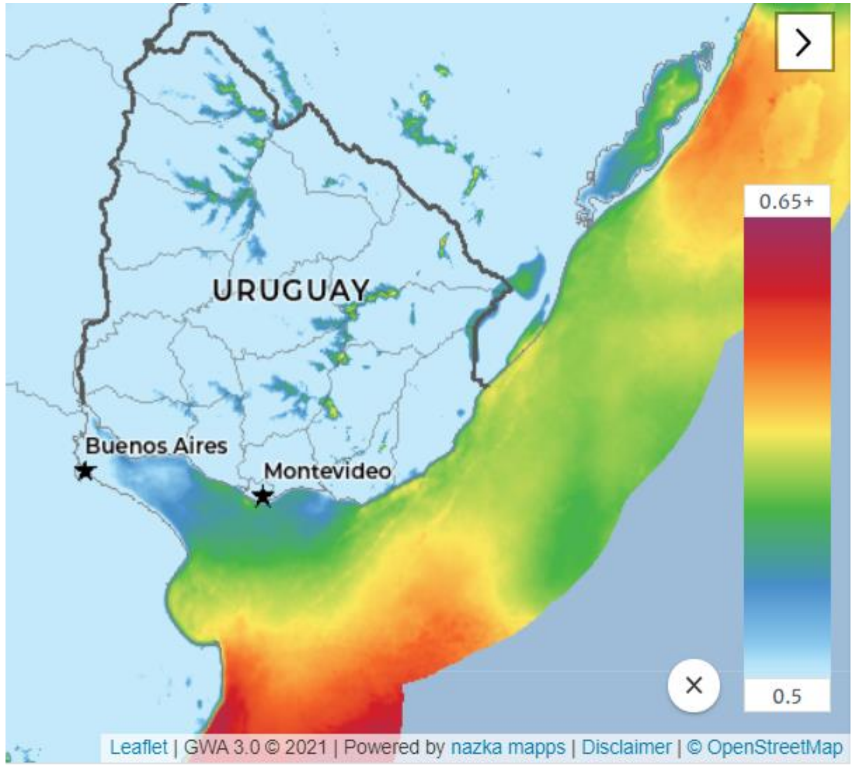


94% Renewables >> 64% LAC >> 39% Global

https://www.gub.uy/ministerio-industria-energia-mineria/sites/ministerio-industria-energia-mineria/files/documentos/noticias/H2_final-ingl%C3%A9s2020_0.pdf

Excellent conditions for the second energy transition

- Renewable potential
  - On land: 30 GW of Tier I wind and 60 GW of Tier I solar, with high complementarity
  - Offshore: 275 GW of wind
- Biomass residues of forestry and agricultural origin as a source of biogenic CO_2
- Water resources
- Feedstocks for biorefinery
- Projects to produce e-fuels and biofuels



[Data/information/map obtained from the] "Global Wind Atlas 3.0, a free, web-based application developed, owned and operated by the Technical University of Denmark (DTU). The Global Wind Atlas 3.0 is released in partnership with the World Bank Group, utilizing data provided by Vortex, using funding provided by the Energy Sector Management Assistance Program (ESMAP). For additional information: https://globalwindatlas.info"

The offshore of Uruguay has excellent wind conditions considering both mean wind speed (exceeding 8.8 m/s at 100m hub height) and capacity factors (higher than 52% for IEC Class I) (Global Wind Atlas, 2025). https://globalwindatlas.info/en/

ANCAP: hydrocarbons **and** sustainable fuels

E&P of
hydrocarbons

Decarbonization of
current operations

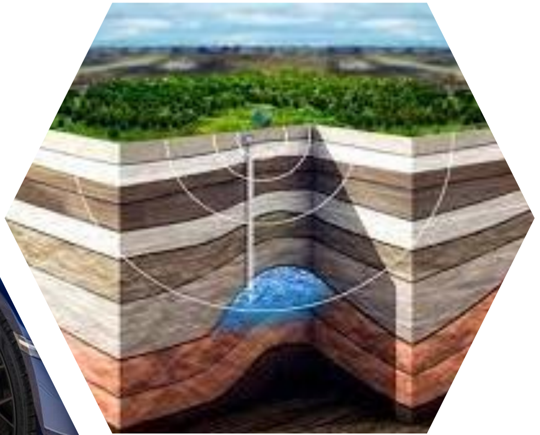
Green H2
production offshore

ALUR: bioethanol and
biodiesel production

HVO / SAF
Production

Natural / geologic
H2 E&P

E-fuels Production



CO2 storage in
saline aquifers

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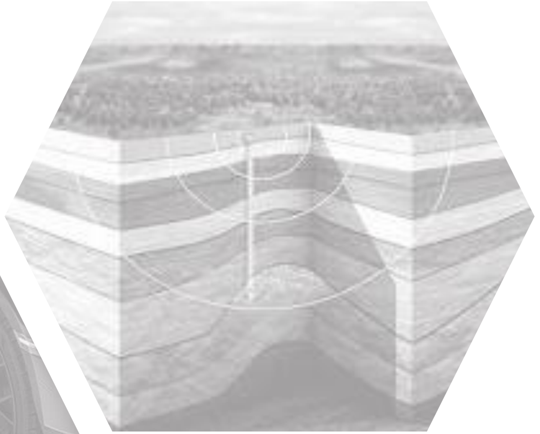

CO2 storage in
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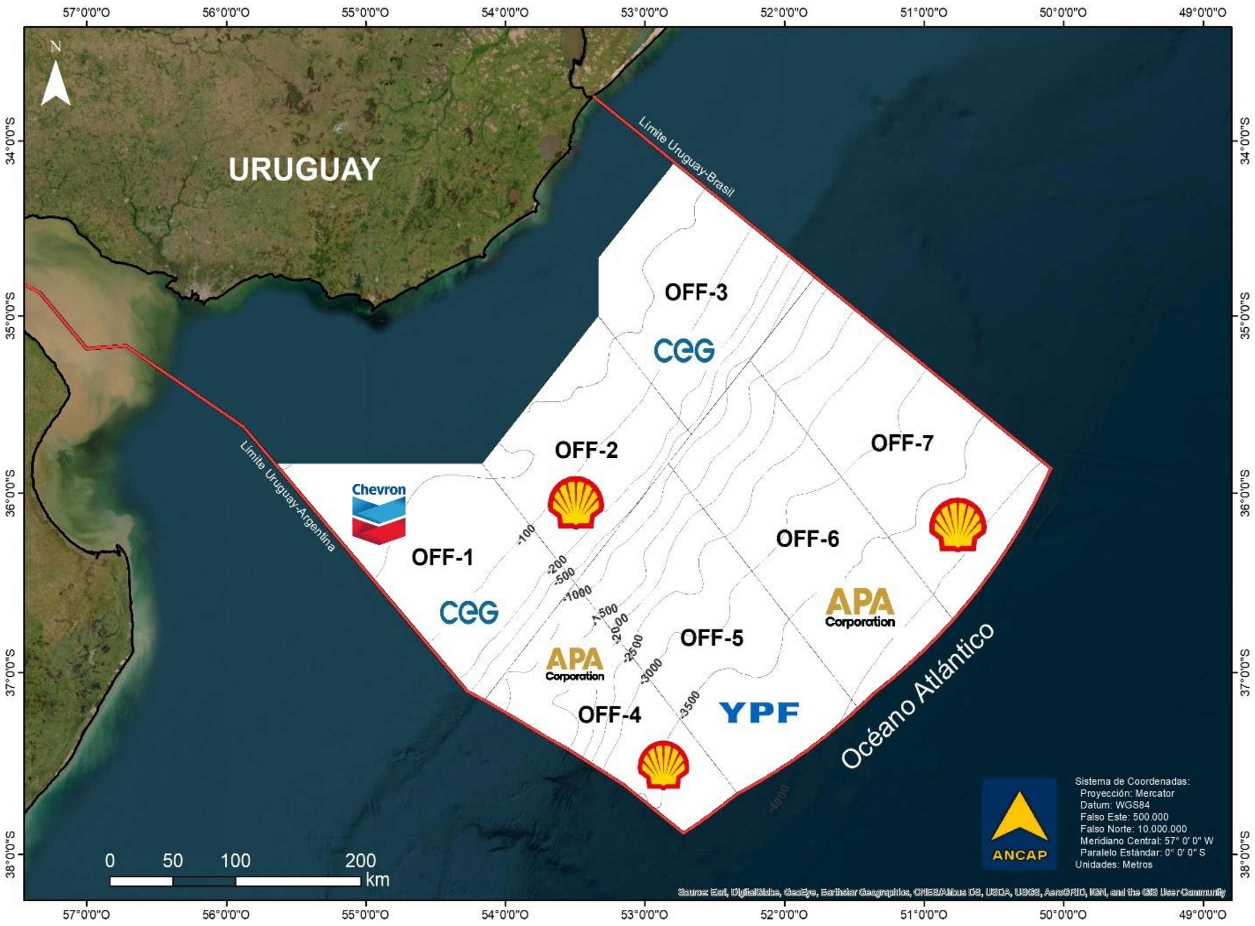
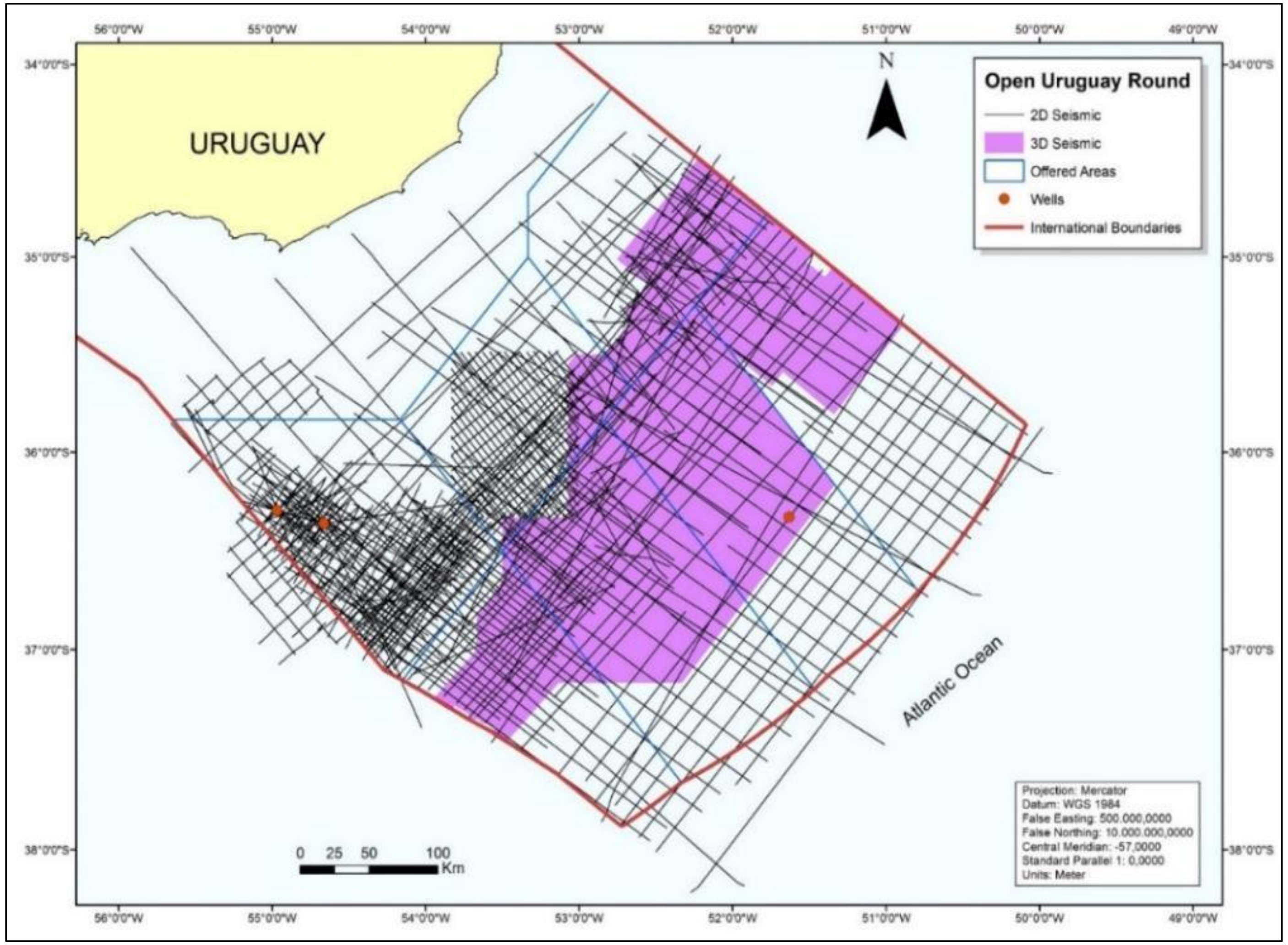
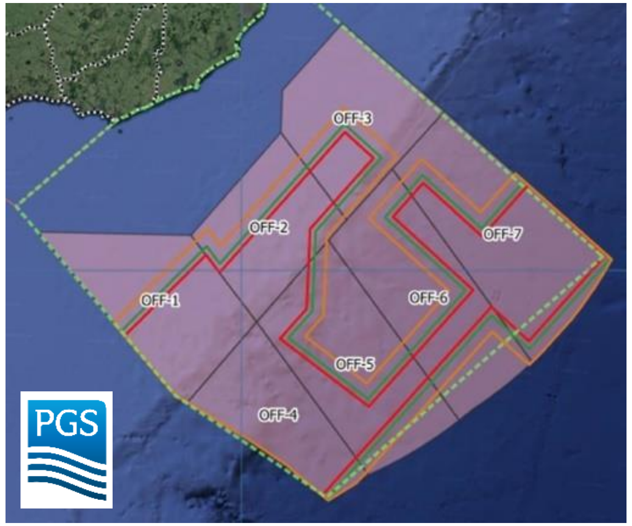
Update on E&P activities

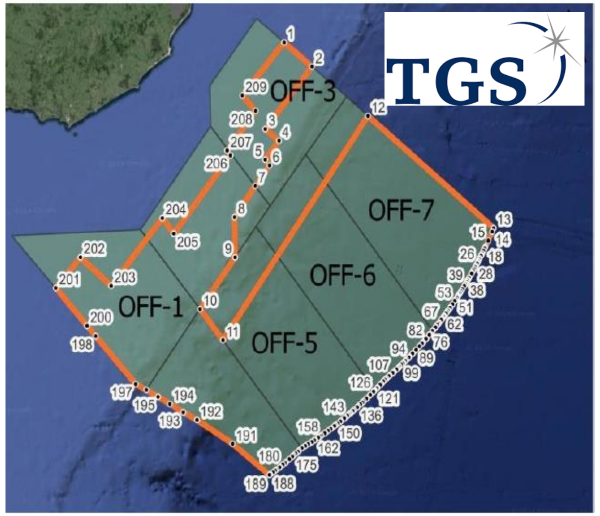
- All contractors executing activities normally
- Management Committee Meetings
- Environmental Permits
- Farm ins
- Nominal Investment Commitment: 129 MMUS$
- Exploration Activity includes:
  - working with existing data: seismic interpretation, basin modelling, prospect definition, volumetrics
  - acquisition of 2500Km^2 of 3D seismic
  - Deep-water exploratory well in block OFF-6

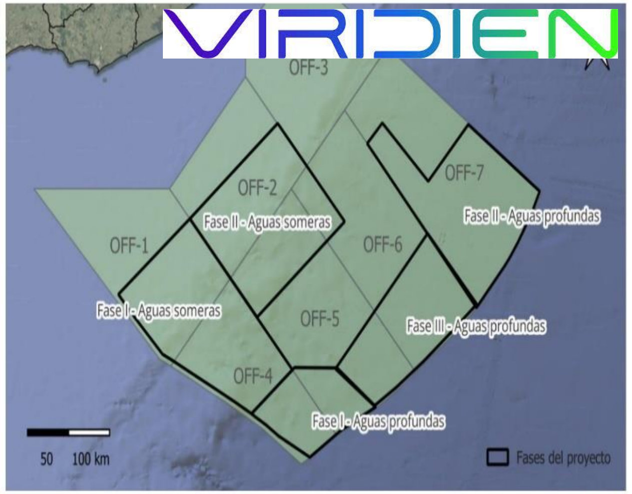


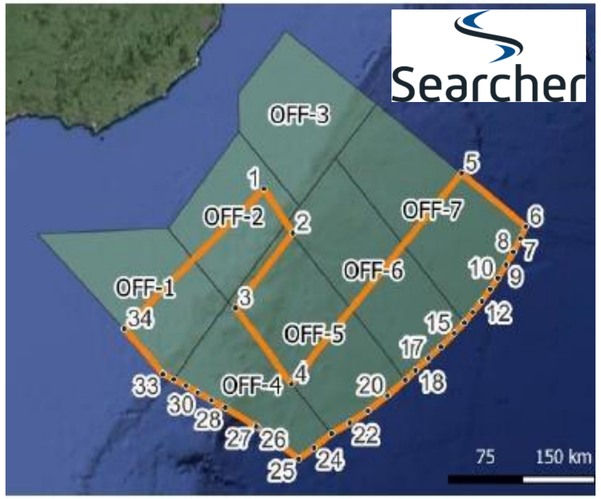
Available Data and new 3D seismic Multiclients





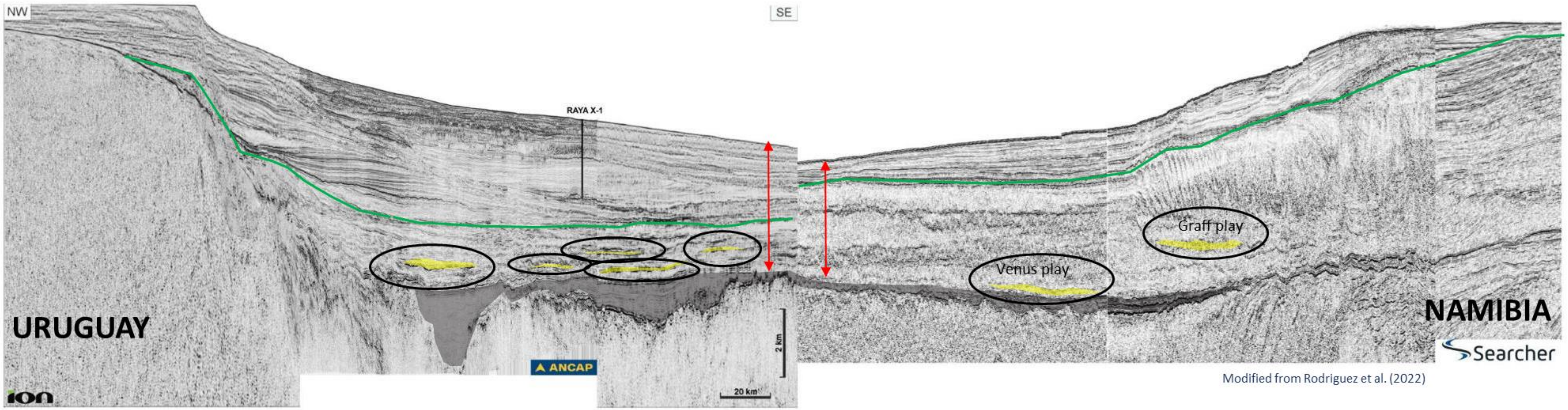






Remarkable analogies with Namibia

(and some differences too)

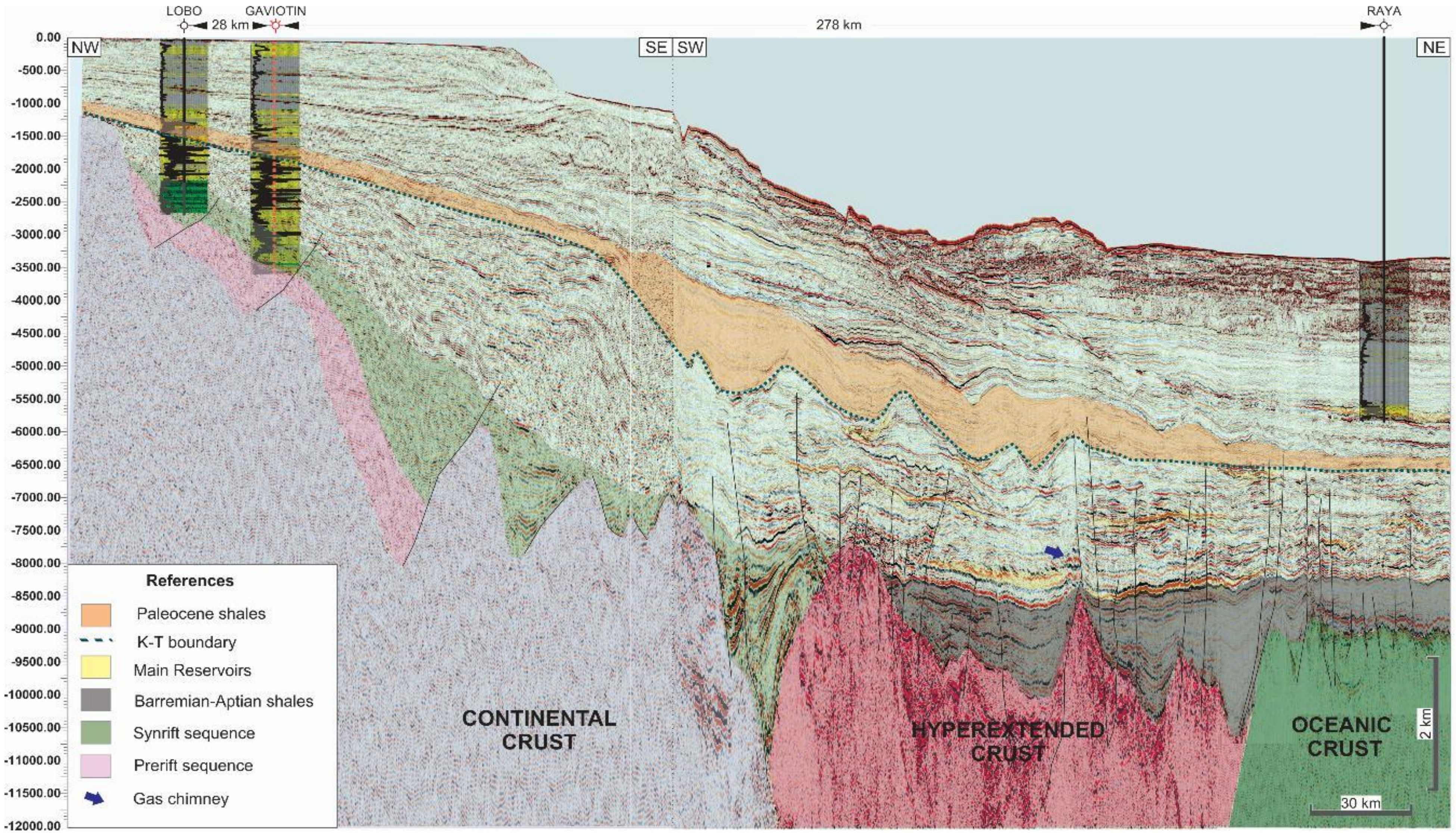


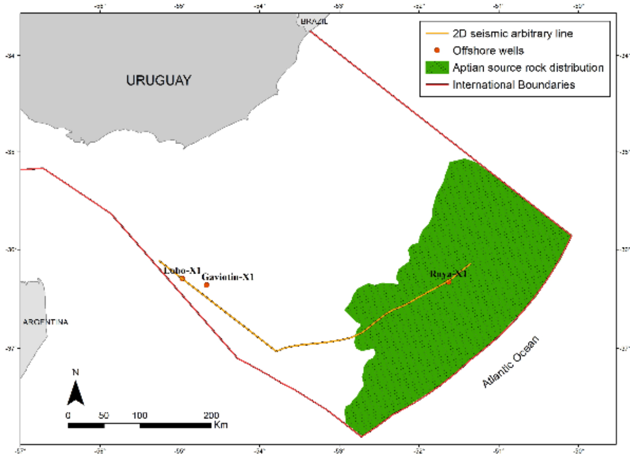
Modified from Rodriguez et al. (2022)

- Thicker Barremian-Aptian sequence offshore Uruguay
- More overburden for the Aptian source rock offshore Uruguay in some areas.
- Several cretaceous reservoirs identified analogous to Venus, Graff and Mopane (different provenance)
- Regional and thick Paleocene seal

Prospectivity

Deep-water Cretaceous post-rift sequences remain untested





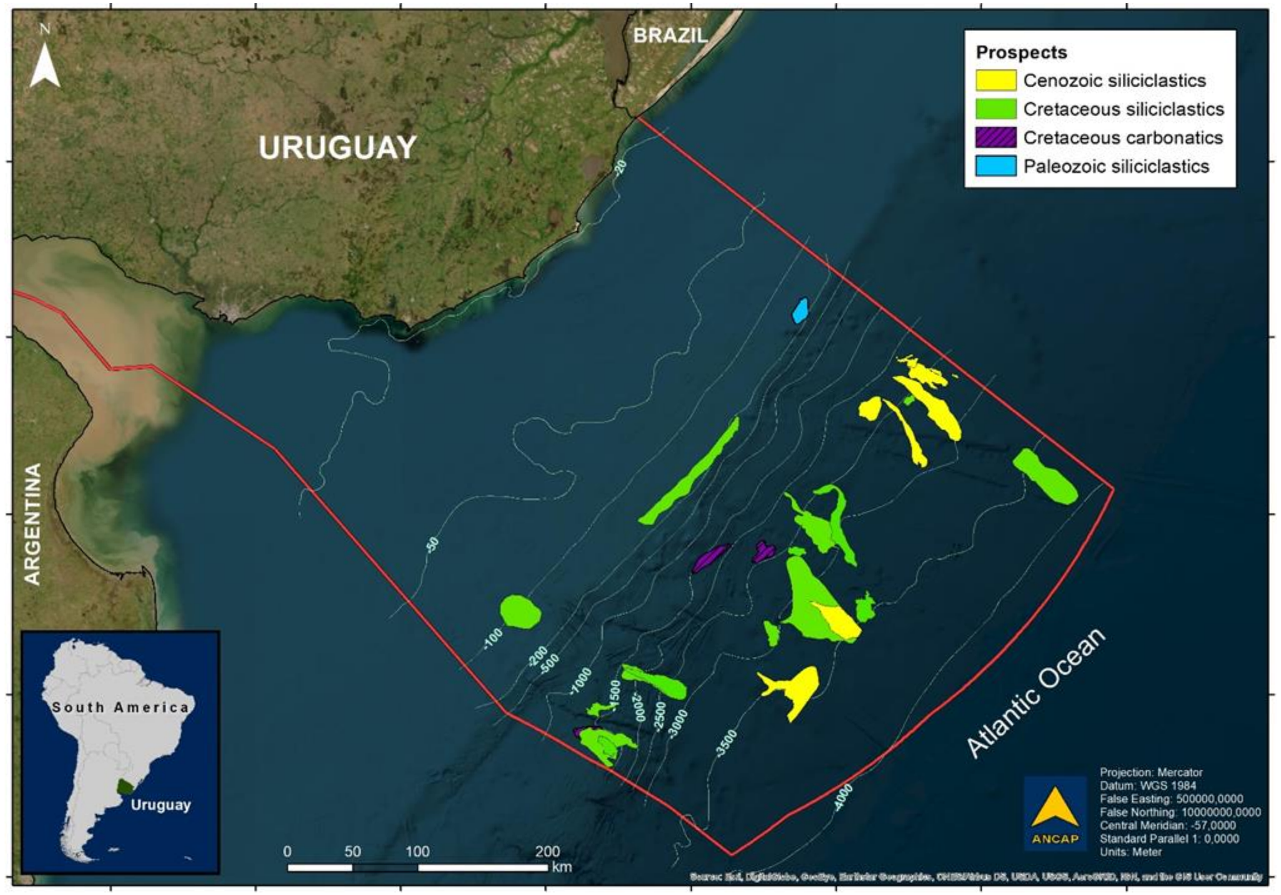
- Arbitrary line connecting the 3 offshore wells
- Fluid Inclusions in Lobo and Gaviotin in the K and not above
- K-T regional seal

Probability of Success for prospects offshore Uruguay

Prospects with the highest PoS are Albian and Upper Cretaceous turbidites and channel systems that show strong analogies with the recent discoveries in Namibia.

- 37 prospects
- 30.082 MMBOE (Pmean)

- Prerift play ~ 5%
- Sinrift play ~ 11%
- Transition play < 10%
- Cretaceous postrift plays ~ 11-23%
- Cenozoic postrift plays ~ 3-17%



			Probabilities					
Play	Prospect	#	Source Rock	Reservoir	Migration & Timing	Trap	Seal	CoS %
1	Morpheus	1	45%	30%	55%	95%	75%	5,3%
2	Lenteja	2	70%	50%	80%	55%	75%	11,6%
3	Deep Blue	3	90%	30%	70%	70%	75%	9,9%
	Smith	4	70%	30%	70%	70%	75%	7,7%
	Pini	5	90%	30%	70%	70%	75%	9,9%
4	Tararira	6	90%	30%	70%	95%	75%	13,5%
	Anselmo	7	90%	30%	70%	95%	75%	13,5%
5	Delmira	8	90%	70%	90%	55%	60%	18,7%
	Lola	9	90%	70%	90%	70%	50%	19,8%
	Dientudo	10	90%	60%	90%	55%	60%	16,0%
6	Chafalote	11	90%	55%	90%	70%	75%	23,4%
	Corvina	12	90%	35%	90%	55%	75%	11,7%
7	Luisa	13	90%	55%	100%	70%	40%	13,9%
8	Esmeralda	14	90%	60%	70%	70%	65%	17,2%
	Jaspero	15	90%	55%	70%	70%	65%	15,8%
	Onix	16	90%	55%	70%	70%	65%	15,8%
	Granito	17	90%	45%	70%	70%	65%	12,9%
9	Tejera	18	90%	55%	90%	70%	75%	23,4%
	Matilde	19	90%	35%	100%	55%	75%	13,0%
10	Amalia	20	70%	80%	70%	63%	55%	13,5%
11	Guyunusa	21	90%	75%	70%	50%	75%	17,7%
	Petrone	22	90%	75%	70%	50%	75%	17,7%
	Píriz	23	90%	75%	20%	50%	75%	5,1%
	Calvo	24	90%	45%	80%	50%	75%	12,2%
	Nasazzi	25	90%	75%	45%	50%	75%	11,4%
	El Manco	26	90%	45%	70%	50%	75%	10,6%
12	Maspoli	27	90%	85%	30%	55%	90%	11,4%
	Ghiggia	28	90%	100%	10%	55%	90%	4,5%
	Flor	29	90%	75%	10%	55%	90%	3,3%

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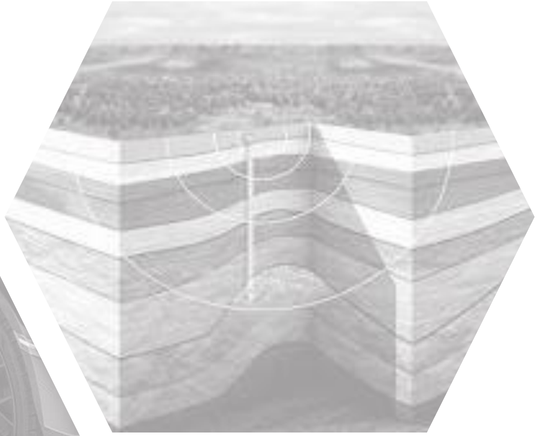

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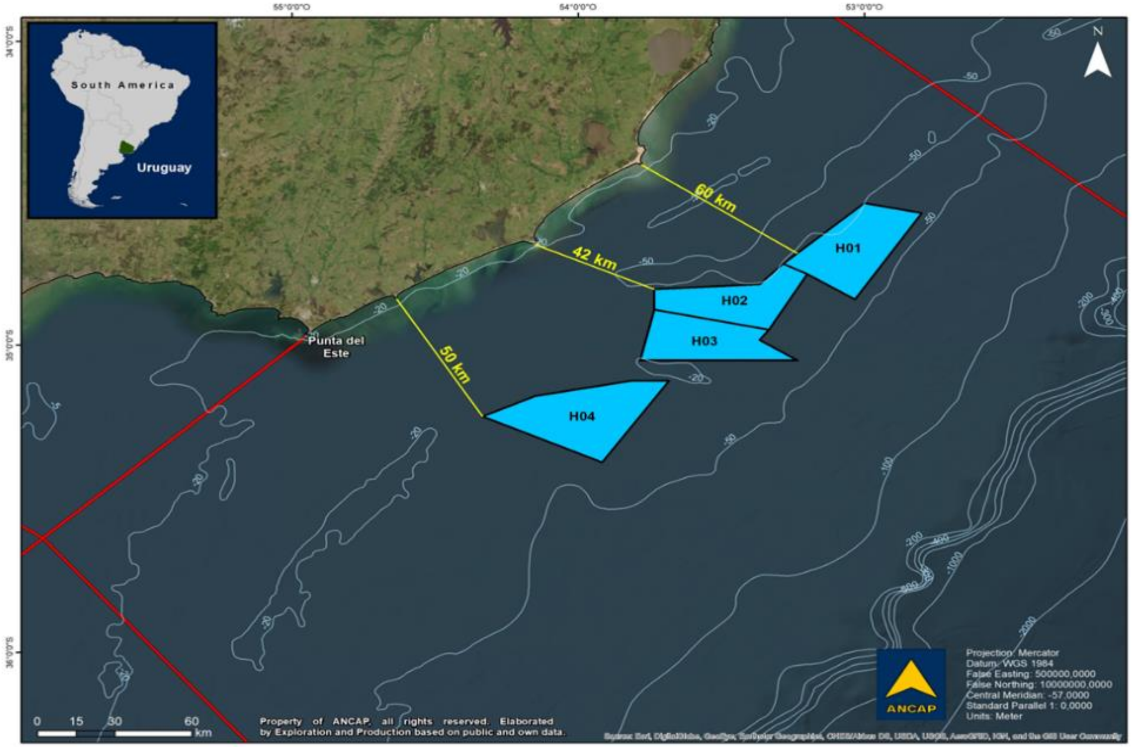
H_2U Offshore

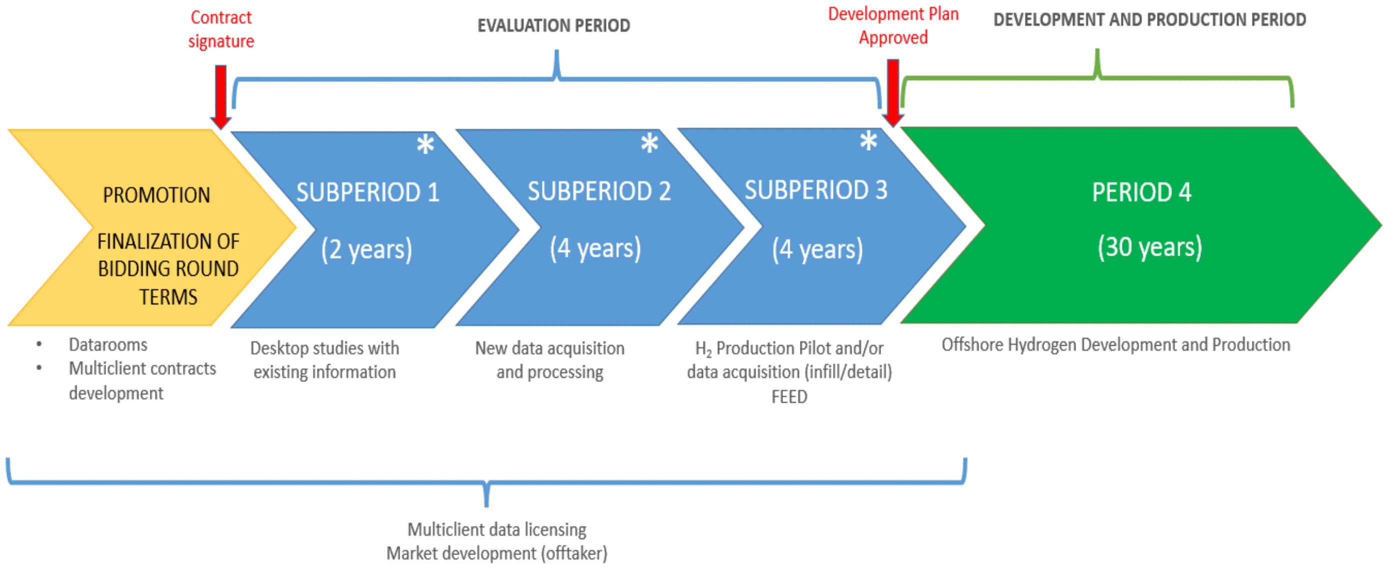
H2 URUGUAY Offshore

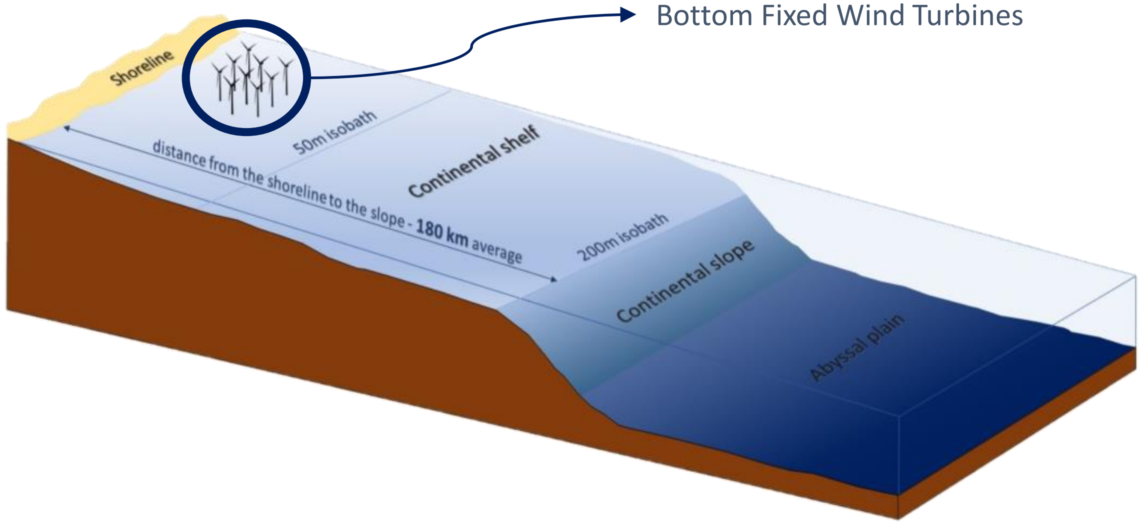


ANCAP is tendering offshore areas for energy companies to carry out feasibility studies and potential installation of infrastructure to produce H_2 from offshore renewable energy, at their own cost and risk entirely.

H_2U Offshore

CONTRACT TERMS





FLEXIBILITY for the contractor to propose development concept including:

- Offshore / Onshore Electrolysis
- Project scale (phases)
- Type or H_2 Carrier (NH_3, LH_2, etc)
- Market/Off-taker
- Development committed only after 10 years of evaluation period

Excellent Wind Conditions:

- Large Technical Potential (275 GW)
- High load factors (> 55%)
- Wind speed 9,5 m/s in annual avg (at 100m)
- Slight increase towards south
- Much better quantity, quality, and uniformity than onshore

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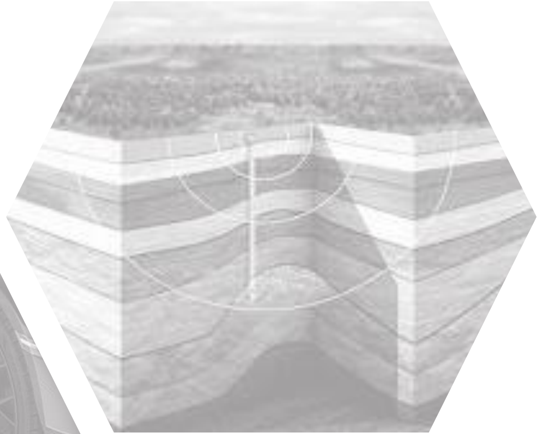
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Onshore: Natural or Geologic Hydrogen

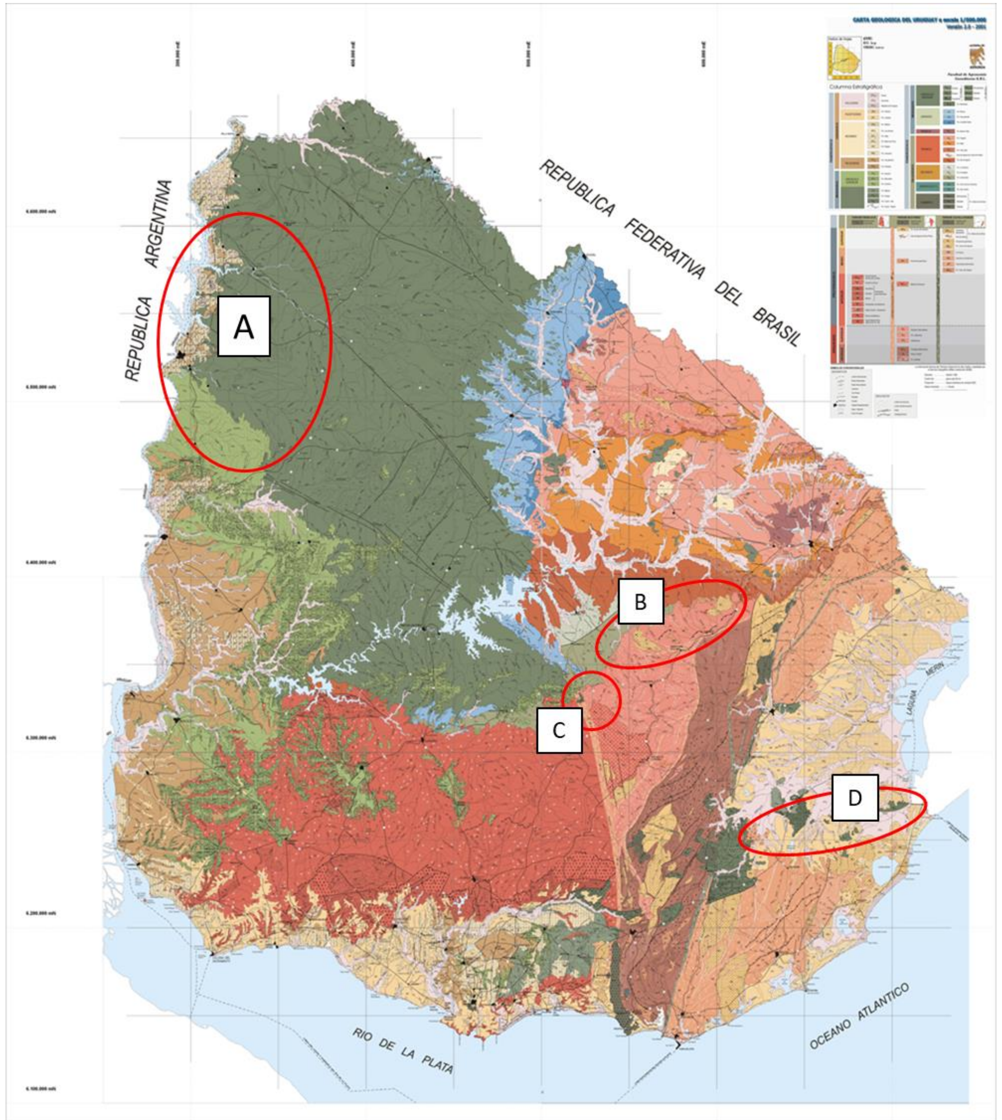
ANCAP's plan to develop this resource

- **Year 2024**
- Understanding H_2 Nat Business
- Training
- Networking
- Research Agreements

NATIVO ENERGY

- **Year 2025**
- Bidding Round Terms and Contract Model – Send for approval of MIEM
- Multiclient Agreements
- Launching H_2 Nat Bidding Round

- **Year 2026**
- Submission of bids in the H_2 Nat Bidding Round
- Signature of H_2 Nat E&P Contracts



Areas of interest where blocks will be defined

Reliable supply for the Uruguayan market, at the required quality and quantity, in an affordable and sustainable way

ANCAP

Decarbonization of current operations

We are committed to the reduction of the carbon emissions from our traditional operations and in all our industrial plants.

Hydrocarbons Exploration & Production

First time in Uruguayan history that all the offshore blocks are awarded with E&P contracts.

Take responsibility for leading the 2nd energy transition in Uruguay, driving the development of sustainable molecules that will see growing demand in the coming decades

BioRefinery

ANCAP and ALUR are working to develop HVOs (Hydrotreated Vegetable Oils), which are fuels from vegetable oils, animal fats and used cooking oils (UCOs).

The raw materials will be processed at ALUR's facilities and the HVO produced at ANCAP's La Teja Refinery, through catalytic hydrogenation.

e-fuels

Biogenic CO_2 of ALUR's bioethanol plant in Paysandú will be used for the first e-fuels production project in Uruguay.

H2U Offshore

H2 URUGUAY Offshore

ANCAP is planning to tender offshore areas for energy companies to carry out feasibility studies and potential installation of infrastructure for the production of H_2 from offshore renewable energy, at their own cost and risk entirely.

Thank you very much for your attention

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