Brazil: a Historic Opportunity for the Global Oil and Gas Industry

Décio Oddone
Director General

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ApexBrasil
AGÊNCIA BRASILEIRA DE PROMOÇÃO DE EXPORTAÇÕES E INVESTIMENTOS

THEDIALOGUE
Leadership for the Americas

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National Agency of Petroleum, Natural Gas and Biofuels

Outline

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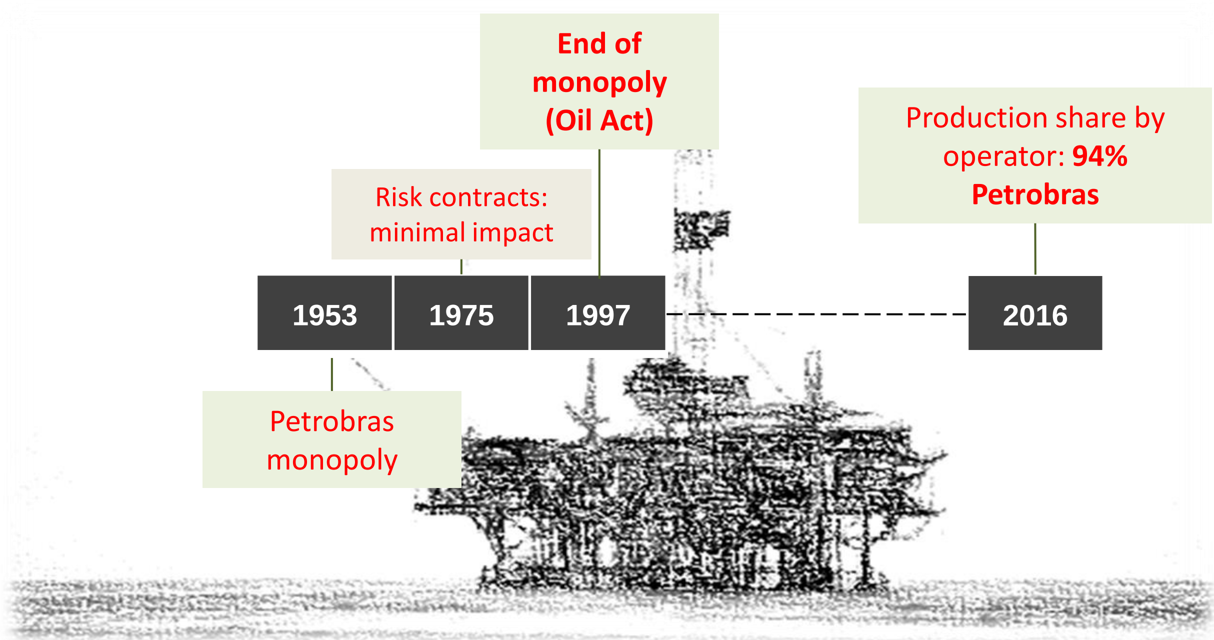
Since the 50’s

The risk contracts and the Oil Act were not able to significantly change Petrobras’ dominance

Upstream



No significant private operations in the **downstream**, **logistics** and **natural gas areas**

The country is going through the greatest transformation in its Energy Sector since the foundation of Petrobras in 1953, leading to a competitive market

Improvements in the Energy Policy

Companies other than Petrobras can now operate blocks in the pre-salt (Law 13.365/16)

New E&P Policies under public consultation

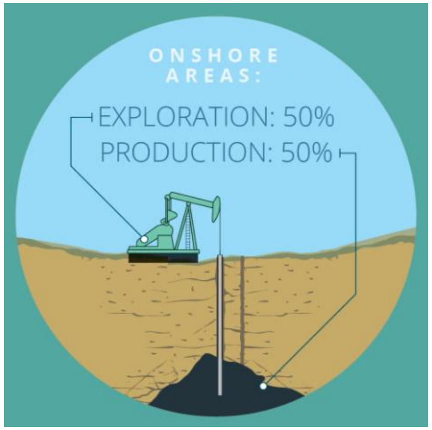
Ongoing Government Programs:

- **REATE (Onshore revitalization)**
- **Gás para Crescer (Gas to Grow)**
- **Renovabio (Biorenews)**
- **Combustível Brasil (Brazil Fuel)**

CNPE has announced a new local content policy for the 14th Bidding Round

Offshore

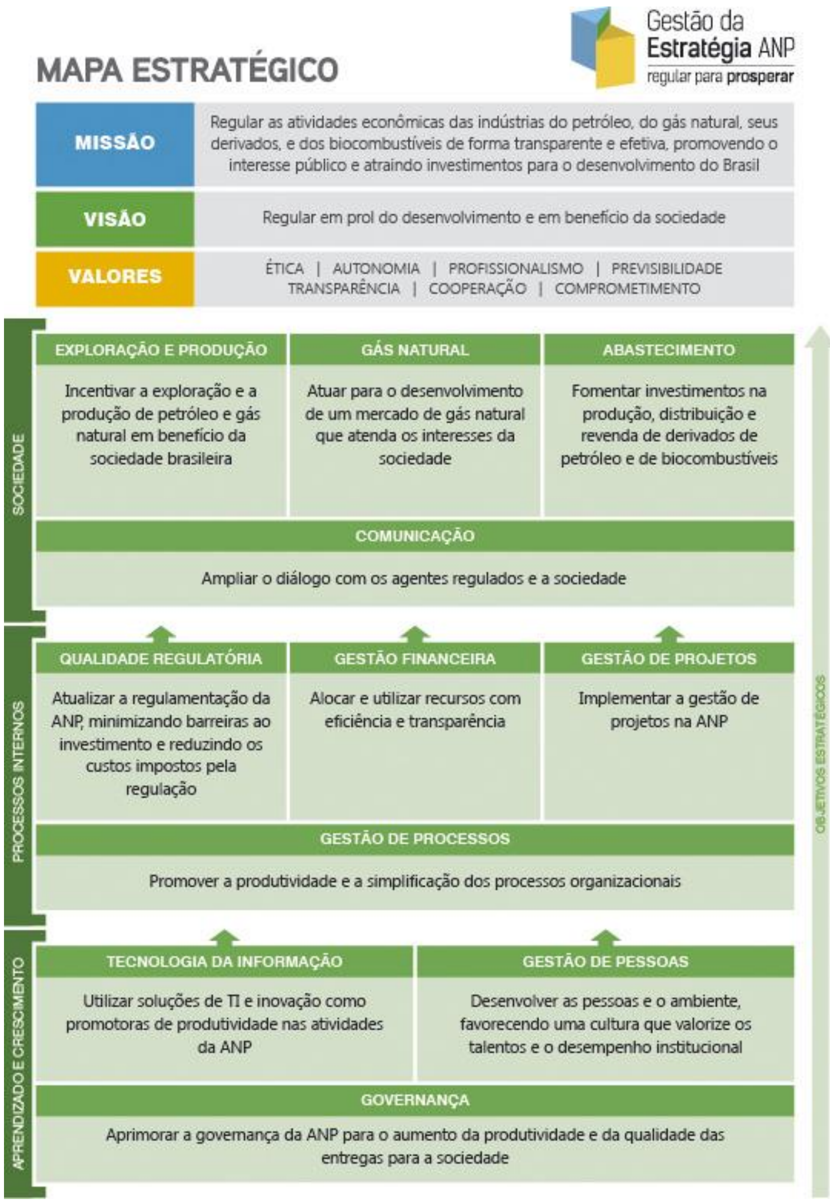
Onshore



Source: Ministry of Mines and Energy

ANP priorities

- ✓ Encourage oil and gas exploration and production
- ✓ Carry out the bidding rounds
- ✓ Stimulate field life extension and maximize recovery
- ✓ Improve contracts, simplify regulations and speed processes
- ✓ Act to develop a gas market that meets the society's interests
- ✓ Promote investment in production, distribution and resale of oil products and biofuels



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Outline

1 O&G in Brazil: a historic opportunity

2 Bidding Rounds Schedule

3 Potential Results

4 Final Remarks

Bidding Rounds Schedule

Bidding Rounds Schedule (2017-2019)

10 Bidding Rounds		
2017	**14th Bidding Round**	**27th September**
	2nd Production Sharing Bidding Round	**27th October**
	3rd Production Sharing Bidding Round	**27th October**
	4th Marginal Fields Bidding Round	11th May
2018	**15th Bidding Round**	**May, 2018**
	4th Production Sharing Bidding Round	**May, 2018**
	5th Marginal Fields Bidding Round	To be defined
2019	**16th Bidding Round**	**3rd Q 2019**
	5th Production Sharing Bidding Round	**3rd Q 2019**
	6th Marginal Fields Bidding Round	To be defined

14th Bidding Round

Brasil 14ª Rodada Licitações de Petróleo e Gás

287 Blocks

Total Area: 122,622 km^2

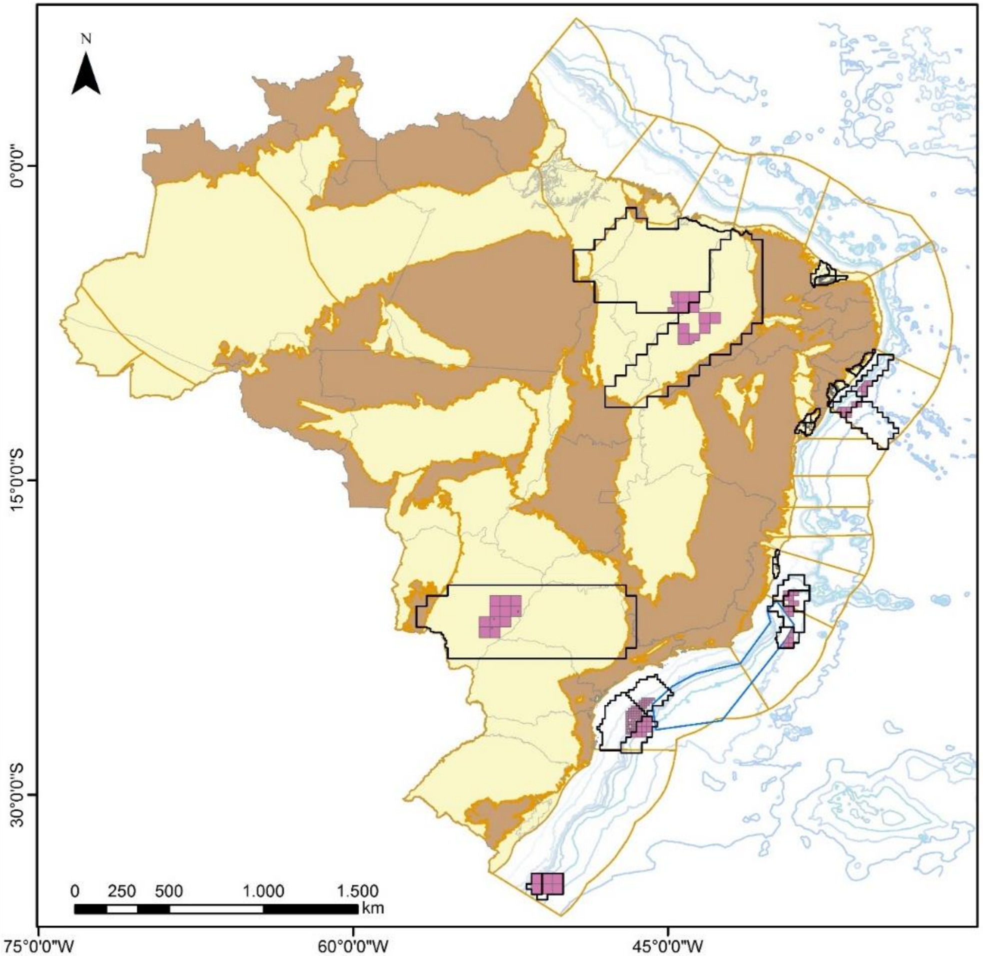
Concession Contracts

New Frontier onshore Areas
Paraná
Parnaíba

Mature onshore Areas
Potiguar
Recôncavo
SEAL
Espírito Santo

Offshore Areas
Sergipe-Alagoas
Espírito Santo
Campos
Santos
Pelotas

Unrisked in place volume: **~50 Bbbl**



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2nd Production Sharing Bidding Round

4 Unitizable Areas

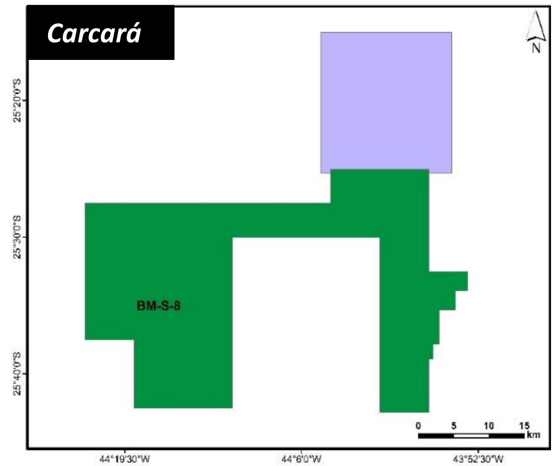
Production Sharing Contracts

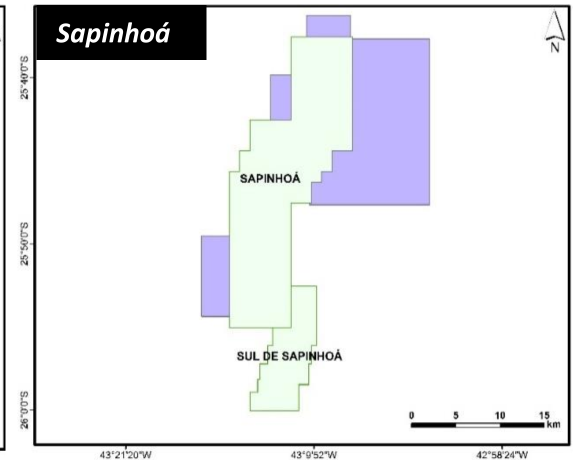
Carcará and Gato do Mato in Exploration Phase

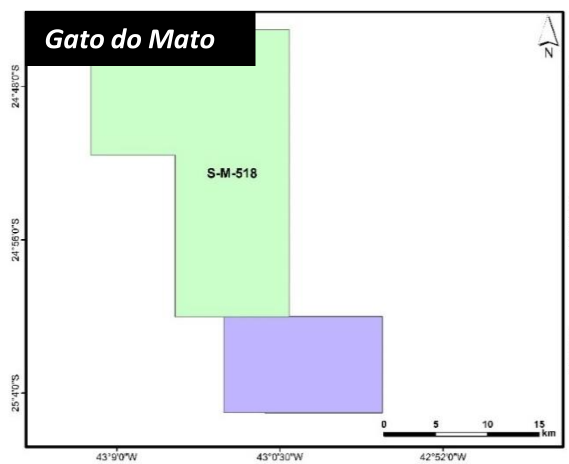
Tartaruga Verde under Development (First Oil ~ 2017)

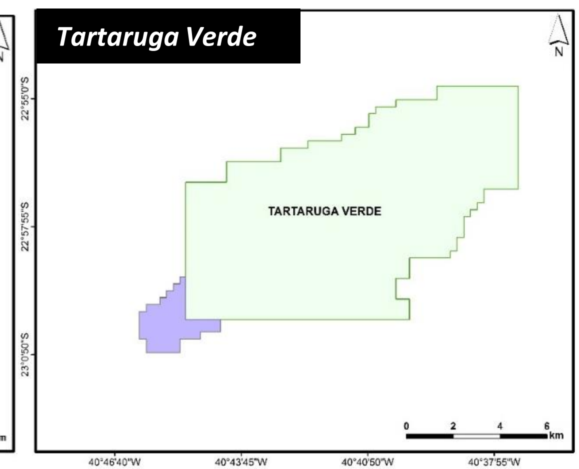
Sapinhoá in production (250,000bpd)

Carcará estimated in place volumes: ~**2.2 billion bbl** (outside the contracted area)









Unitizable Area

Contracted Area

4 Pre-Salt Areas

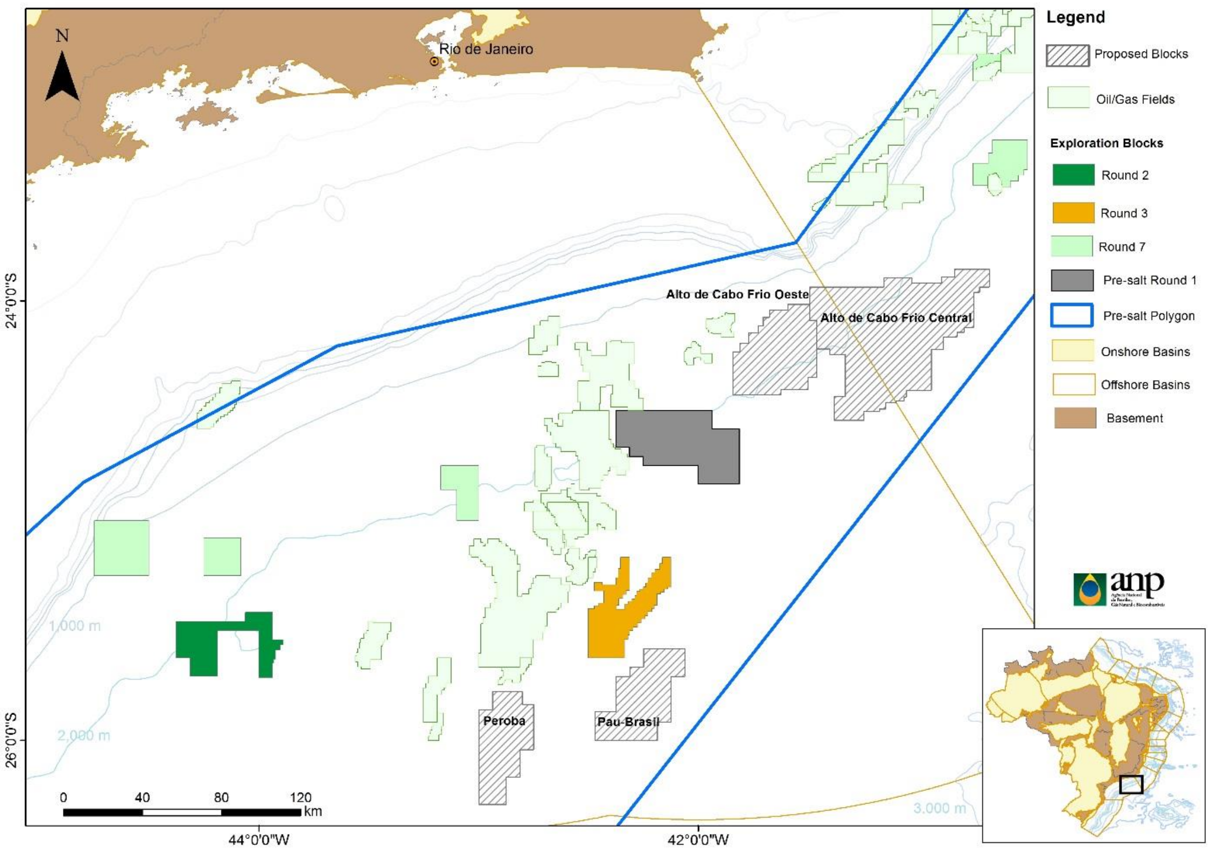
Production Sharing Contracts

Peroba
Unrisked in place volume:
5.3 Bbbl

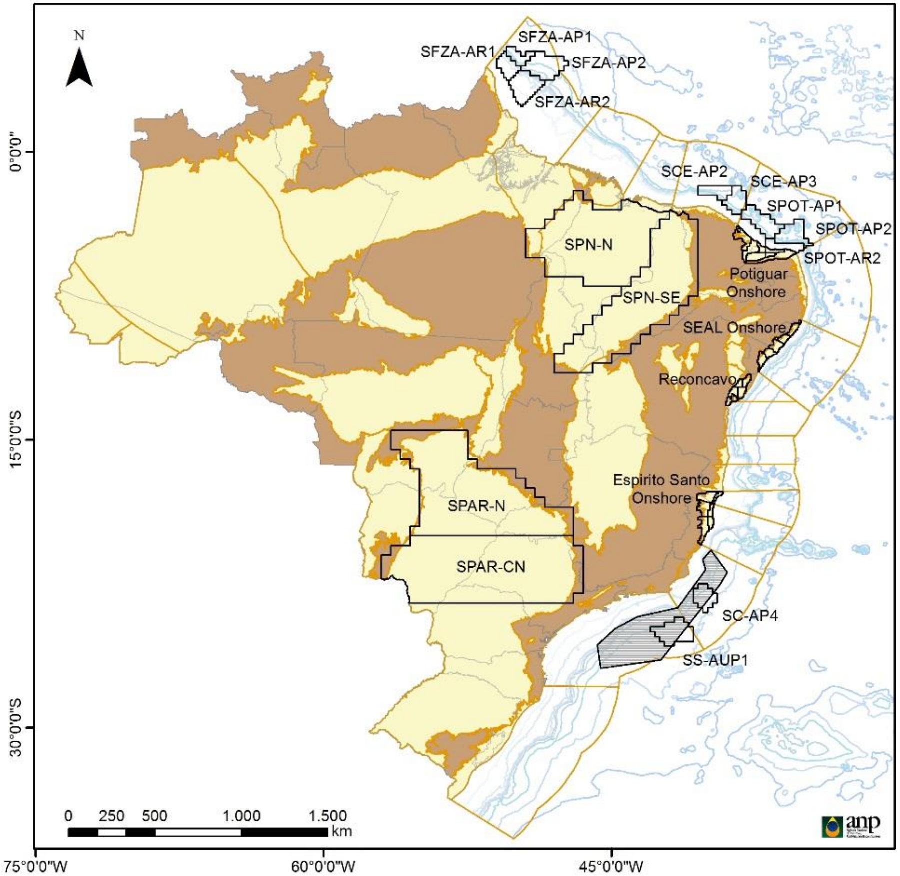
Pau Brasil
Unrisked in place volume:
4.1 Bbbl

Alto de Cabo Frio Oeste

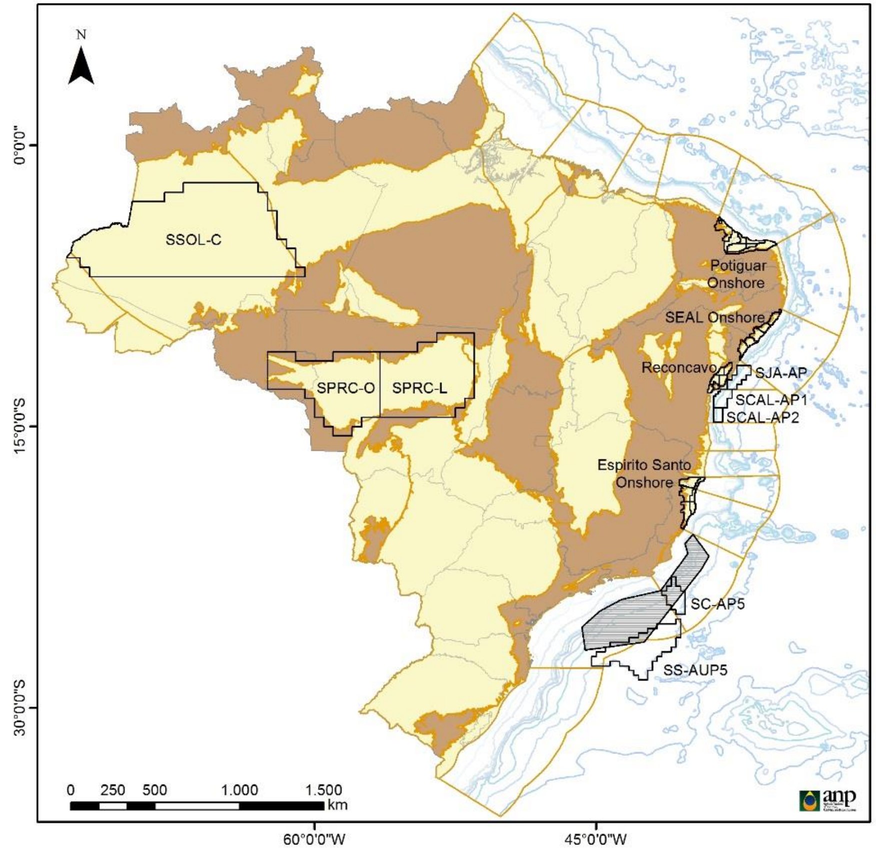
Alto de Cabo Frio Central



15th Bidding Round



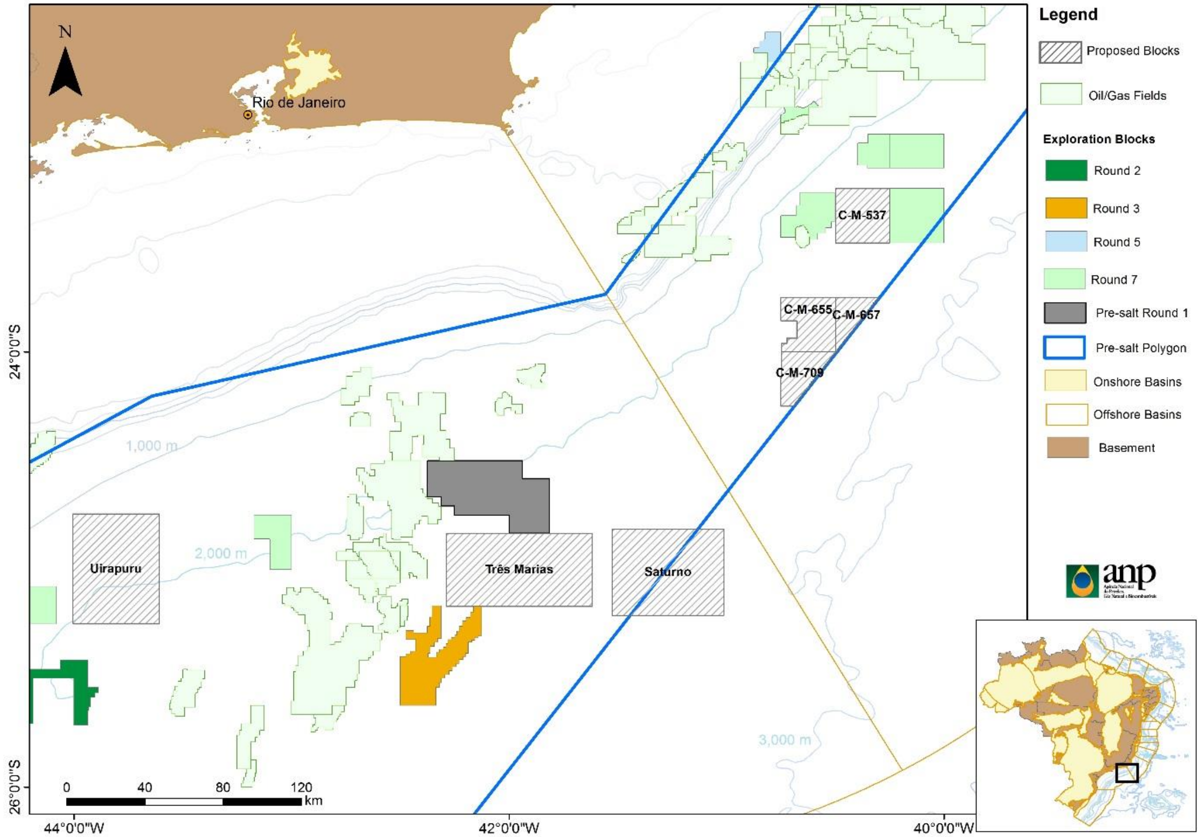
16th Bidding Round



7 Pre-Salt Areas

Production Sharing Contracts

Saturno	C-M-537
Três Marias	C-M-655
Uirapuru	C-M-657
	C-M-709



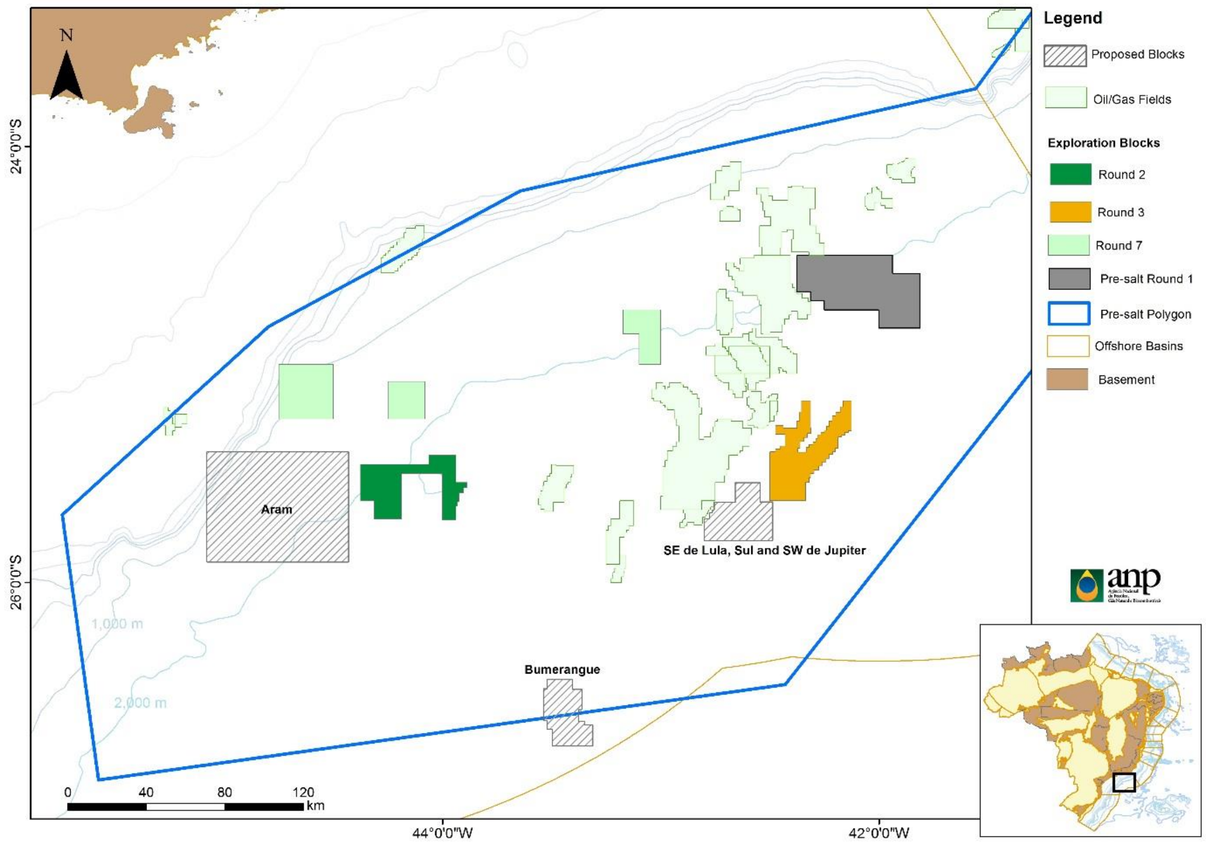
3 Pre-Salt Areas

Production Sharing Contracts

Aram

SE Lula, South and SW Júpiter

Bumerangue



Contract and Tender Protocol Improvements

Contract and tender protocol improvements under construction for the 14th Bidding Round:

- ✓ **A single exploration phase, excluding the well obligation in the second period**
- ✓ **Possibility of extending the exploratory phase for technical reasons**
- ✓ **Local Content withdrawal as an offer criteria**
- ✓ **Royalties adjusted to new frontier and mature areas that present greater geological, logistic and economic risk**
- ✓ **Reduction of the minimum net worth required for non-operators (from 50% to 25% of the amount required for operators)**
- ✓ **Stimulate the indirect participation of investment funds**
- ✓ **Several other measures to reduce entry costs and simplify the contract**

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Potential Results

Current production/reserves

Production (March, 2017)
Oil – 2.5 million bpd
Gas – 101 million m^3/day

Proven Reserves (Dec, 2016)
Oil – 12.7 billion bbl
Gas – 378 billion m^3

Expected potential (next 10 Bidding Rounds)

US$ 83 billions in new investments	+ 10 billion bbl of Recoverable Volumes
+ 300 offshore wells	+ Up to 20 drilling rigs working simultaneously
+ 17 new production units	+ 1,100 km of flowlines
+ 600 km of gas pipelines	+ 2 million bpd in 2027

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Final Remarks

- Ten new bidding rounds are planned for 2017-2019 offering acreages containing billion barrels of oil in place and creating opportunities for all types of exploration and production companies
- Some of the blocks in offer are among the most attractive exploration opportunities available in the world
- The development of the new O&G fields will have a very relevant impact in the services and supply industry in Brazil in the next few years
- Companies interested in investing in E&P, in the supply chain and in the service industry in Brazil have the largest window of opportunity in decades

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Av. Rio Branco, 65, 21st floor – Rio de Janeiro – Brazil

Phone: +55 (21) 2112-8100

www.anp.gov.br

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