

Decommissioning in Brazil

An Overview

Raphael Moura, Ph.D.

General Manager for Operational Safety and Environment

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anp
Agência Nacional
do Petróleo,
Gás Natural e Biocombustíveis



Brazil at a Glance

The Importance of the Oil and Gas Industry



~1.8 USD
Trillion

GDP (2019)

11 % Oil and Gas Industry



9th

Largest Oil Producer
Largest in Latin America



7th

Largest Oil Products
Consumer

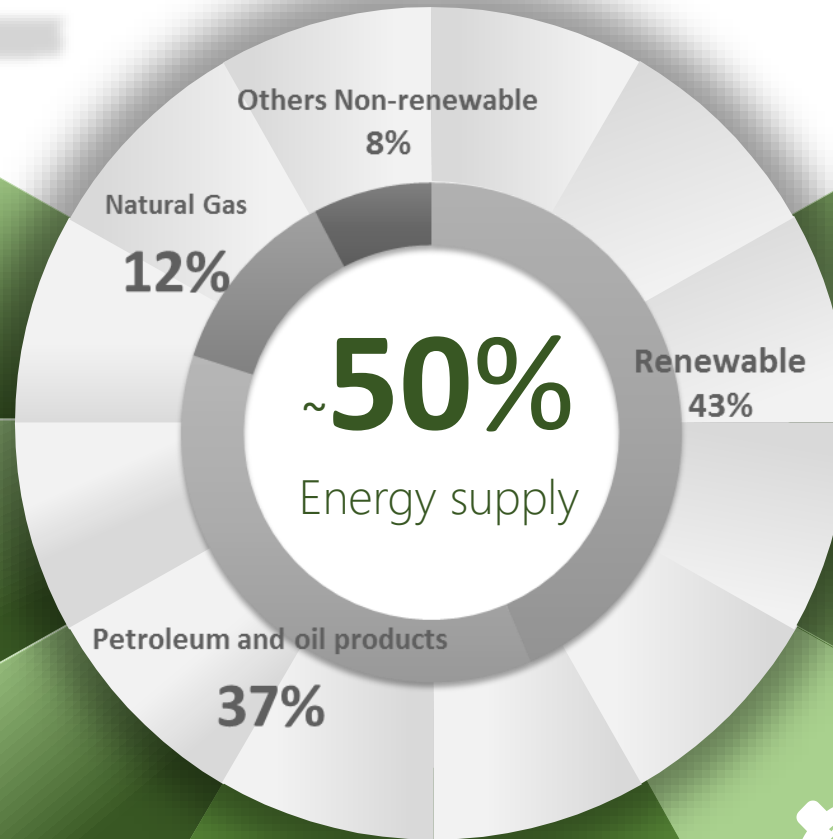


7th

Largest FDI Destination

9th

Largest Economy \$



~ 212

million

Population (2020)

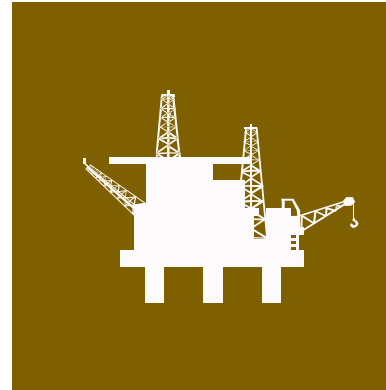


E&P Strategic Initiatives



**Accelerate the Pre-Salt
development**

Pre-Salt



**Improve Recovery Factor in
Mature Fields & Advance to
New Frontiers
(*transfer of rights*)**

***Conventional
Offshore***



**Attract suitable Players to
compatible E&P environments**

Offshore/Onshore

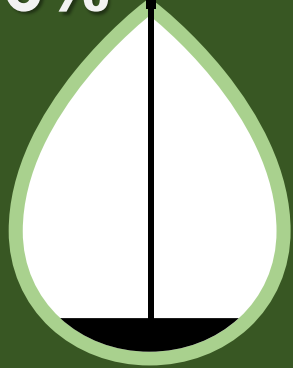


**Revitalize Onshore
Exploration and Production
(*transfer of rights &
permanent offer*)**

REATE

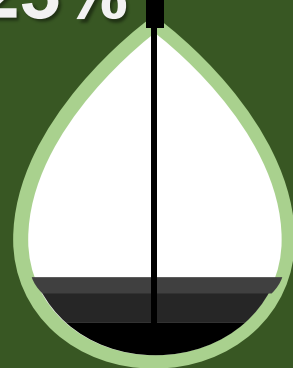
Life Extension & Decom: Maximizing the Recovery Factor

16%



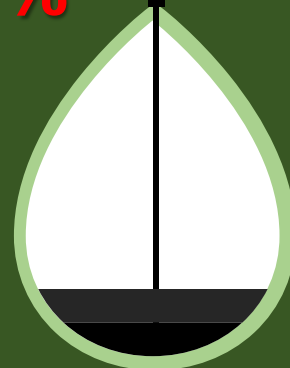
Campos Basin
Current O&G Recovery
Factor

23%



Campos Basin
Final O&G Recovery
Factor

21%



Brazil
Final O&G Recovery
Factor

35%



World
Average Final O&G
Recovery Factor

1% addition in
Campos Basin:

985Mboe

New Reserves

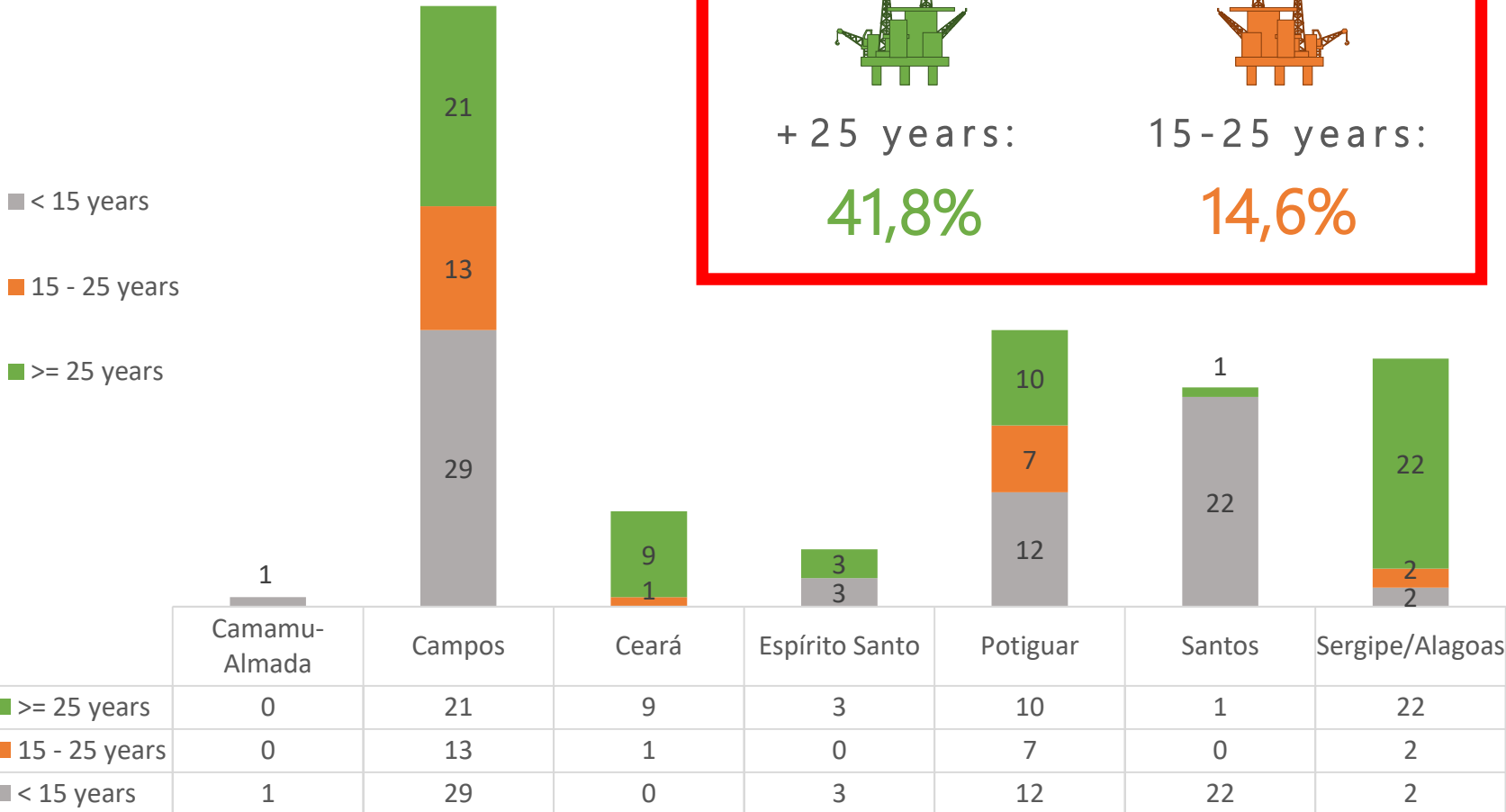
1% addition in
Onshore:

200Mboe

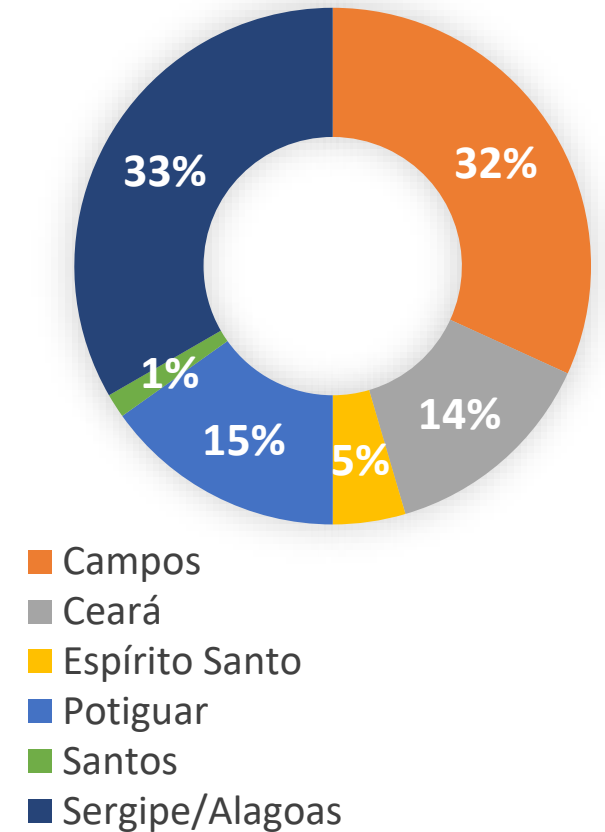
New Reserves

Decommissioning Outlook

Many ageing facilities in Brazil...



25+ years old installations x Basin



Decommissioning Outlook





20 approved PDIs - Offshore

Field	Main installations	Basin
Voador	P-27	Campos
Carapiá	Poços	Santos
Roncador	FPSO Brasil	Campos
Marlim Sul	FPSO Marlim Sul	Campos
Bauna Sul	Poços	Santos
Tubarão Azul	FPSO OSX-1	Campos
Pirapitanga	Poços	Santos
Mexilhão	Poços	Santos
Caçã	PCA-01, PCA-02, PCA-03	Espírito Santo
Guaiúba	Poços	Potiguar
Tambuatá	Poços	Santos
Salema Branca	Poços	Potiguar
Tartaruga Verde	FPSO Cidade de Rio das Ostras	Campos
Piranema	FPSO Piranema Spirit	Sergipe-Alagoas
Guajá	Poços	Potiguar
Linguado	P-12	Campos
Camarão Norte	Poços	Camamu
Espadarte	FPSO Cidade do Rio de Janeiro; FPSO Espadarte	Campos
Piraúna	P-15	Campos

96 Expected PDIs (2020 – 2030)



Investment forecast* (2020 – 2024)

 Well P&A	US\$ 3,259,562.00
 Equipment withdrawal	US\$ 1,742,150.00
 Area Recovery	US\$ 99,428.00
 Others	US\$ 113,412.00

* US\$ 1 = R\$ 5

Total: US\$ 5.2 Billion



Decommissioning Programme – A single PDI



Documents Standardisation

Predictability and Stability of Rules

Process Celerity

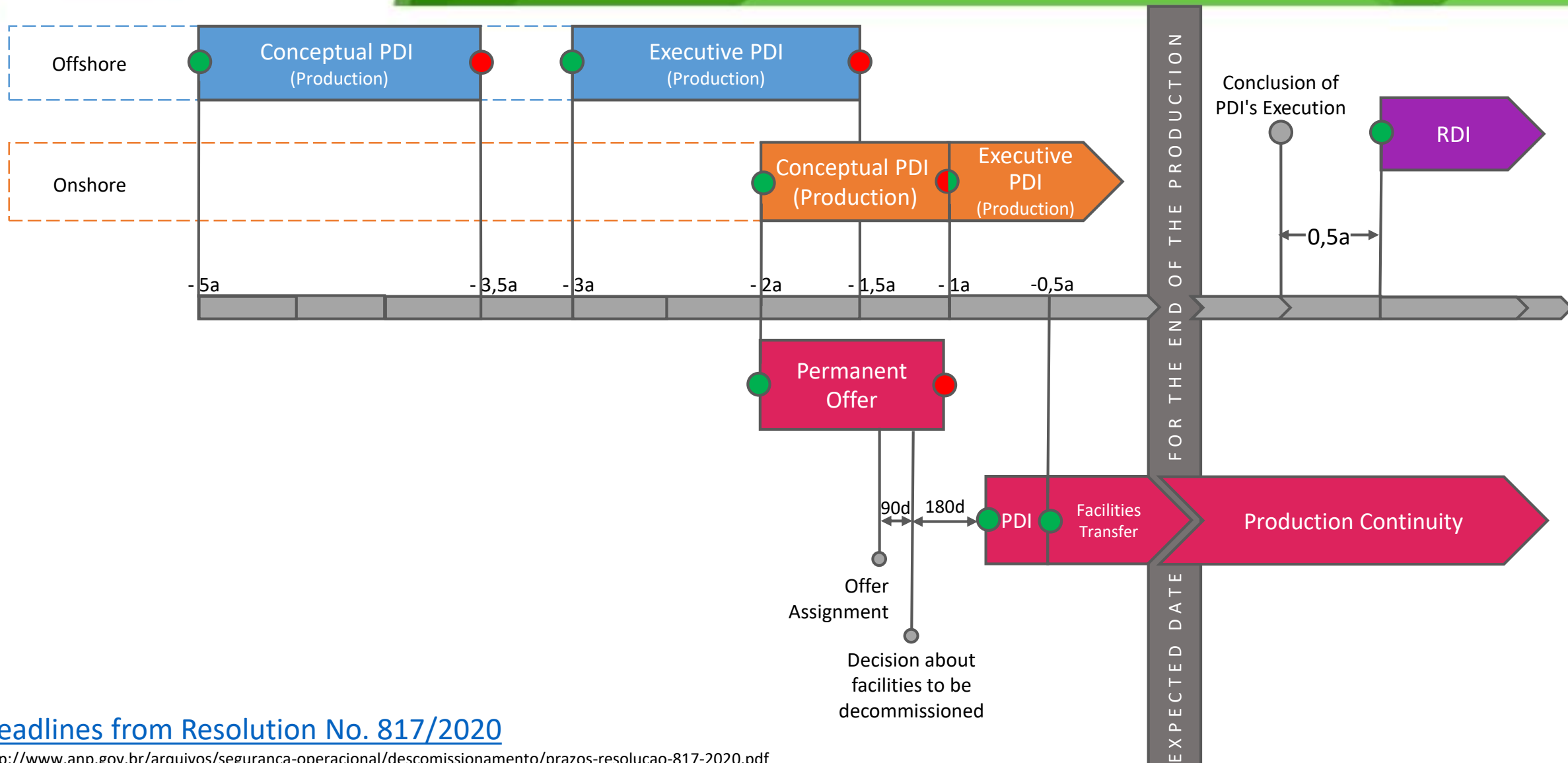
Main Features

ANP Resolution 817/2020

- ❖ **Decommissioning Justification Study:** feasibility & economic viability;
- ❖ Present the **comparative assessment** of decommissioning options: **technical, environmental, societal, economic and safety**;
- ❖ **Transparency**;
- ❖ **Transfer of Rights: agreement** (*with the ANP consent*) between former and new licensee;
- ❖ **Permanent Offer** (onshore): operations transfer: review or execution of the Decom plan;
- ❖ **Corporate Social Responsibility Management System**;
- ❖ Information regarding the **marine aids to navigation** project (*for the Maritime Authority*)
- ❖ **Post-decommissioning monitoring plan** (*for the environmental regulator - IBAMA*)

Deadlines

ANP Resolution 817/2020



Regulation

- 3 technical rules condensed in 1
- Transparency
- Standardised PDIs and RDIs
- Transfer of Rights
- Permanent Offer
- Comparative Assessment
- Post-Decommissioning Monitoring

***Many
opportunities
to create
value!***

Technology

- Life extension
- Structural Reliability
- Environmental Monitoring
- Cutting Tools
- RD&I

Logistics and Infrastructure

- Vessels (PSVs, Heavy Lifts etc)
- Waste management
- NORM detection and management
- Shipyards and ports

National Agency for Petroleum, Natural Gas and Biofuels

Superintendence of Operational Safety and Environment

Av. Rio Branco, 65, 18th floor - Rio de Janeiro, Brazil
+55 (21) 2112-8100

General Information:

<http://www.anp.gov.br/wwwanp/exploracao-e-producao-de-oleo-e-gas/seguranca-operacional-e-meio-ambiente>

About Decommissioning:

<http://www.anp.gov.br/exploracao-e-producao-de-oleo-e-gas/seguranca-operacional-e-meio-ambiente/descomissionamento-de-instalacoes>

