











Understanding Local Opportunities in the Brazilian Petroleum Sector

Cartagena, march, 2015

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ONIP - Brazilian National Organization of the Petroleum Industry - Members



Mission



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CadFor

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ONIP

SUPPLY CHAIN DEVELOPMENT PROGRAM

CadFor - Registry System for Operators in Brazil
The objective is to increase the knowledge about local suppliers























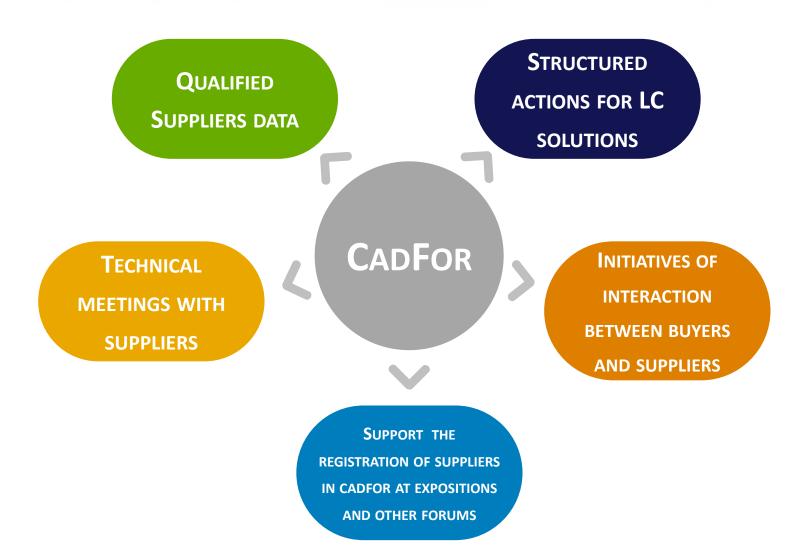






CadFor - Objectives





Oil sector in the Brazilian Economy



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Projected Investments - 2014 / 2017

Selected sectors (R\$ billion)

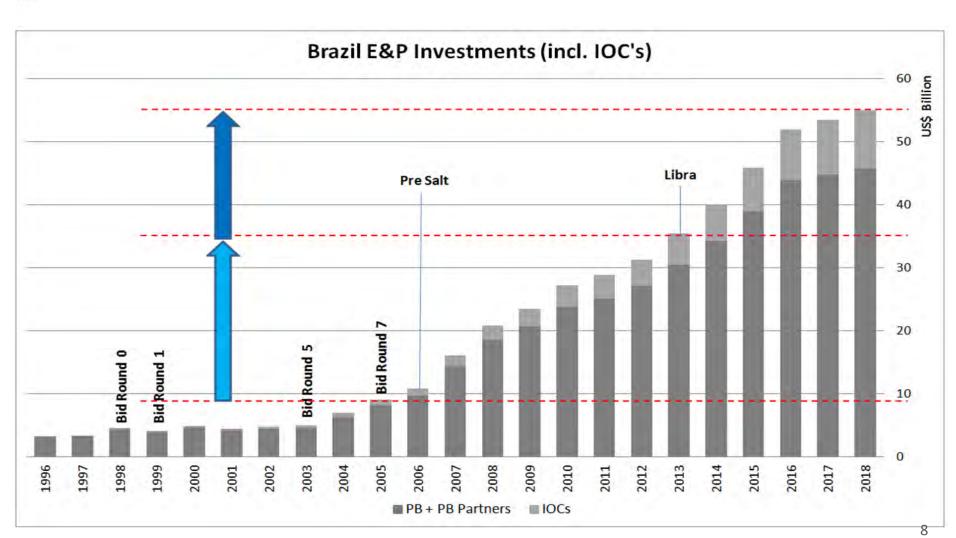
Oil & Gas	458	42%
Mining & Quarrying	48	4%
Automotive	74	7%
Paper & Cellulose	19	2%
Petrochemical	25	2%
Steel	10	1%
Electronics	26	2%
Health	13	1%
Aerospace	9	1%
Others	418	38%
Total	1.100	

Fonte: BNDES

Another view



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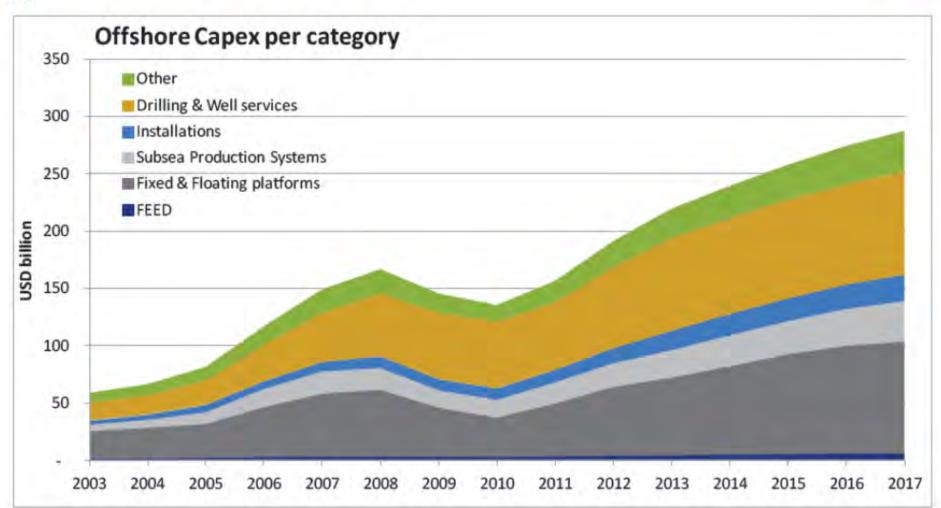


Fonte: Shell

THE "BIG MONEY" IN OFFSHORE CAPEX GOES TO DRILLING AND PLATFORMS







Source: IHS CERA



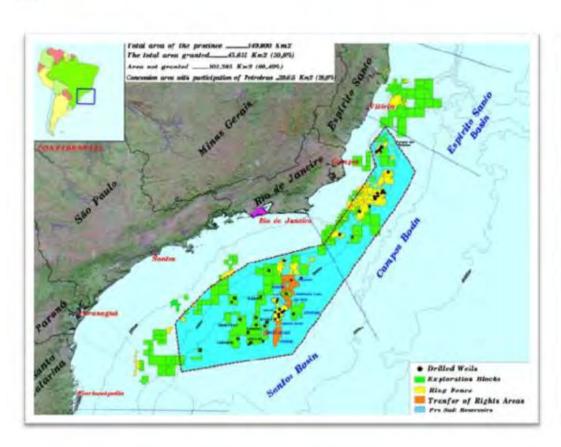


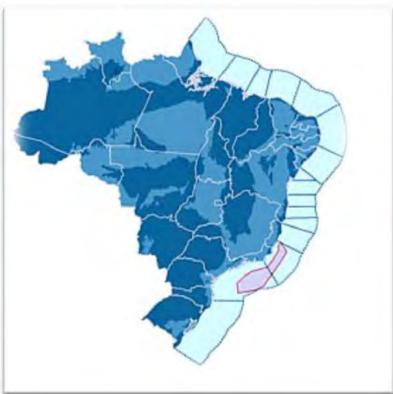
Pre-Salt

149,000 Km 2 , high rates of CO $_2$ and H $_2$ S, high production volumes and high pressures (TUPI – 9,000 psi).



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WHY NOT?

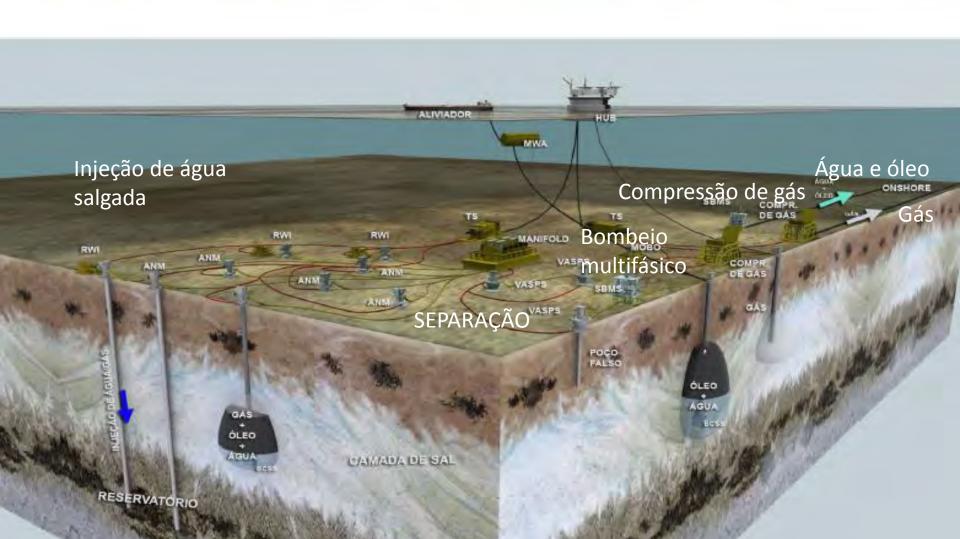


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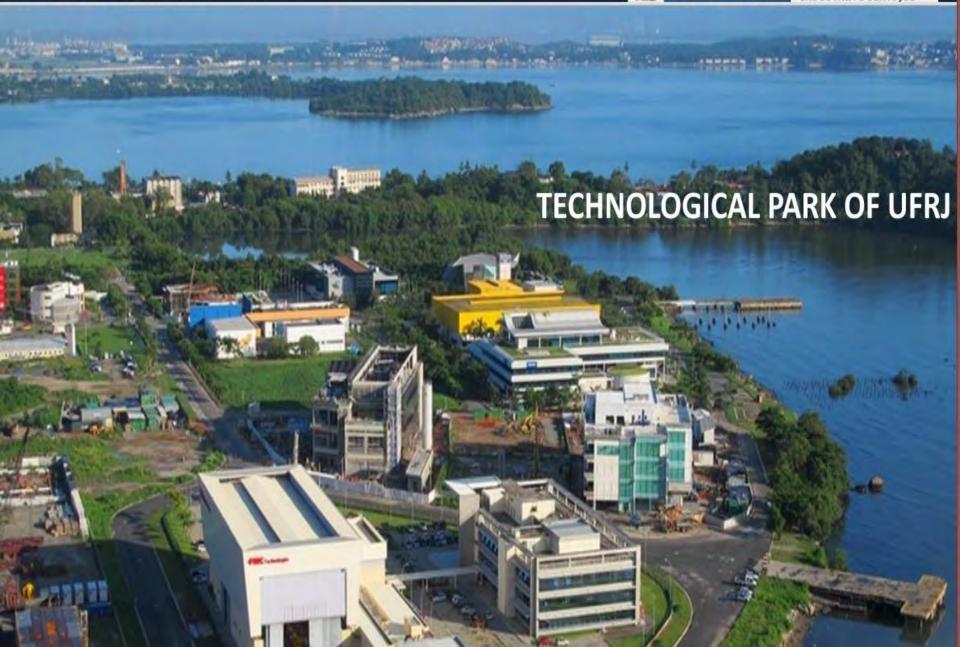


FUTURE!!!

DIAGRAMA DE OPERAÇÃO (3D)



SECRETARIA DE DESENVOLVIMENTO ECONÔMICO, ENERGIA, INDÚSTRIA E SERVIÇOS







Other Companies with development plans for technological centers in Brazil:

- Cameron
- · IBM
- Technip

- Weatherford
- Wellstream



































































































































































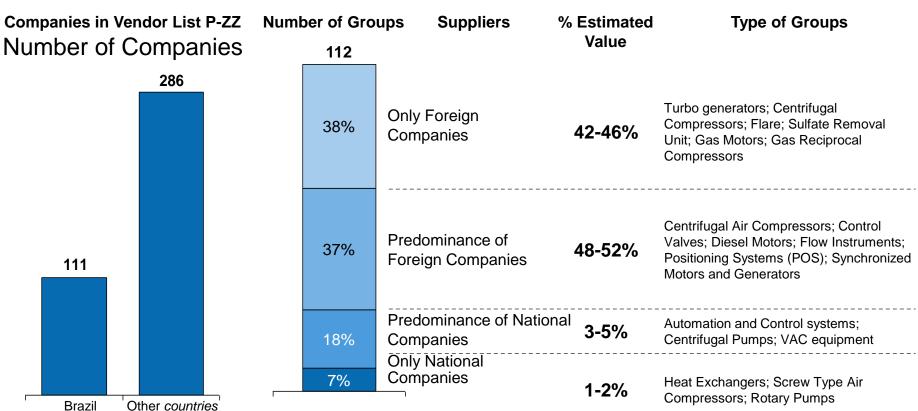
The P-ZZ⁽¹⁾ vendor list indicates the national chain growth potential – about 40% of the equipment groups have not been



considered local suppliers

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1)Recent platform

Source: Booz & Company Analysis

Local Content - The offshore supply chain is quite broad, covering a large number of segments





OTC Names 2015 Award Recipients

Posted by Eric Haun
The 2015 Offshore Technology
Conference (OTC), to be held May 4

—7 at NRG Park, will kick off on
Sunday, May 3 in Houston with the
Annual OTC Dinner to honor the
recipients of this year's Distinguished
Achievement Awards, this year
recognizing Elmer (Bud)
Danenberger III for individual
achievement, the Petrobras pre-salt
development for corporate
achievement, and Ray R. Ayers with
the Heritage Award.

Th eOTC Distinguished Achievement
Award for Individuals will honor
Elmer (Bud) Danenberger III for his
contributions to offshore safety and
environmental protection.
Danenberger held a 38-year career
with the U.S. Department of the
Interior in the offshore oil and gas
program. He initiated the MMS
industry awards program and
coauthored legislation leading to
offshore renewable energy and

Tuesday, February 03, 2015 PÓS-SAL PRÉ-SAL

Image courtesy of Petrobras



Focus on Brazil Pre-Salt Challenges – Ultra Deep Waters



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Developments - 2012/2013

- Subsea separation Oil/Water;
- 4D permanent seismic monitoring partial - there are still challenges for UDW - Jubarte;
- Subsea Water Injection tested in Albacora;
- Flexible Riser with buoyancy system and Flowlines – 2,200m;
- Subsea Multiphase Pumping tested in Barracuda;
- Drilling horizontal wells through salt
 (second well high angle Oct, 2013).





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1. First float risers sustaining (BSR)







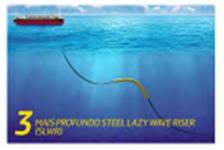








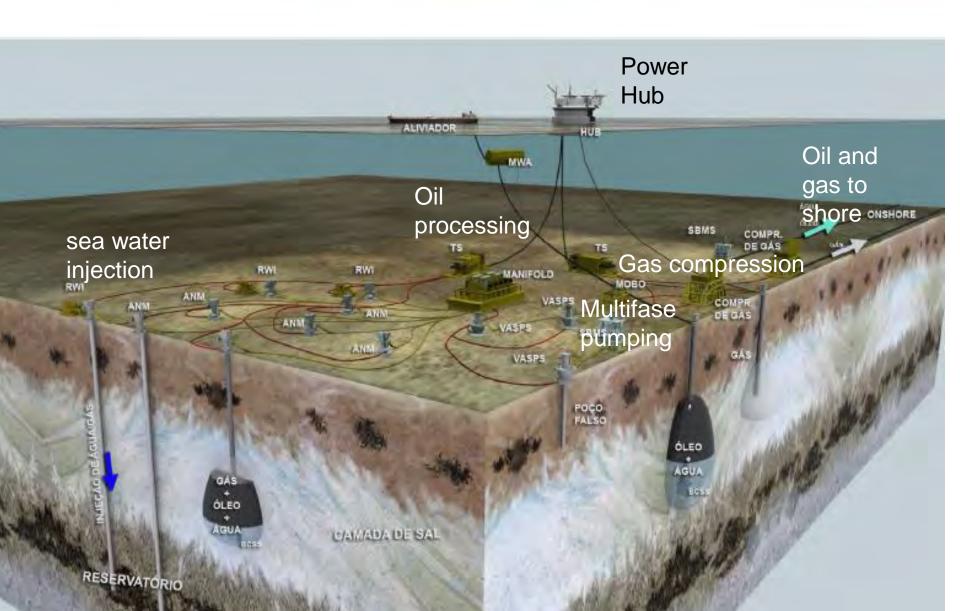








DIAGRAMA DE OPERAÇÃO (3D)





Sistema Integrado de Produção Submarina



Sistema Integrado de Produção Submarina



CONSELHO DELIBERATIVO DO PROGRAMA DE INOVAÇÃO CONTEÚDO LOCAL

> ANP **IBP-OPERADORAS** PETROBRAS. ONIP



EMBRAPII

COPPE CIMATEC, IPT, INT (PUC-RJ), UFRGS(LEMOT)...

MCTI

PLATAFORMAS DO CONHECIMENTO

INOVA PETRO

FINEP, BNDES, **PETROBRAS**



CLÁUSULA

SEBRAE/ONIP/APEX TRANSFERÊNCIA DE

TECNOLOGIA INTERNACIONALIZAÇÃO

ABDI

ATS ONIP



CLUSTER SUBSEA-RJ RIO-SEDEIS

> DNIP MDIC

INTERNACIONALIZAÇÃO



Conclusions



- The petroleum sector is crucial for Brasil's economical development;
- The country is one of the most dynamic markets in the world today;
- Opportunities cover all business sectors;
- The size of CAPEX is getting all the attention but OPEX is already very attractive and will grow along time;
- The presence of a solid industrial base in Brasil should be considered; local content could be an ally rather than an obstacle;
- Offshore architecture will change; new technologies, new challenges and new opportunities;
- Aggregating local content whenever possible is always a good strategy;

Thank you

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