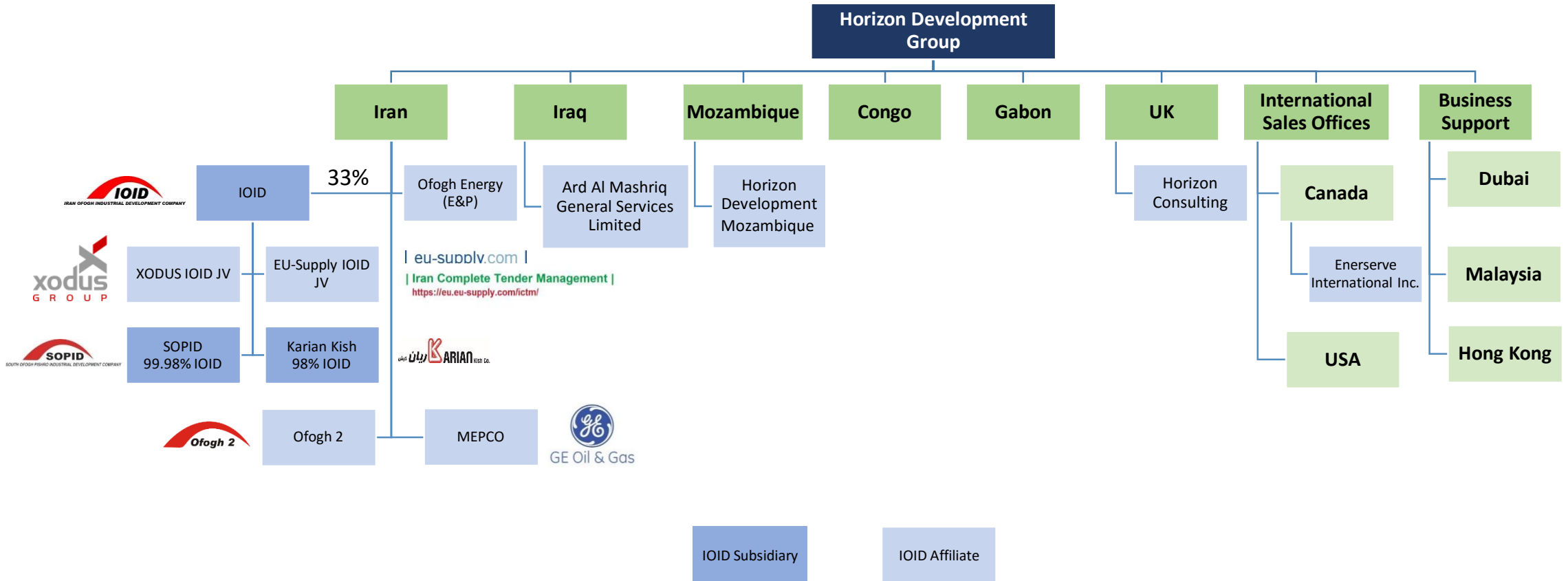


2016- The Iran Upstream and Downstream Opportunity

What is needed? When is it needed? How to be successful in providing what is required.

Horizon Development Group Introduction



Horizon Development Group

Iran Strategy



With the opening of the Iranian petroleum industry to foreign investment in 2016 our aims are to:

- **Grow our existing Iran service lines**
- **Build new capabilities** through joint venture partnerships with international equipment, goods and service providers
- **Participate in field development and redevelopment projects in Iran as an equity investor** with reputable international oil companies on robust projects where we can
 - Improve the chance of project delivery to cost, quality and schedule targets through our understanding of Iran and how to build business momentum
 - Deliver on Iranian content targets and Iran's technology transfer objectives

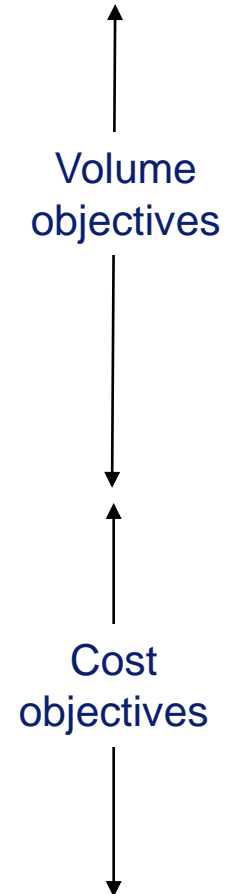
What is needed Iran's 6th Five Year Plan

- Iran's 6th five year plan
 - Development of a resilient economy
 - 8% annual growth GDP
 - Reform of state enterprises (60% GDP) and banking sector
 - Progress in science and technology
 - Promotion of cultural excellence
- Implications for the oil industry
 - 3.7 MM bopd in 2014 rising to 4.6 MM bopd in 2020
 - Oil exports to rise from 1.3 MM bopd in 2015 to 2.4 MM bopd (implying a decrease in Iranian oil consumption)
 - 0.44 MM bcpd in 2014 rising to 1 MM bcpd in 2020 (Petrochem)
 - Priority for shared fields

NIOC Objectives

Conference Themes 28th and 29th November 2015

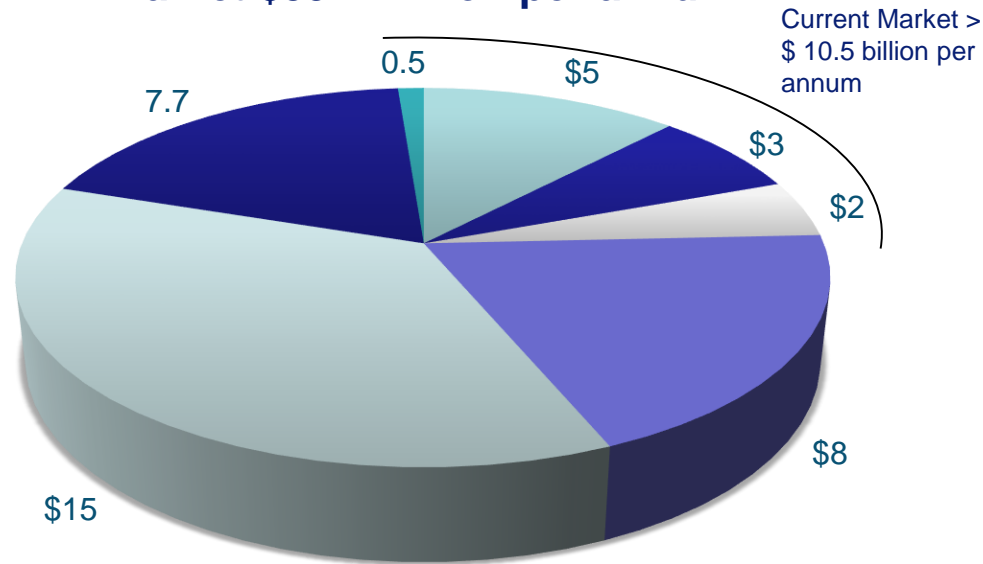
- Increase Iran production capacity and reserves in order to:
 - Meet domestic energy demand
 - Increase our leverage in OPEC and control of price
 - Enter new export markets for power, energy and LNG
- Implement IOR and EOR projects (increase recovery)
- Reduce gas flaring and convert gas into higher value products- LNG and petrochem
- Increase efficiency of production (cost down through use of technology)
- Attract foreign investment
 - Achieve 70% local content in capital expenditure
 - Achieve 90 to 95% local content in operating expenditure
 - Expand private sector participation in E&P but not with ownership of petroleum
 - Utilise best available technologies and transfer these to Iran



The Iran Opportunity- 2016

What is needed?

Market \$39.2 Billion per annum



- NIOC Opex
- NIOC New wells
- NIOC Current Capex
- NIOC Future Capex
- IPC
- Downstream
- Buybacks

- Capital
 - IOCs or EPCICF
- Upstream Technologies
 - 3D seismic
 - Reservoir, network and process modelling
 - Smart wells
 - Rotating equipment and control systems
 - Environmental best practise- gas flaring reduction, produced water handling, de-salting
 - Brown field refurbishment and best practise M&O
 - Programme and supply chain management
- Petrochemical Technologies

Big data

The Iran Opportunity - 2016

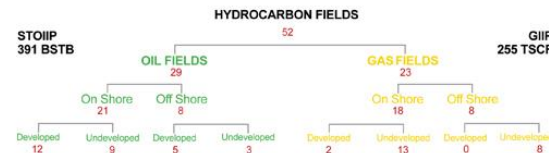
When is it needed? When will it happen?

NIOC E&P PROJECTS

Exploration Blocks

Sub-Basin/Basin	Block	
CENTRAL IRAN	KAVIR	
MOGHAN	MOGHAN	
PERSIAN GULF	BAMDAD MAHAN PARSA	
KOPE DAGH	SARAKHS DUSTI RAZ	
EASTERN IRAN	SISTAN	
TAYBAD	TAYBAD	
DEZFUL	ZAGROS	
LORESTAN		TIMAB ZAHAB
FARS		TUDEJ
CASPIAN SEA	BLOCK 24 BLOCK 26 BLOCK 29 SARDAR -E-JANGAL	

NIOC PROJECTS

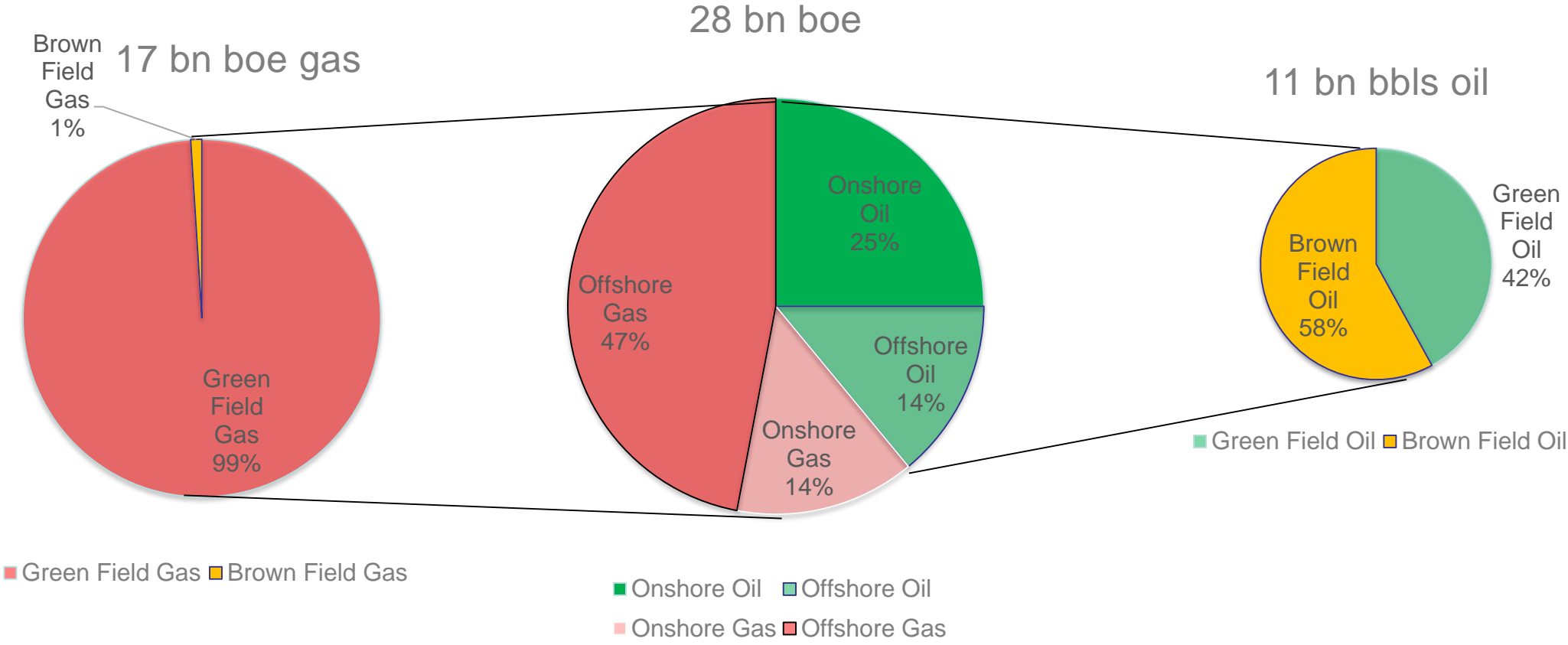


Green Fields		Brown Fields	
OIL FIELDS	GAS FIELDS	OIL FIELDS	GAS FIELDS
South Azadegan	South pars (phase 11)	Ab-Teymour	Tang-e-Bijar and Ilam refinery
South Pars Oil Layer	Farzad-A	Ahwaz-Bangestan	✓
Changuleh	Balal Gas field	Mansuri-Bangestan	
Darquin-3rd Phase	Kish	Foroozan	?
Golshan&Ferdowsi	North Pars	Soroosh	?
Jufair, Sepehr, Susangard, Sohrab, Band-e-karkheh, Arvand	Golshan&Ferdowsi	Norooz	?
	Khami Fields	Dorood	?
	Aghar,Halegan, Sefied-Baghoun, Sefied-Zakhour and Dey	Salman	?
	Karun-Bangestan &NGL-1700	Aban, Paydar, West Paydar, Danan, Cheshmeh - Khosh, Dalpari, Naft Shahr, Sumar, Dehloran	

- Petrochem- Now
- NIOC capex & opex- when the banking system allows
- Iran Petroleum Contracts- >2 years
 - IPC Terms
 - IOC and Iranian JV pre-qualification
 - Tender
 - IPC Negotiations, agreement on MDP, PEP etc.
 - Iran oversight- NIOC BoD, Contracts Supervision Committee, Central Bank
 - Award

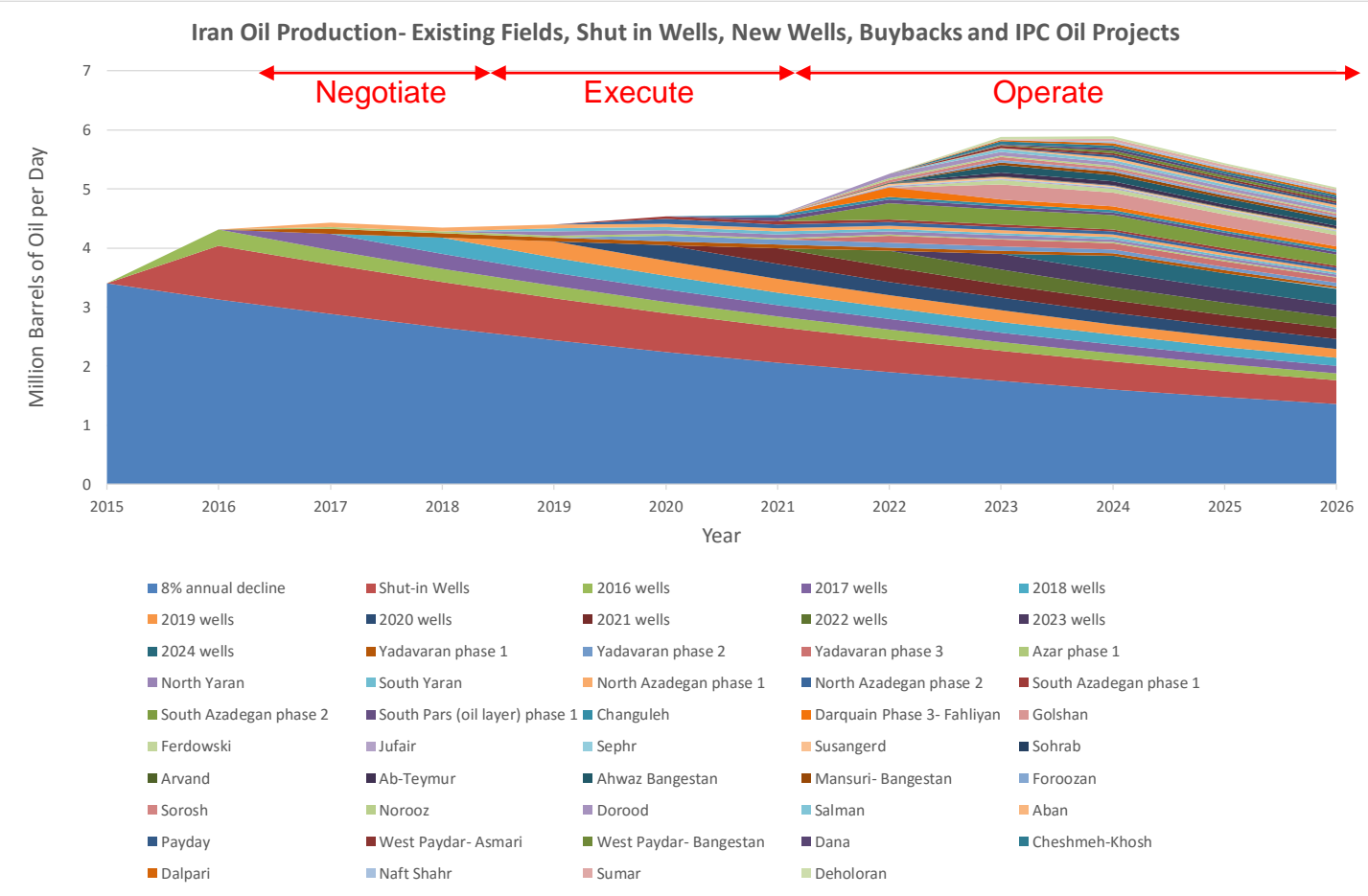
The Iran Opportunity- 2016

215 bn bbls STOIP and 230 TCF GIIP



The Iran Opportunity- 2016

When will it happen?



Buy back and IPC Projects

155 Infill wells and 155 replacement wells per annum

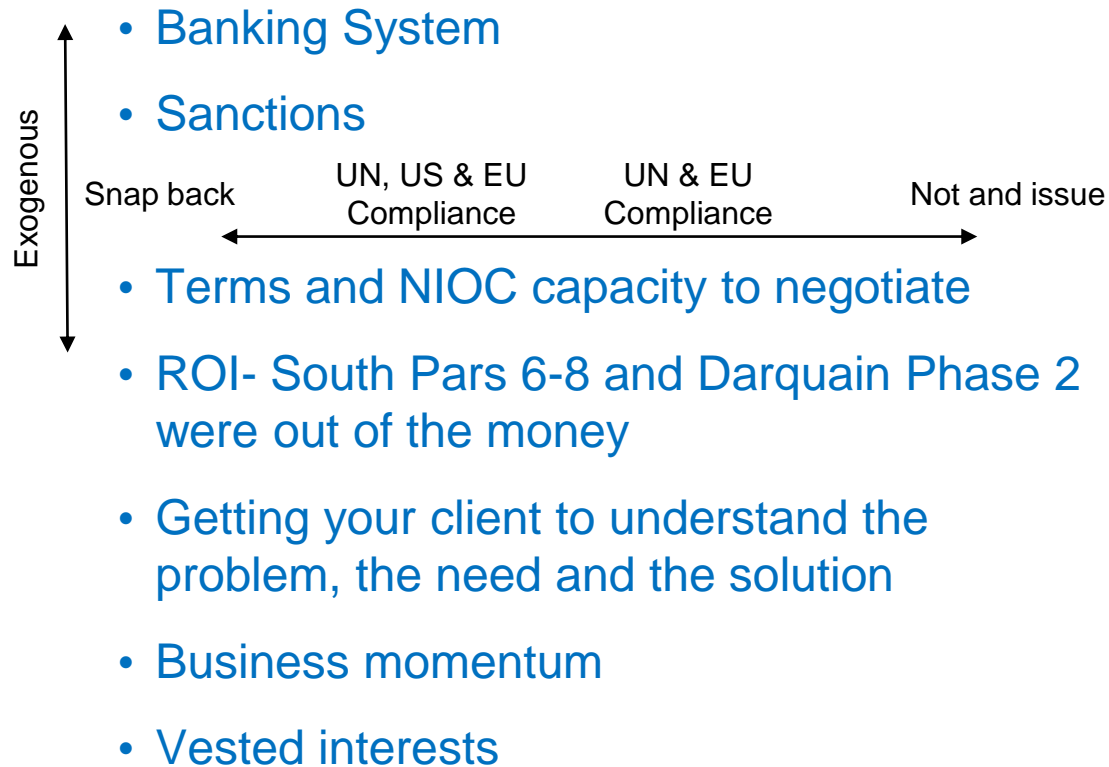
Shut-in production

Existing wells- 8% decline

The Iran Opportunity-2016

How to be successful in providing what is required?

• Risks and Issues



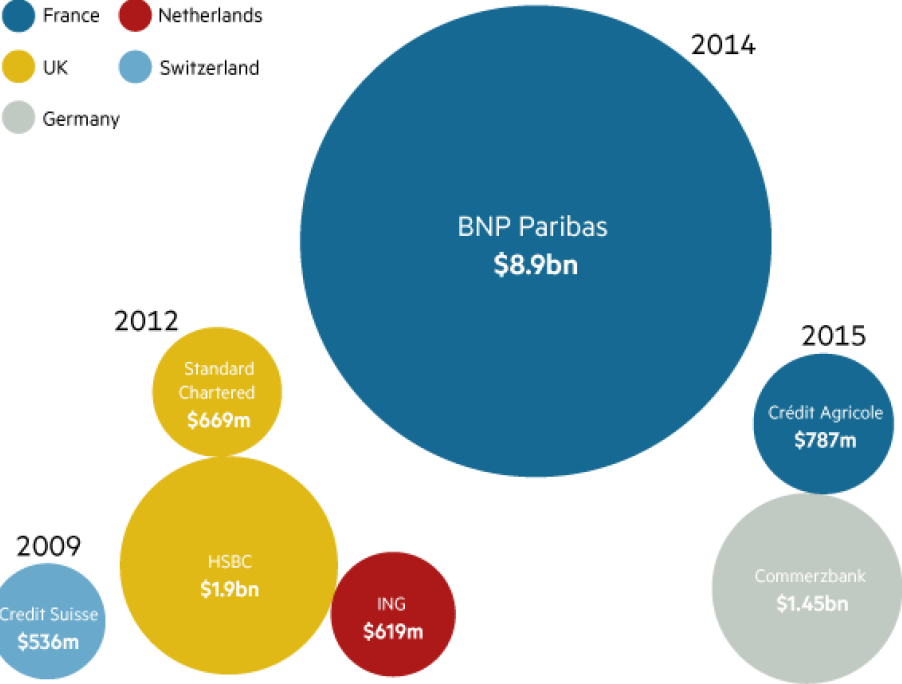
• Enablers to successful entry

- Capital
- Technology transfer
- Project and Supply Chain Management
- Environmental Issues
 - Gas flaring and produced water disposal
- Local partner- >51% local content with a PJSC & >95% during production operations
- Stakeholder Management
- Iran wants you!

The Iran Opportunity-2016

Key barriers to entry

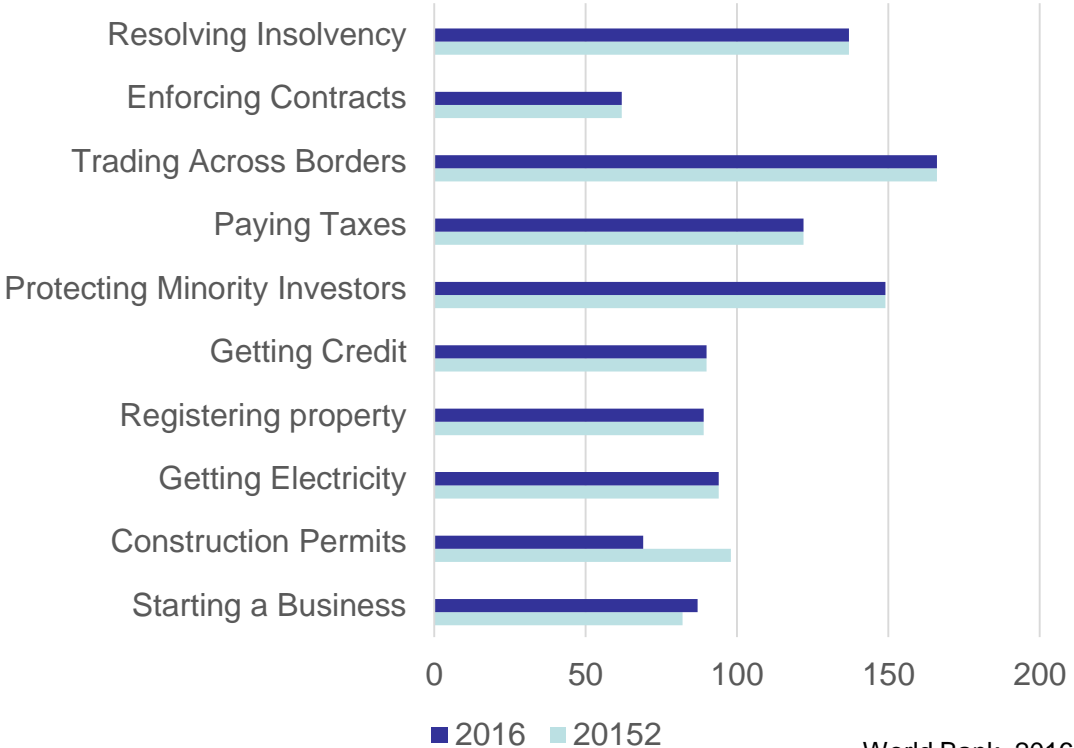
Biggest fines for breaching sanctions



Source: FT research

FT

Doing Business Ranking 118 of 183

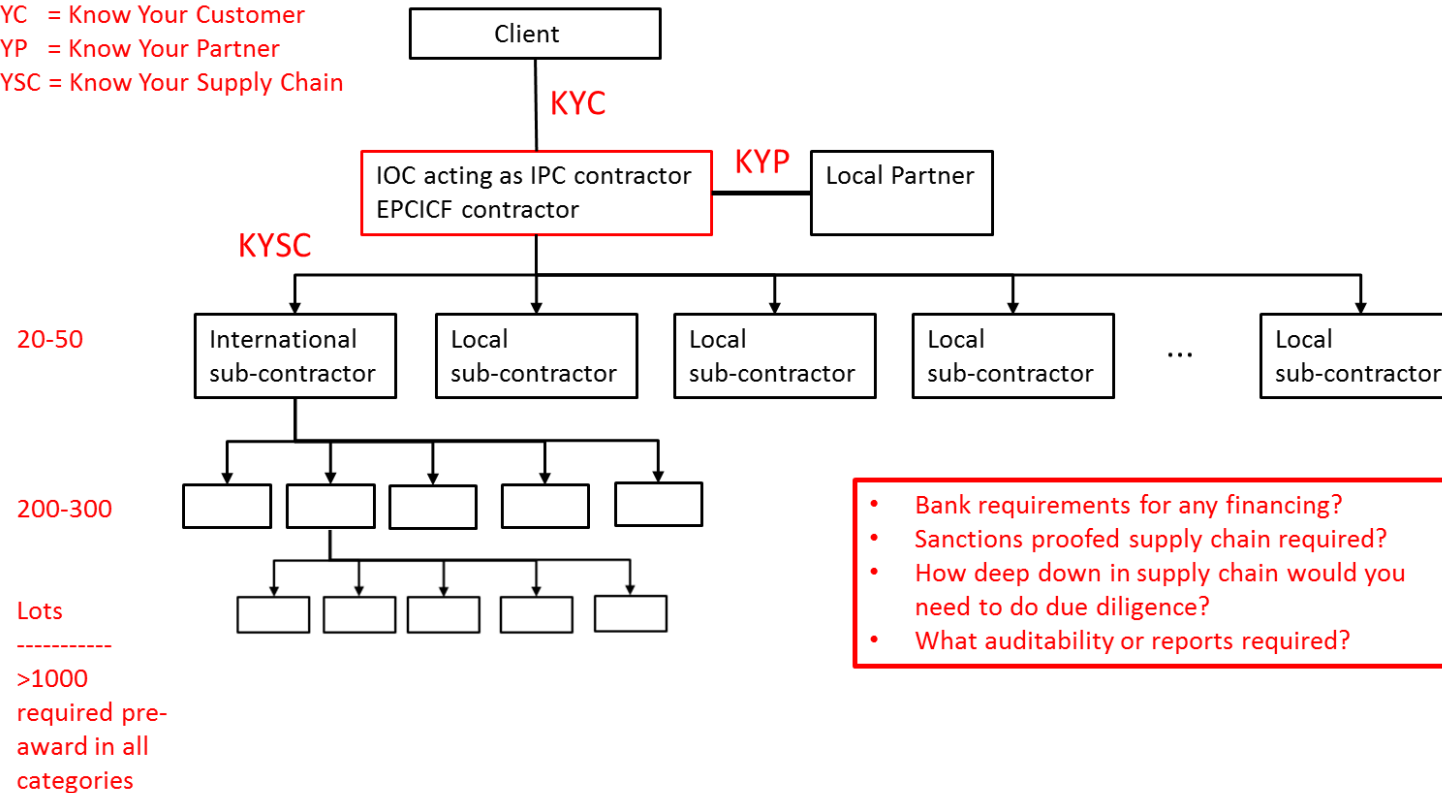


World Bank, 2016

The Iran Opportunity- 2016

EU-Supply & IOID- Iran Complete Tender Management

KYC = Know Your Customer
 KYP = Know Your Partner
 KYSC = Know Your Supply Chain



How best can a foreign investor working in Iran ensure they do not contract with a sanctioned individual or entity and so avoid being fined by the US government, UN or EU for working with them?

“Check up on what you can check up on, keep your records, be able to make your case,” said a former US sanctions negotiator and that means using Iran’s Complete Tender Management (ICTM).

<https://eu.eu-supply.com/ictm/>