



Developing the Oil & Gas market

Mauritania as a destination for Oil and Gas majors

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Summary

- ❑ Why invest in Mauritania ?
- ❑ What potential does Mauritania have ?
- ❑ What are the Recent developments ?



WHY INVEST IN MAURITANIA?

Legal Framework

- **Hydrocarbons Law** : Adopted in 2010 (Loi N° 2010-033), amended in 2011 (Loi N° 2011-044), and in 2015 (N° 2015-016).

Key new elements :

- Approval of PSCs by decree (instead of law) : flexibility;
 - Possibility for non exclusive reconnaissance authorization;
 - Operators to adhere to the **ITIE**;
 - Clarity on the **fiscal regime**, treated on the contractual level;
 - Profit Oil sharing based on R Factor: attractiveness
- **Decree for petroleum licensing (N° 2011-230);**
 - **Production Sharing Contract model ;**

*All Importations of materials and goods necessary for the good execution of the petroleum operations are subject to the VAT either at **zero rate**, or shall be brought in under the **temporary importation procedure** which suspends payment of VAT for the property brought in under this particular customs practice.*



WHY INVEST IN MAURITANIA?

Legal Framework

- **Key elements of the PSC**

- **Bonus : Signature/ Production** : negotiable;
- **Training / Promotion budgets** : negotiable;
- **Environmental Commission** : negotiable;
- **NOC Capacity building** : negotiable;
- **Exploration Period** : 10 years maximum / 3 phases;
- **Relinquishment** : 25% at each renewal;
- **Production Period** : 25 years (Oil) & 30 years (Gas), renewable once for 10 years;
- **Cost Oil** : Negotiable, with « cost stop » (60% for Oil / 65% for Gas);
- **P.O. share** : based on “R factor”, Negotiable;
- **Income Tax** : negotiable (common rate: 25% and UP).

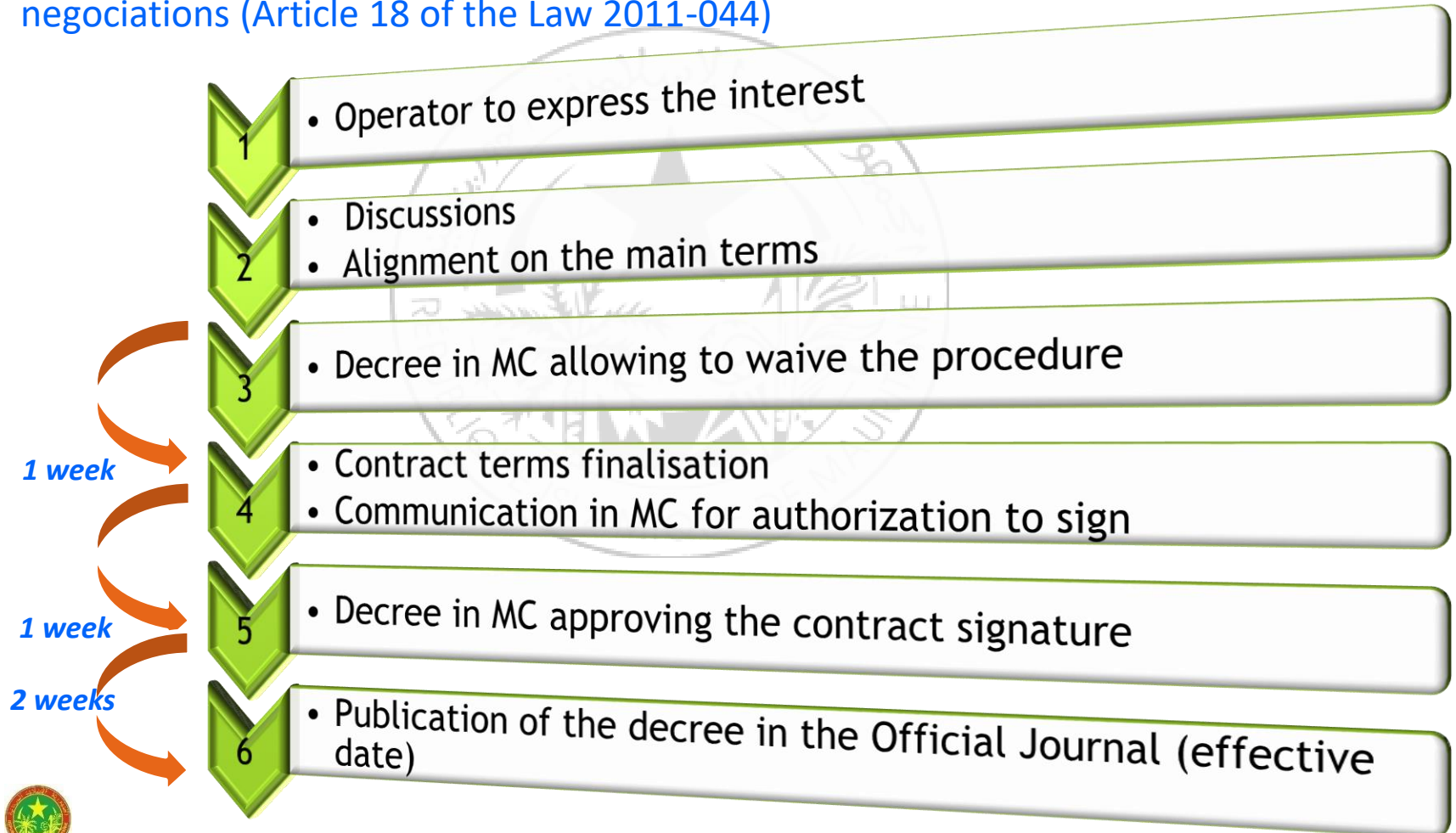


WHY INVEST IN MAURITANIA?

Legal Framework

- **Blocks awarding process**

The HC Law set up the principles of a CEP bidding process but allows also for direct negotiations (Article 18 of the Law 2011-044)



WHY INVEST IN MAURITANIA?

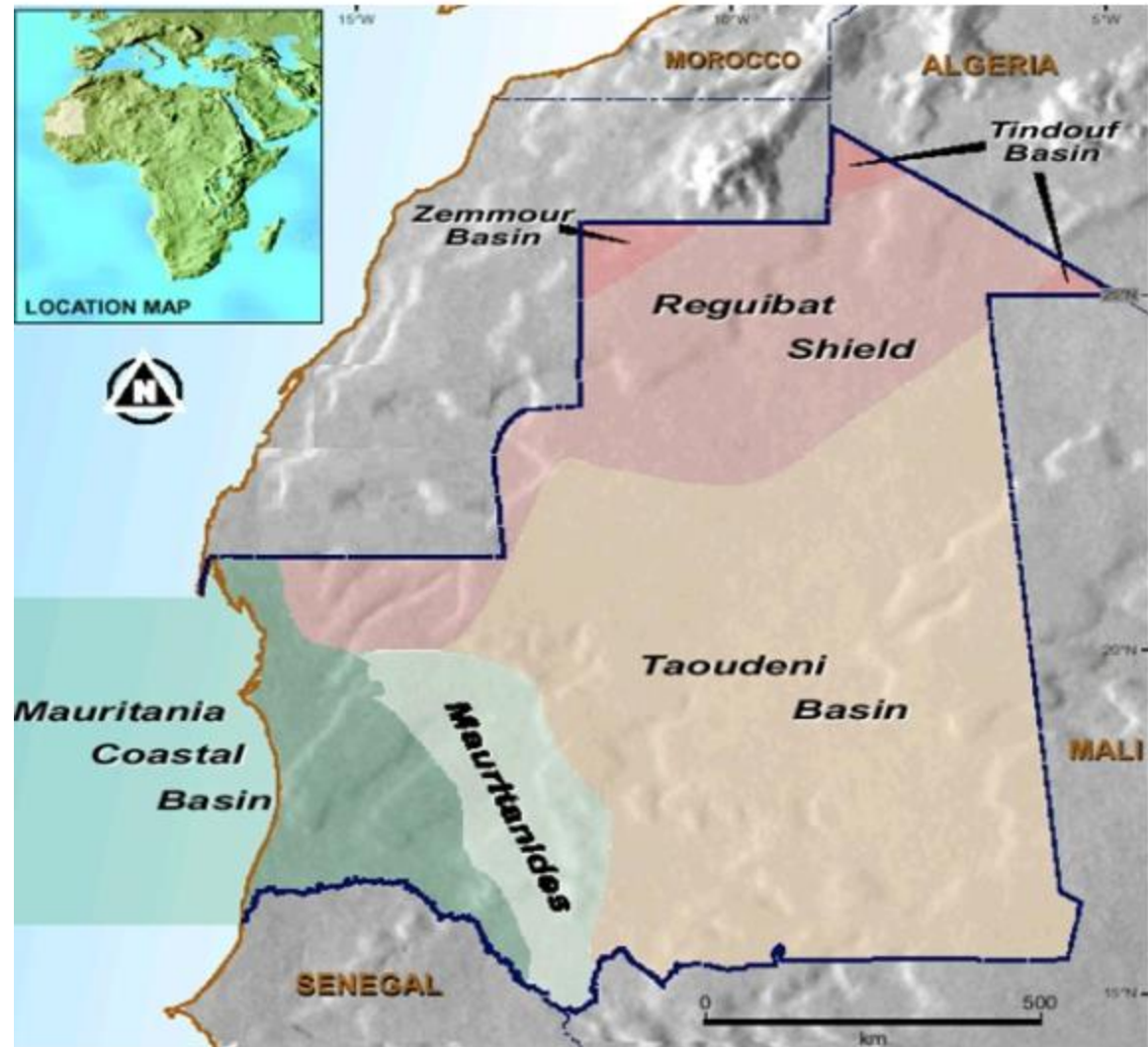
- **Attractiveness and modernity of the legal and investment framework**
- **Stability and security**
- **Transparency, Mauritania has been declared in 2017 compliant with the 2016 ITIE standards**
- **Incentives for fiscal treatment for Contractors and subcontractors**



WHAT POTENTIAL DOES MAURITANIA HAVE ?

Geological Framework

Four main geological units



WHAT POTENTIAL DOES MAURITANIA HAVE ?

- Taoudenni Basin
 - *Activities undertaken*
 - *Surface: 500 000 km²*
 - *44 blocs*
 - *2 Operators was present until 2017*
 - *15 015 km of 2D seismic*
 - *5 wells have been drilled*

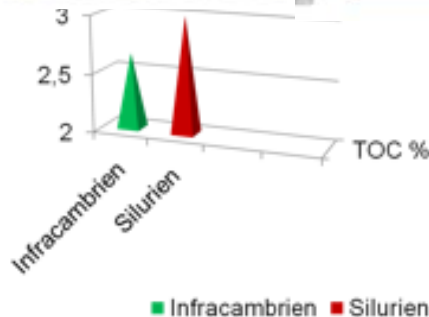
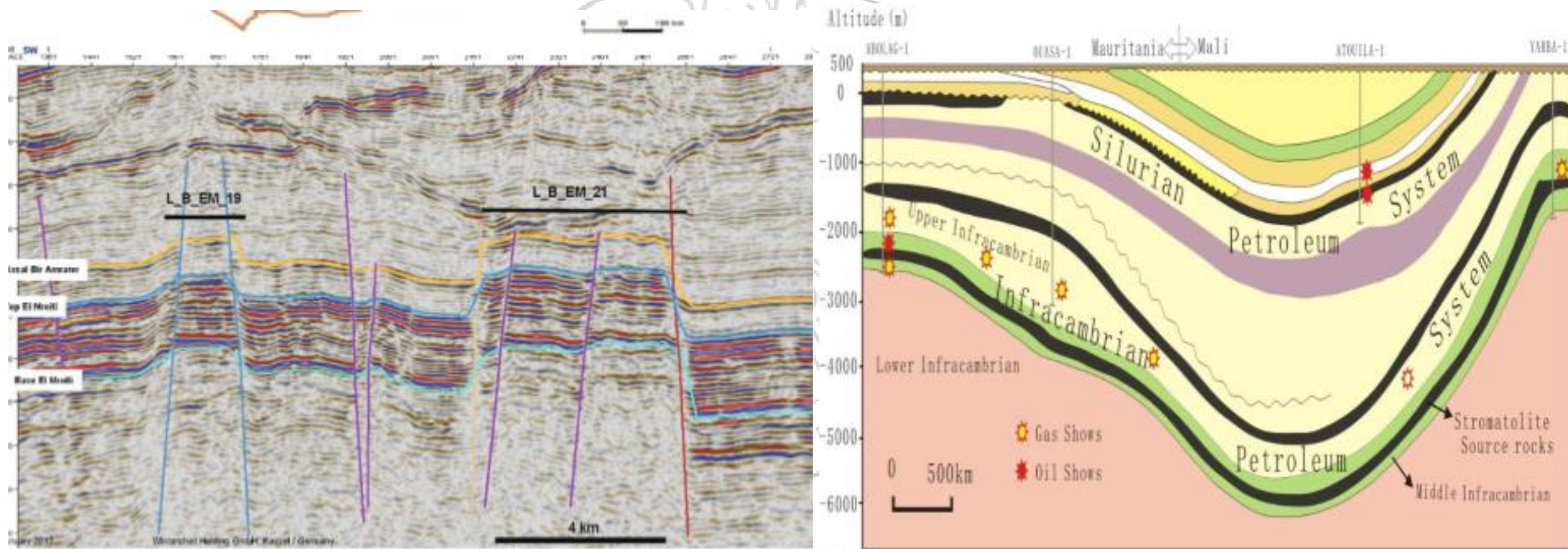


WHAT POTENTIAL DOES MAURITANIA HAVE ?

■ Taoudenni Basin

Two main reservoirs (up to 20% porosity)

Two petroleum systems (Infracambrian et Silurian)

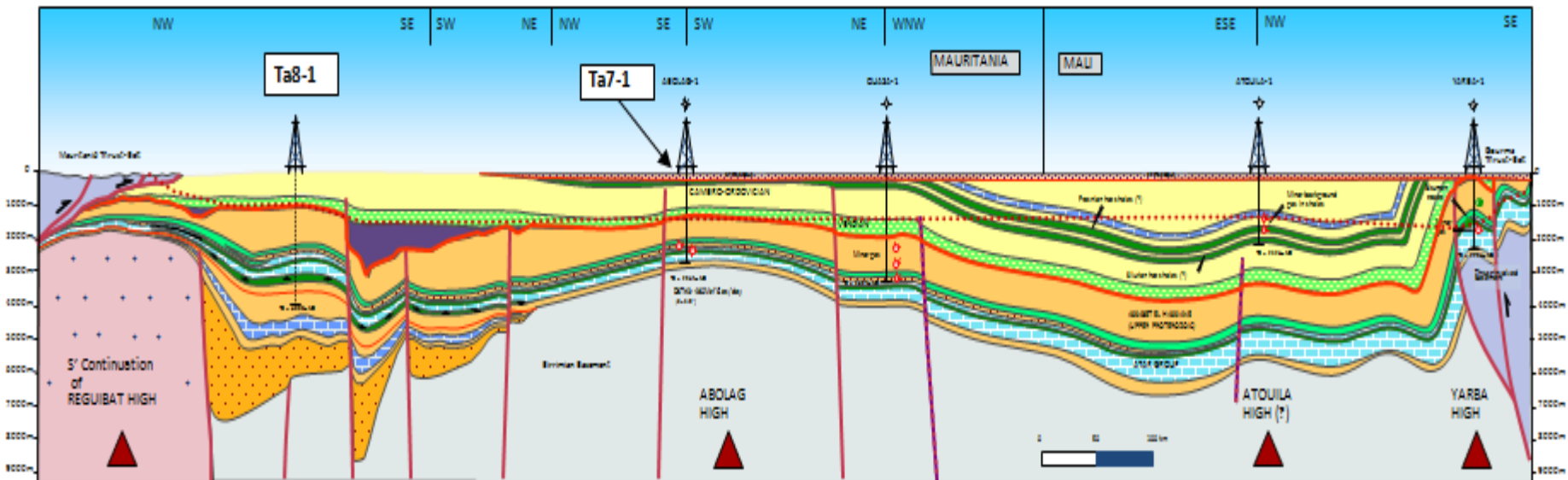


WHAT POTENTIAL DOES MAURITANIA HAVE ?

■ Taoudeni Basin

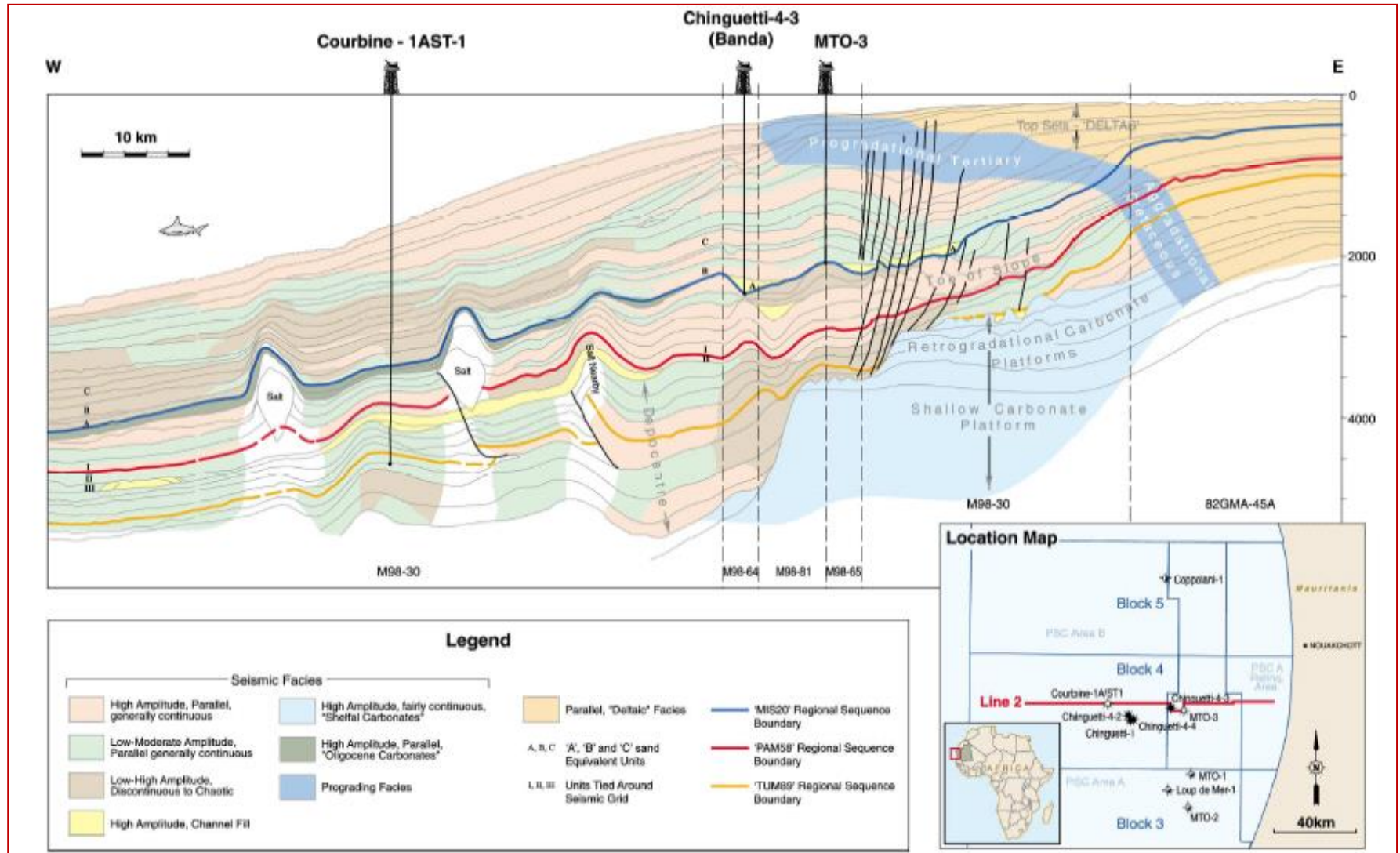
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Two petroleum systems (Infracambrian et Silurian)



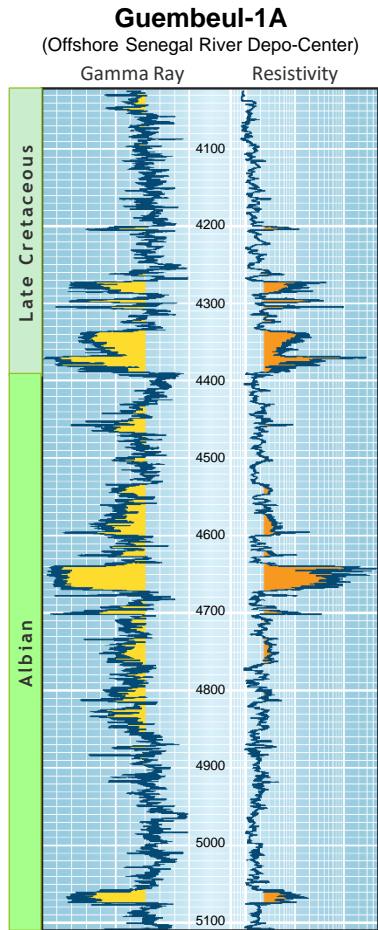
WHAT POTENTIAL DOES MAURITANIA HAVE ?

Coastal Basin



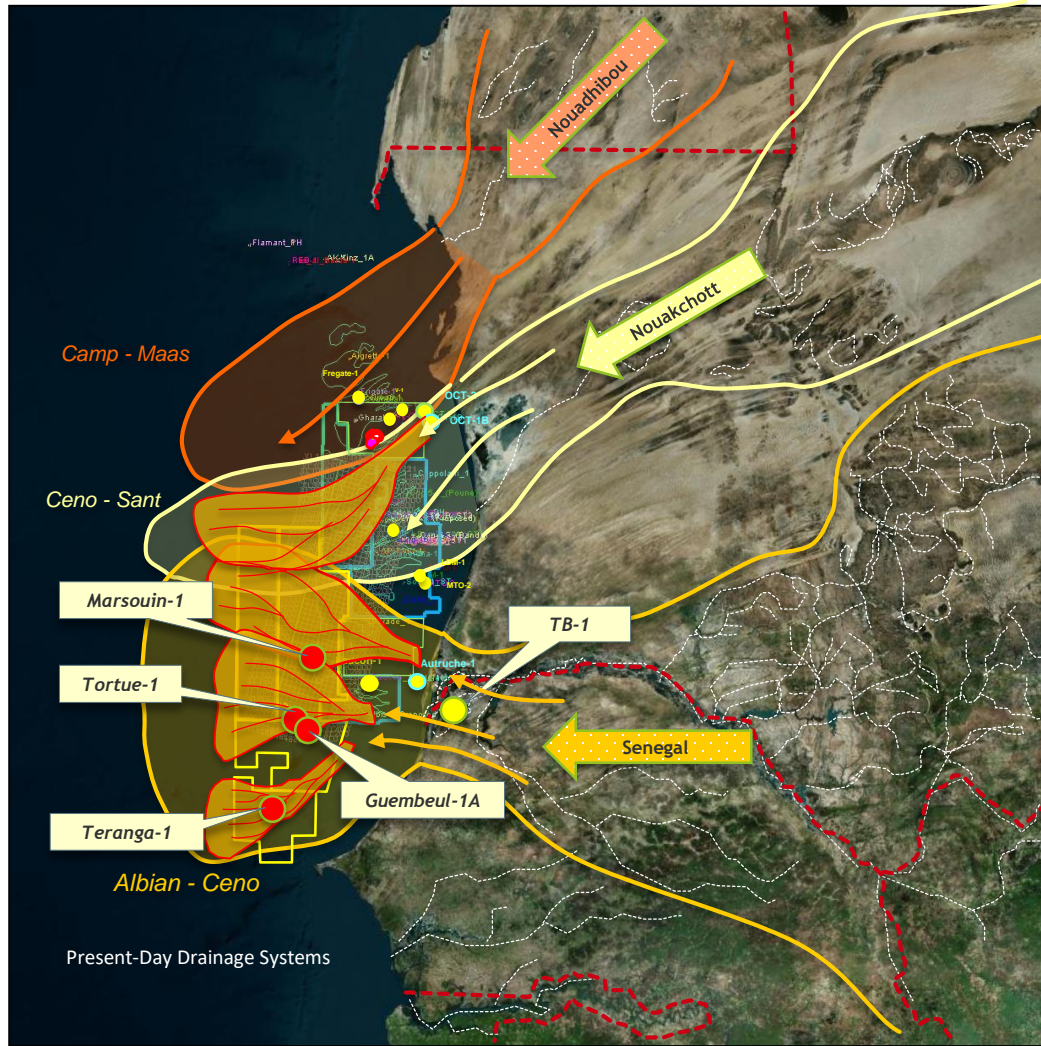
WHAT POTENTIAL DOES MAURITANIA HAVE ?

- Coastal Basin
Sand Supply / Depositional Fairways

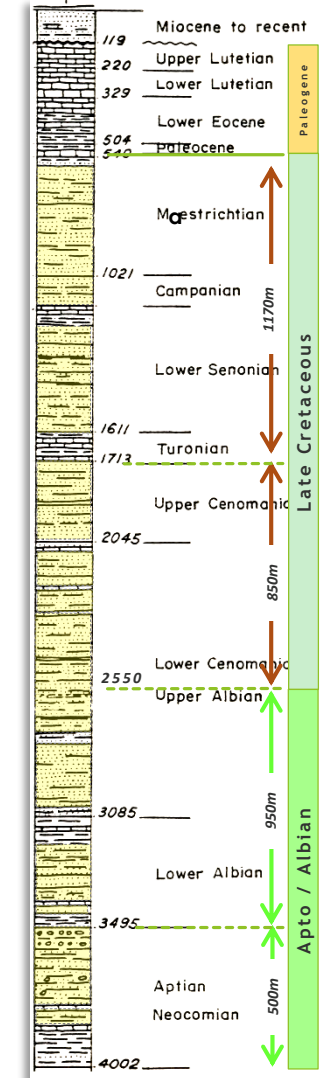


■ Reservoir
■ Gas

Depth
 in Meters



Toundou Besset -1
(Onshore Senegal River Depo-Center)

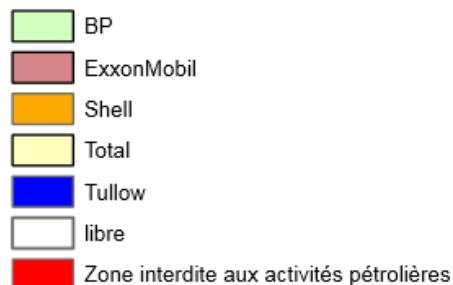


WHAT POTENTIAL DOES MAURITANIA HAVE ?

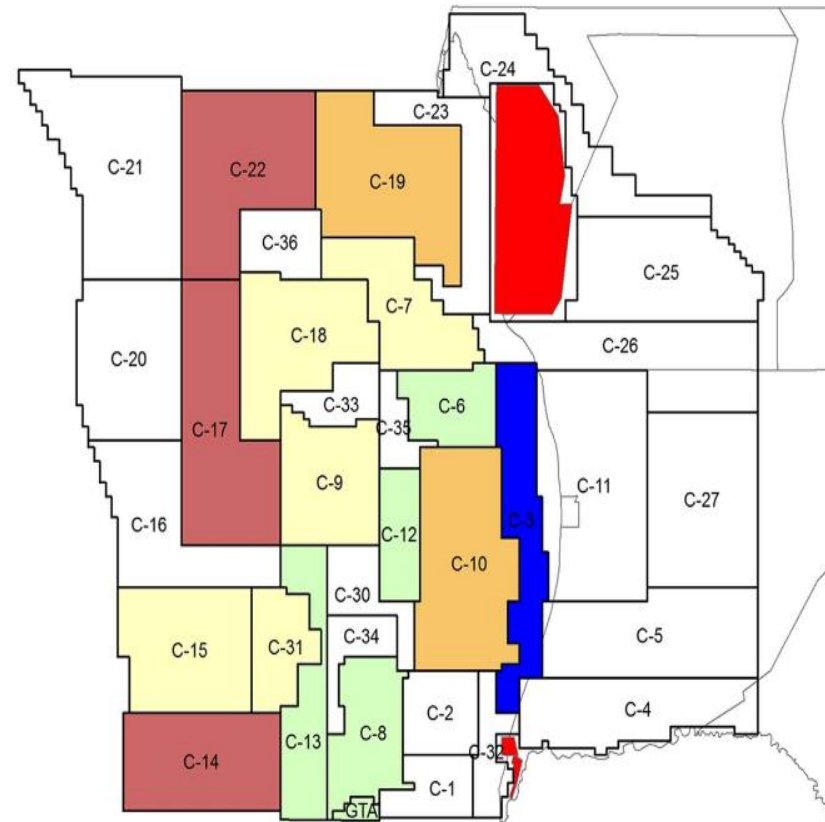
■ Coastal Basin

■ *Activities undertaken*

- *Surface: 184 000 km²*
- *34 blocs in which (16) under contract*
- *6 Operators present*
- *91 659 km of 2D seismic*
- *More than 97 259 km² of 3D seismic*
- *72 wells drilled (44 exploration)*
- *9 discoveries*



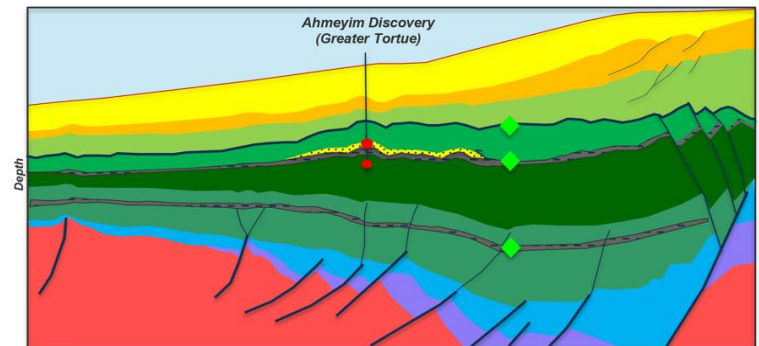
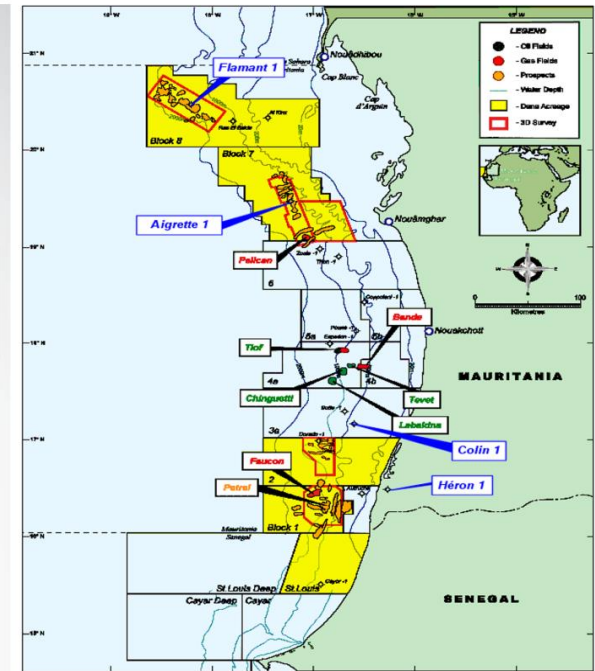
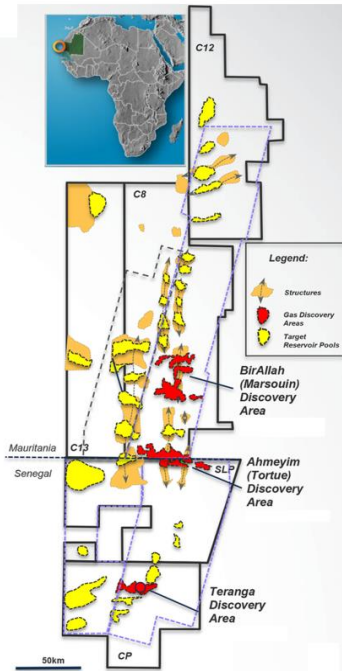
4 Majors present



WHAT POTENTIAL DOES MAURITANIA HAVE ?

- Coastal Basin
 - Discoveries

- ❑ Chinguetti (2001), Zone B
- ❑ Banda (2002), Zone A
- ❑ Walata (2003), Zone B
- ❑ Pélican (2003), C7
- ❑ Tevet (2004), Zone B
- ❑ Labeidna (2005), Zone B
- ❑ Aigrette (2006), C7
- ❑ Ahmeyim (Ex-Tortue) (2015), C8
- ❑ Bir Allah (Ex- Marsouin) (2015), C8



WHAT POTENTIAL DOES MAURITANIA HAVE ?

■ Coastal Basin

■ Discoveries in C10 area (Excluded from block C10)

	Walata	Banda	Tevet
Distance / shore (km)	90 Km	61 Km	90 Km
WD	2000 m	290 m	500 m
Reserves	400 MMSTB STOIIP	1.2 TCF RR	0.9 TCF 120MMSTB STOIIP/GIIP

An integrated development can be envisaged to produce Oil/Condensate and Gas for Domestic Market and export

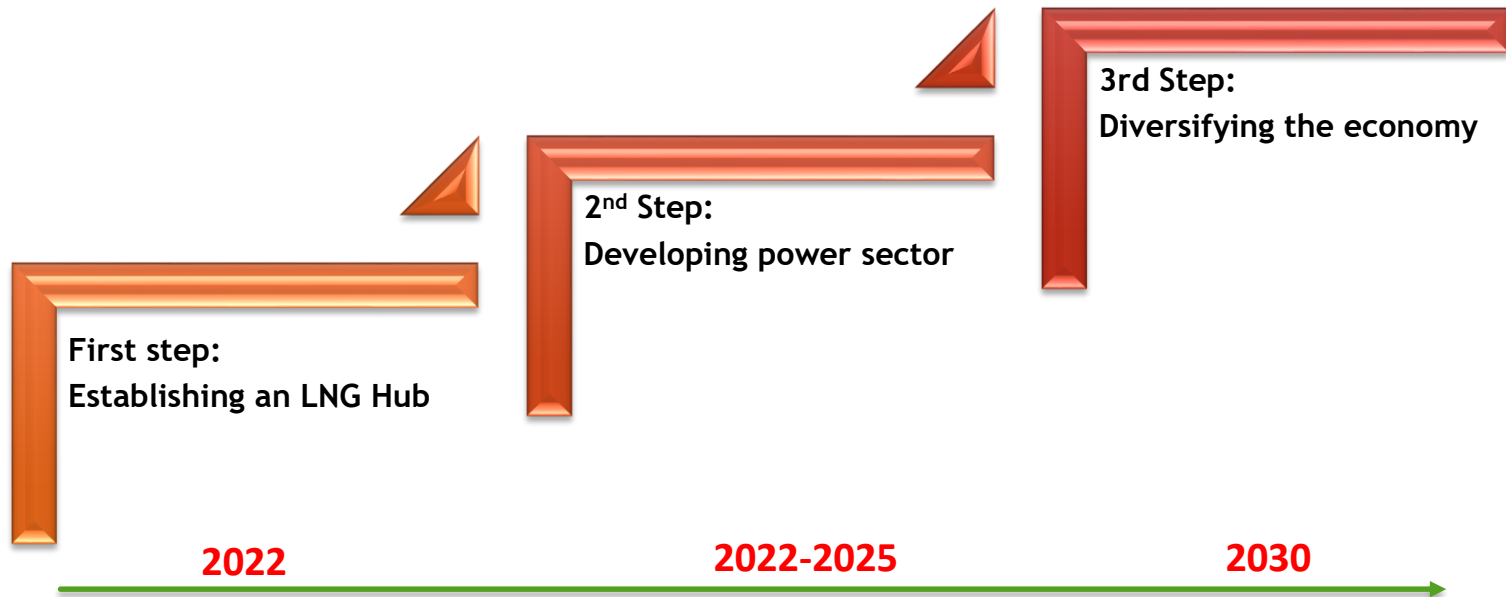
Options: Gas To Power, Small Scale LNG, LNG to Power, GTL...



RECENT DEVELOPMENTS OF THE SECTOR AND VISION

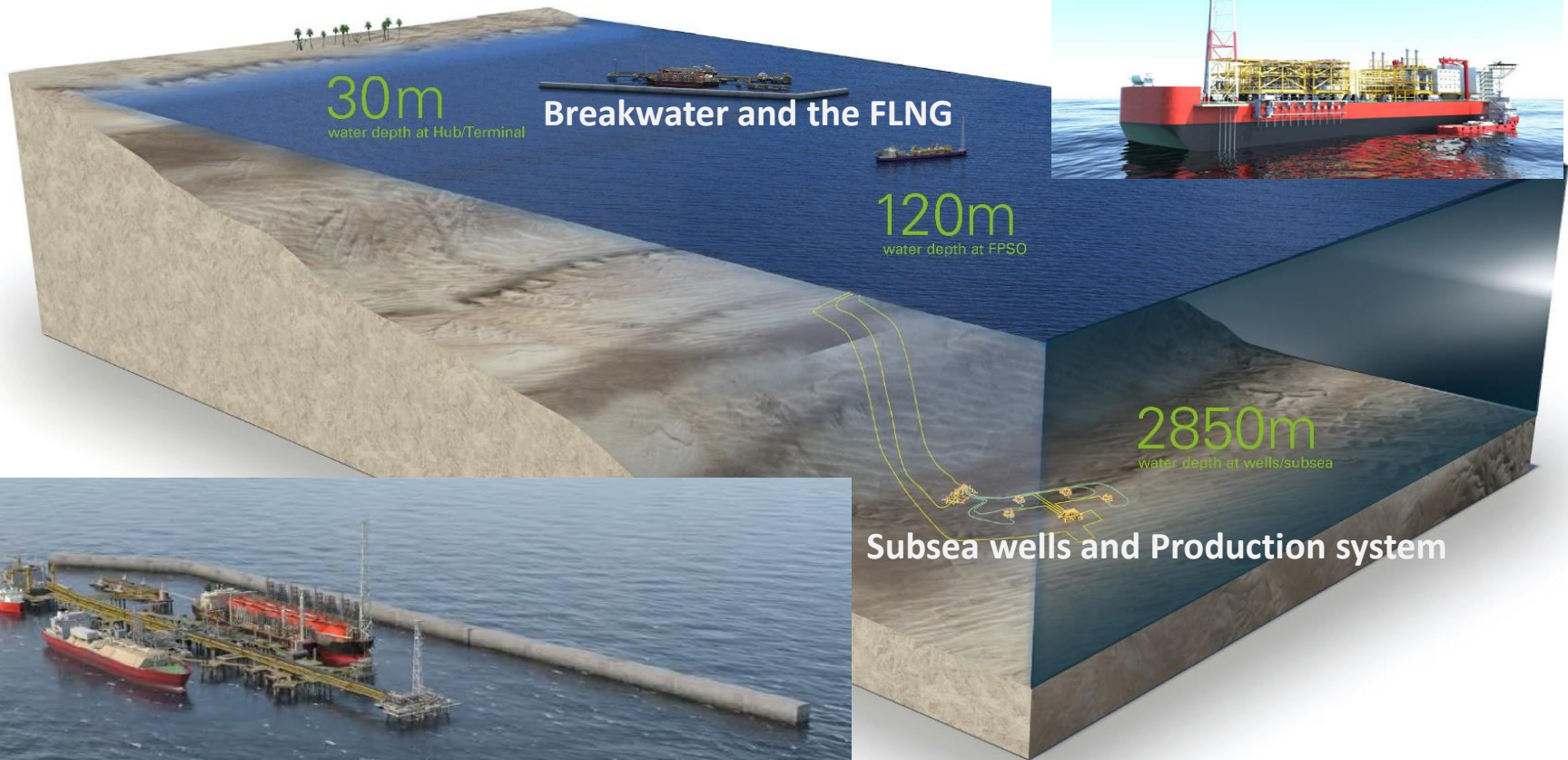
Thanks to the clarity and the transparency of the contractual framework

- 👉 Attracting new players (Majors)*
- 👉 Intensifying exploration activities*
- 👉 Maximizing the synergies between players*



GREATER TORTUE AHMEYIM GTA

- 🔑 *Discovered in 2015*
- 🔑 *Resources of 15Tcf*



- 🔑 *2.3 Mtpa LNG*
- 🔑 *125, 000 m3 storage*
- 🔑 *LNG carriers sized between 125,000 m3 and 215, 000 m3*



GREATER TORTUE AHMEYIM GTA

FPSO



GREATER TORTUE AHMEYIM GTA

Breakwater



GREATER TORTUE AHMEYIM GTA

Local content



- Nouakchott port material offloading facility - upgrade to operate in SIMOPS with existing port traffic
- Logistics base and offices to manage operations - 5000/te per day of rock
- Rock stockpile yard (12Ha) to provide vessel loadout.

- El-Asma Quarry 130km NW of Nouakchott - 26 Ha including offices, roads, explosives warehouses, laydown areas
- local personnel
- 7000cm rock blasted every day



- 40 km by-pass road and upgrades to avoid rock transportation through Nouakchott city centre
- 120 locally sourced trucks and drivers to safely deliver of 7,000 tons / day from El-Asma quarry to Nouakchott harbour (130km)
- Sand from offshore for caisson ballasting (>600 km³)
- Community relations – N'Diago



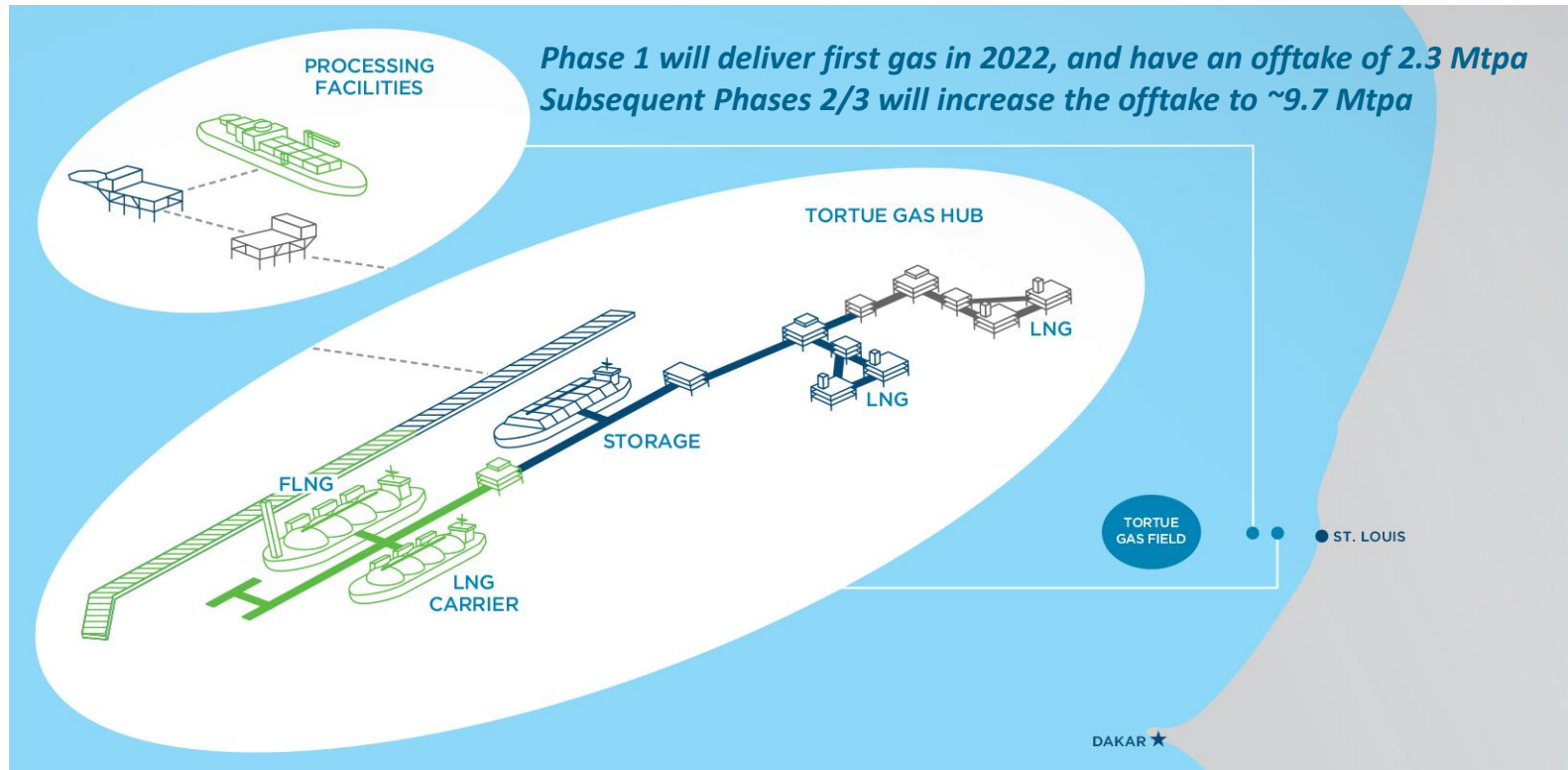
Milestones

- ACI signed in February 2018
- FID was taken in December 2018
- Field in development phase
- Marketing in final process for SPA
- Financing of the NOCs secured



GREATER TORTUE AHMEYIM GTA

■ GTA phases 2 & 3



	2019	2020	2021	2022	2023	2024	2025
Phase 1	Execute (Construction / Conversion)				Phase 1 Production		
Phases 2 / 3	Execute for Phases 2 / 3					Production	Production



Concept Development

Define

Optimize

FID Phases 2/3

Commencement of Commercial Operations

First Gas Phase 2

First Gas Phase 3

2020 AND BEYOND OUTLOOK

👉 Acquisition seismic

3D seismic will be done by Shell on block C10 in 2020

2D seismic: Seismic speculative will be done by TGS in 2020

👉 Wells to be drilled (2020-2023): 13 wells

Total, BP and Tullow in 2020/2021

👉 Development of GTA (first gas 2021-2022)

👉 Others small fields development

👉 New players, E&P and services

👉 Taoudenni Basin new promotional strategy



CONCLUSION

- 👉 *An attractive and modern legal and investment framework*
- 👉 *Transparent procedure of PSC awarding*
- 👉 *Security and stability climate*
- 👉 *Proactivity and business understanding (Oil Culture)*
- 👉 *Basins under-explored and very promising*



Thank you for your attention