

Country Report:

NIGERIA

Nigerian NDR key parameters



Name of the NDR	NIGERIAN NDR
Type of organisation	PUBLIC – PRIVATE PARTNERSHIP
Operating since:	2007
Employees:	DPR -1500; NDR-8
State participating agency:	DEPARTMENT OF PETROLEUM RESOURCES
State Supervisor:	NDR Advisory Committee (NDRAC)

Type of data	
Onshore	Yes
Offshore	Yes
License information	Yes
Production information	Yes

Overview of the Nigerian NDR

Background of the NDR Project

Nigerian Oil and Gas industry is a mature one and has one of the largest reserves in the world. We have over 9,000 wells and have been operating from 1958 (Oloibiri Oil field) to date, with its latest oil field being Egina which came on stream in Jan 2019.

1999

Oil & gas activities had gone on for more than half a century with the attendant accumulation of hardcopies of E&P data such as seismic data, well logs, reports etc.

Storage format:

- Hardcopy paper
- Sepia/films

Challenges :-

- **Organization:** Lack of adequate storage space
- **Preservation:** Adequate temperature and humidity not maintained
- **Data degradation**
- **Retrieval:** Man-hours lost in locating and retrieving data
- **Data Duplication:** Multiple copies of the same data set



Physical Data Archive



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Overview of the Nigerian NDR



It was established by NDR 2007 Regulation



It is governed by NDR Advisory Committee



It is funded by Government and Industry

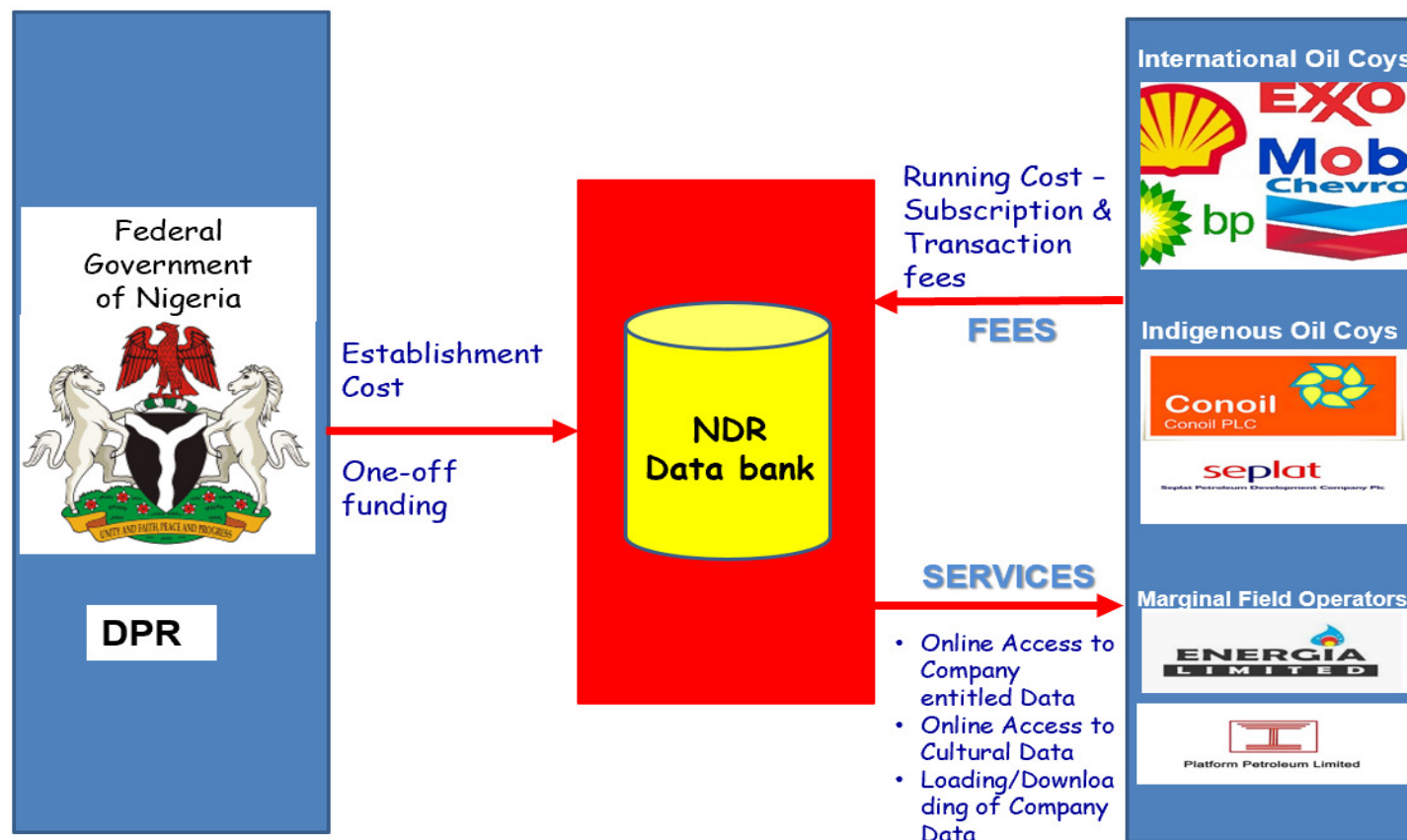


Conventional Model

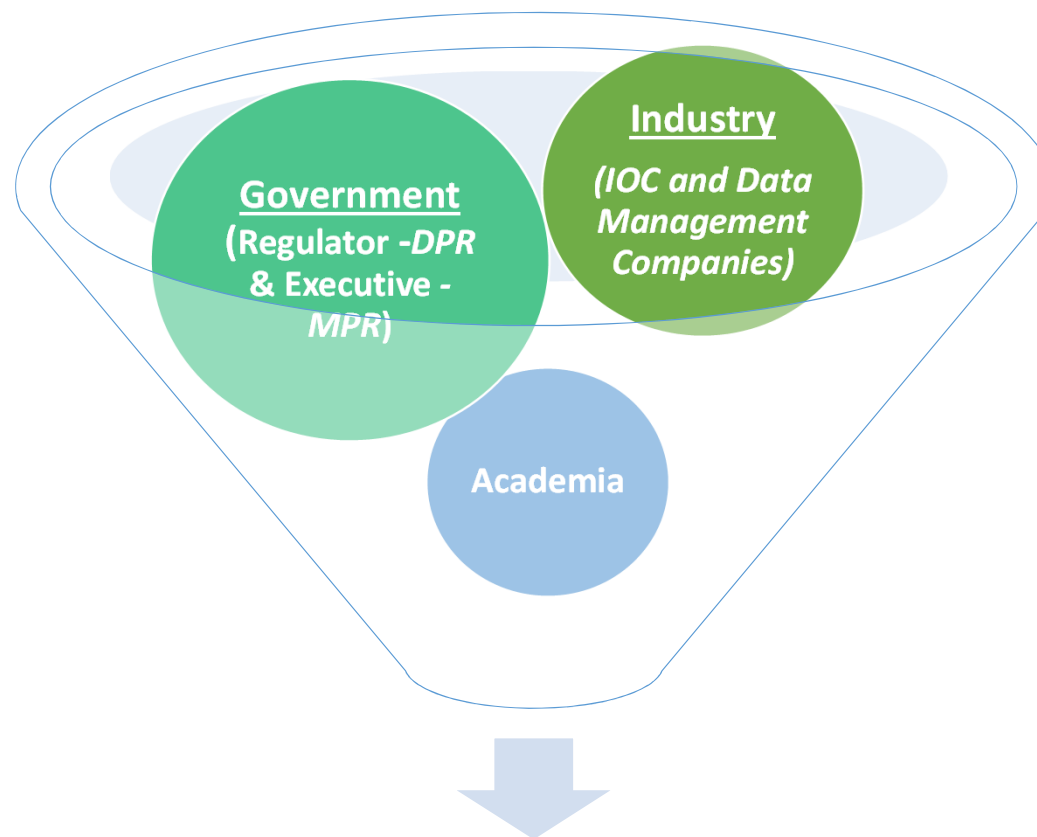
**NDR provides site, hardware, software & staff;
Vendor(s) provide services, training and support**

Overview of the Nigerian NDR

NDR BUSINESS MODEL



Overview of the Nigerian NDR



NDR Advisory Committee

OBJECTIVES

OUR VISION

To become a one-stop-shop for trusted E & P data and information

OUR MISSION

To build a databank that preserves and disseminates petroleum data in order to regulate and promote hydrocarbon exploration and development activities

OUR MANDATE

To acquire, manage and archive data generated by oil & gas operators and make it accessible to government agencies and other stakeholders

FUNCTIONS

ACCESSIBILITY

Housing, for easy accessibility, oil exploration and production data and information under a common platform

EVALUTION & ASSESSMENT

Provision of the necessary database for optional evaluation and assessment of the potentials of the exploration and production basins in the country;

DIGITAL BIDDING PLATFORM

Provision of a digital platform for bidding exercise that would place Nigeria in a competitive position especially for new investors

REGULATORY TOOL

Provision of adequate monitoring and regulatory tool for the Department of Petroleum Resources (DPR) and all Oil and Gas assets across the nation

ENHANCE BUSINESS

Performance of such other functions that may serve to promote the objectives of the Repository in enhancing the Oil and Gas industry at large.

The Nigerian NDR Today

ON-GOING PROJECTS

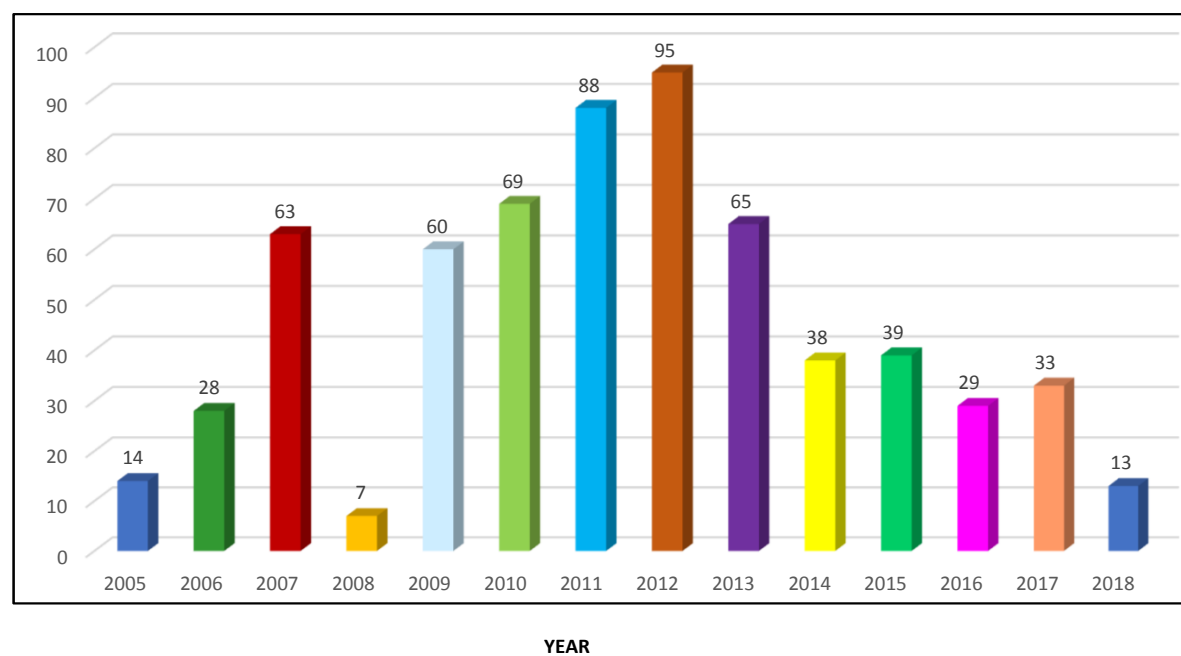


- **Review of regulations and guidelines**
 - This was necessary to identify gaps and address lacunae in current NDR Regulations and framework. It is projected to be concluded end of 2019.
- **Transcription of Legacy Data**
 - Arising from damage to media kept in the NDR Data Room, there was need to transcribe all legacy data (8,548 tapes) into updated media (hard drives and 3592). We have currently transcribed 44.98% of the tapes (3,845 tapes).
- **Disaster Recovery**
 - Commenced putting place infrastructure for disaster recovery.

DATA -Submissions

The Nigerian
NDR Today

POPULATION OF THE NATIONAL DATA REPOSITORY WITH E&P
DATA ON BLOCK BASIS

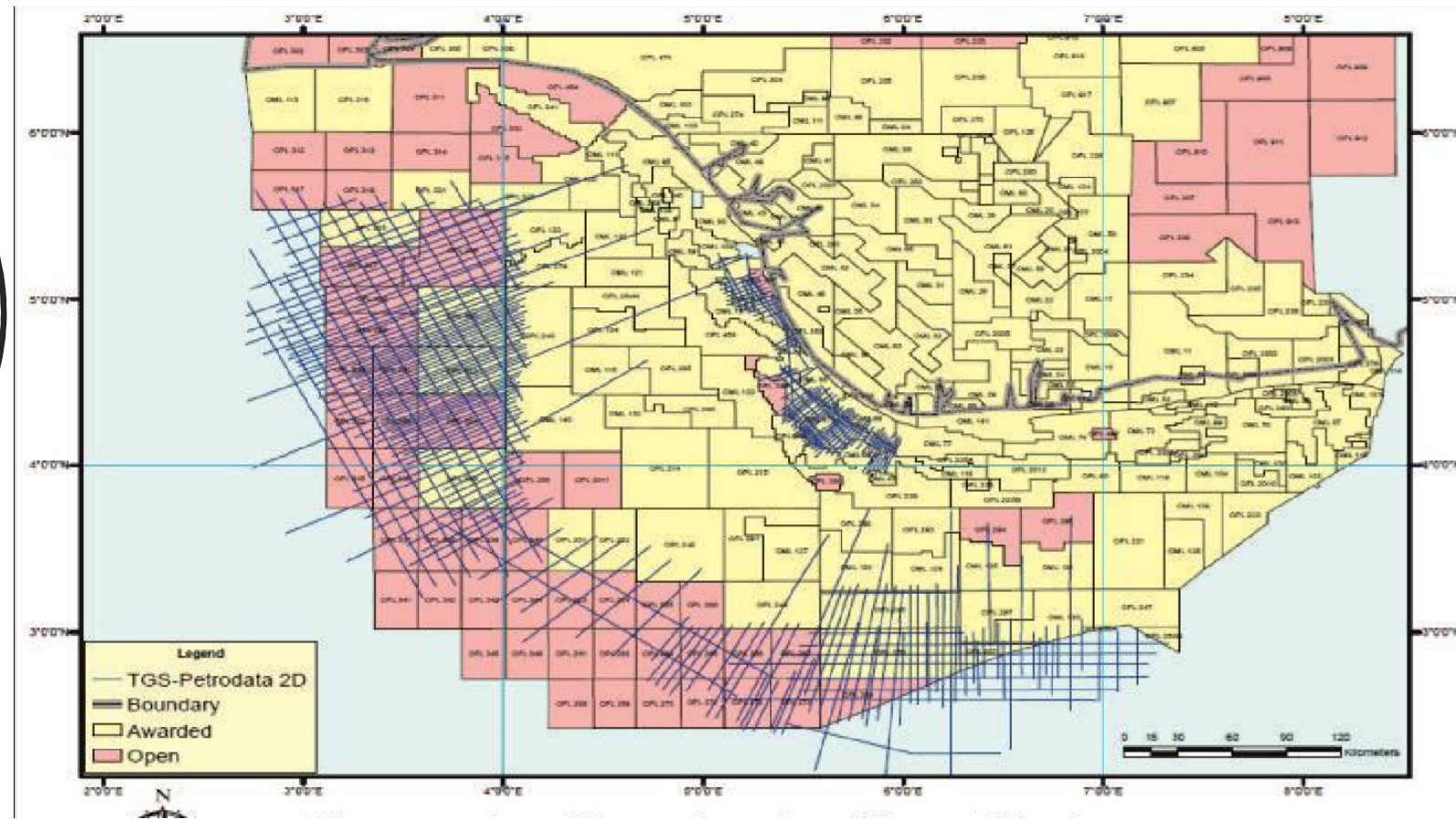


- Over 500 Terabytes of E&P Data in NDR's custody

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DATA-2D SEISMIC

The Nigerian
NDR Today



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The Nigerian NDR Today

Data Processing Rooms



NDR NATIONAL DATA REPOSITORY
2019
Utrecht, The Netherlands



Server Room



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Successes



- ✓ Supported 2005, 2006 & 2007 licensing rounds and aborted 2013 Marginal Field award exercise.
- ✓ Currently supporting the Economic Evaluation and Ranking Marginal Fields Project towards the planned Marginal Field bid round.
- ✓ Promoting ease of doing business through the provision of digital E&P data
 - shortened lifecycle from exploration to first oil for new entrants (especially indigenous and marginal field operators)

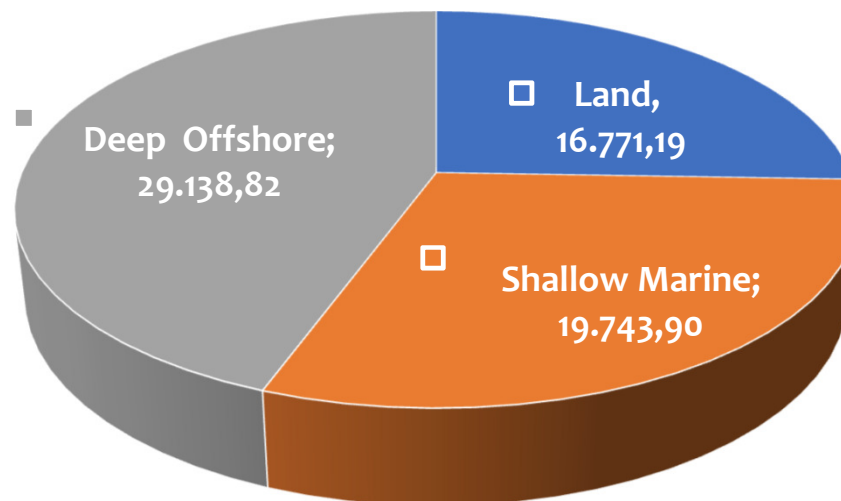


✓ Attracting investors through the provision of digital E&P data

- About 66 billion boe are at present locked-in, in 79 Concessions across the Niger Delta. Out of which about 16 billion boe are Deep Play prospects.

Successes

PROSPECTS & LEADS SPECULATIVE RESOURCES (MMBOE) ON TERRAIN BASIS

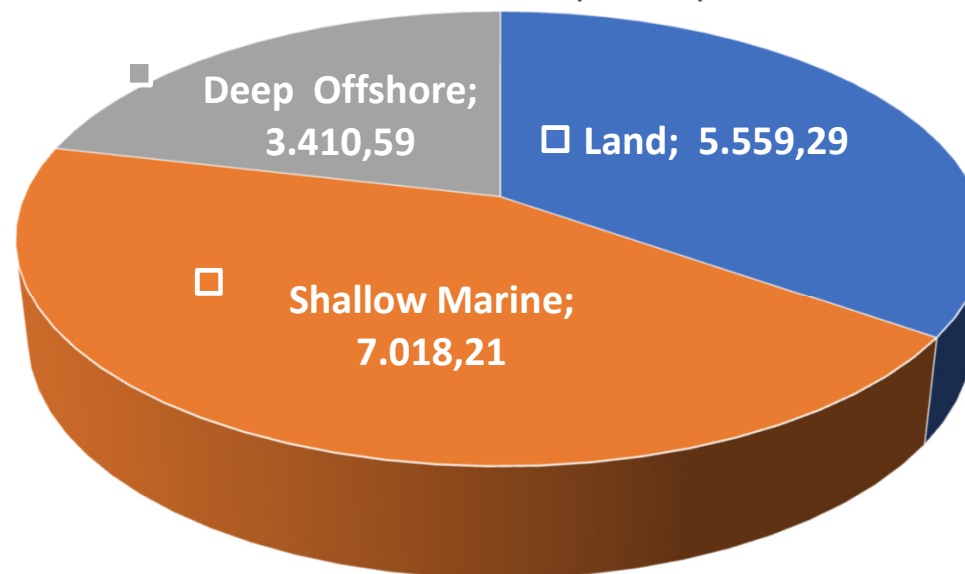




✓ Attracting investors through the provision of digital E&P data

Successes

DEEP PLAY SPECULATIVE RESOURCES (MMBOE) ON TERRAIN BASIS



■ Land ■ Shallow Marine ■ Deep Offshore

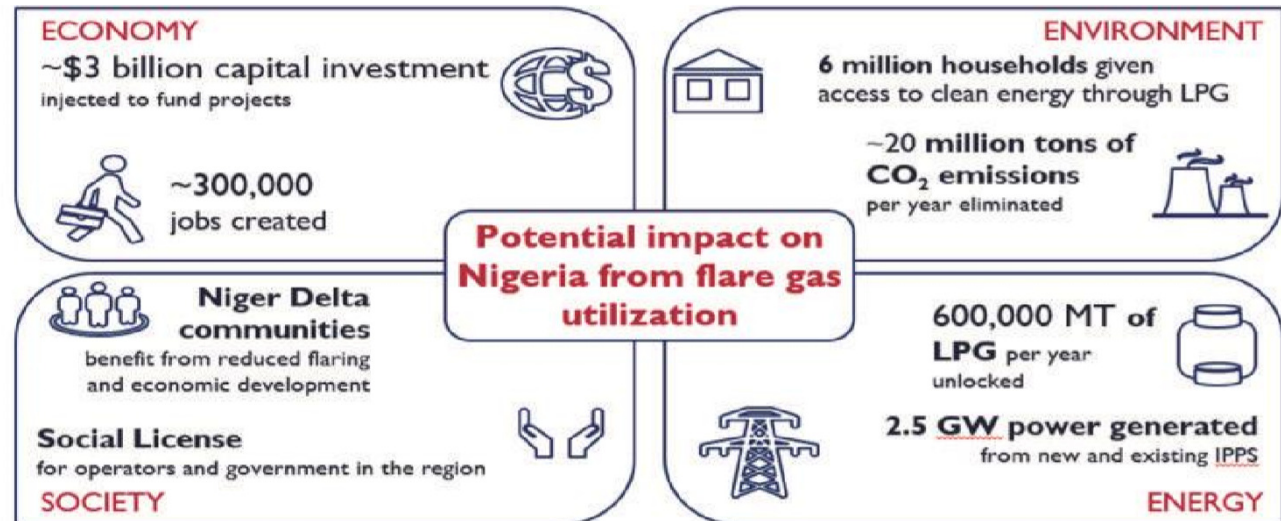
Still a lot of opportunities for deep play exploration in Nigeria.



Successes

✓ Currently supporting the planned Nigerian Gas Flare Commercialisation Programme bid round

- *Green Energy/Flare-down initiative of Nigerian Govt.*
- First virtual prying and online bidding exercise

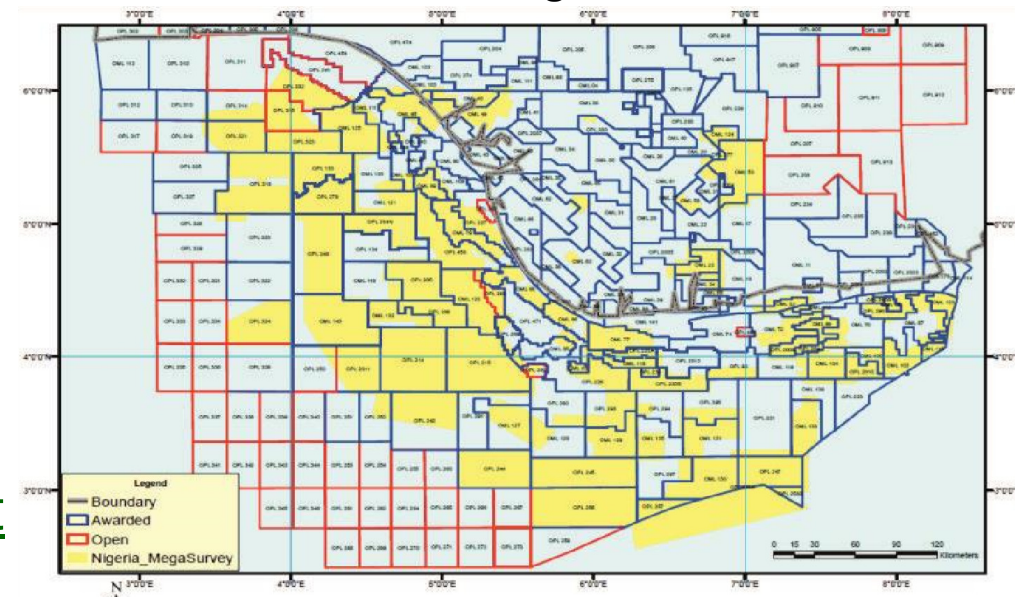


Successes

✓ Other National E&P projects supported to date: *Utrecht, The Netherlands*

- 3D MegaSurvey
- Niger Delta Well Log Digitization
- Pore Pressure Studies
- Gas Reserves Audit
- Facies Map Browser
- Exploration efforts in Frontier Basins - Chad, Benue Trough, etc

Mega Survey Project



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Challenges

Regulation & Policy

- Inadequacy of the current Regulation and Advisory Committee Framework
- Changes in government policies

Technology

- Inadequate and obsolete technology leading to inconsistencies and unavailability of the NDR Digital Platform.

Data

- Inadequate Data Control and Integrity
- Lack of holistic and documented Data Standards

Compliance

- Lack of compliance by companies in area of data submission and payment of subscription.

Look Ahead

Short Term

- ☐ Policy
 - *Development of revised NDR Framework and NDR Guidelines*
- ☐ Promote provision of complete and reliable data
 - *Scanning and archiving of legacy data*
 - *Data standardisation*
- ☐ Reduced Service Turnaround time
 - *NDR Process review and development of NDR 2021-2025 Strategy*
 - *Enhanced and robust Digital Platform to support NDR operations*
 - *Development of a Data Submission Portal*

Look Ahead

Mid-Long Term

- ❑ Drive accessibility of NDR Data by investors, academia and industry stakeholders
 - *Development of NDR Data Exchange (NDR-DX)*
- Use NDR to promote Green energy and Renewable energy initiatives within the sector
 - *Gas Flare Commercialisation Programme (NGFCP)*
- Establishment of Petroleum Hub including an enhanced Geological and Geophysical center and a Visualization Auditorium to facilitate collaboration with industry in collective decision making.

