



# Digital, Data Analytics, and Automation: Value Creation Through Digital E&P

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## Digital, Data Analytics, and Automation: Value Creation Through Digital E&P



# Importance of Data Lake and its success – A case study

MOUSUMI DEKA OIL INDIA

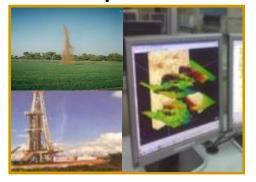






## **About us – Oil India Limited (OIL)**

**Exploration** 



**Production** 



**Transportation** 



Renewable Energy



- Legacy of more than 100 yrs.
- Rich in history 1<sup>st</sup> oil-well drilled in Asia in 1889 in dense-forest of North–East India







## Type of Information

**Core Activities** 



**Technical Information** 

Specialized Industry Standard Software

Non- Core Activities



Non- Technical Information

Business Application





## Type of Information

**Technical Information** 

**Core Activities** 

Specialized software Packages For both Surface and Sub-surface

Mostly data are in silos

Available in the industry

since 1970s

**Business Information Non- Core Activities** 

- **ERP Application** 
  - In-house applications

• Seismic data processing

Production Planning & Monitoring

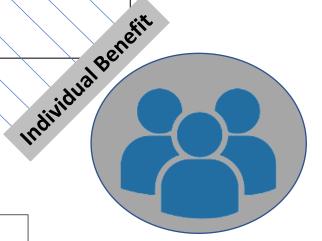
• Seismic Interpretation Reservoir Modelling

Well Design

SCADA system

• Well Plan

Data Available in Oracle, MS SQL, MS Excel, Flat Files







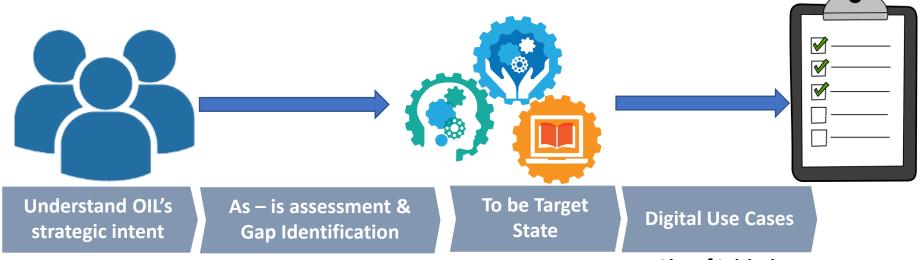
## **Digital Transformation Journey**

**OIL's DIGITAL TRANSFORMATION:** Towards - **digitally driven agile company** 

To increase efficiency, productivity and enhanced safety

**DIGITAL ROADMAP CREATION: A holistic approach** 

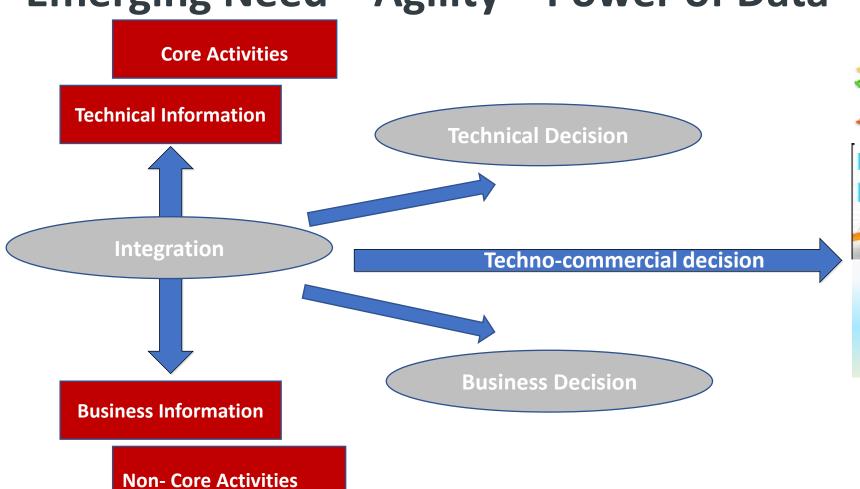
The job of developing and implementing the digital roadmap is being carried out by consultant engaged by the Organization in collaboration with Organization's multidisciplinary team enriched with various domain experts.







**Emerging Need – Agility – Power of Data** 





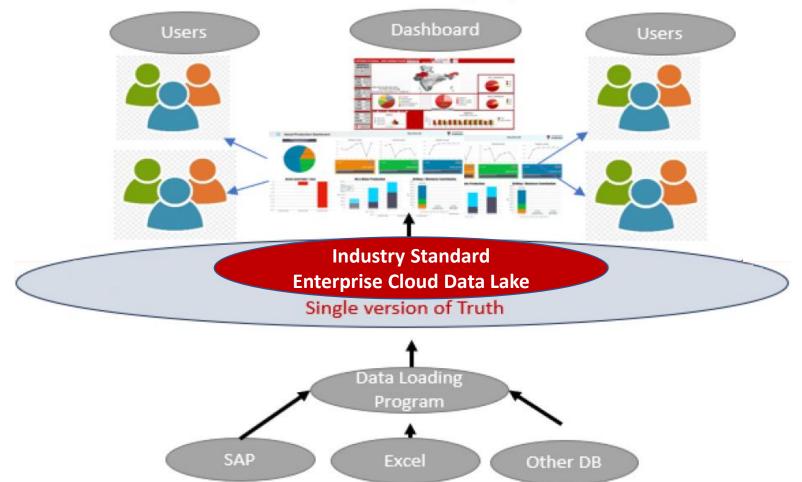




## **Power of Data**

#### Self Service Dashboard

- Automated Dashboard / Reporting
- Drill-down KPIs / Analytics







## **Power of Data**

 Automated Dashboard / Reporting

Dashboard

Self Service Dashboard

Drill-down KPIs / Analytics

Curation

Users

Security

Challenges

Integration

Source system, integration with continuous data refresh

DESIGNATION ... Industry Standard Integration

Users

SAP

Enterprise Cloud Data Lake Single version of Truth

> Data Data Loading Cleaning Program Excel Other DB

Data Security -Authentication, Authorisation, Monitoring

Security

Role-based Dashboard Access























LPG





























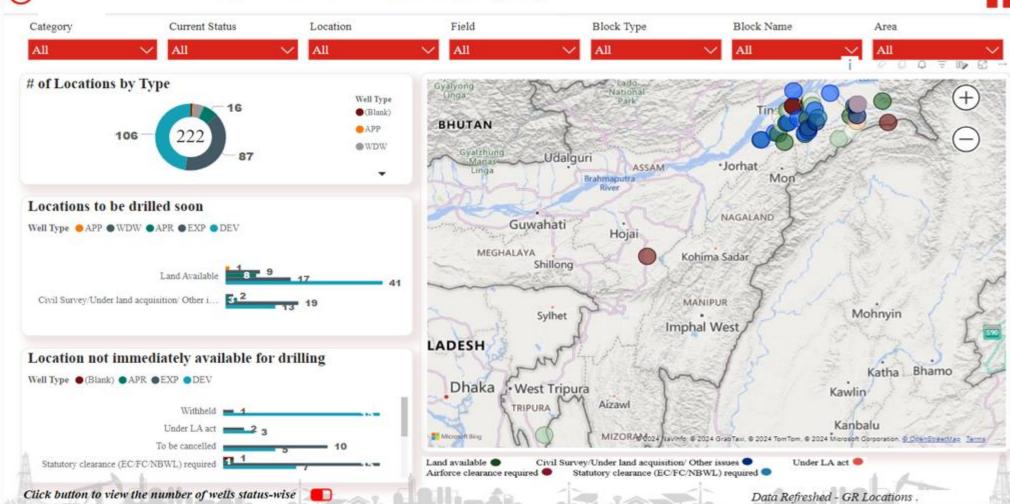
HR Learning







Status of Released Locations (NE)

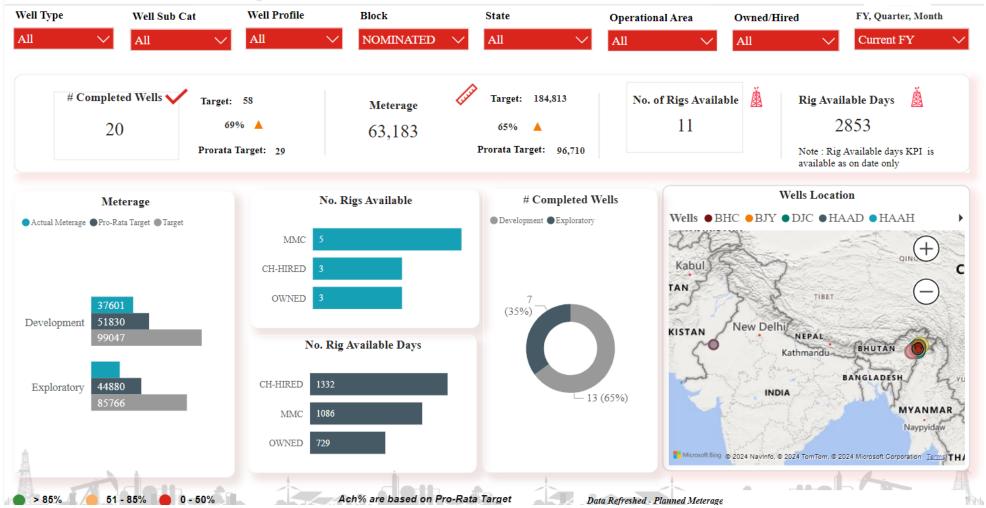






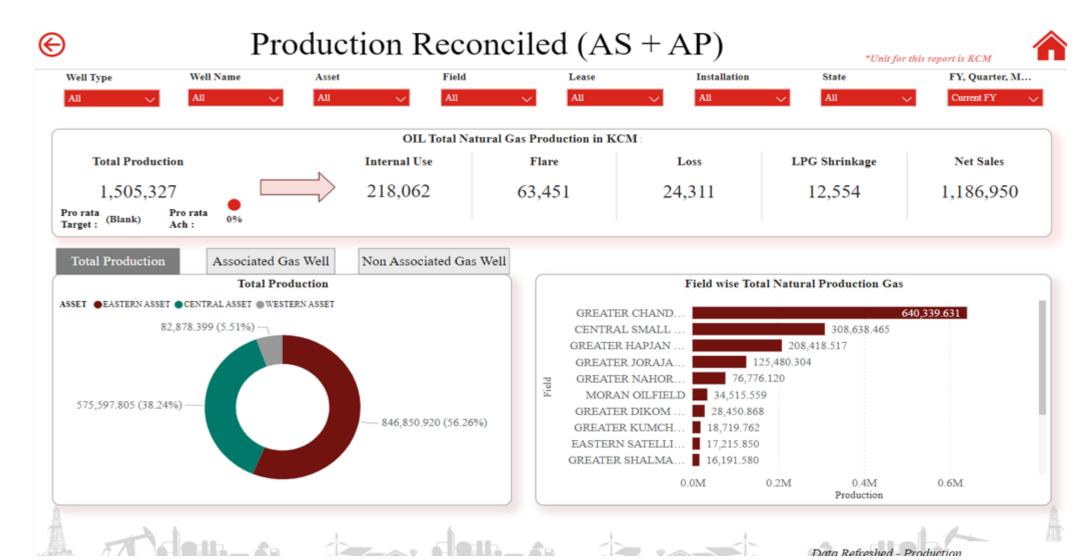
Progress / Performance Dashboard















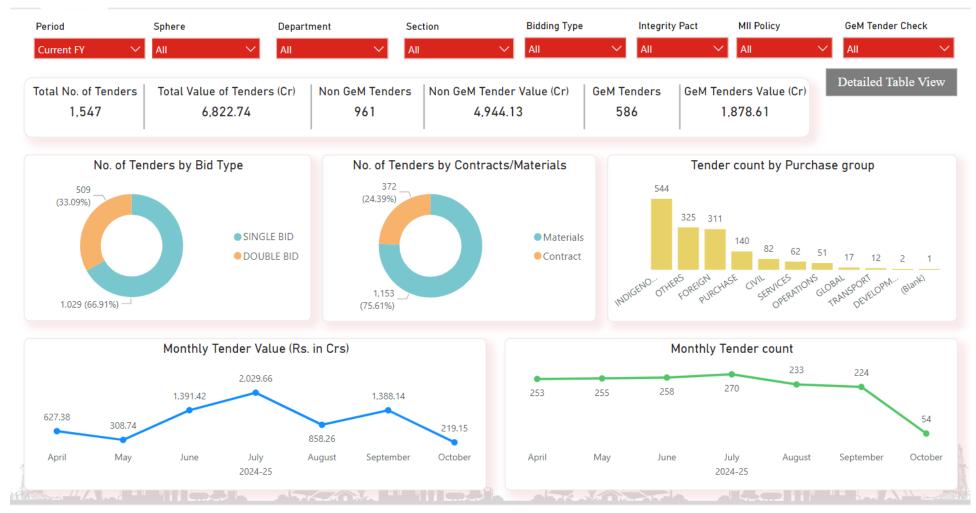
## **Power of Data**

#### Agile Dashboard



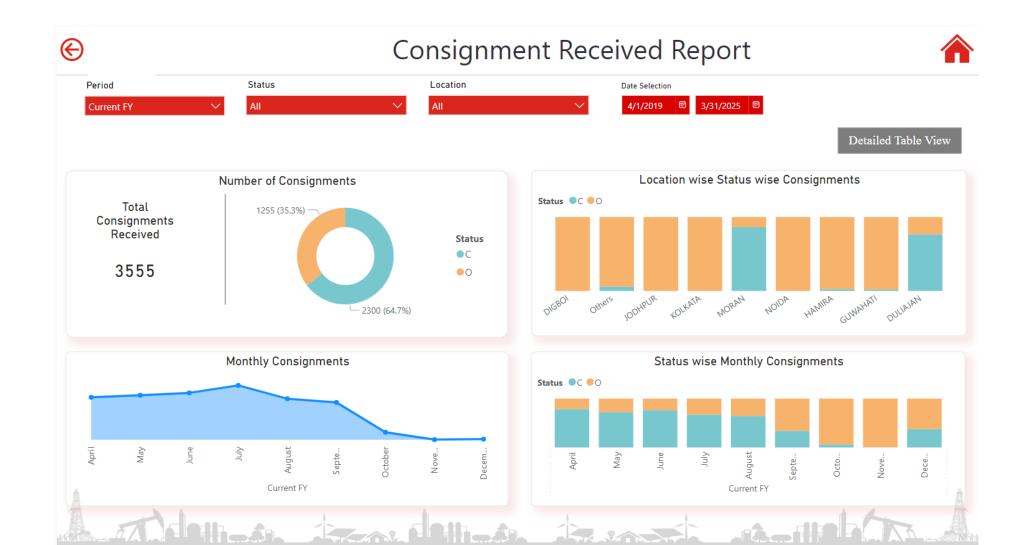
#### Tender Report















## Power of Data Results & Benefits

**Results**: Visual impacts on Decision making at various levels

**Benefits**: Increased efficiency, productivity

Individual level ( eg Installation Manager)

Organisational level





## Thank you