Miras Technology International

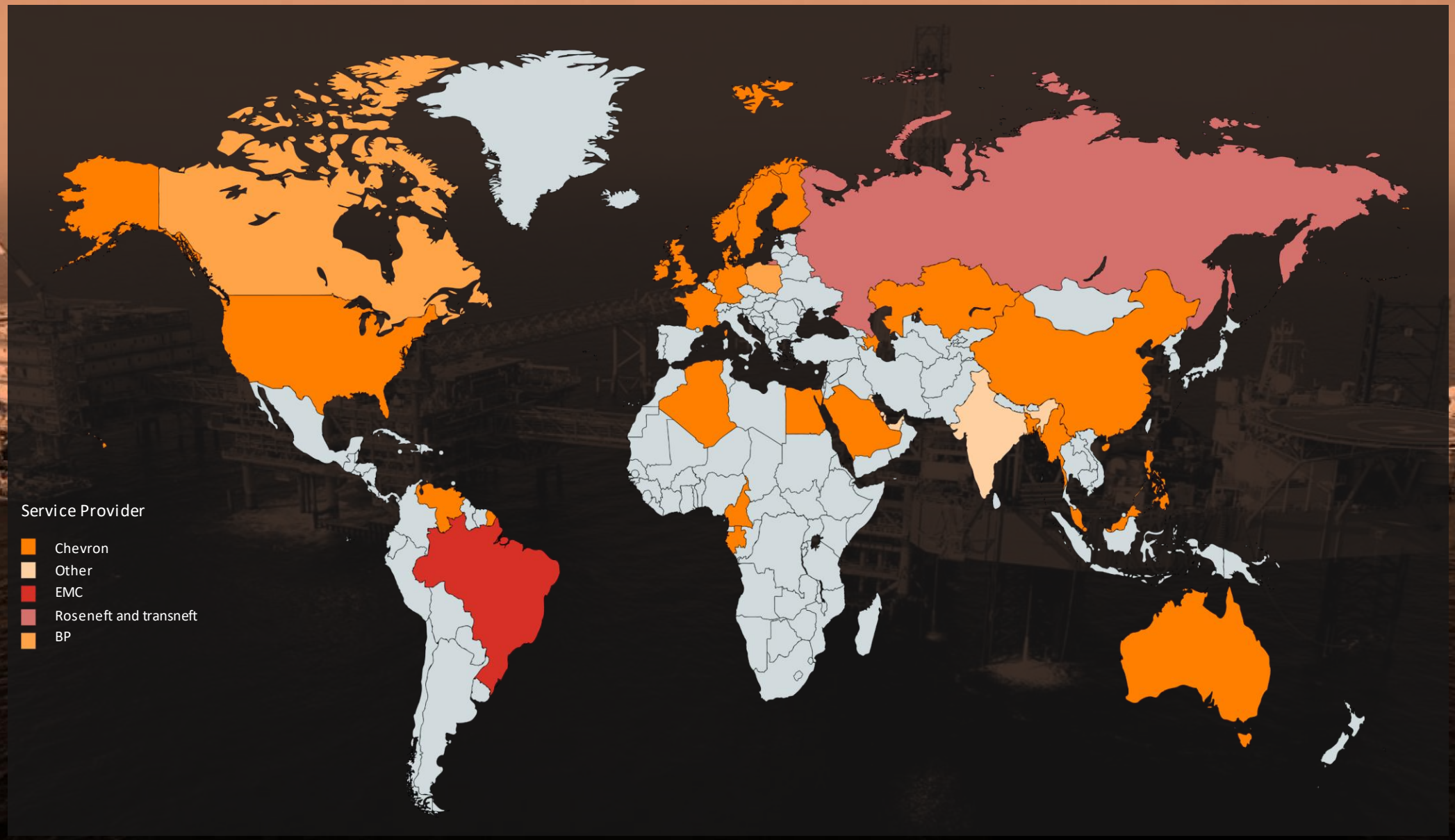
Data management In Oil & Gas exploration



Nov, 2017

www.miras-tech.com

Big Data Service Provider

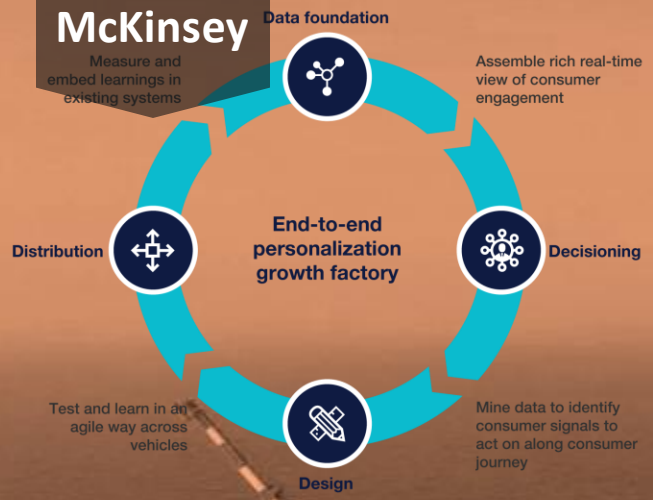


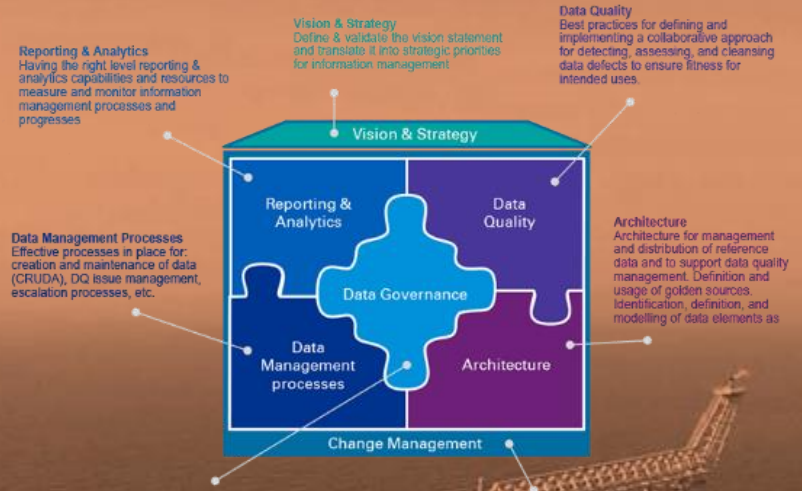


History

- Basic analysis -> **Meeting people and basic analysis on data**
- Meeting with IT -> **Data management**
- Meeting with CEO -> **Drilling performance improvement**
- Meeting with IT -> **Consultancy + Data management**

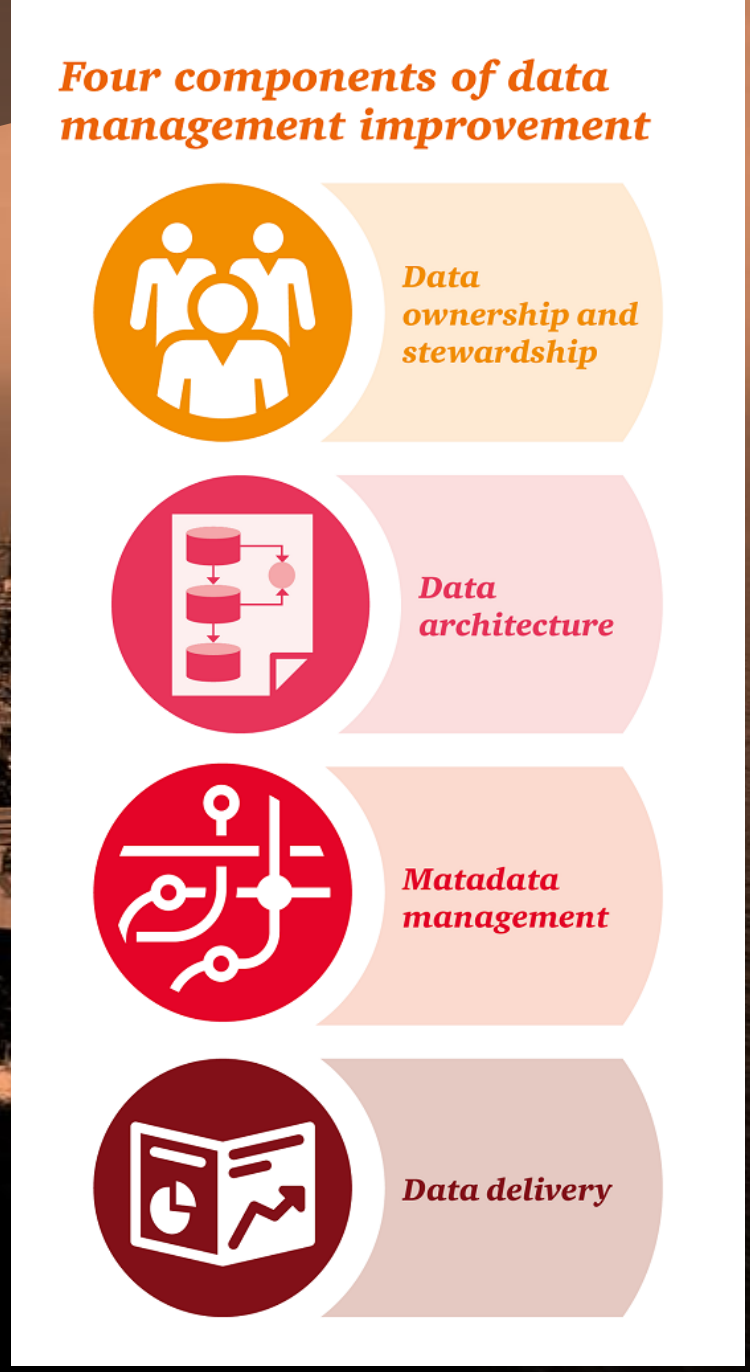
McKinsey



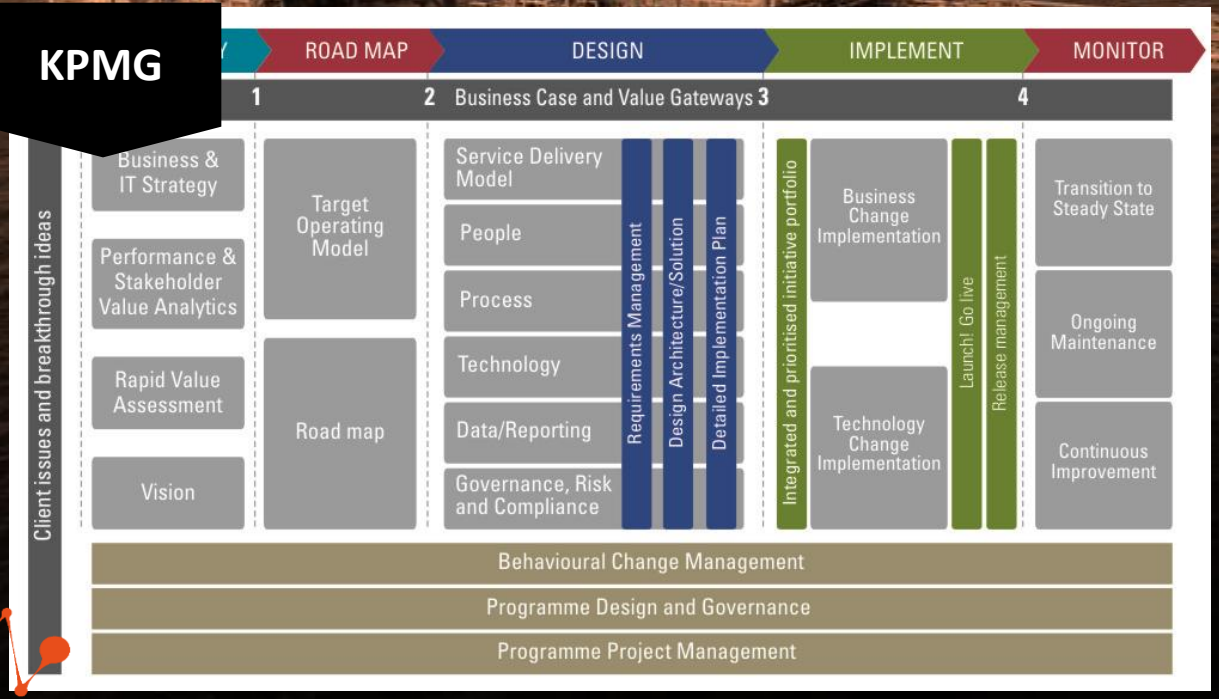


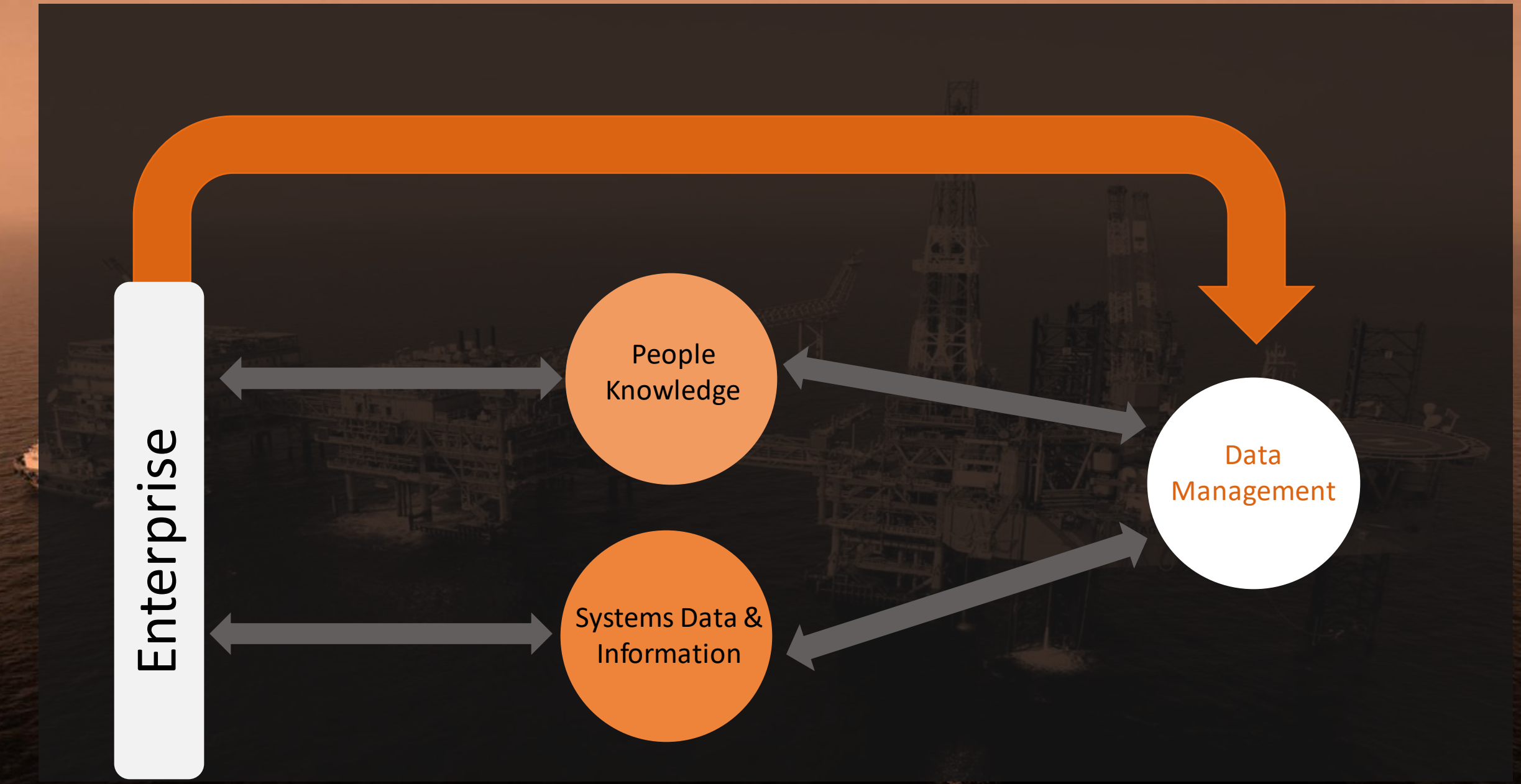
McKinsey&Company

PWC



KPMG




Enterprise
People
Knowledge
Systems Data &
Information
Data
Management



Data Management

- Definitions (Standards, CEO, …)
- People (Domain Experts)
- Software
- Culture

Data Management

- Definitions (Standards, CEO, …)
- People (Domain Experts)
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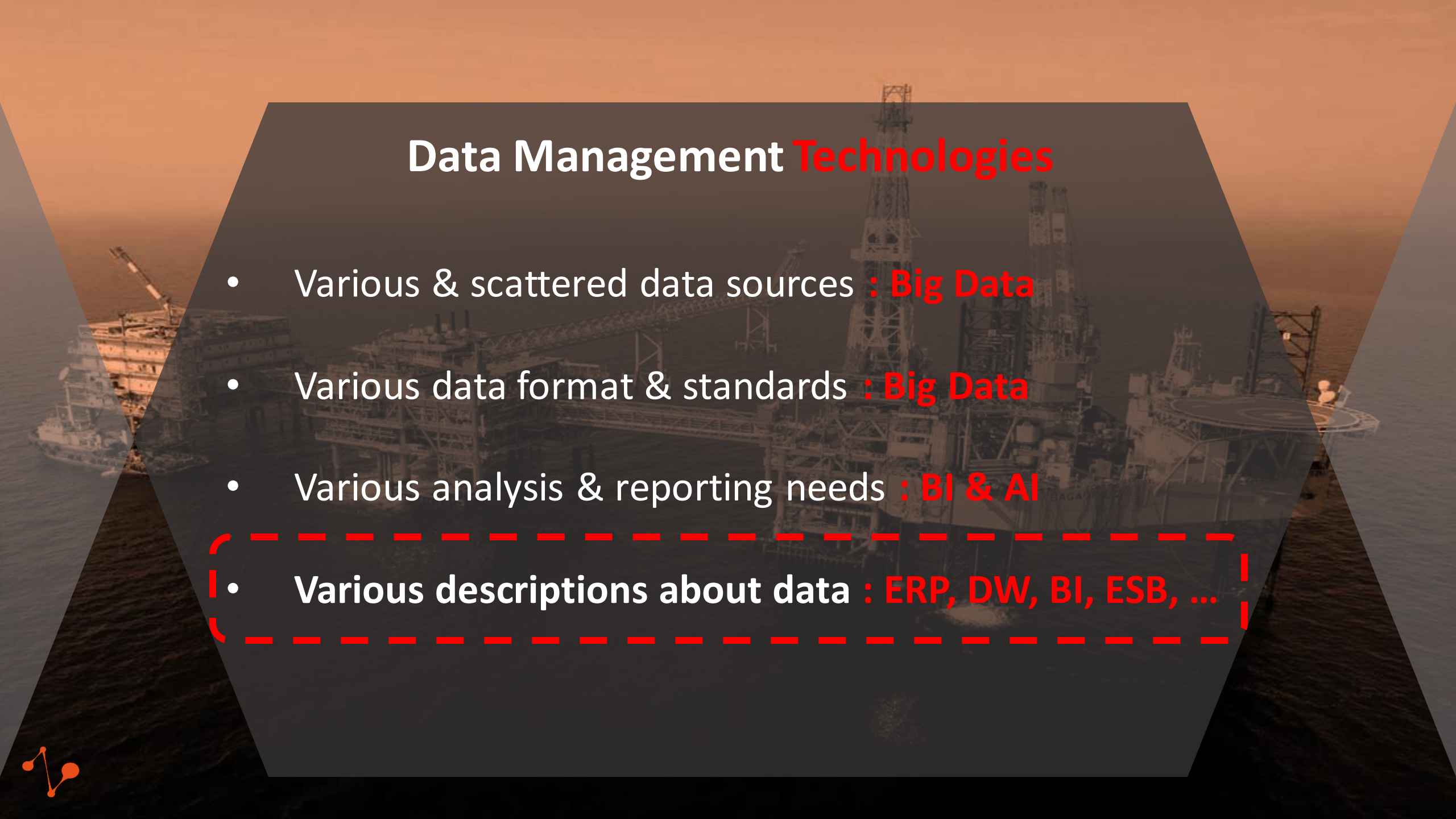


Data Management Software Challenges

- Various & scattered data sources
- Various data format & standards
- Various analysis & reporting needs
- Various descriptions about data

Data Management Technologies

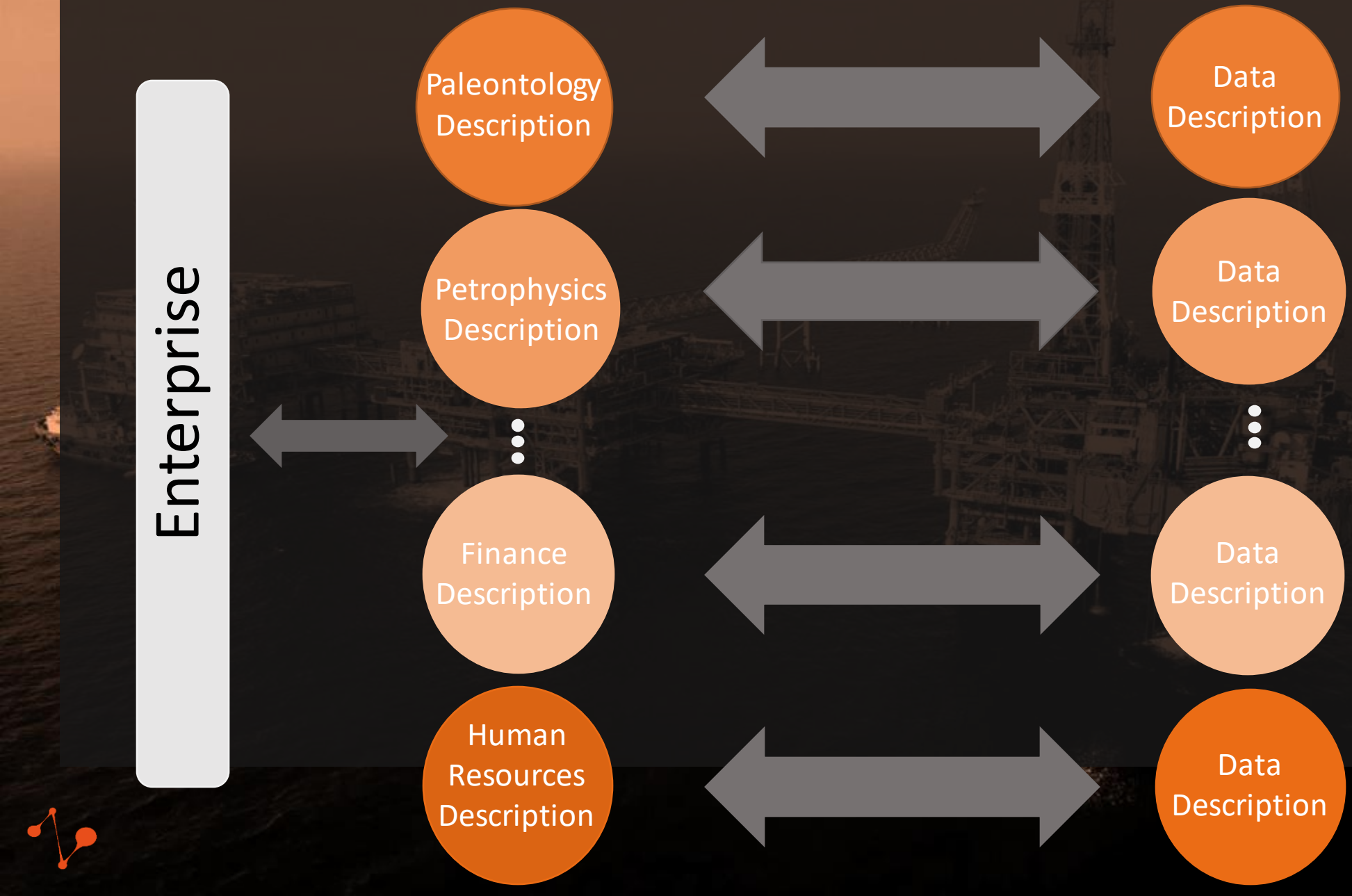
- Various & scattered data sources **: Big Data**
- Various data format & standards **: Big Data**
- Various analysis & reporting needs **: BI & AI**
- Various descriptions about data **: ERP, DW, BI, ESB, …**



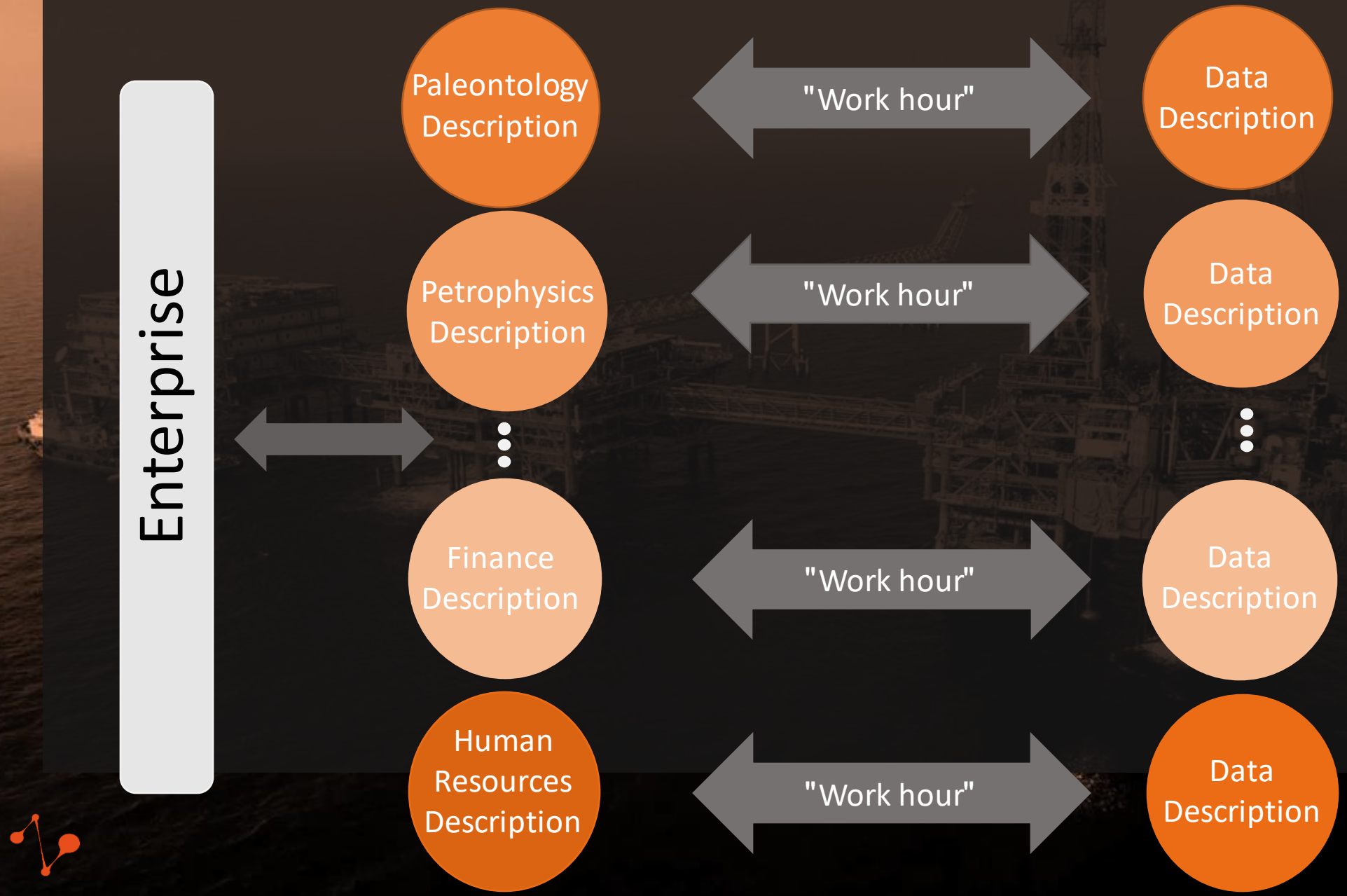
Data Management Technologies

- Various & scattered data sources : **Big Data**
- Various data format & standards : **Big Data**
- Various analysis & reporting needs : **BI & AI**
- **Various descriptions about data** : **ERP, DW, BI, ESB, …**

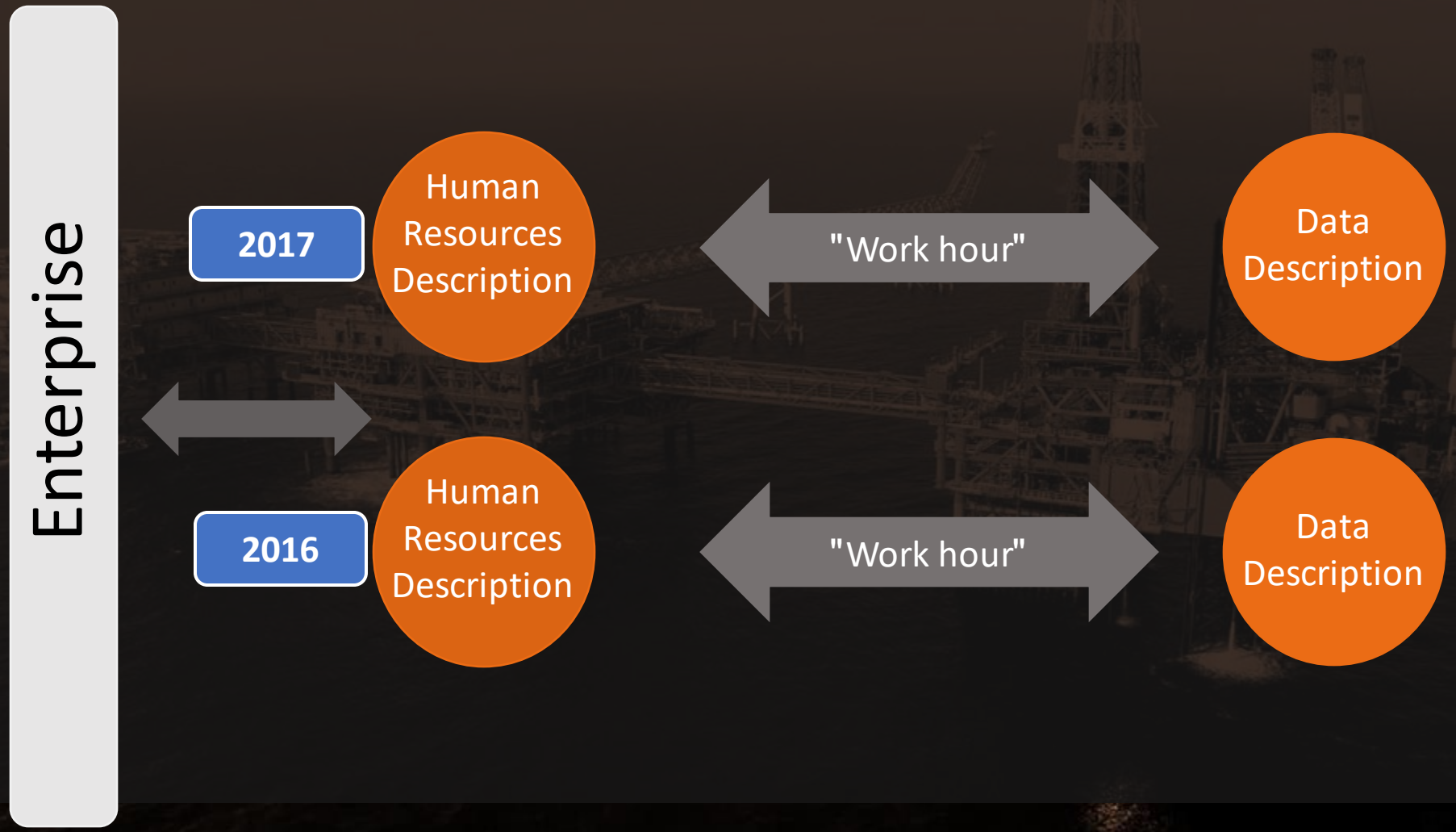
Various descriptions about data



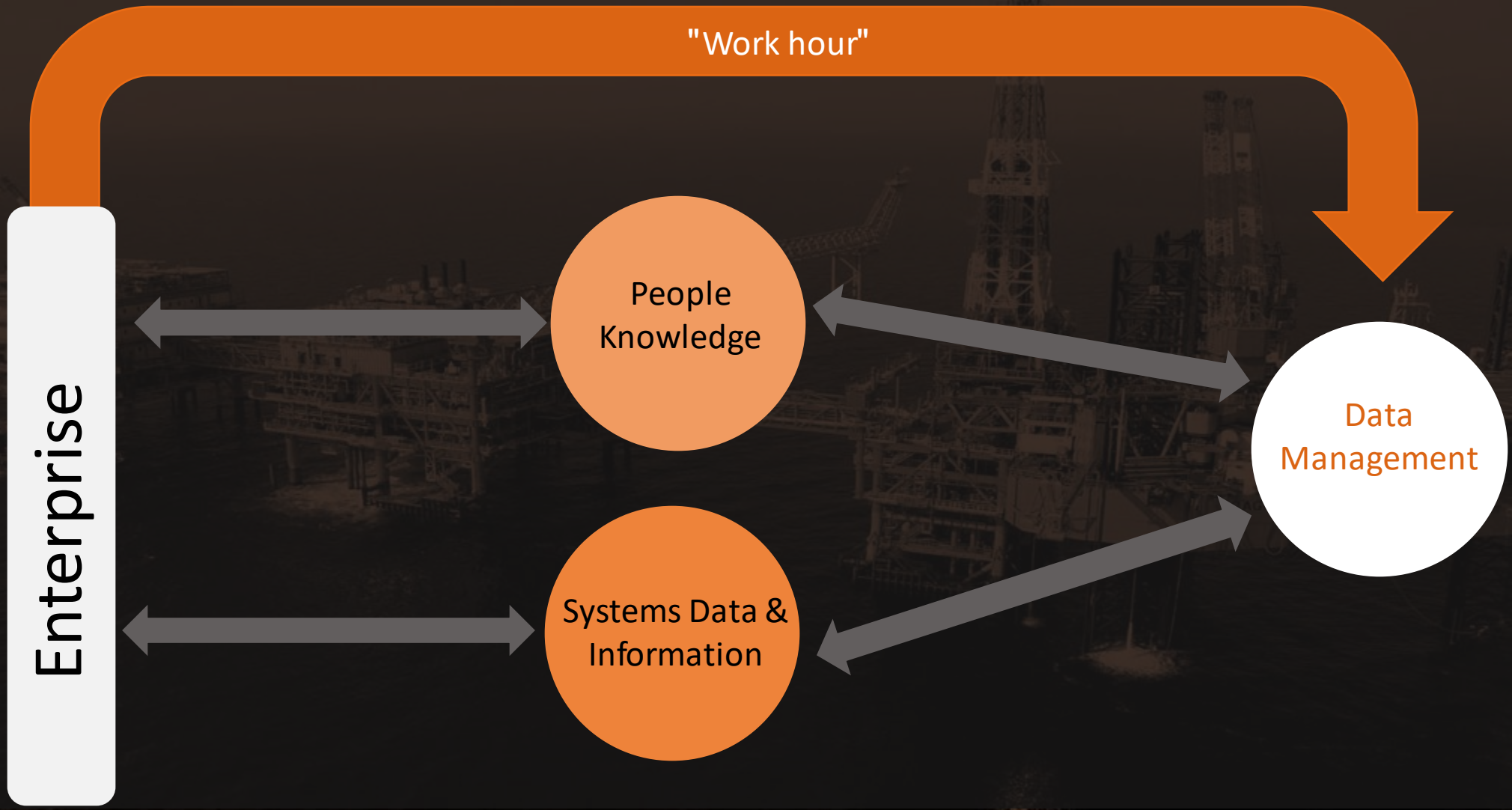
Various descriptions about data different departments



Various descriptions about data in time



Various descriptions about data and fast changes



System	Core Action	Goal	Unstructured	Service Integration	Analysis	Data Integration	Process Integration (Data + Service)
Hadoop (Big Data + AI)	Processing framework	Analysis	✓	⊘	✓	✓	⊘
SAP (ERP)	Standardize	Planning	⊘	⊘	⊘	✓	✓
Oracle (BI + DW)	Dashboards	Analysis	⊘	⊘	✓	✓	⊘
Emule (ESB)	Service Integration	Access	⊘	✓	⊘	⊘	⊘
Openspirit (Process Integration)	Process Integration	Access	⊘	⊘	⊘	⊘	✓



Various descriptions about data leads to failure in other challenges:

- Various & scattered data sources **: ~~Big Data~~**
- Various data format & standards **: ~~Big Data~~**
- Various analysis & reporting needs **: ~~BI & AI~~**

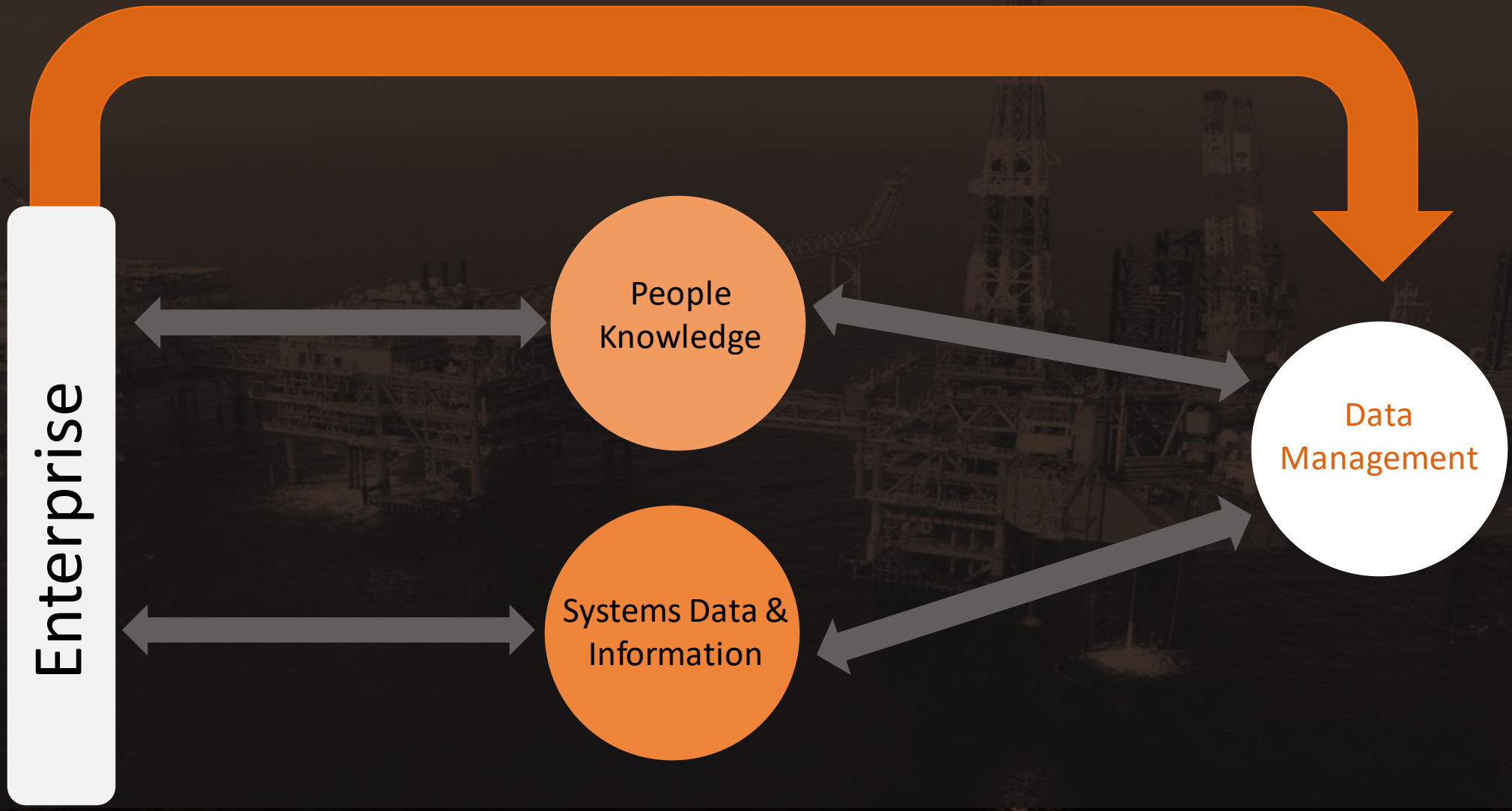


Everybody talks about Big Data but:

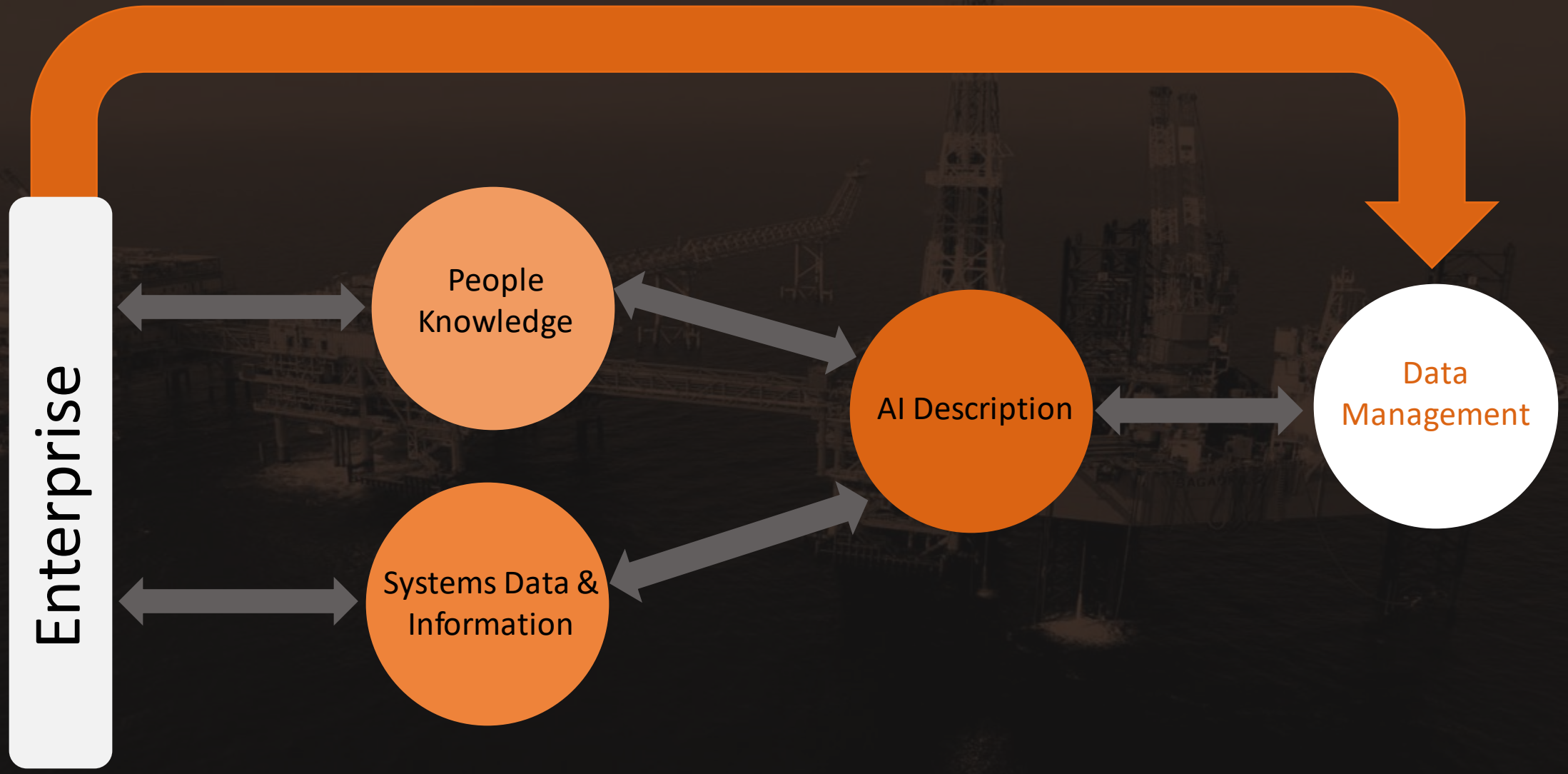
"60% of big data projects will fail to make it into production"

Roxane Edjlali, Gartner

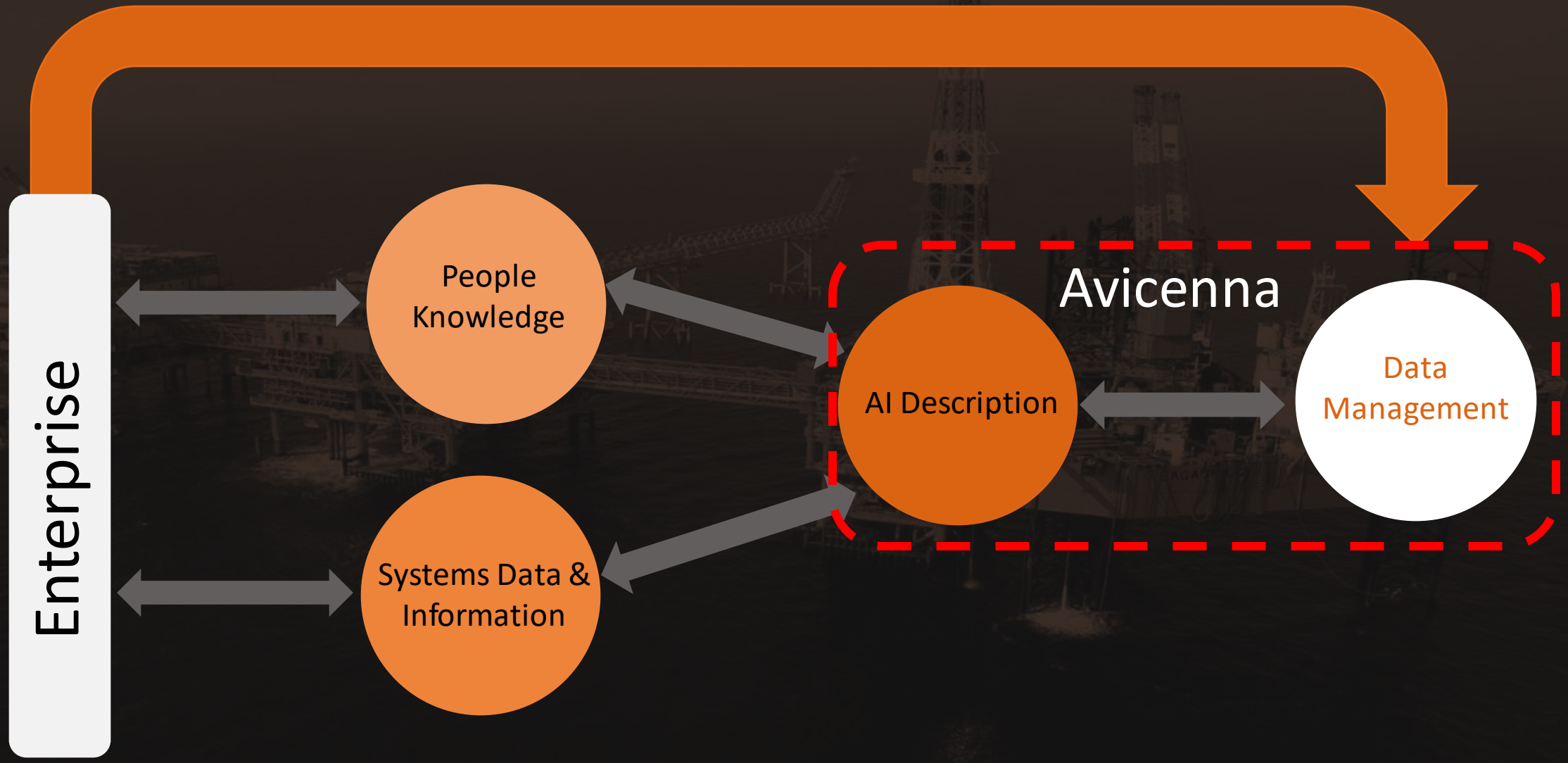
Various descriptions about data



Flexibility in tolerating changes



Flexibility in tolerating changes



System	Core Action	Goal	Unstructured	Service Integration	Analysis	Data Integration	Process Integration (Data + Service)
Avicenna (Big Data + AI)	**Organizing for Access**	**Access**	✓	✓	✓	✓	⊘
Hadoop (Big Data + AI)	Processing framework	Analysis	✓	⊘	✓	✓	⊘
SAP (ERP)	Standardize	Planning	⊘	⊘	⊘	✓	✓
Oracle (BI + DW)	Dashboards	Analysis	⊘	⊘	✓	✓	⊘
Emule (ESB)	Service Integration	Access	⊘	✓	⊘	⊘	⊘
Openspirit (Process Integration)	Process Integration	Access	⊘	⊘	⊘	⊘	✓

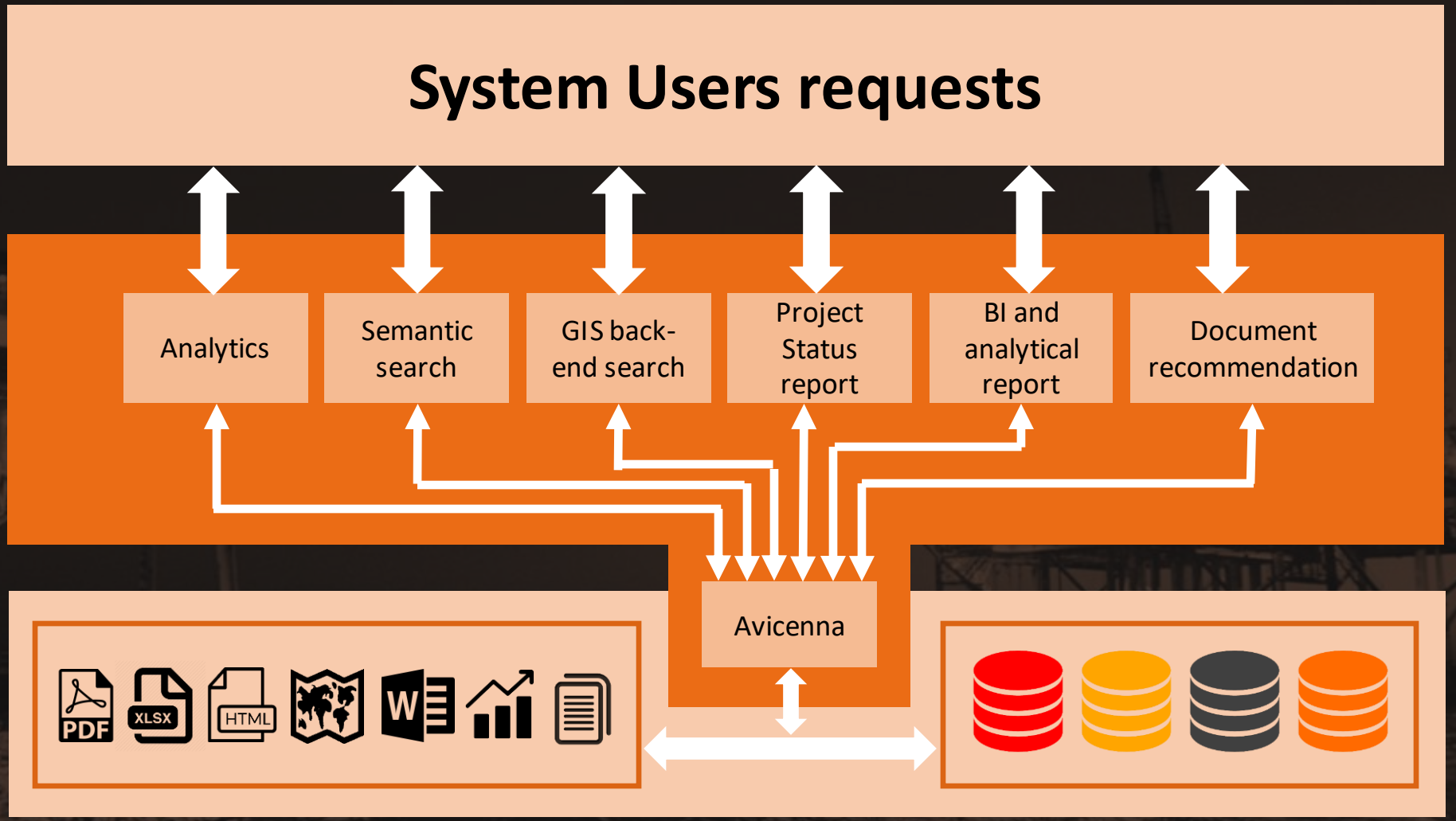
Avicenna Queries

Department System Tag

Examples:

drilling excel project mud cost

drilling eis drill cost


System Users requests
Analytics
Semantic search
GIS back-end search
Project Status report
BI and analytical report
Document recommendation
Avicenna
PDF
XLSX
HTML
W



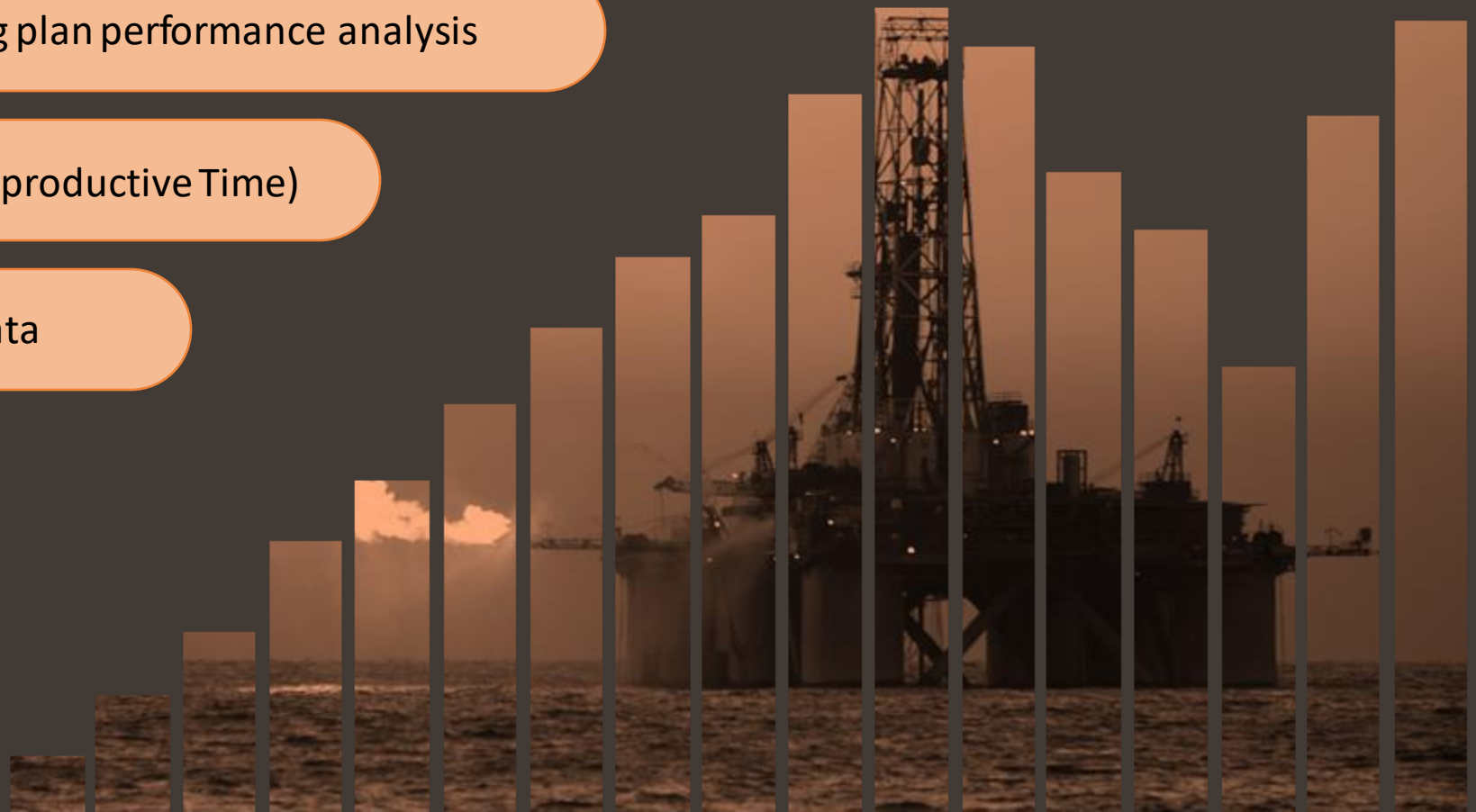
Avicenna Applications

- Data Management
- Data Integration
- Data Monitoring
- Accessible Data for Analytics

System	Time to deploy	Cost of Implement	Chronical reports	Access to Data	Maintenance & change costs	Required Business Meeting
Avicenna (Big Data + AI)	Low	Low	YES	Fast	Low	Low
Hadoop (Big Data + AI)	**Low**	Low	Implementable	Moderate	Low	Low
SAP (ERP)	High	High	NO	Slow	High	High
Oracle (BI + DW)	Moderate	Moderate	NO	Moderate	Moderate	Low
Emule (ESB)	Moderate	Moderate	NO	Slow	Moderate	High
Openspirit (Process Integration)	Low	Moderate	NO	**Slow**	High	Moderate

Drilling Analytical Application

- Drilling plan performance analysis
- Minimizing NPT (Non-productive Time)
- Uncover hidden patterns in data



Avicenna is Using LeggoApp Technology

Presidential Deputy for Science and Technology : Science-Based Company Certificate

IET 2015: First Place

Patent

Patent US9083725: Actor system and method for analytics and processing of big data

Certificate

Patent

Patent US9338226 : System and method providing hierarchical cache for big data applications

Reward

Paper

Paper: Advertisement Recognition Using Mode Voting Acoustic Fingerprint

Focus: Transform the organization, no interruption



Retail	CRM	Database	Data Deduplication
Bank	Credit Risk Management	Database	Prediction
Power & Energy	Condition Monitoring	File Server	Prediction
Public Relation	Media Monitoring	Web	Sentiment Analysis
Media	Advertise Monitoring	Database	Voice Recognition
Aviation	Departure Control System	File Server	Search

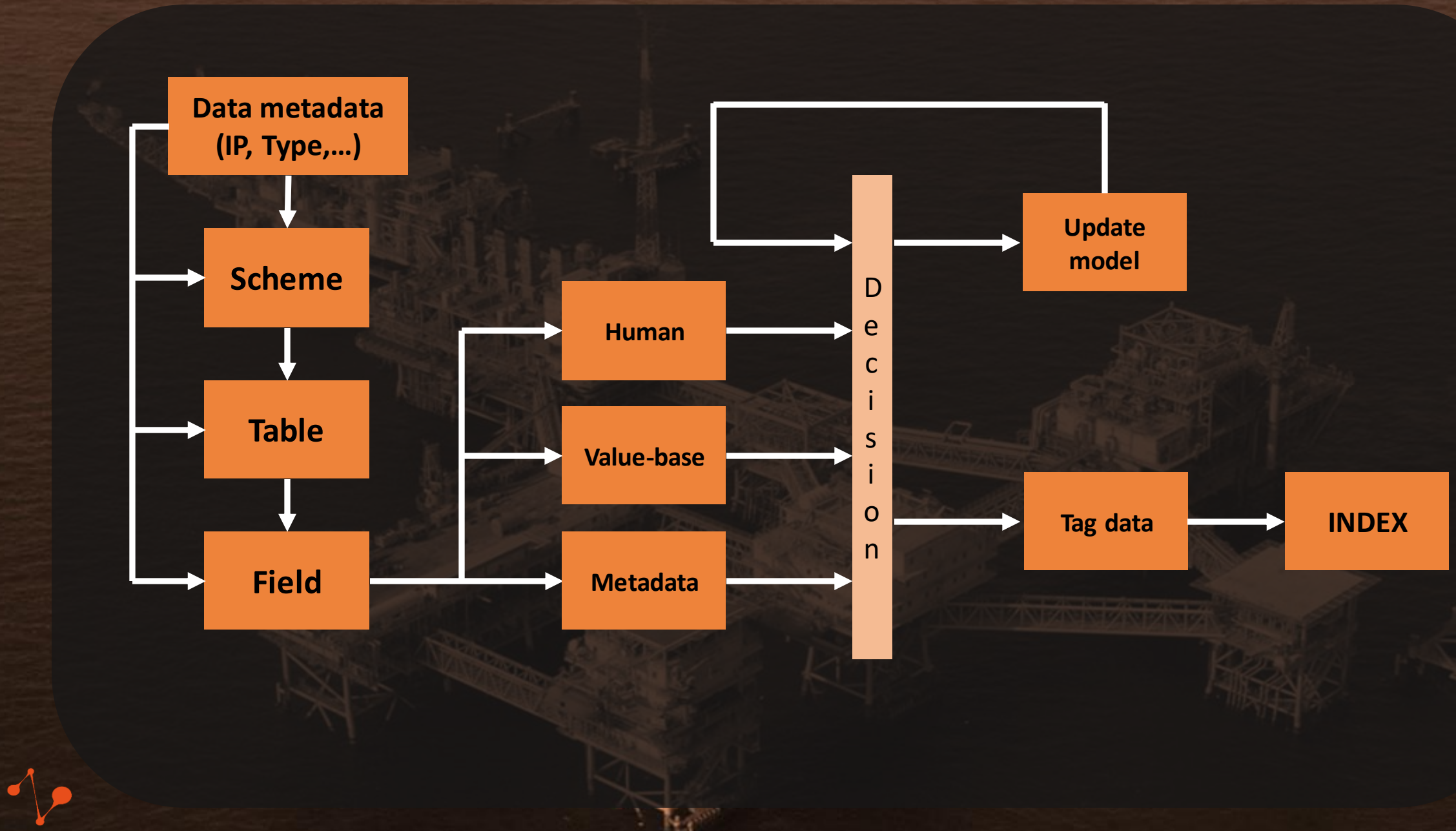


Success Stories

Miras Partners



کاریزما مشاور	**Charisma Consultant Company**
Easy Lab	Energy and Environment Aware Systems (EASY) Laboratory
Algorithms Lab	CE Algorithms **Laboratory**
دانشگاه زنجان	**Multi Agent Systems Laboratory**
HU University of Hertfordshire **IEPA**	**Information Engineering and Processing Architectures (IEPA) Laboratory**


Data metadata
(IP, Type,…)
Scheme
Table
Field
Human
Value-base
Metadata
Decision
Update
model
Tag data
INDEX