



**ASSET INTEGRITY MANAGEMENT
BLOCK 3/05
MAINTECH CONFERENCE 2022**

05/04/2021





AGENDA



- **BLOCK 3 ASSET INTRODUCTION**
- **ASSET INTEGRITY MANAGEMENT SYSTEM**
- **CORROSION & INSPECTION MANAGEMENT SYSTEM**
 - **BEFORE**
 - **NOW**
 - **THEN**



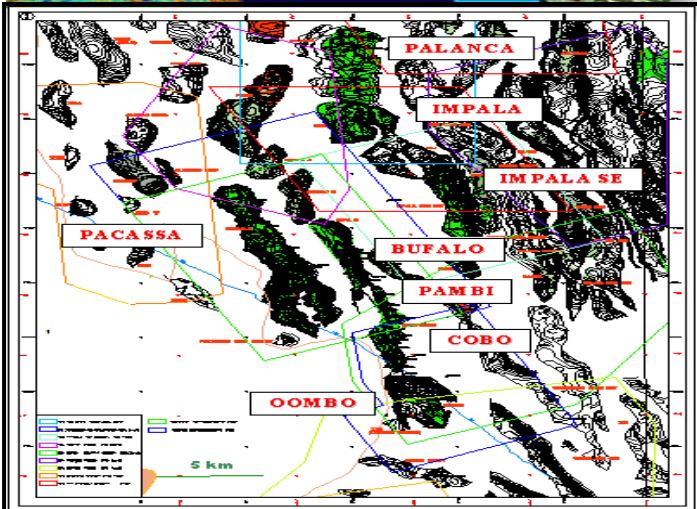
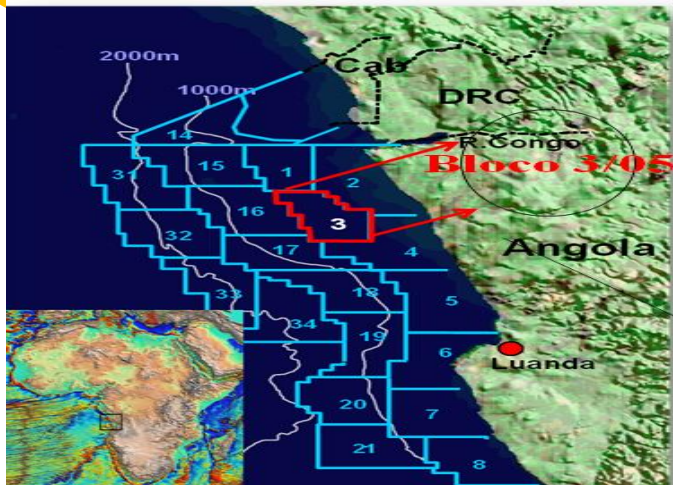
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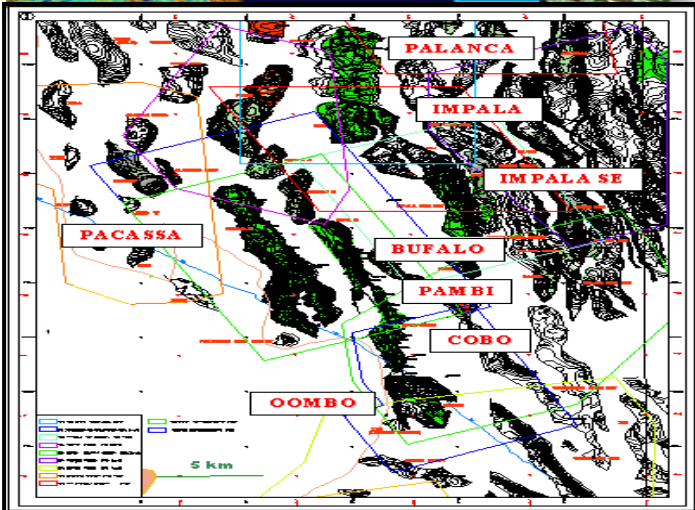
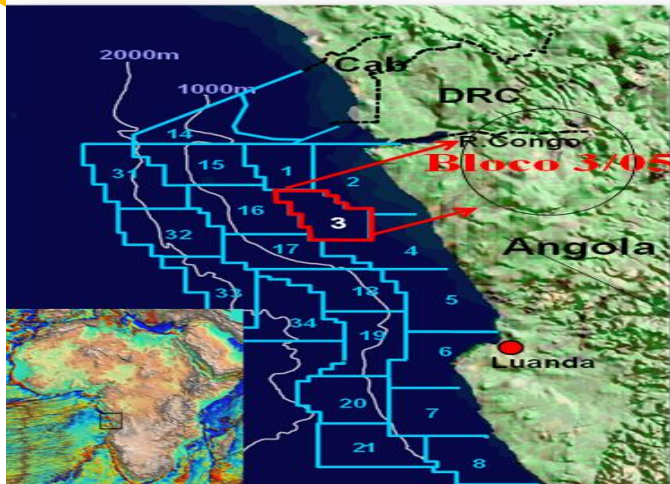
BRIEF INTRODUCTION



- ❑ Development phase: 1983 – 1997;
- ❑ Years of production: 37 years (1985 – 2022);
- ❑ First Oil: 1985;
- ❑ Production Fields: Pacassa, Palanca, Impala, Bufalo, IPSE, Pambi, Cobo e Oombo.
- ❑ Reservoir composition: Carbonates and Sandstone ;



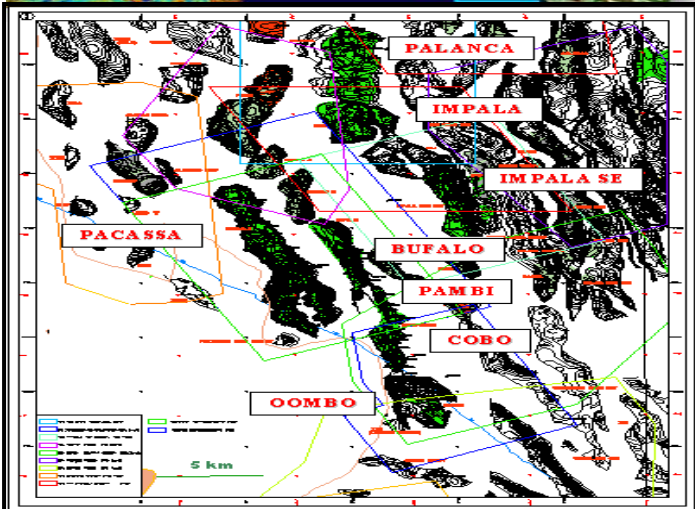
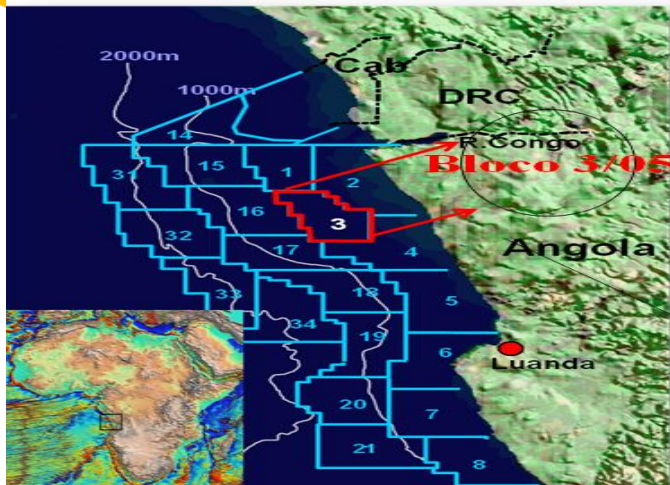
BRIEF INTRODUCTION



- ❑ STOIIP = 3 047 MMbbls
- ❑ Cumulative Production until February 2022 = 1351 MMbbls, RF = 44%;
- ❑ 11 Production Platforms, 3 Processing Platforms and 1 FSO for production storage and export;
- ❑ Water depth: ~ 100 metros;
- ❑ Water injection system to maintain reservoir pressure;

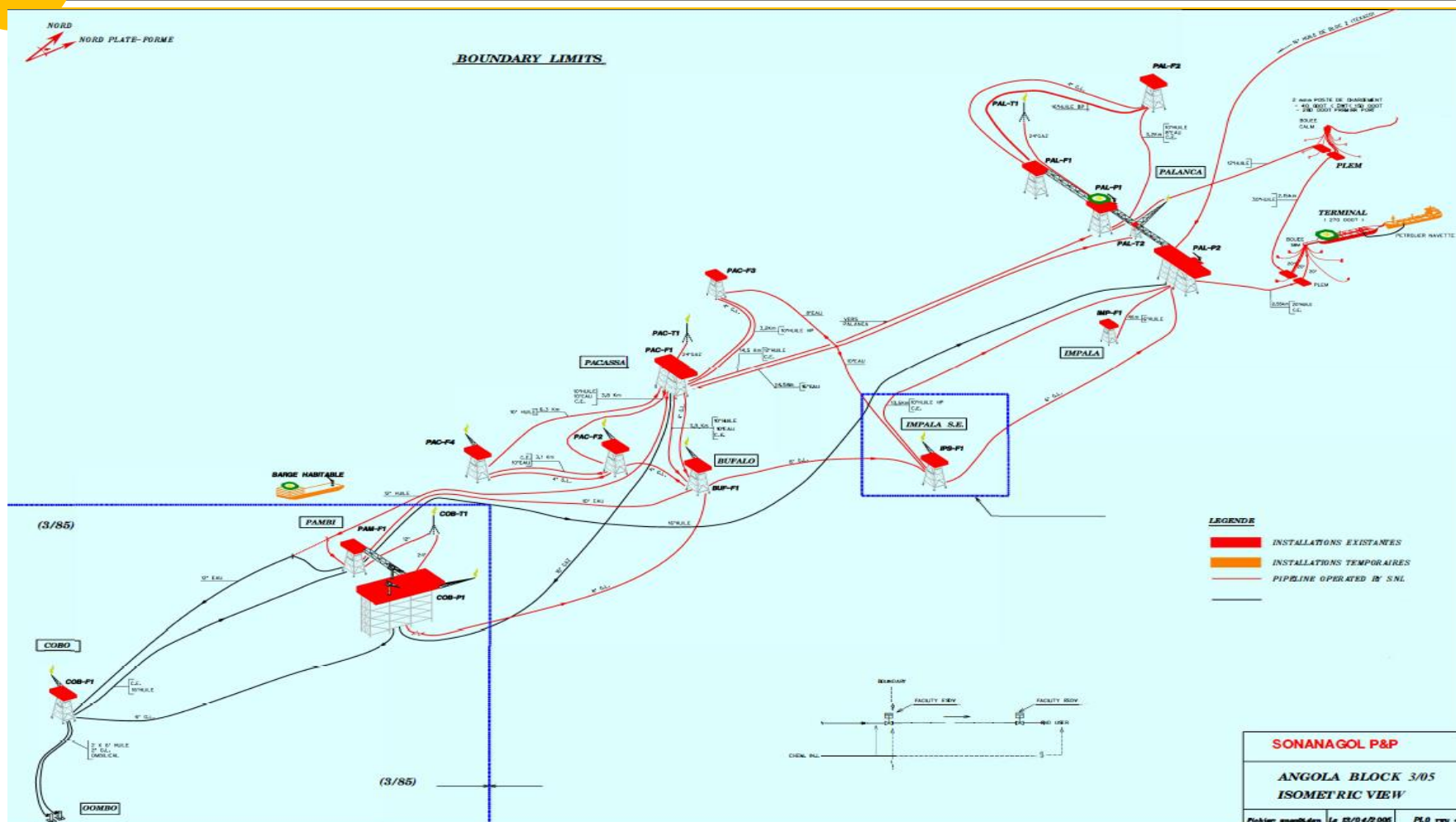


BRIEF INTRODUCTION



- ❑ Gas lift compression for production optimization;
- ❑ Decline rate: ~12% / Year;
- ❑ Production 2021: 6 234 000 barris (17034).
- ❑ Production Forecast 2022 : 7 900 000 barrils

BRIEF INTRODUCTION





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BEFORE

LOOKING AT THE PAST ... BACK IN 2015

WHY IT STARTED...

- Roles and responsibilities not well defined
- Inspection/maintenance routines are not uniquely described / elaborated.
- Learning organization/continuous improvement not optimal
- Inspection/maintenance programs are not optimized, unnecessary inspection were performed resulting in high OPEX.
- Risk Assessment tools are not available
- Performance monitoring dashboards / online integrity status are not available



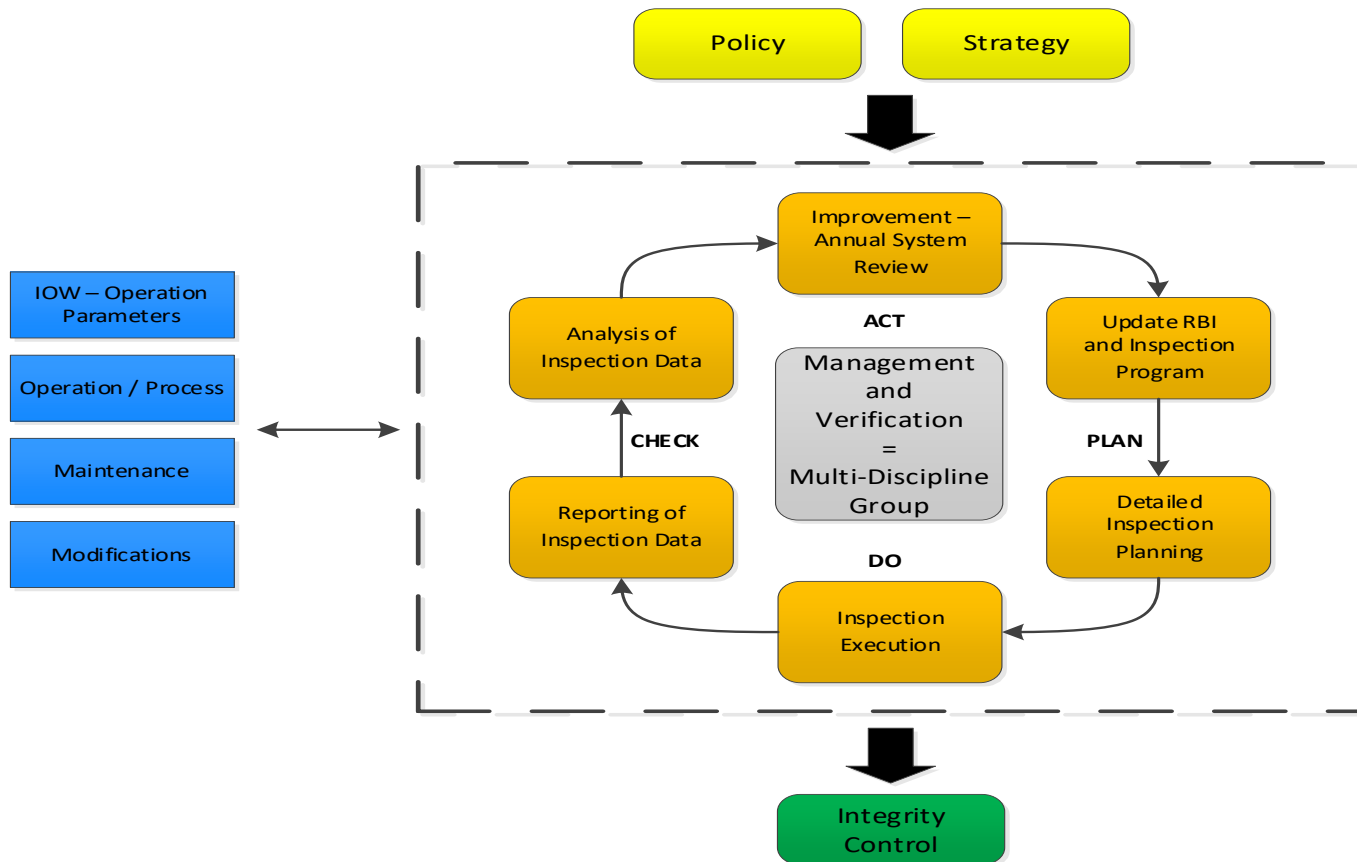
BEFORE

CHANGE IS HARD

- Human Beings resist change
- Change is doomed to fail
- 70% of Changes of failing
- Communication is key
- Personnel Involvement/ Committed
- Continuous Improvement

BEFORE

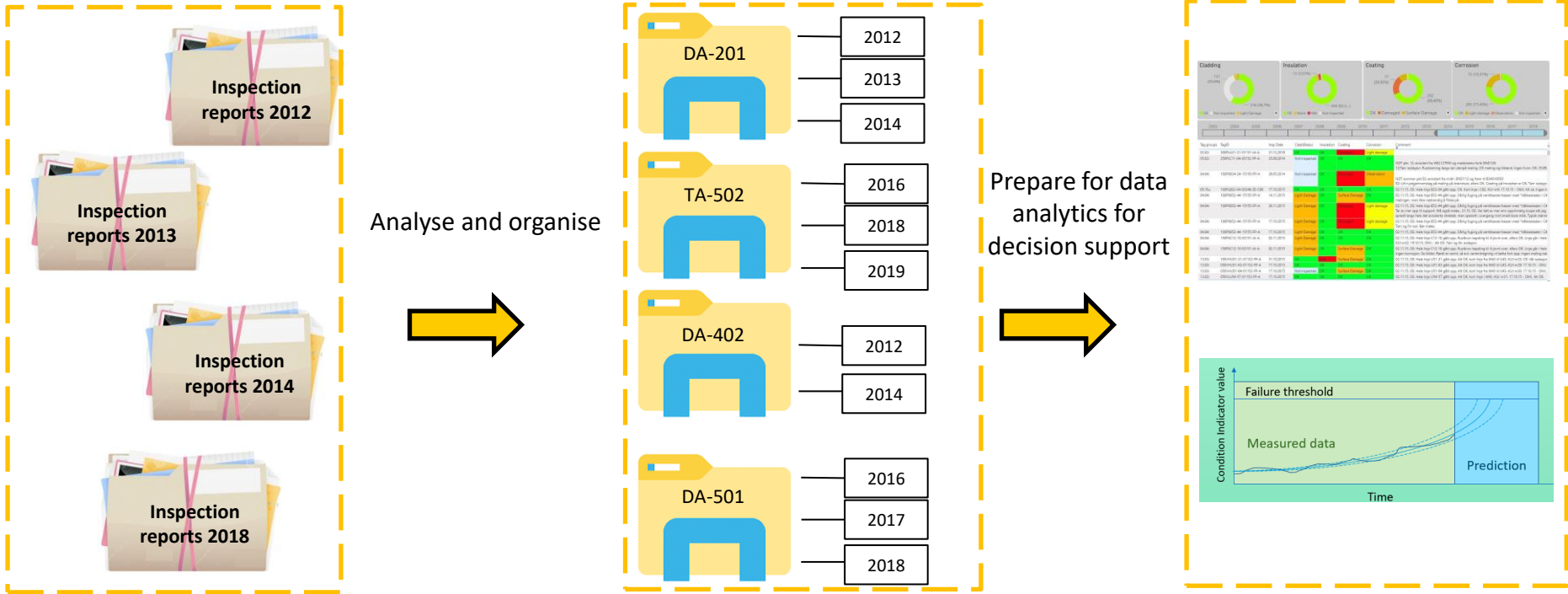
NO CORROSION AND INSPECTION MANAGEMENT SYSTEM





TAKING CONTROL OF OVERALL INTEGRITY

ORGANIZING AND STRUCTURING INSPECTION HISTORY INTO A DATABASE





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NOW

CORROSION AND INSPECTION MANAGEMENT SYSTEM

RBI TOPSIDE PRESSURE SYSTEMS

- 2021 SOW
- Anomally Managemt
 - Fabrique Maintenance
 - Permanent Repar/ Replacement
 - Priority
- 2022 SOW

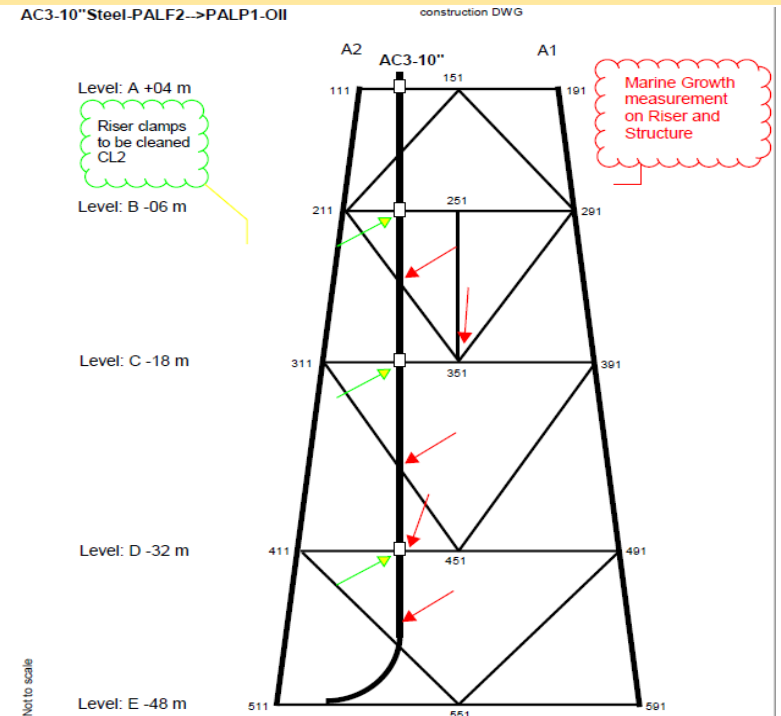


NOW

CORROSION AND INSPECTION MANAGEMENT SYSTEM

RBI SUBSEA/SURF/UNDER WATER STRUCTURES

- 2021/2022 SOW
- Anomally Managemt
 - Fabrique Maintenance
 - Permanent Repar/ Replacement
 - Priority
- 2022 REPAIR SOW





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LOOK AHEAD

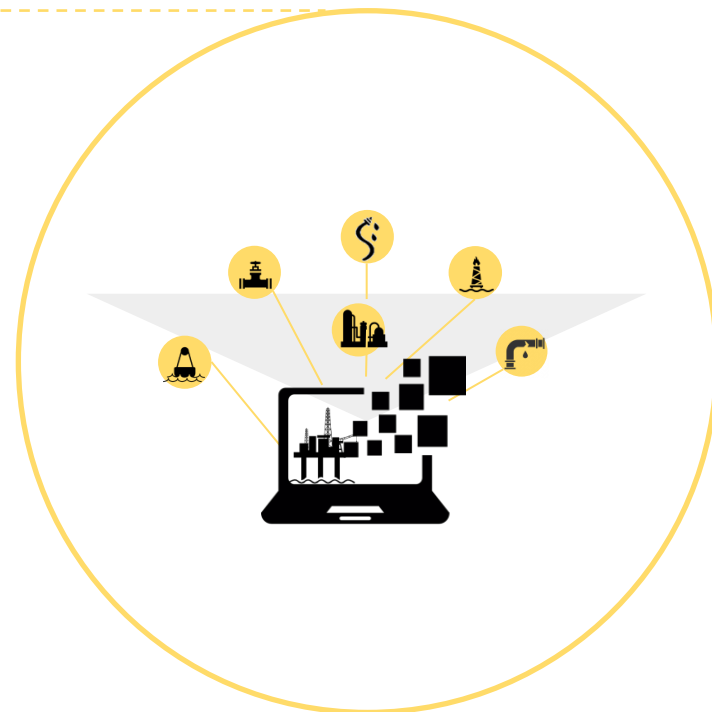
SAP IMPLEMENTATION

■ **TOPSIDE**

- Piping
- Pressure Vessels
- Structures

■ **SUBSEA**

- SURF
- Pipelines
- Underwater Structures
- Subsea Structures.

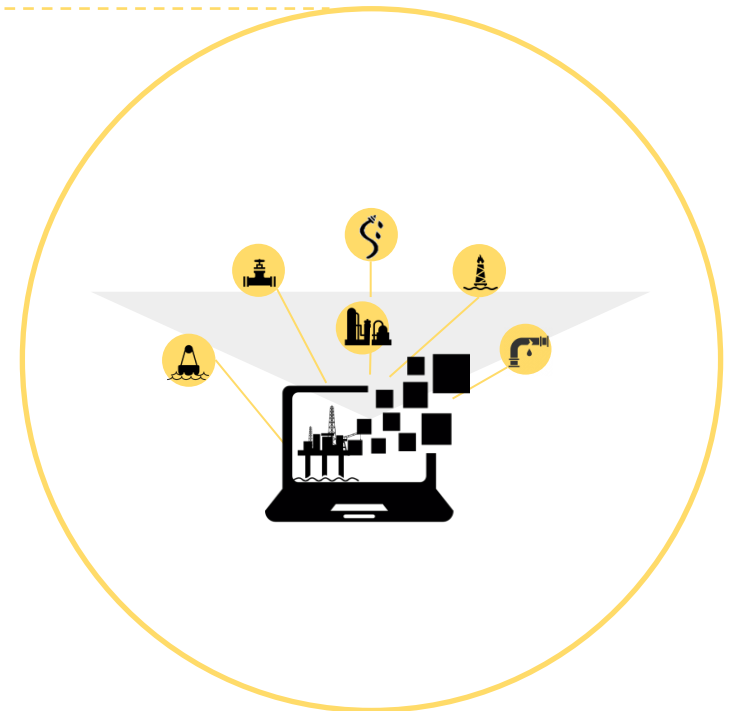




THEN

LOOK AHEAD

- **IOW**
 - Sampling for H₂S, CO₂, pH, O₂, bacteria, acid,
- **Facilities Revamp Project**
 - Baseline survey
 - SOW
- **RBM**
- **AIM Portal**
- **Analise of Trends**



THANK YOU / TAKK

