



# Digital Transformation within the Oil & Gas Industry

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#### Introduction



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#### Introduction

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## **Digital Transformation**

#### The Business Challenges Remain The Same



#### **Maximise Performance**



**Lower Costs** 



**Extend the Life of Assets** 

Consistent, Reliable, Organised, Understandable & Up to Date Data to those that need it, when they need it

...and we at osisoft. do this better than anyone!

#### Digital Transformation...nothing new?

- Master Data Management
- Data & Workflow Integrations
- Analytics & Modelling
- Automation



**Digital Oilfield** 

**Functional Transformations** 

**Real Time Plant** Data to I.T.

SCADA Sensors

PLC DCS Databases

**Real Time Plant Data** to the Enterprise





PI Coresight

**Business Analytics** 



SAP HANA

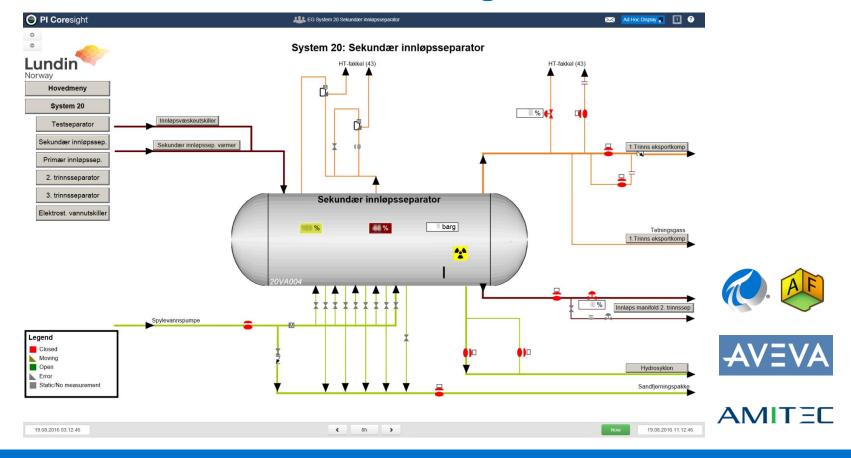


Digitalisation of **Assets & Operations** 

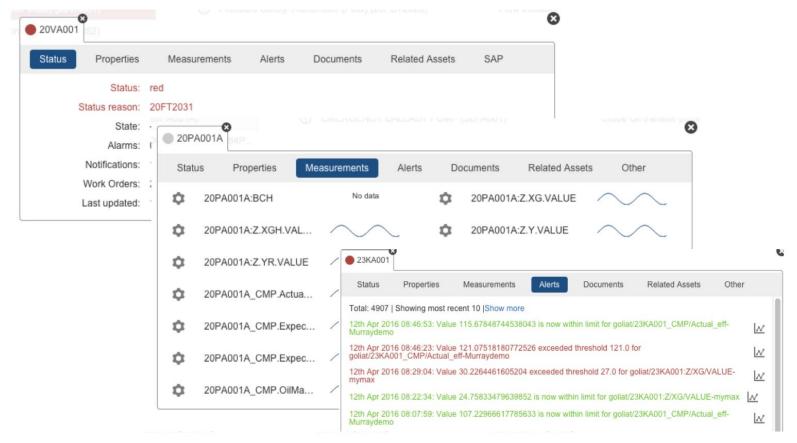


# Data & Workflow Integrations Analytics & Modelling Automation

### **Digitalisation – Data & Workflow Integrations**



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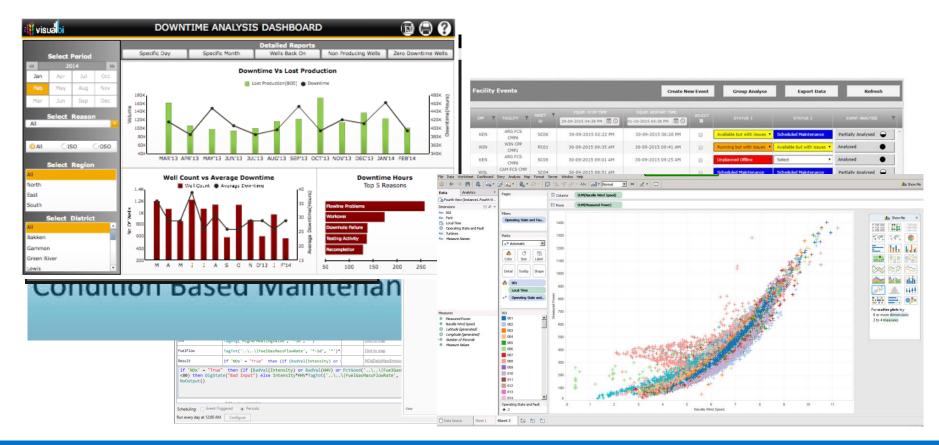






# Data & Workflow Integrations Analytics & Modelling Automation

### **Digitalisation - Analytics & Modelling**



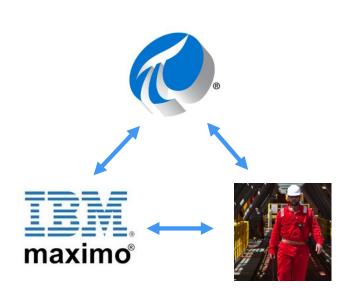
# Data & Workflow Integrations Analytics & Modelling Automation

#### **Digitalisation - Automation**





Recommendations & Response



**Workflows** 





Robotics? Assets?



## **Todays Presentations**

#### **Digital Transformation in a Downstream Business**

Mr Anthony Berttilla Rozario
MES IT Senior Specialist
Releasing and Realizing the Potential
of the PI System



## Real Time Analytics – Process & Maintenance Optimisation

Mr Mr Brendan Bell & Ionut Buse
Lead Technical Reliability Consultants
Intelligent Maintenance and Operations



#### Implementing a Real Time Digital Oilfield

Mr Muneer Al Balushi

**Automation & RTO Lead** 

'Smart Daleel' Digital Transformation



## Real Time Analytics & Maintenance Management Integrations

Mrs Reka Erdei & Mr Gábor Mucsina Process Information Experts Supporting Operational Availability with the PI System and SAP PM



#### **MOL Group Awards**



## Petroleum Economist Award 2016 for Best Downstream Company of the Year

The Petroleum Economist Awards aim to celebrate the people, companies and projects which epitomize the best of the energy industry and to identify and reward examples of innovation and excellence.

In 2015 MOL Group's Downstream delivered its strongest ever performance with a Clean CCS EBITDA of USD 1.65bn alongside with strong free cash flow generation of more than USD 1bn.

The New Downstream Program (2012-2014), which targeted USD 500mn EBITDA was successfully complemented, MOL Group decided to react to further boost its profitability and competitiveness by launching the Next Downstream Program 2015-2017 (NxDSP).

The significant incremental improvement of the NxDSP may realize a 3 USD/bbl profitability boost by 2017.



#### FieldComm Group's Plant of the Year

FieldComm Group's Plant of the Year award is given annually to recognize the people, companies and plant sites around the world using the advanced capabilities of FOUNDATION Fieldbus, HART Communication and/or FDI technologies,IOT,IIOT,ML in real-time applications to improve operations, lower costs and increase availability.

This is a supplier and industry independent awards program.

To qualify, nominees must be able to supply documented examples of realtime integration of device diagnostics and multi-variable implementations with control, safety and plant information / asset management systems that have delivered significant benefits to the operation.



### **Deepwater FPSO Operations**

Mr Mark Whitehouse Project Manager The PI System for a Deepwater Oil & Gas Field



## How Real Time Data & Analytics is Transforming Shell Operations

Mr John de Koning
Smart Solutions Technology Manager
Journey from Reactive to Predictive
Operations



#### Oil & Gas PI User Groups

Join to discuss best practices, white papers, share news, and exchange ideas.

#### Objectives:

- Identify Best Practices
- Share knowledge and ideas across our industry
- Foster communication with OSIsoft regarding Industry needs

This is **NOT** an avenue for sales presentations or marketing



Want to opt in?

https://pisquare.osisoft.com/groups/

Upstream, Midstream, Downstream



Any Questions?

Visit the PI Square Booth

Jarita Sirois jsirois@osisoft.com



#### **Contact Information**

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#### Questions

Please wait for the microphone before asking your questions

State your name & company

#### Please remember to...

Complete the Online Survey for this session



http://ddut.ch/osisoft

감사합니다

**Danke** 谢谢

Merci

Gracias

## Thank You

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Спасибо

Obrigado

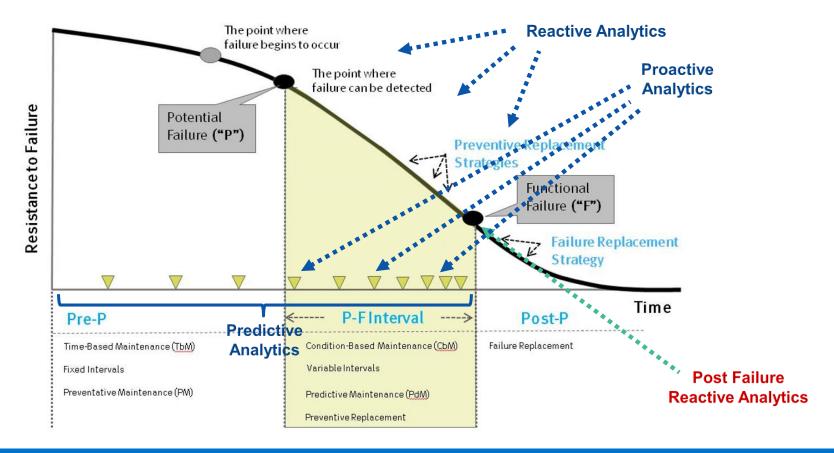


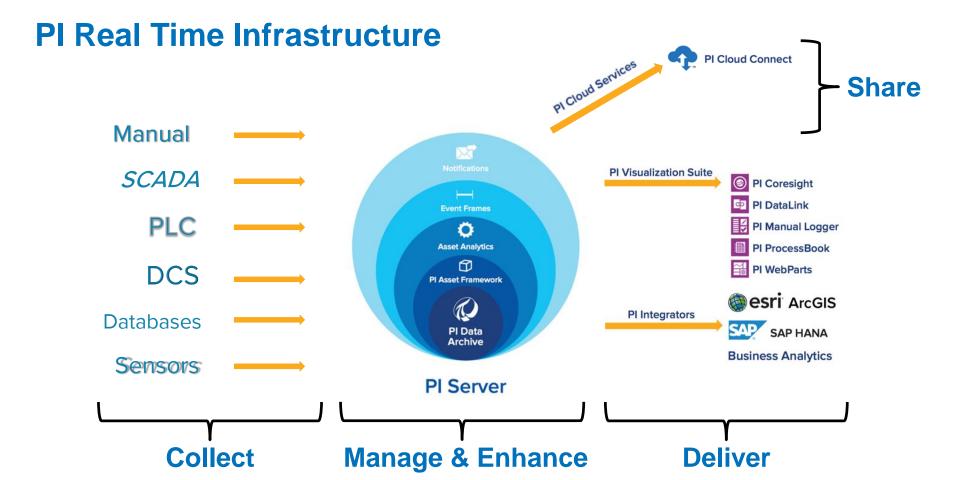




## Reference Slides

#### **Condition-Based Maintenance**





#### **OSIsoft Product List**

#### **Connections**

PI COM Connector

PI Connectors (some examples below)

PI Connector for Cygnet

PI Connector for IPMI

PI Connector for EtherNet/IP

PI Connector for Kongsberg

#### PI Manual Logger (PI ML)

PI Interfaces (some examples below)

PI Interface OPC DA

PI Interface for Modbus Ethernet

PI Interface for Fast Fourier Transform (FFT) Data

PI Interface for Universal File and Stream

PI IT Monitor

Pl to Pl Interface

...and many more

#### **PI Integrators**

PI Integrator for Esri ArcGIS

#### Server

#### PI Server

**Event Frames** 

**Notifications** 

**Asset Calculations** 

Asset Framework (AF) Server

Data Archive Server

PI System Mgmt. Tools (PI SMT)

**PI Tag Configurator** 

PI Collective

PI OPC DA/HDA Server

PI AutoPointSync (PI APS)

PI Batch

**PI Cloud Connect** 

#### **Tools**

PI DataLink

PI Coresight

PI ProcessBook

PI WebParts

**PI Visualization Suite** (All above products are included)

PI DataLink for SharePoint

PI Profile View

PI Compliance Reporting

PI SQC

PI Profile View

PI BatchView

PI ActiveView

- I Active view

PI AlarmView

#### **PI Data Access**

PI ODBC

PI OLEDB Enterprise

PI OLEDB Provider

PI JDBC Driver

PI Web Services

