





# Journey from reactive to predictive

Presented by **John de Koning Technology Manager, Foundation Services** 



#### **DEFINITIONS AND CAUTIONARY NOTE**

Reserves: Our use of the term "reserves" in this presentation means SEC proved oil and gas reserves.

Resources: Our use of the term "resources" in this presentation includes quantities of oil and gas not yet classified as SEC proved oil and gas reserves. Resources are consistent with the Society of Petroleum Engineers 2P and 2C definitions.

Organic: Our use of the term Organic includes SEC proved oil and gas reserves excluding changes resulting from acquisitions, divestments and year-average pricing impact.

Resources plays: Our use of the term 'resources plays' refers to tight, shale and coal bed methane oil and gas acreage.

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate entities. In this presentation "Shell", "Shell group" and "Royal Dutch Shell" are sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words "we", "us" and "our" are also used to refer to subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies. "Subsidiaries", "Shell subsidiaries" and "Shell companies" as used in this presentation refer to companies in which Royal Dutch Shell either directly or indirectly has control. Companies over which Shell has joint control are generally referred to as "joint ventures" and companies over which Shell has significant influence but neither control nor joint control are referred to as "associates". The term "Shell interest" is used for convenience to indicate the direct and/or indirect ownership interest held by Shell in a venture, partnership or company, after exclusion of all third-party interest.

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#### **COMPANY PROFILE**

- Shell is an innovation-driven global group of energy and petrochemical companies
- We are active in more than 70 countries
- Worldwide, we employ 94,000 full-time employees
- Our fuel retail network has around 43,000 service stations
- In 2014 we produced 3.2 million barrels of oil equivalent each day
- In 2014, we generated earnings\* of \$19 billion
- We had \$24 billion of net capital investment in 2014
- We spent \$1.2 billion on R&D
- Royal Dutch Shell plc is a UK company, with its headquarters in the Netherlands
- We are listed on the stock exchanges of Amsterdam, London and New York

\*On a current cost of supplies basis attributable to Royal Dutch Shell plc shareholders

Source: 2014 Annual Report and Form 20-F



### **Business Context – Reactive responses**



Where can I find my Enterprise data?



Will I meet my global targets?

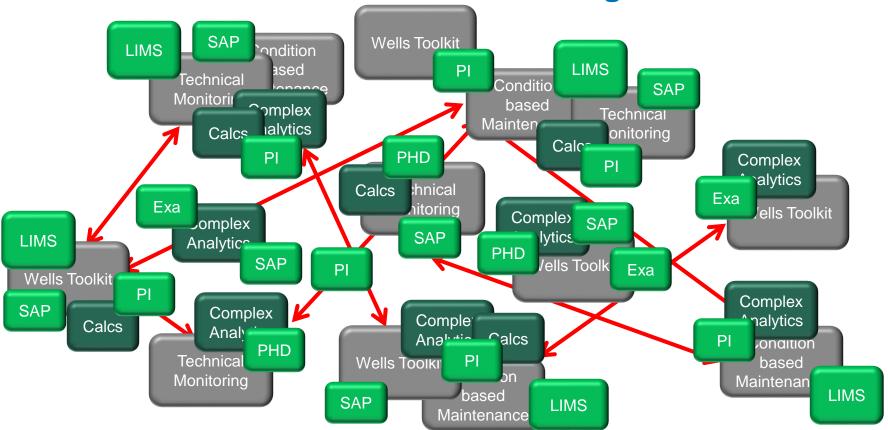


How is my equipment running compared to other sites?



How can I prevent downtime?

# **Evolution in Real-time Data Processing**



# Strategic response

**DATA** as an ASSET

**One-Stop-Shop for Data** 

**SMART SOLUTIONS** 



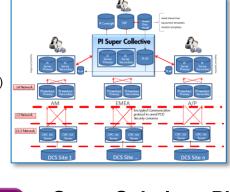
**BUILD ONCE - DEPLOY GLOBAL** 



#### **Solution Architecture**

#### **Super Collective concept**

- Standardization on one product
- Standardize on one way of working
- Aggregate data on LoB level (PI System Super Collectives)
- Enterprise templates for equipment definitions
- Enterprise templates for analytics
- Simplify foot print and reduce TCO



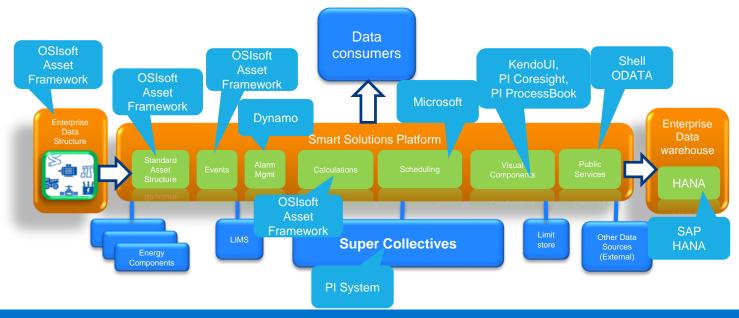


#### **Smart Solutions Platform**

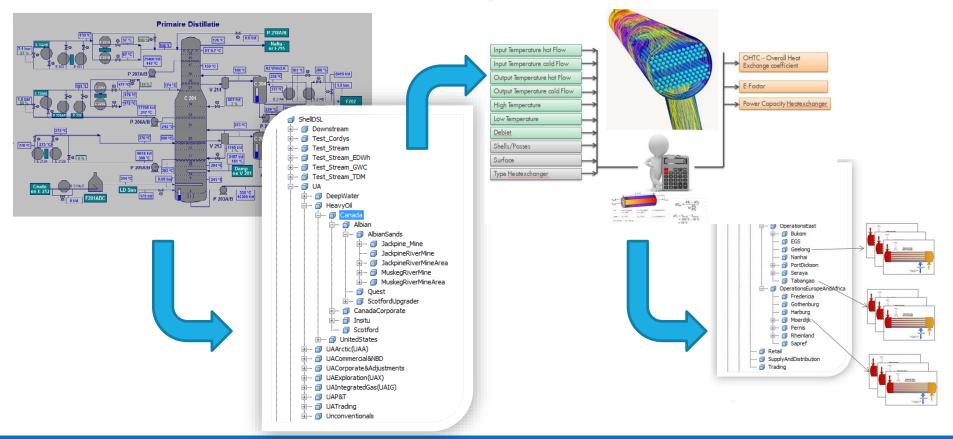
- One-Stop-Shop for all production & manufacturing data
- One Enterprise data model
- · ODATA access to all data
- Reusable capabilities for data processing
- Integration with complex analytics
- Simplified delivery of use cases

# Strategic approach

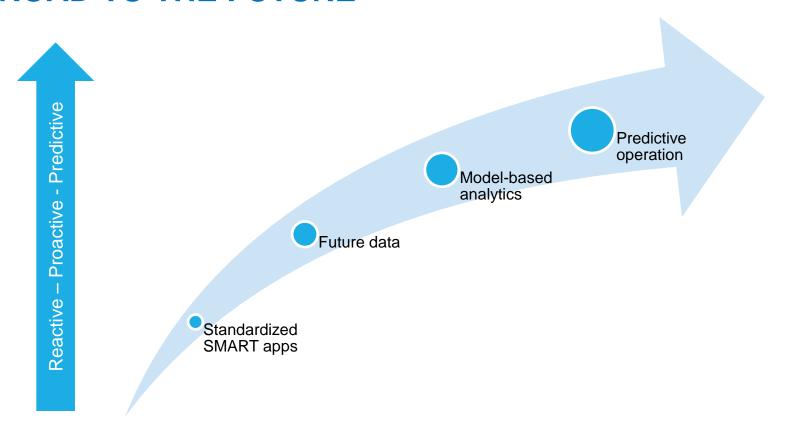
- Use industry standards
- Integrate existing software versus development
- Make technology changes transparent for connected portfolio
- Deliver in an Agile DevOps way of working

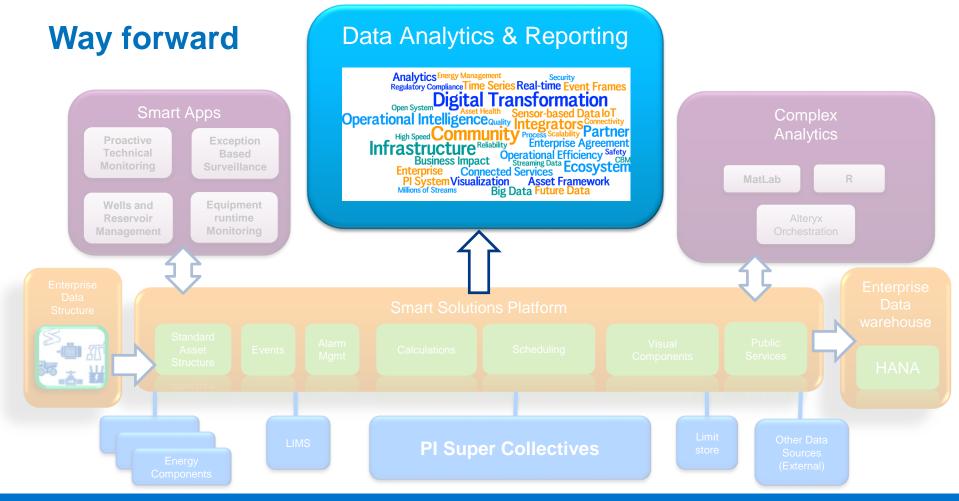


# **Asset Framework (AF) to bring structure and context**



#### **ROAD TO THE FUTURE**



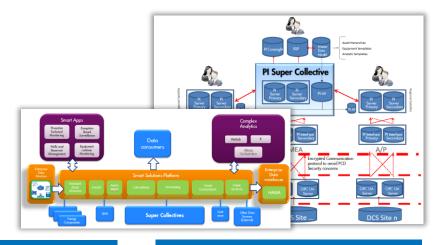




# Journey from Reactive to Predictive

#### **COMPANY** and GOAL

Change the operating model from a local reactive approach to an enterprise [redictive approach



#### **CHALLENGE**

Migrate a global enterprise from reactive to proactive

- Operational Performance
- Asset Integrity & Reliability
- Disciplined Delivery
- Empowered People

#### **SOLUTION**

Create a One-Stop-Shop for data and solutions

- Treat data as an asset
- Platform approach to integrate data and capabilities
- Leverage industry standard tools like OSIsoft's PI System

#### **RESULTS**

Change operating model from reactive to predictive

- Increased reliability
- Higher performance
- Higher return on investment



#### **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



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감사합니다

Danke

Gracias

谢谢

Merci

Thank You

ありがとう

Спасибо

Obrigado



