

WEDNESDAY, MAY 18

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# Operational Data at Scale, Full User Adoption for Real Value - DSM

Rob Everink, Hassan Al Mokdad

**AVEVA**

# About DSM

## Health, Nutrition & Bioscience

- From century-old roots as the Dutch State Mines, DSM has evolved into a purpose-led science company numbering 23,000 people worldwide and specializing in solutions for Health, Nutrition & Bioscience. Our purpose is to create brighter lives for all – which is why we're proud that our name has assumed a new meaning among our people in recent years: **Doing Something Meaningful.**



# The digital challenge

- 130 sites, with a scattered landscape wrt control systems and historians
- Push from Management to become more “digital”
- Message to Operations Management:
  - First standardize in infrastructure then build solutions and replicate
  - Business case based on savings in infrastructure, managed operations, licenses, interfaces
  - Drive as a program for all sites

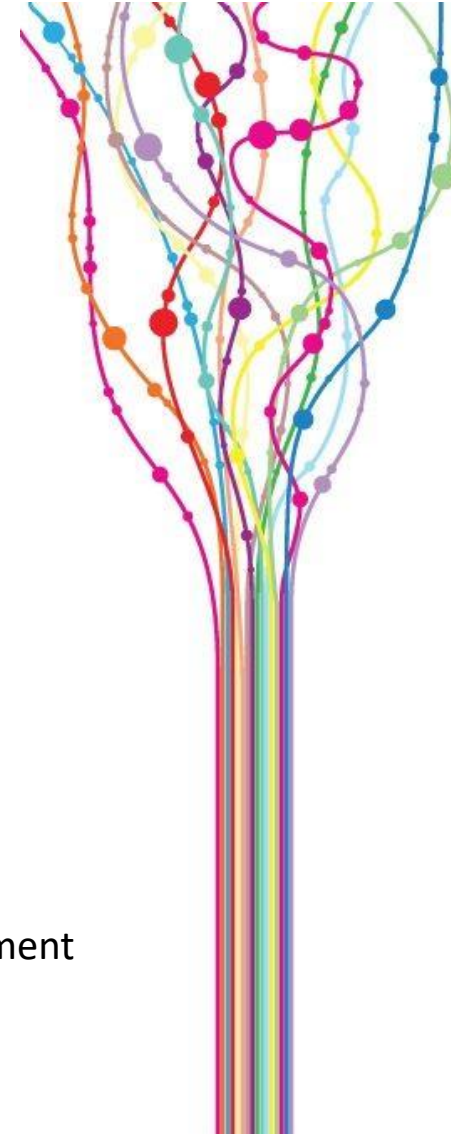
- 35 production sites
- 80 premix sites
- Research sites

 **accenture**

- Program office, program execution & change management

**CGI**

- Architecture & technical implementations



# Operations Data Layer (ODL)

- Unlock the potential of operations data with ODL
  - With regional cloud hosted systems
  - With role-based access
  - Globally maintained
  - Interface possibility to modern and legacy systems
  - Dashboarding tools
- Convince sites to move to ODL:
  - ‘Why should I change? No resources’
  - Change Management is key for acceptance
  - Show Potential Value

## IT Global applications & Platforms

IT

OT

**SAP:** enterprise resource planning, finance, accounting: transactional

**DSM Analytics Platform:** Data storage, ingestion, analytics and visualization Apps, Dashboards (Operations, IRIS, AssetWise)

## IT Local applications for Operations

**AssetWise:** asset reliability

**Shift Connector:** shift log

**LIMS:** laboratory automation

**COMOS:** engineering information Apps, dashboards  
(Maint, Permitcliq, etc)

## MES functions

- **Visualization, Self Service Analytics (Seeq)**

- **Performance Management:**

OOE, KPI/KOP, Batch reporting, Golden Batch, Advanced control

- **Operations Management:**

Process order & Workflow management

Recipe Management, T&T, EBR

## Operations Data Layer

Historian, Data Connectivity, Aggregation and Contextualization

## Wireless OT

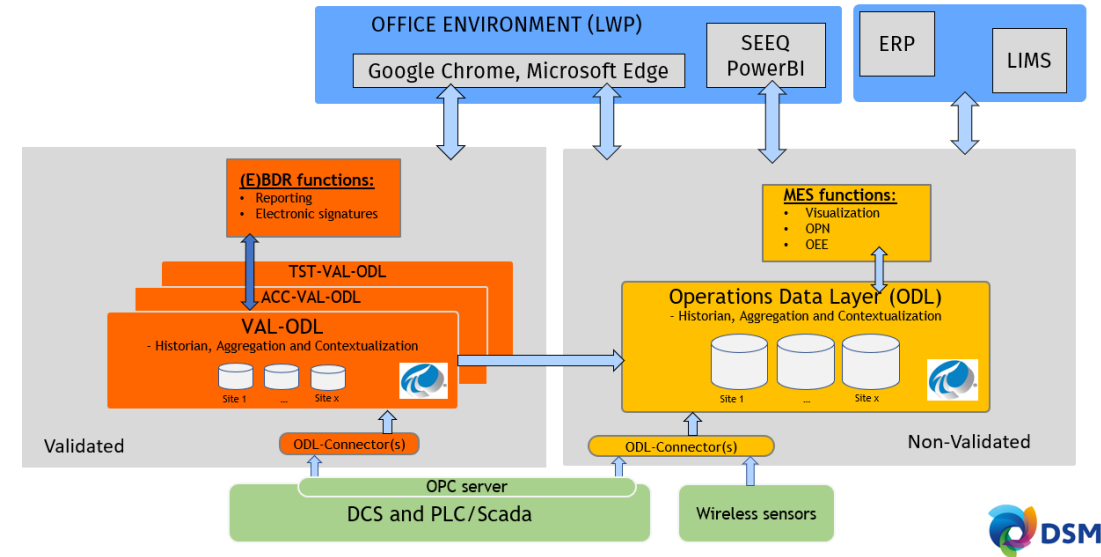
- Wireless sensors and wireless technologies

## DCS and Instrumentation: Basic Control and Operation

- Direct plant control and visualization, safeguarding, alarm management  
- Collection of process measurements, wireless sensors

# The ODL challenge

- Status after one year
  - ODL implemented in 2 regions (Europe & North America)
  - 12 sites connected
  - Extra: Validated ODL system in Europe
  - Add-on projects started for Energy Dashboarding
  - Solution templates in AF
  - Project to connect SAP & LIMS
  - Request from Maintenance to include Asset Monitoring
  - Research would like to onboard



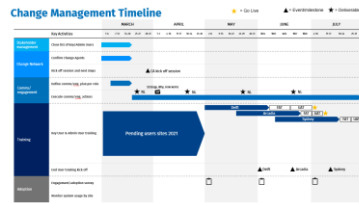
After first year, we need to manage adoption of system. Sites looking further than just the project  
Also here change management and setting up an organizational structure is key  
(Managed Operations, Key-user organization)



# Change Management

## CHANGE STRATEGY

Identify the key project milestones and the change management activities required for project success



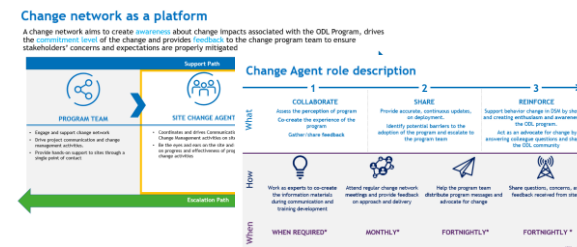
## STAKEHOLDER MANAGEMENT

Identify and analyzing stakeholder groups to design and perform engagement activities



## CHANGE NETWORK

Creating a change agent network to deploy the change interventions across the sites



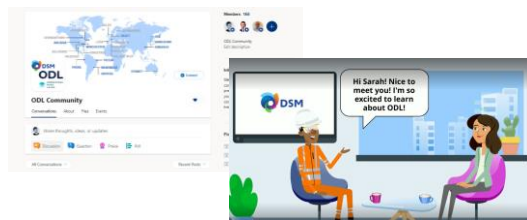
## CHANGE IMPACT ASSESSMENT

Analyze how key stakeholders are impacted and define the necessary actions to move across the commitment curve



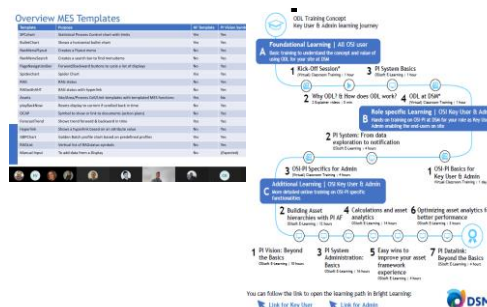
## COMMUNICATIONS AND ENGAGEMENT

Engage stakeholders in future state journey by engaging newsletters, infographics, videos, campaigns, etc.



## TRAINING

Ensure stakeholders are enabled by fit-for-purpose training to work with the new technology. General courses, Aveva E-learning, monthly Coaching Sessions, etc.



## CHANGE TRACKING

Define and measure metrics on stakeholder engagement and change adoption



## VALUE REALIZATION

Define and measure if the implementation of the changes also realized the intended value /business case



# Our Approach to PI

## Identifying Opportunities Through a Value Framework

### REAL-TIME DATA CAN BE THE BASIS FOR A WIDE RANGE OF USE CASES

	Performance	Resilience	Compliance	Planning
Production Optimisation	Integrating PI with Machine Learning		Increased Maintenance	Batch Scheduling
Asset Health	Using AF to Drive Equipment Health Monitoring			
EHS	Energy Reduction		Emissions Management	
Product Quality	Advanced Asset Monitoring Centered Around PI with Edge Data Collection	Manual Logger with AF Validation	LIMS Sampling	
Governance & Reporting	Performance KPIs		Reducing Pollution Events through Effective Intervention	
Capital Projects	Centralized Infrastructure Migration			

Start with the desired outcomes:

Data & Calcs

and only then worry about the data, calculations, models

Insights

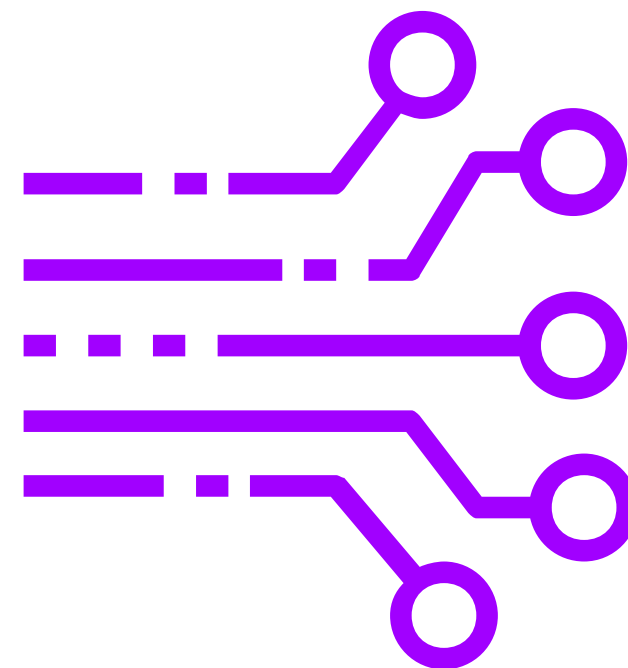
that will drive the actions

Actions

And behaviours that will deliver the outcomes

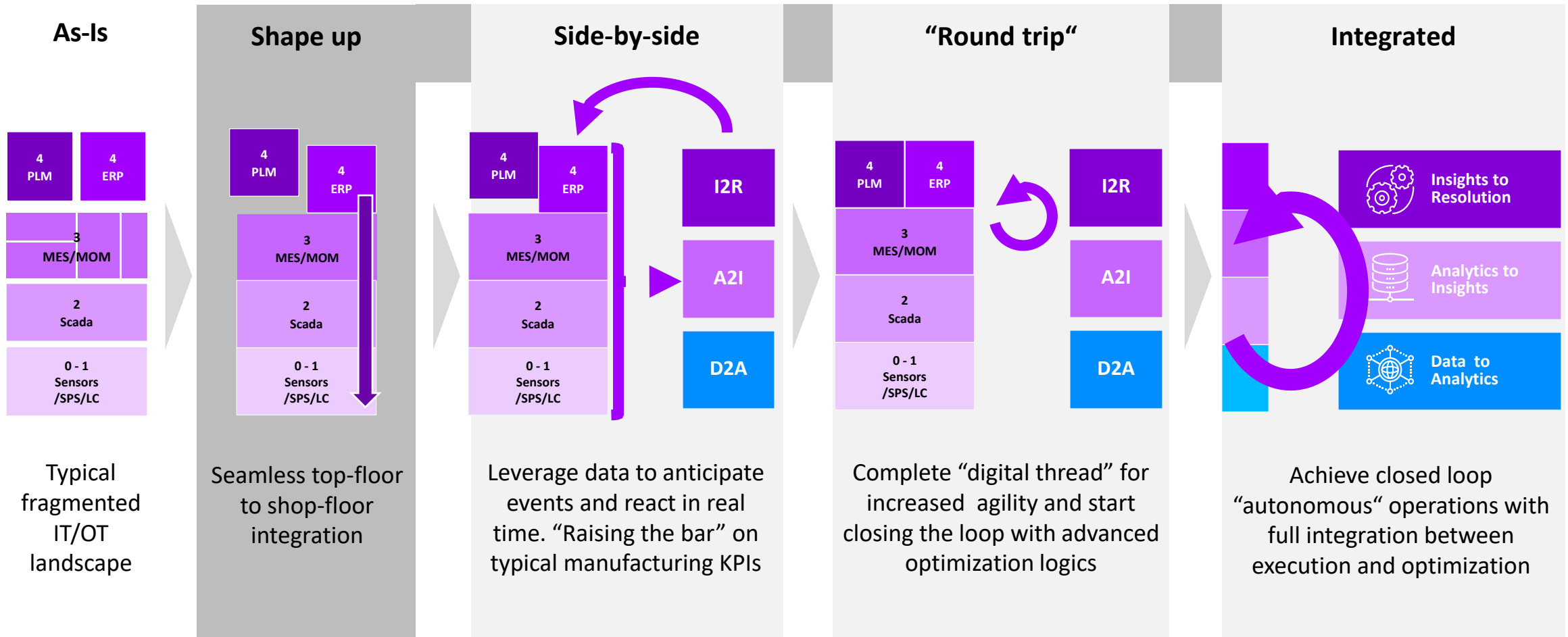
Outcomes

that will drive value



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# Evolving Towards an Integrated, Yet Flexible IT/OT Architecture ...





# Value for money with the tooling



“ODL is one of the biggest advances we have made. I have been able to follow the process data from home, being able to quickly react to indicators without having to alert my colleagues. That is very positive.”

León (Maintenance Manager)



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## Rob Everink

Digital Implementation Officer

- DSM
- [rob.everink@dsm.com](mailto:rob.everink@dsm.com)



## Hassan Al Mokdad

Business Integration Manager

- Accenture
- [hassan.al.mokdad@accenture.com](mailto:hassan.al.mokdad@accenture.com)



THANK YOU

謝謝

DZIĘKUJĘ CI

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TEŞEKKÜR EDERİM

DANKIE

TERIMA KASIH

GRACIES

WHAKAWHETAI KOE

DANKON

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TAPADH LEAT

SALAMAT

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