



Welcome to the Oil & Gas and Petrochemical Industry Track



Oil, Gas and Petrochemical Industry Track Theme



The O&G and Petrochemicals Team

Global Industry Principals



Cindy Crow
(Houston)



Craig Harclerode
(Houston)



Russell Hebert
(London)

NA Industry Champions



Brian Harclerode – FSE



Ken Startz - SE



Stephen Reynolds - COE

A Big Thank You to our Speakers!

Time Slot	Company(s)	Title
8:45 - 9:00		Digitization, Transparency, and Transformation
9:00 - 9:30		Shell's Journey to Digitization
9:45 - 10:30		The Journey Begins - PI System and DCP's Digital Transformation
11:30 - 12:15		Enhancing Surveillance and Culture with PI System
11:45 - 12:30		Enabling a Business Transformation at Apache Corp.
12:30 - 2:30		Networking Lunch
2:30 - 3:00		Enabling Delek's Digital Transformation
3:15 - 4:00		The Evolution of the PI System at EQT
4:00 - 4:45	  	Best Practice Panel – Digital Transformation

Digitization, Transparency and Transformation

➤ Inspirations and Examples

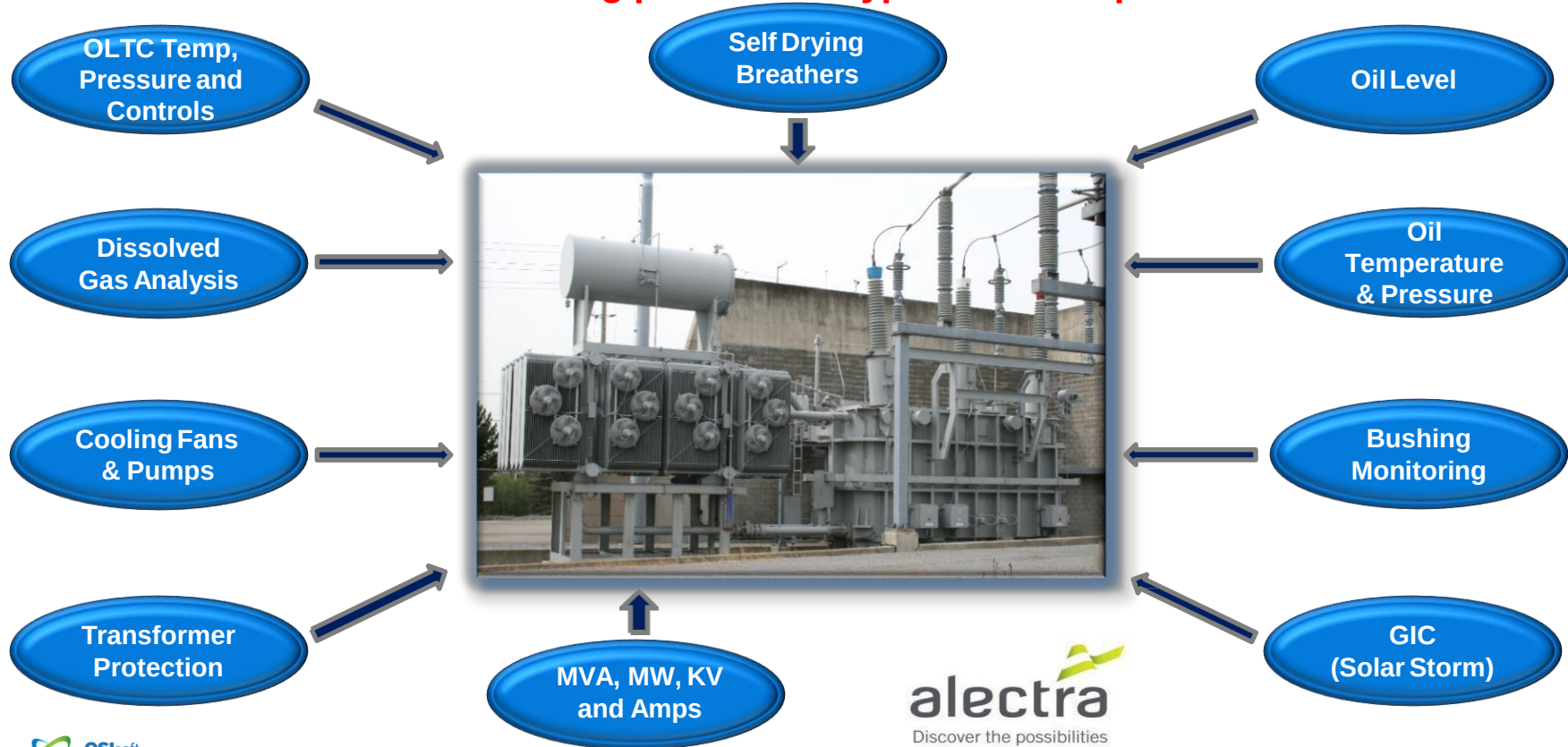
- What can a Transmission & Distribution (T&D) Utility Co. learn from a Formula 1 race car ?
- What can a Drilling Co. learn from John Deere Farm Equipment Company's Digital Transformation?

➤ Operational Intelligence and Digital transformation

➤ Visualization, Transparency and Mobility

Embedded Sensors of a Power Transformer

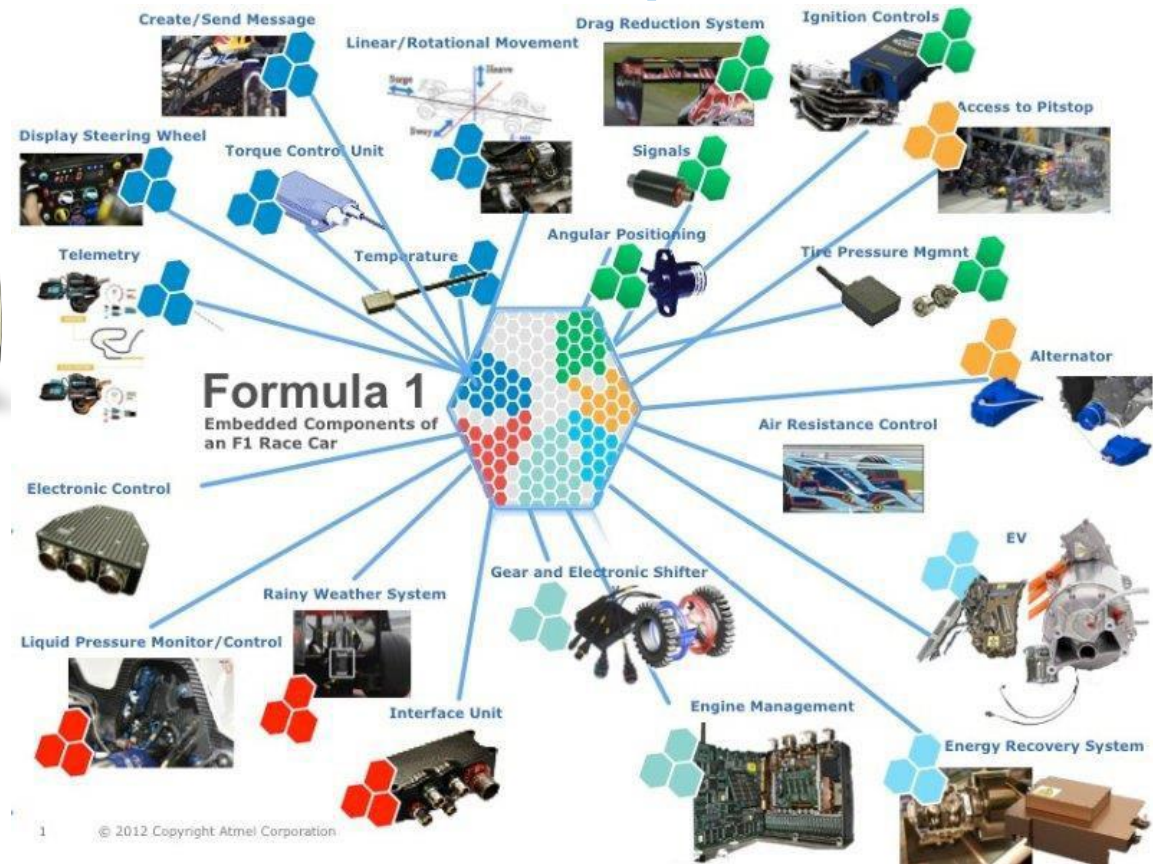
Over 100 sensors/monitoring points on a typical station power transformer



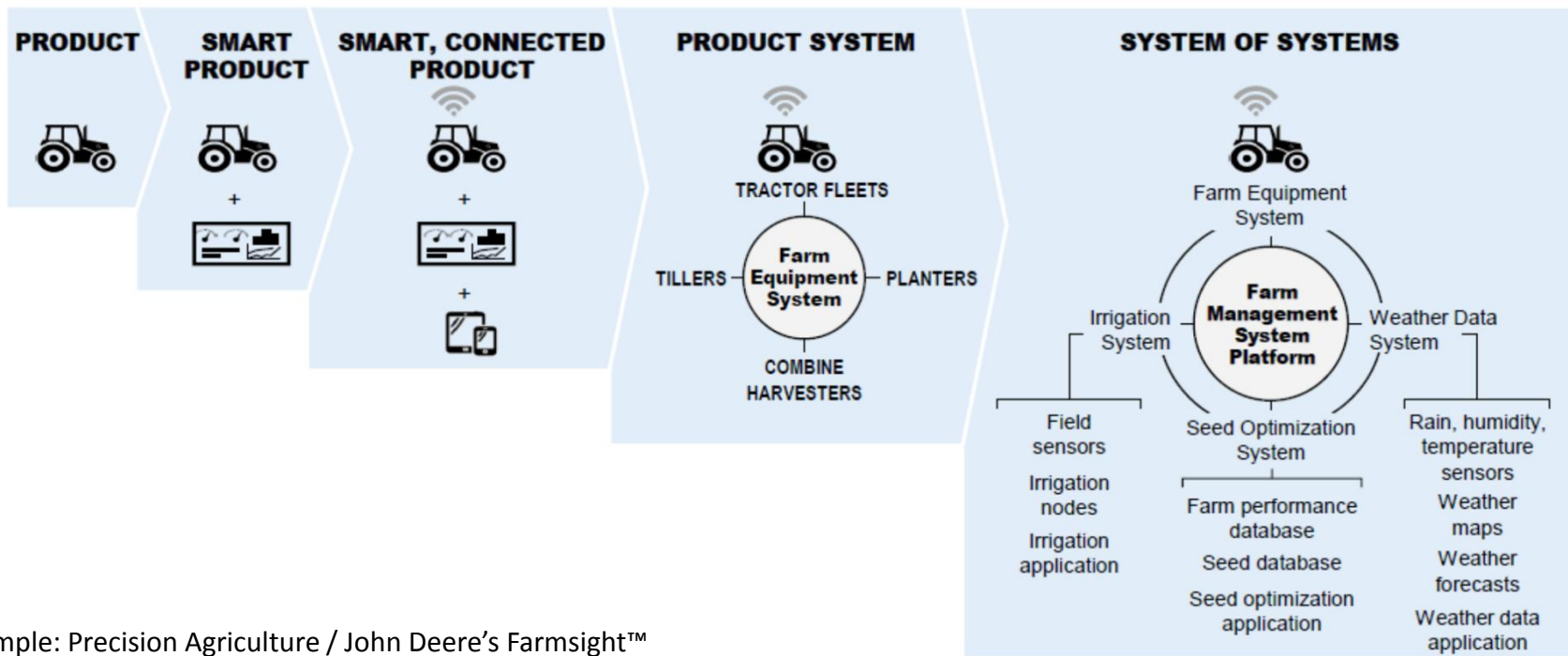
Embedded Sensors of an F1 Race Car – Optimization



HMI



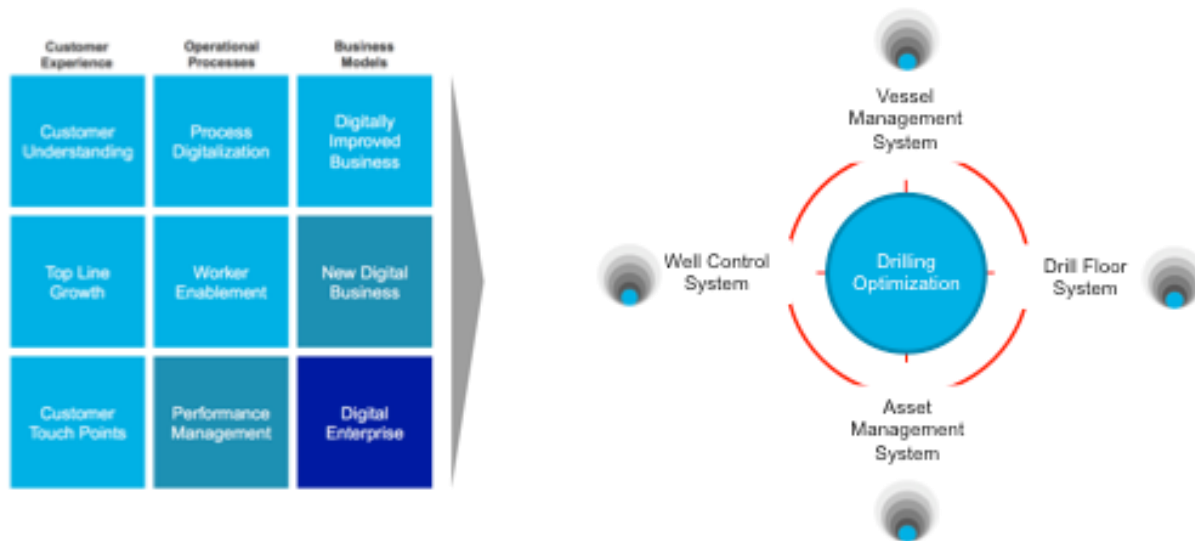
Expanding Industry Boundaries



Example: Precision Agriculture / John Deere's Farmsight™

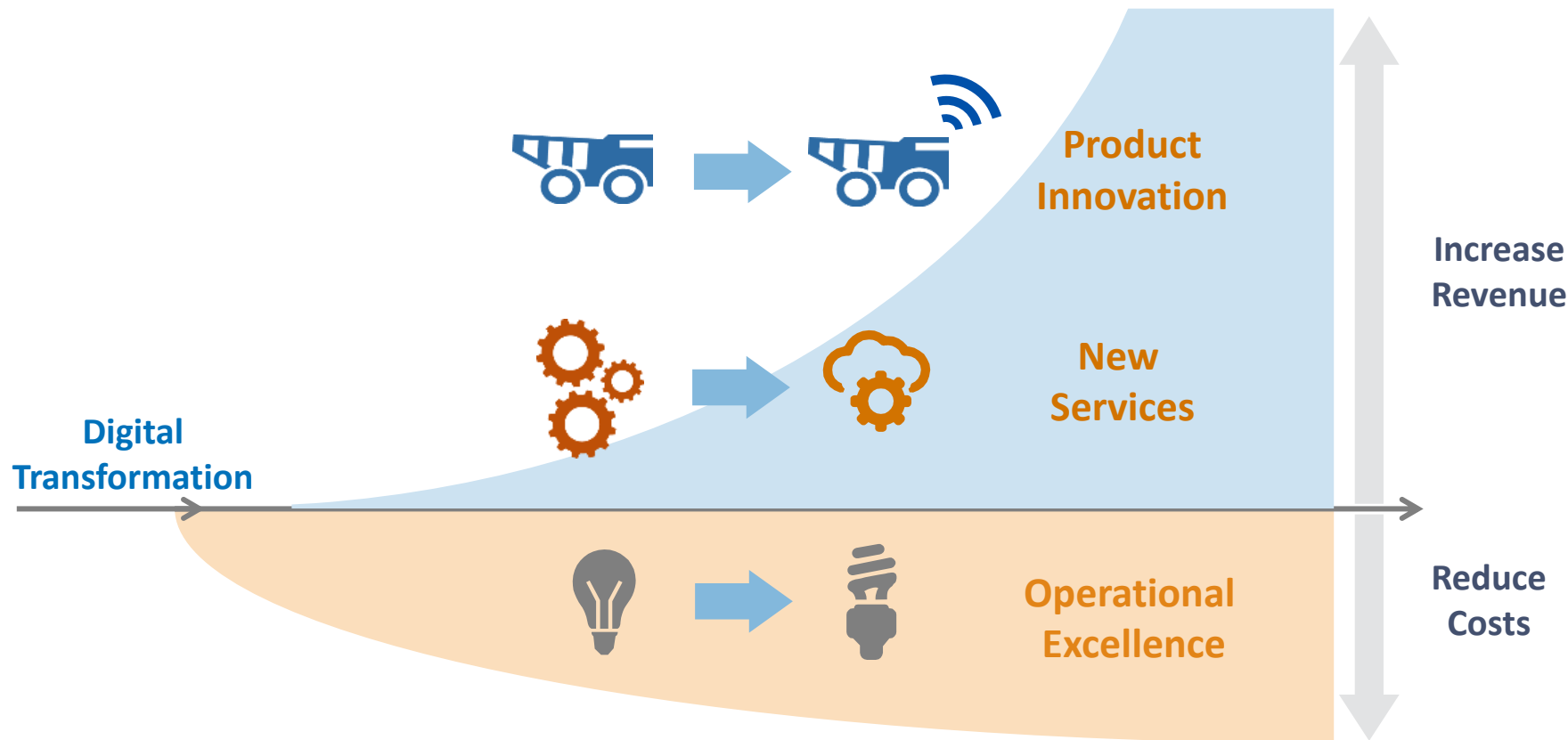
Putting it all together

A Systems of Systems Approach



Business Strategy driving the Digital Transformation

Operational Intelligence: Our Opportunity





“Dashboards as a Service” Reducing Operating Costs at Monterey One Water

COMPANY and GOAL

Monterey One Water provides wastewater treatment services to over 250,000 people & processes over 18.5 million gallons of wastewater each day, and recycles 4 billion gallons of water annually for crop irrigation.



CHALLENGE

- Access to power usage & flow data for daily operation & reporting.
- Asset maintenance information (run time since last service).
- Overall cost of water treatment (variation in monthly energy bill).
- Limited to no IT resources and no expertise with PI.
- **Impact: Better control over energy costs & optimized maintenance scheduling.**

SOLUTION

- A PI System hosted in the cloud on Microsoft Azure IaaS & maintained by OSIsoft. OSIsoft delivered 5 PI Vision displays as part of implementation.
- PI Interfaces onsite
 - Hosted PI Server on Azure IaaS sold as “Dashboards as a Service”
 - PI Vision
 - Resources to build 5 displays
 - Ability to share displays with external stakeholders (growers, lawmakers, etc).

RESULTS

- Ability to predict monthly power and natural gas bills within 5% of actual values.
- Ability to reduce operating costs by running digester gas to run engines during peak hours.



Digitization, Transparency and Transformation

➤ Inspirations and Examples

- What can a Transmission & Distribution (T&D) Utility Co. learn from a Formula 1 race car ?
- What can a Drilling Co. learn from John Deere Farm Equipment Company's Digital Transformation?

➤ Operational Intelligence and Digital transformation

➤ Visualization, Transparency and Mobility

Visualization & Mobility

Asset Based Visualisation



Equipment Dashboards



Extensibility



Event Comparison



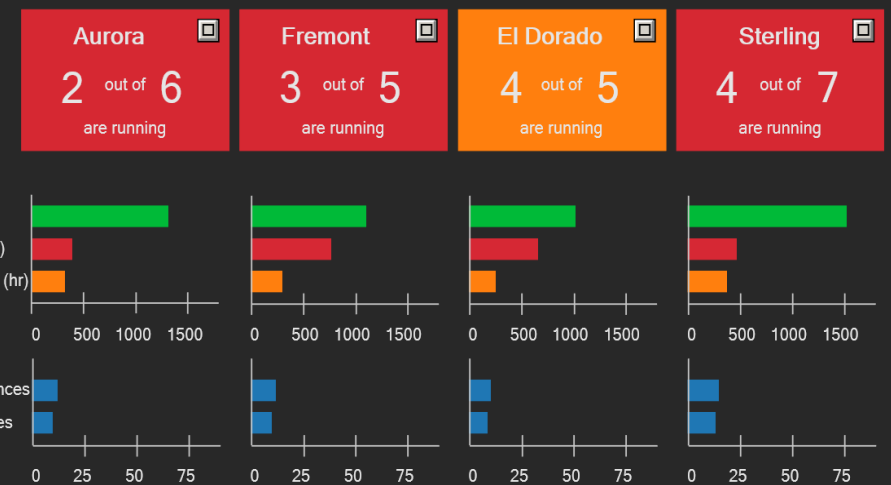
Enterprise BI

Event Name	Asset	Start Time	End Time	Acknowledgement
Engine Temperature High 2017-01-26 06:21:43.000	SP4	1/26/2017 6:21:43 AM	1/26/2017 7:57:43 AM	Acknowledge
Engine Temperature High 2017-01-26 07:14:43.000	SP6	1/26/2017 7:14:43 AM	1/26/2017 8:22:43 AM	Acknowledge
Gas Tank Level Low 2017-01-26 07:23:43.000	SP8	1/26/2017 7:23:43 AM	1/26/2017 7:32:13 AM	Acknowledged
Gas Tank Level Low 2017-01-26 07:34:13.000	SP8	1/26/2017 7:34:13 AM	1/26/2017 7:36:13 AM	Acknowledged
Engine Temperature High 2017-01-26 08:25:13.000	SP6	1/26/2017 8:25:13 AM	1/26/2017 8:25:43 AM	Acknowledged
Engine Temperature High 2017-01-26 08:29:13.000	SP6	1/26/2017 8:29:13 AM	1/26/2017 8:57:13 AM	Acknowledge

GIS & Maps

Ability to View in any Browser Web/Mobile Visualization

Asset Health Dashboard



Mobility, IoT & Advanced Visualization

Mobile Devices



Wearable Devices



Augmented Reality



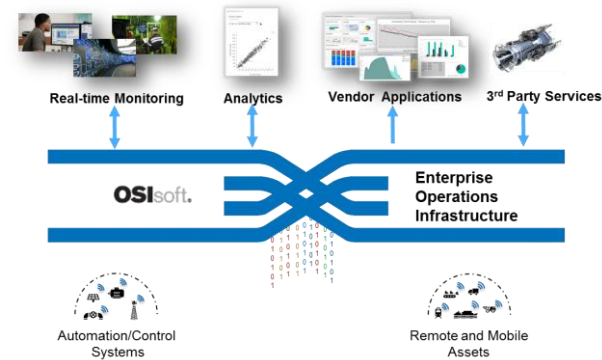
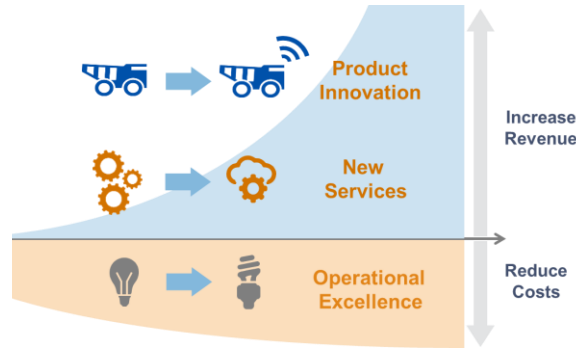
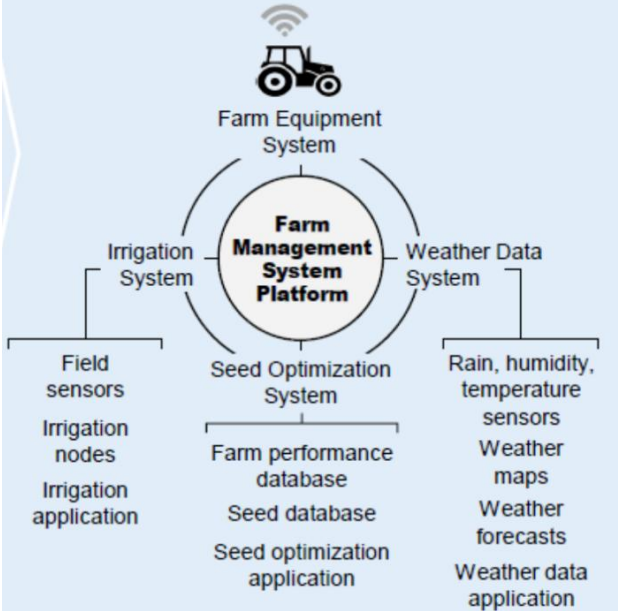
Summary- Digital Transformation Opportunity

Digital
Innovation

Business
Transformation

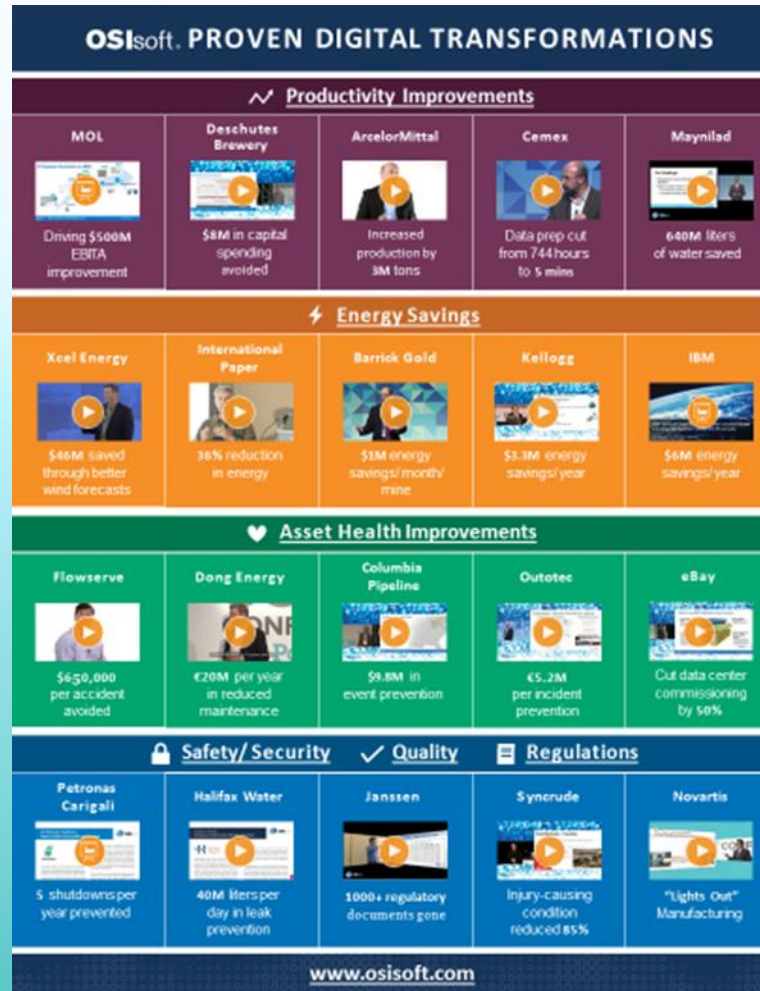
Strategic Data
Approach

SYSTEM OF SYSTEMS



OSIsoft Proven Digital Transformations

https://www.osisoft.com/uploadedFiles/DMS_Documents/Infographic/Proven-digital-transformations-infographic.pdf



Questions

Please wait for the **microphone** before asking your questions

State your **name & company**



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Merci

谢谢

Спасибо

Danke

Gracias

Thank You

감사합니다

ありがとう

Grazie

Obrigado