Evolving into The Digital Mill

Presented by **Mariana Sandin, Industry Principal**
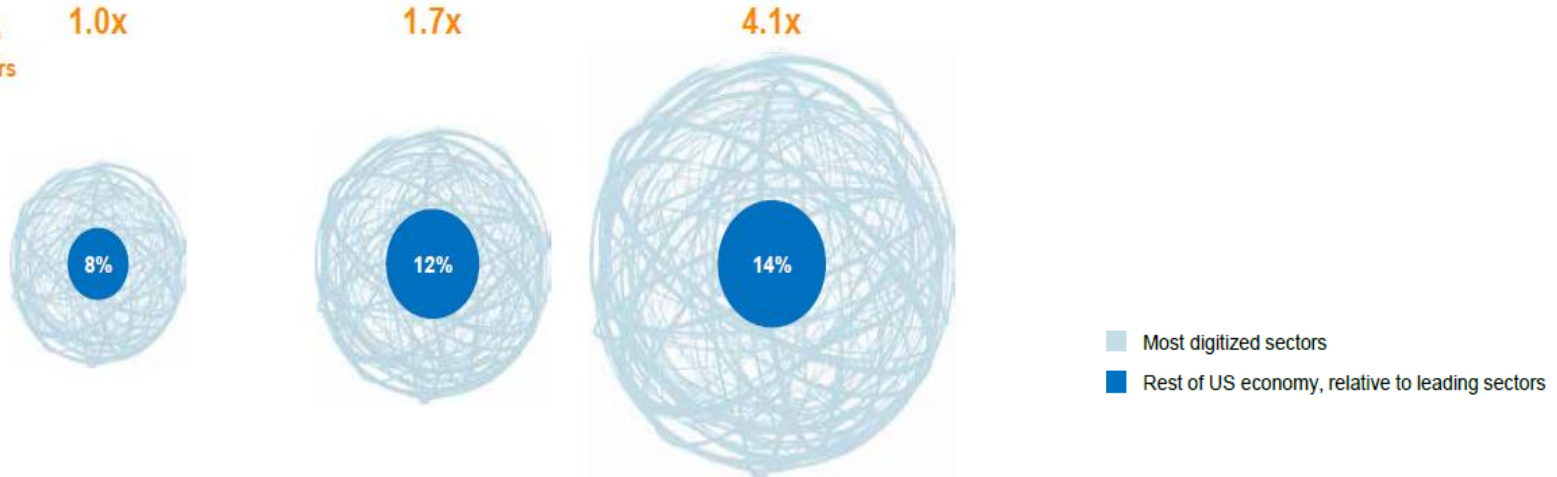
Digital Transformation

What's in it for me?

Image thanks to Futuristgerd.com

The Digital Era Is At Hand

- Digitization = $2.2 trillion of annual GDP by 2025
  - Manufacturing = $250 - $400 billion GDP by 2025
- Growing gap between the digital "haves" and "have-mores"

Overall digitization of leading sectors

1.0x   1.7x   4.1x

8%   12%   14%

Most digitized sectors

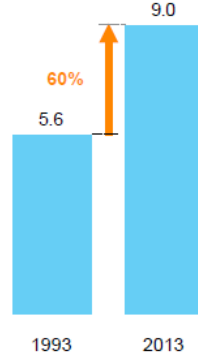Rest of US economy, relative to leading sectors

Source: McKinsey Global Institute, digital America: a tale of the haves and the have-mores. Dec. 2015.
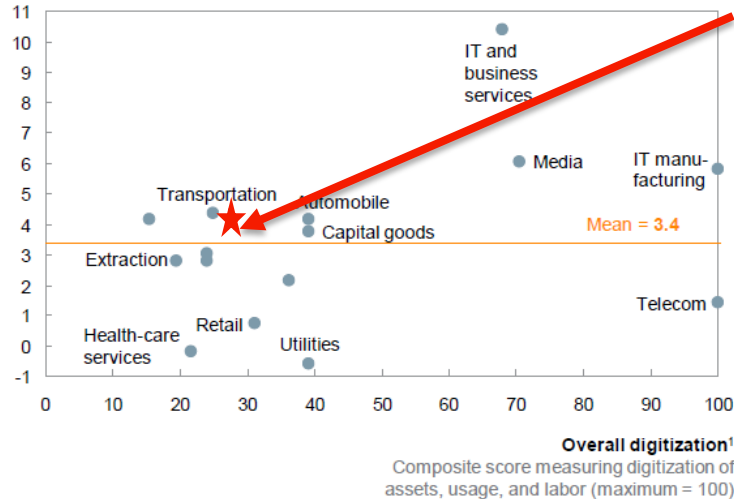
Benefits of Being on the Digital Frontier

US profit margins have risen 60 percent in two decades, with industries on the digital frontier at the forefront

Growth in profit margin vs. digitization, select US non-financial industries

Profit margin growth, 1993 vs. 2013
3-year average for all non-financial industries %

Change in post-tax profit margin, 1993 vs. 2013
3-year averages

Process Industries: You are Here!

1 Measured using a set of 27 metrics spanning the three dimensions of digitization: assets (eight metrics, including spending on digital assets and the stock of digital assets), usage (11 metrics, including transactions, business process, interactions, and market making), and labor (eight metrics, including digital capital deepening, share of occupations that are digital, and share of tasks that are digital).
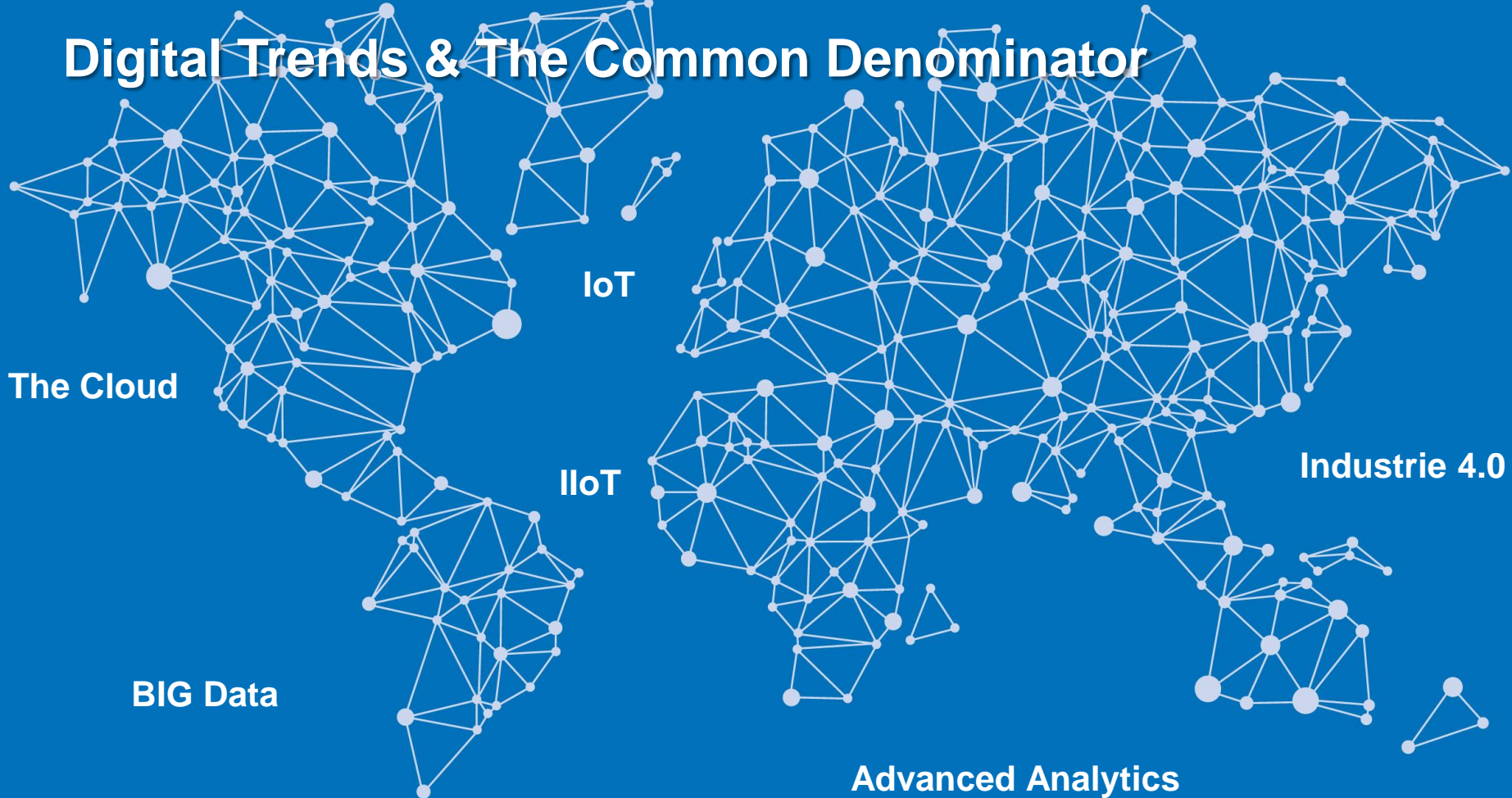
SOURCE: McKinsey Corporate Performance Analysis Tool; BEA; McKinsey Global Institute analysis

Source: McKinsey Global Institute, digital America: a tale of the haves and the have-mores. Dec. 2015.

New Human Talent Lives in a Digital World

Digital Trends & The Common Denominator

IoT

The Cloud

IIoT

Industrie 4.0

BIG Data

Advanced Analytics

Digital Trends & The Common Denominator

DATA

Steps Towards the Digital Mill

1. THINK BIG. start small

2. Add value with the fundamentals (smart objects)

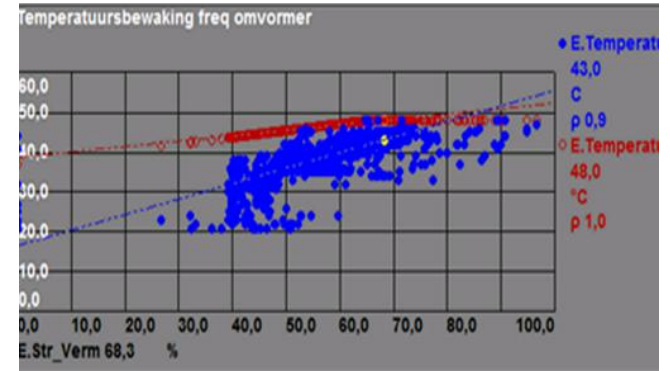3. Go to the next level of analytics

4. **Listen to your peers**

Examples

Summary:Think BIG. Digital Assets

"The recipe for success is to identify a project you can manage, have the strategic vision, and realize this is going to be a team effort and that there is a learning curve. Begin Small."

Stora-Enso

Jean-Pierre Vande Maele, IT International Projects Manager.

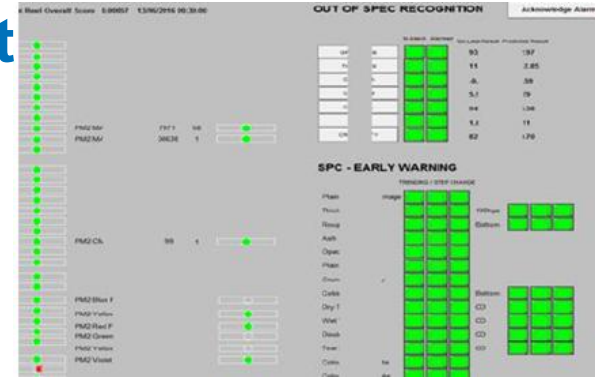| BUSINESS CHALLENGES	SOLUTION	RESULTS AND BENEFITS
• Alarms work with simple thresholds and depend on a monitoring an Excel report. • Lack of integration between plant floor and maintenance system	Use of asset and mathematical model to configure notifications to connect the plant floor information with SAP PM. AF, Notifications, PI Web Services, Microsoft BizTalk, and SAP PM	• Less unplanned downtimes • Automatic check 24/7 • More accuracy due to dynamic alarm threshold settings • With notifications only problems are reported and sent to SAP.

Summary: Decreasing Time-to-market

Prove the PI System as an enterprise solution for improvement, data driven decisions, and demonstrate financial benefits.

Specialty Paper Company

BUSINESS CHALLENGES

- Papermachine process is set by testing the product during start-up
- Adjust the machine to reach good quality products
- Lab tests products for feedback and further adjustments

SOLUTION

Product and process data are aligned and analyzed to provide the right information

AF with SIMCA, Asset Analytics, PI ProcessBook

RESULTS AND BENEFITS

- Time and waste required to set-up the machine reduced 50%
- Increased speed & availability
- Reduced testing requirements
- Transferable solution to other machines and processes

Summary: Optimization of Chemical Consumption

"Continuous improvement requires a manufacturing intelligence infrastructure, which relies on the PI System."

Oji Paper

Lincoln Tsuruta, Process Engineer

OJI PAPÉIS ESPECIAIS

BUSINESS CHALLENGES

- Adjust variable cost of production to be more competitive

- Optimize the consumption if main chemicals

- Optimize the application of chemical recipes

SOLUTION

PI System with Advanced Analytics on the cloud to perform big data analysis and identify the variables that affect chemical consumption in each recipe

RESULTS AND BENEFITS

- 10% to 13% chemicals consumption reduction

- 4.6% reduction of variability in coating application

With You in the Evolution

EA Team
(EPM, CoE)

Partners

White Papers

PI Square
Community

Maturity Model

Learning Services
(Virtual/ Onsite)

OSIsoft Services

Today's Agenda

Presentions

Agenda in the morning

9:45 – 10:15	• Real-time Operational Intelligence with the PI System and Envoy Development Process Monitor. *Troy Foede, Clearwater & John Antanies, Envoy*
10:45 – 11:15	• Jumpstart on Lean Six Sigma Initiatives. *Dominic St. Onge & Daniel Tremblay, Fortress Specialty Cellulose*
11:30 – 12:15	• Real Time Waste Reduction. *Douglas Barber & Dan Louchbaum, Kimberly-Clark Corporation*

12:15 – 14:15   LUNCH – Skyline Restaurant or Grand Ballroom

Agenda in the afternoon

14:15 – 14:45	• Leveraging Real Time Data to Significantly Reduce In-Line Quality Issues. *Brent Lindsey, Evergreen Packaging*
15:00 – 15:30	• Strategic Technologies for Competitive Advantage. *Leila Chaouki-Juneau, OSIsoft*
16:00 – 17:30	• 1st Users Group Meeting! • *Scott Larson, Logical Systems & Rick Smith, International Paper*

19:00 Industry Dinner

Let's Stay in Touch

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Norton Green
Executive Briefing Program Director

Forest and Paper Products PI User Group

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 our industry needs

95 Members

Customer run, customer led, OSIsoft assisted

This is NOT an avenue for sales presentations or marketing

Want to opt in?
https://pisquare.osisoft.com/groups/paper

Or contact jsirois@osisoft.com

Have questions?
- jsirois@osisoft.com
- msandin@osisoft.com
- Visit the PI Square Booth

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OSIsoft

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

PI Square
The OSIsoft Community

https://www.linkedin.com/in/marianasandin

Questions

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

State your **name & company**

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감사합니다

谢谢

Danke

Gracias

Merci

Thank You

ありがとう

Спасибо

Obrigado