

LEVERAGING DATA FOR REAL TIME SUPPLY CHAIN INSIGHTS

KAUSHIK YATHINDRA

HEAD – ANALYTICS & DIGITAL SOLUTIONS



ABOUT ME & ECOLAB

WHY WE NEED TO CHANGE?

CHANGE MANAGEMENT SET-UP

CASE STUDY

AI, MACHINE LEARNING & USE CASES





**CIPS EU YOUNG SUPPLY CHAIN
PROFESSIONAL OF THE YEAR
2018**

**DIGITAL ENTHUSIAST | KEYNOTE
SPEAKER**

BEROE, HSBC & NOW ECOLAB

We Are a Global Company with Global Reach

Founded in
1923

Headquartered in
St. Paul, MN

48,000+
global associates*

FORTUNE
250
company

119
manufacturing
facilities

1M+
customer
locations

\$13B
in 2016 sales

19 global
technology
centers

8,100
patents

Serving customers in
170+ countries

*25,500 sales-and-service people, 1,600 RD&E scientists, engineers and technical specialists

Every year, Ecolab helps:

Conserve **188 BILLION** gallons of water



Clean **40 BILLION** hands



Save **19 TRILLION** BTUs of energy



Avoid **2.4 BILLION** pounds of CO₂ emissions

Prevent more than **1 MILLION** foodborne illnesses



Produce **42%** of the global processed milk supply



Make **25%** of the world's processed food safe



Clean **1 BILLION+** hotel rooms



Serve **45 BILLION** meals

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WHAT REPRESENTS FOR SUPPLY CHAIN...

INCREASED SUPPLY CHAIN DISRUPTIONS

Global Demand Increasing

Speculation

Currency Fluctuation

Global Debt Crisis

Government Policies

Natural Catastrophes

Consumer Demand

Trade / Price War

Global Pandemic

40%

BUSINESS CLOSED

€5bn

REVENUE LOST

10%

TARIFF PRICE WARS

50%

TRUCK TRAFFIC DOWN

Changing Customer Expectations



Outsized
Operational Gains



Intuitive
Experiences



Deeper partnerships
and expertise



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Core capabilities that drive the best results/lowest total costs for customers.



Positioned to Capture Value from Digital Technology

2,800,000 Wired Customer Sites

6B unique monthly measurements

1,800 Digital Tech Professionals

27,000 Field experts

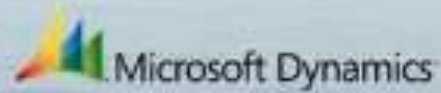




Azure



Field productivity platforms



Customer data



Customer Mobile Solutions with Xamarin

3D TRASAR



salesforce

SAP

workday

Ecolab customer portal



Order track and trace



Product information

Ecolab + Microsoft

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Water Safety Intelligence

Problem:

4x

Growth in reported cases over the past 18 years

\$2.6M

Average cost per outbreak

\$8M

Estimated impact on brand and operations per case

\$715M

Annual spend in hospitality and healthcare testing for and remediating legionella¹

Water Safety Intelligence: Mitigating Legionella Risk

DATA COLLECTION

Water quality, legionella growth data and analytical results collected from multiple sources



ALERT AND ACTION NOTIFICATIONS



Site level alerts and action plans generated to reduce legionella growth risk

CUSTOMER PORTAL

Rolls up data at an enterprise level and calculates a risk index for each location



COMPLIANCE AND PERFORMANCE

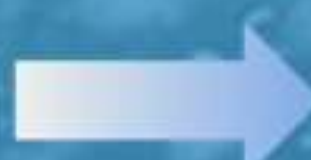
Monitors compliance to SOPs and measures program performance



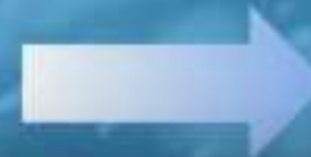
Resulting in...



44% reduction in Legionella test positives



10% decrease in program costs



50% reduction in incident response time

It is not (only) about technology...

PP



NT



EPP

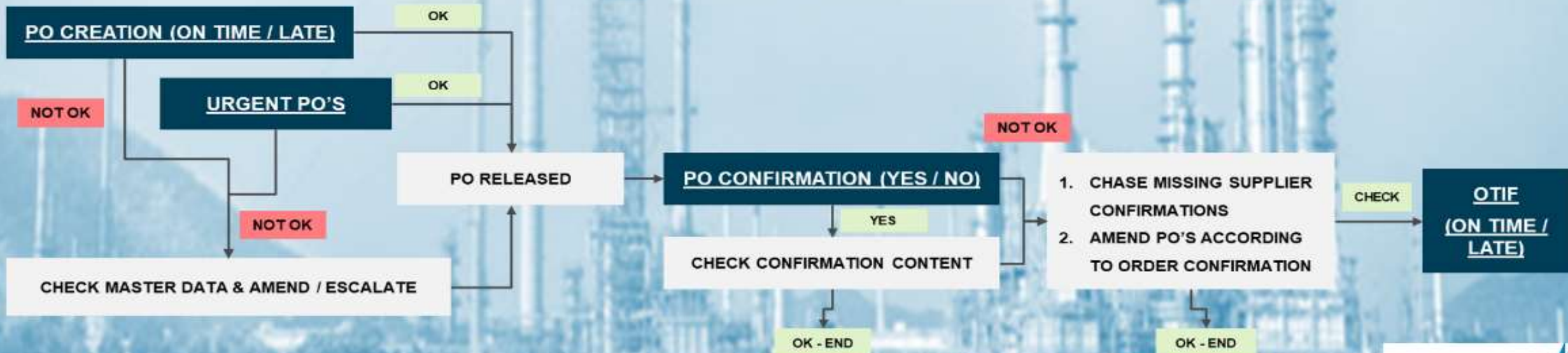
Poor Process

New Technology

Expensive Poor Processes

ECOLAB PLANT ORDER MANAGEMENT DE-RISKING DASHBOARD

CLICK ON PLANT REPORT SUMMARY TO SEE HOW ARE OUR PLANTS PERFORMING ACROSS EACH OF THE HIGHLIGHTED METRICS !



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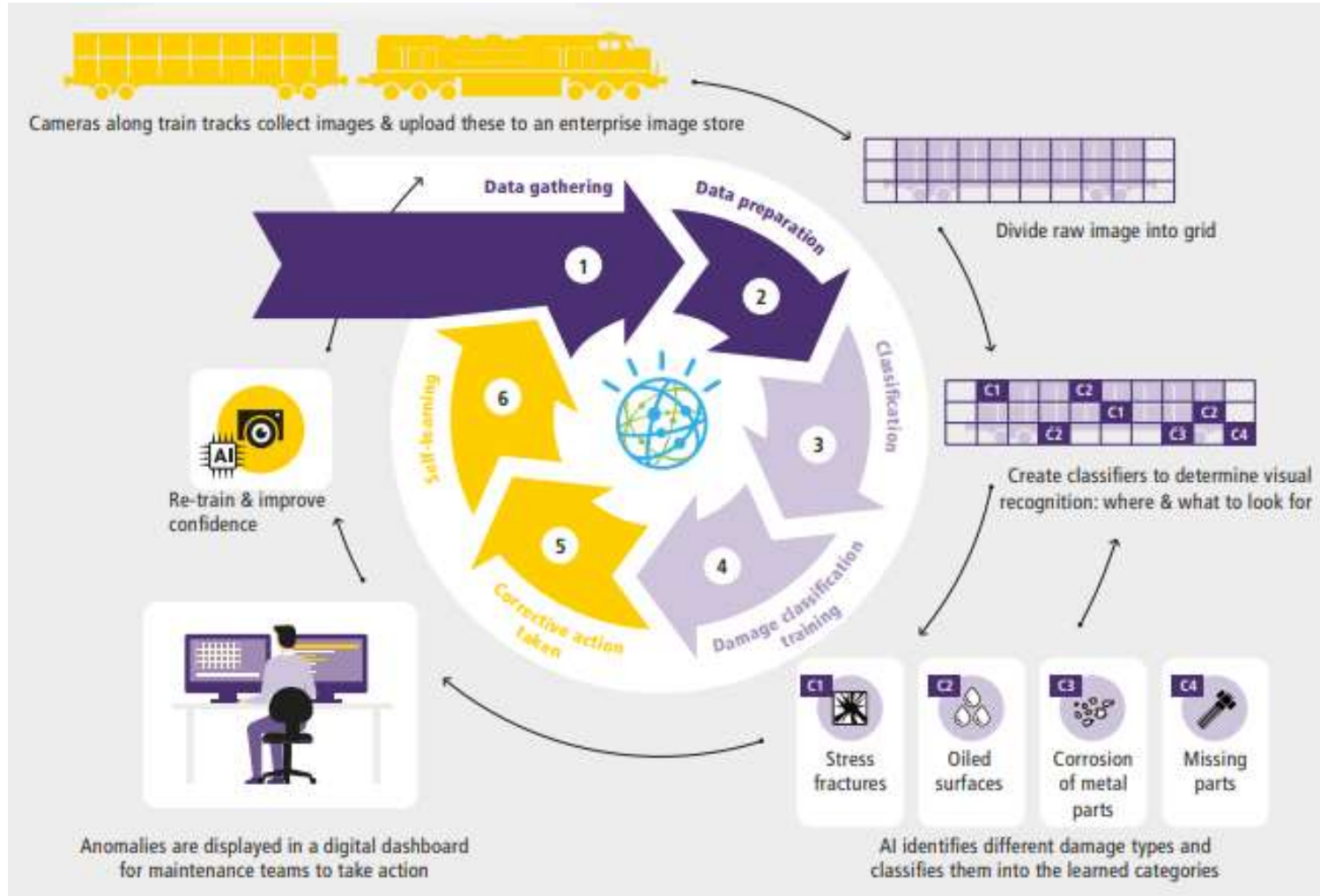
AI, MACHINE LEARNING & USE CASES



MACHINE LEARNING SHOWS THE POTENTIAL TO REDUCE LOGISTICS COSTS



IBM WATSON IMPACT ON LOGISTICS ASSETS



Q&A

THANK YOU !

ECOLAB[®]