



European Factory
Platform

PdM-RASP

[Preventive Maintenance Risks for Advanced Shopfloor Planning] – Type 3

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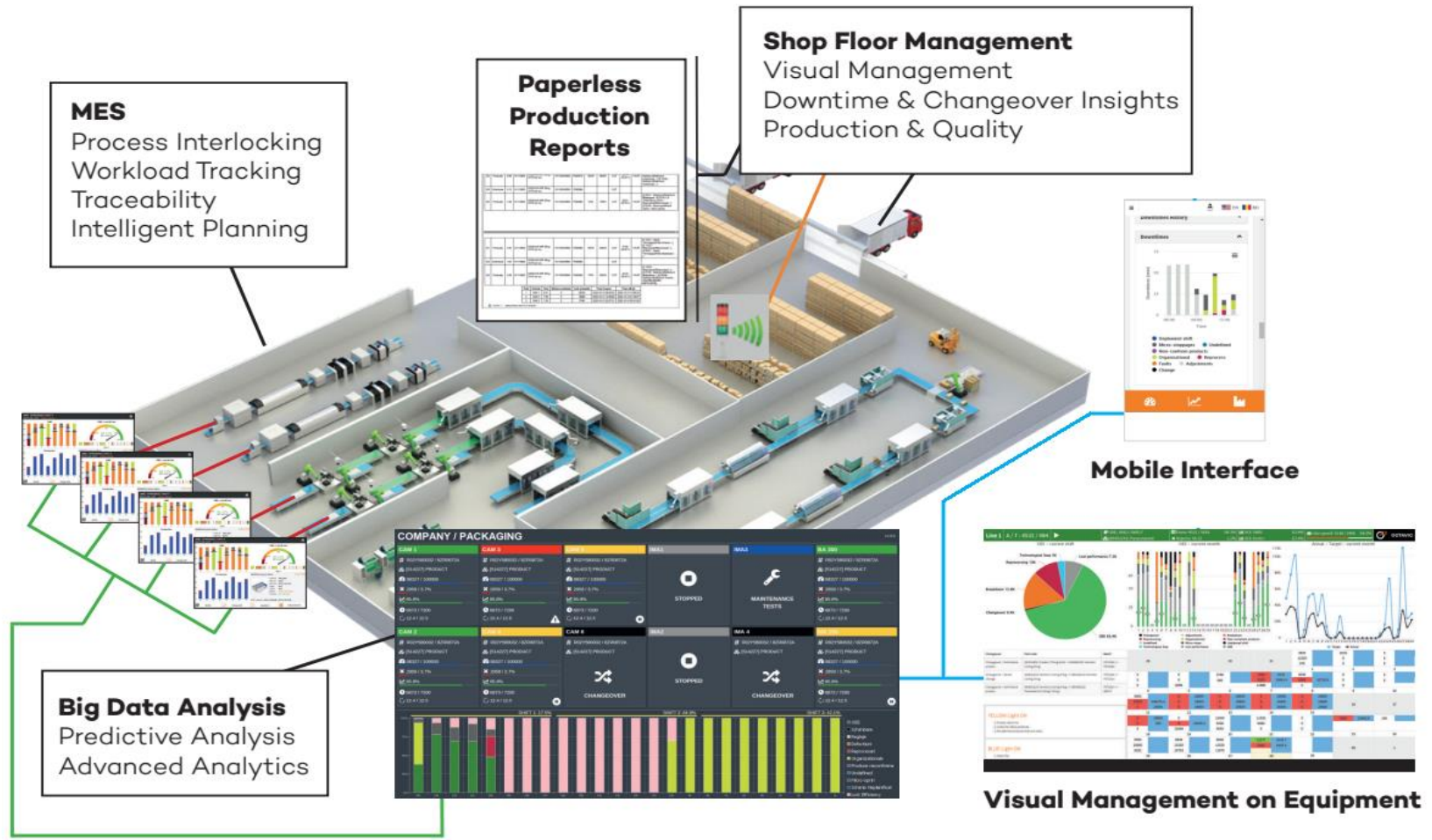
- Octavic Intro
- Project Purpose
- Project Outcomes
- New EFPP Prediction Module
- SPS Augmentation
- Video Demonstration
- Market Addressability

Industry 4.0 Solutions for Manufacturing

Bridging machine data and people knowledge
for real-time production optimization

- Founded 2016
- Headcount 26
- Offices in RO, DK
- Customers are global players – Zentiva, Gedeon-Richter
- Expertise in industrial processes, SW, HW

Industry 4.0 Solutions for Manufacturing



PdM-RASP

[Preventive Maintenance Risks for Advanced Shopfloor Planning] – Type 3

- Include the EFPF PdM analytics engine for risk probabilities in the Smart Production Scheduler
- Enable real-time adaptation of factory operations and robustness in industrial manufacturing

Octavic technology brings:

- Multiple datasets from real industrial environments
- Shopfloor data collection
- Alarms & Visual Management
- Reporting & Analytics
- Google or-tools based Smart Production Scheduler

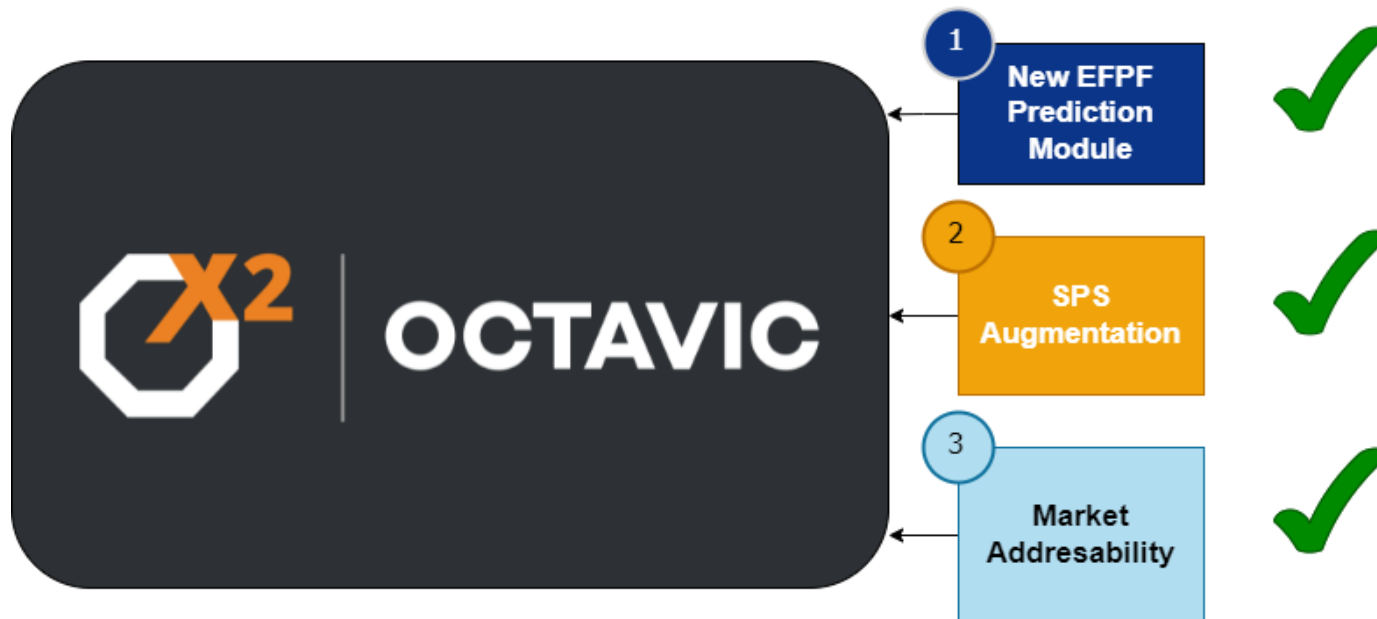
EFPF components integration brings:

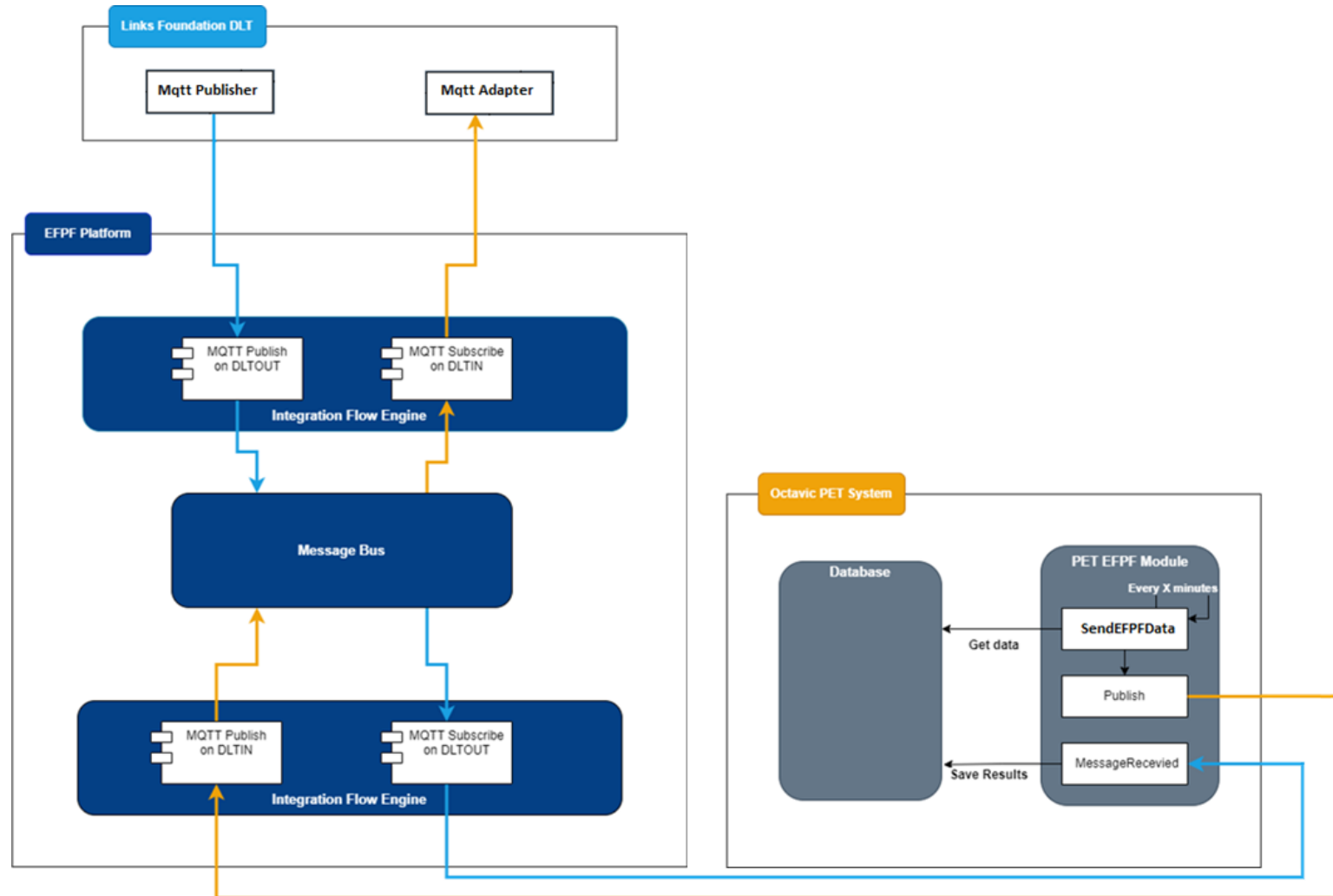
- Equipment failure predictions via the PdM analytics service
- Robust access to predictions via DataSpine
- A prediction network capable of adapting to changes by constantly improving

- O1: platform integration between OCT MOM system and EFPP provider of PdM analytics
- O2: 3 human-contextualized anonymized, validated and processed datasets from industrial manufacturing environments
- O3: 3 test reports on historical datasets from Outcome 2, validating Outcome1 feasibility for PdM Analytics
- O4: 3 field-test reports to validate the accuracy of Outcome 1 in PdM

Objectives

- New system module – PdM Integration
- Smart Production Scheduling module augmentation via the new module
- Increased robustness for SPS module & market addressability





- The Smart Production Scheduling module now considers failure predictions on equipment.
- When a failure is likely to occur, impacted orders are changed.
- If the chance of failure on a specific line is $>70\%$ orders will have their expected end times changed
- Impacted orders are also drawn in different colors, depending on likelihood of failure

Schedule

Current planning (--) *

Scenario to compare with *

2022/03/02 02:00

Factory1\EquipmentGroup1\EquipmentGroup2*

Search

Finished good routing *

Schedule Routing

Equipment	April				May				June				July				August				September								
	Apr 1	Apr 2	Apr 3	Apr 4	Apr 5	Apr 6	Apr 7	Apr 8	Apr 9	Apr 10	Apr 11	Apr 12	Apr 13	Apr 14	Apr 15	Apr 16	Apr 17	Apr 18	Apr 19	Apr 20	Apr 21	Apr 22	Apr 23	Apr 24	Apr 25	Apr 26	Apr 27	Apr 28	Apr 29
Line1	[ExampleOrder/ExampleOrder] 65244910 75%				[350100228780/T21101C] 65258590																								
Line2	[350100229816/T21219L] 83150250 47%				[350100229228/Z18358F] 86904610																								
Line3	[350100230382/U22024A] 65304417 0%				[350100000000/T1C121Z] 85346894																								
Line4	[350100229885/T23031A] 85215692 13%				[350100226031/T1A398A] 65293510																								
Line5	[350100229538/Z18357A] 86904690 17%				[350100000000/T21038C] 86260840																								
Line6					[ILPAK test/ILPAK test] 85180110				[350100000000/T21101B] 85187594				[350100230185/T23022A] 85186300				[350100230184/T23021A] 85186300				[350100230183/T23020A] 85186300				[350100230399/Z21312A] 84114641				
Line7	[350100230197/T23017A] 85180161 0%				[350100000000/V193118B] 89300361																								

Apr '22 May '22 Jun '22 Jul '22 Aug '22 Sep '22

Zoom 1d 3d 1w 2w 1m

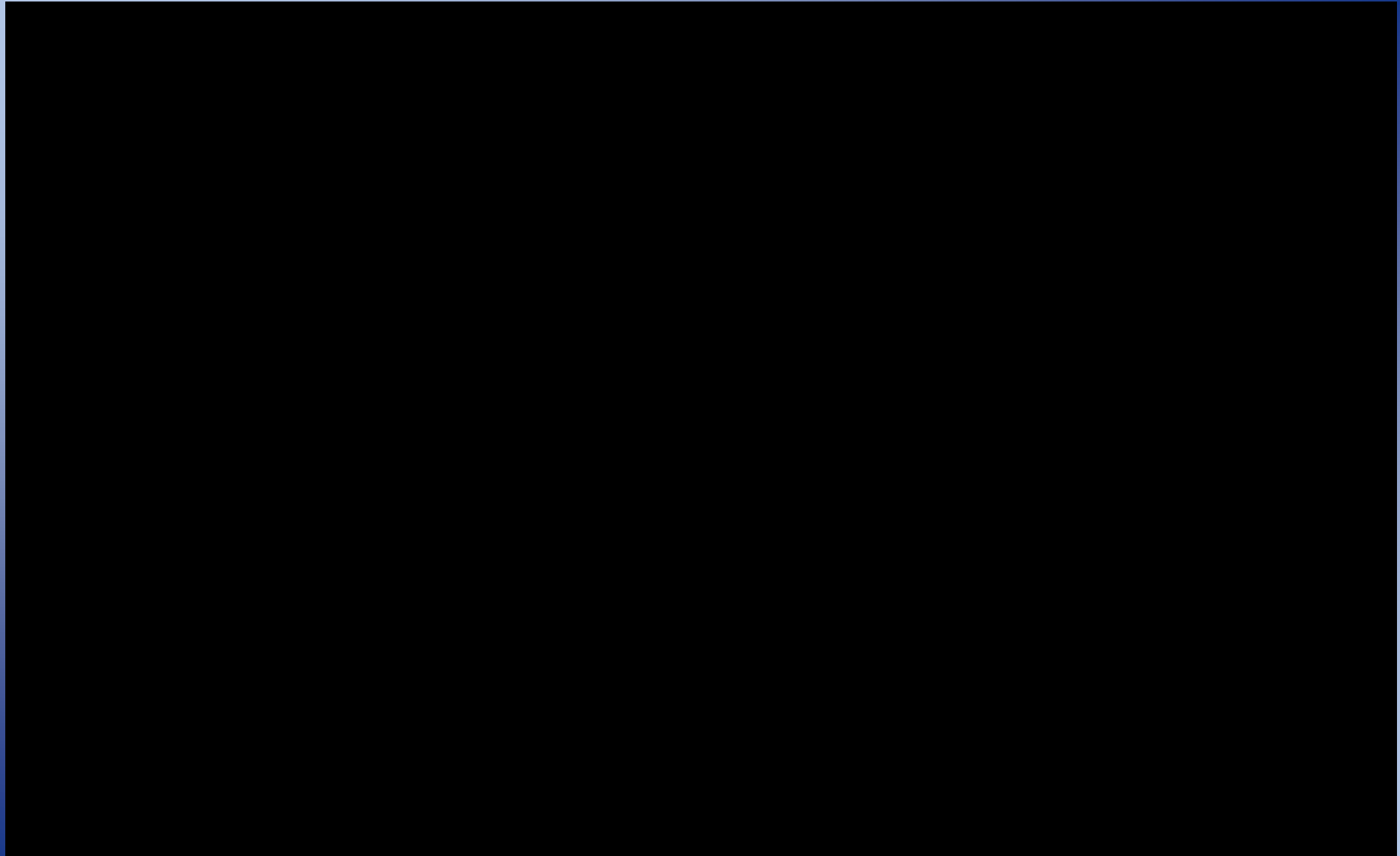
- In progress
- Pending
- Paused
- Completed
- Deadline
- Unplanned shift
- Changeover
- Invalid
- Risk of failure

- The video presents what was achieved as a result of the integration
- For security reasons, we couldn't show live data and instead used a simulator
- The simulator closely resembles a live data feed.
- To show all the capabilities of the system we split the demonstration in two parts.
- First, we simulated an equipment that is likely to fail.
- Then we followed by an equipment that is working as intended.



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Video Demonstration



Industries characteristics:

- High number of similar machines
- Preferable equipment that already have sensors (e.g. vibration)

Target industries

- Metal processing
 - Metal fabrication equipment EU – 30 billion euro
- Wood processing
 - Wood processing equipment EU 7.53 billion
- Food & Pharma

Revenue expected 2023: 50.000 euro

Growth Rate : 30%



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Thank you for your attention!