Production Machinery reloaded: productivity and technology fit towards Industry 5.0

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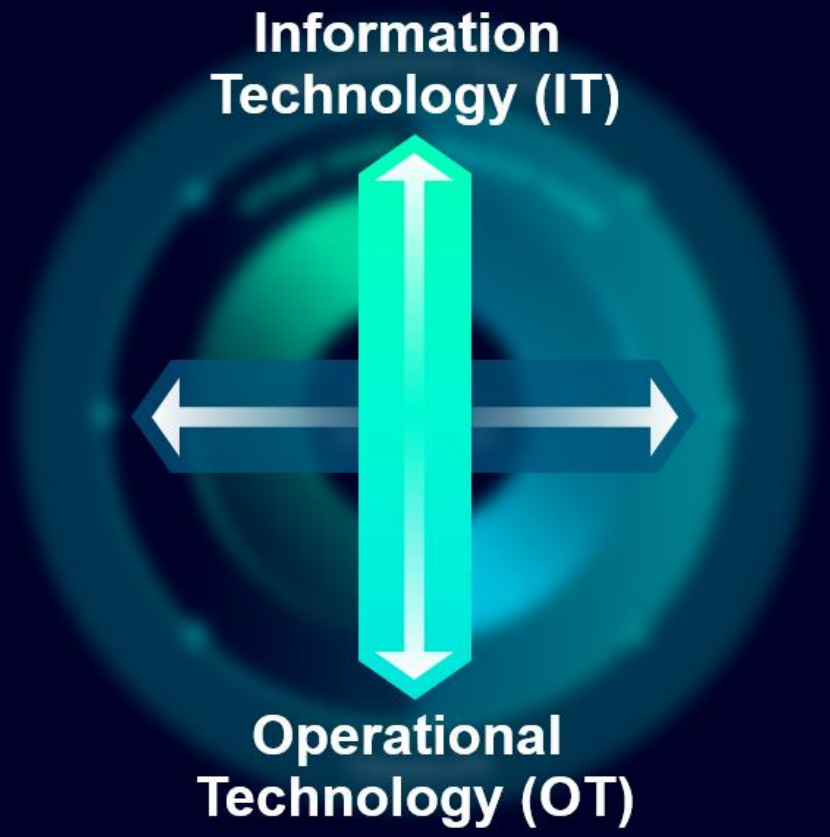
Bringing together OT and IT



Edge Computing introduces IT-mechanisms to the shop-floor to provide local data processing and -analytics capabilities in the easiest way

Provides decentralized and **local** data

- acquisition,
- storage,
- analytics and
- transfer

capabilities

Increases **flexibility** by allowing to deploy **any** software fast and **reliably** on to the shop-floor

Reduces complexity and IT-costs by providing Edge device and –application lifecycle management functionalities

Allows **secure data** handling **within production** and reduces costs for cloud data transfers

From Sensor to Edge to Cloud

Bringing together OT and IT – Data intelligence for data-driven decision making

IT
Information Technology

App Development

Cloud

Manufacturing Execution System

Edge Computing

Controller

Field devices, sensors, motors, and drives

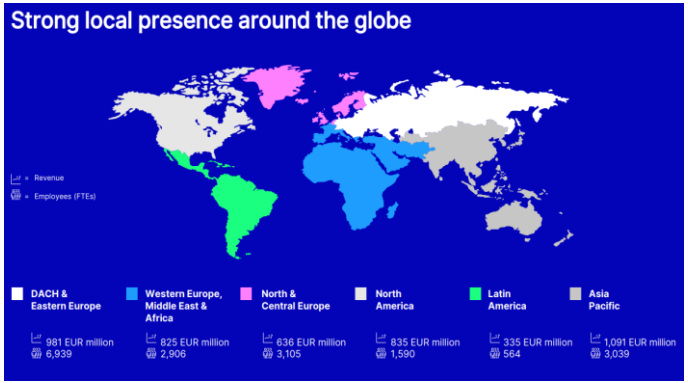
Operational Technology
OT

GEA PEM - PAVAN SPA

GEA at a glance

Order intake	Revenue	EBITDA before restructuring measures	EBITDA margin before restructuring measures	Dividend proposal	Employees
5,222 EUR million. Previous year: EUR 4,703 million	4,703 EUR million. Previous year: EUR 4,635 million	625 EUR million. Previous year: EUR 532 million	13.3 percent of revenue. Previous year: 11.5 percent	0.90 EUR per share. Previous year: EUR 0.85	18,143 Full-time equivalents. Previous year: 18,232

All figures are from fiscal year 2021



Food & Healthcare Technologies Division

Safe foods and medicines for a growing population

Pasta, Extrusion & Milling . Bakery . Slicing & Packaging . Food Solutions . Frozen Food . Pharma & Healthcare

Food & Healthcare Technologies provide solutions for food processing. This covers preparation, marinating and further processing of meat, poultry, seafood and vegan products, in addition to processing lines for pasta, baked goods, snacks, breakfast cereals, confectionery and pet food. GEA also offers equipment for freezing, slicing and packaging of food and milling.

GEA solutions for the pharmaceutical & nutraceutical industry include components, equipment and entire plants for processing solid, liquid as well as semi-solid products and high potent drugs either for batch or continuous production.

Revenue	EBITDA before restructuring measures	EBITDA margin before restructuring measures	Employees
937 EUR million. Previous year: EUR 895 million	100 EUR million. Previous year: EUR 79 million	10.7 percent. Previous year: 8.8 percent	3,577 Full-time equivalents. Previous year: 3,436

Pasta, Extrusion and Milling, Machinery for food industry

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The machinery production is constantly evolving by using new technology and facing new challenges due to industry and market scenarios: as GEA,

- **we are designing a new fit to match high productivity and sustainable productivity** that's because nowadays the available technological offer is pretty wide and to find a suitable business case may not an easy task. The technological sustainability is approached by proper connectivity system architectures

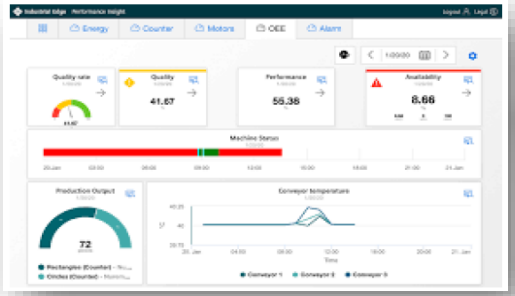
- **by introducing latest enablers** like EDGE, IT protocols, Cybersecurity protocols and new generation sensors but most important topic is about Business Intelligence software and algorithm, Platform agnostic approach.

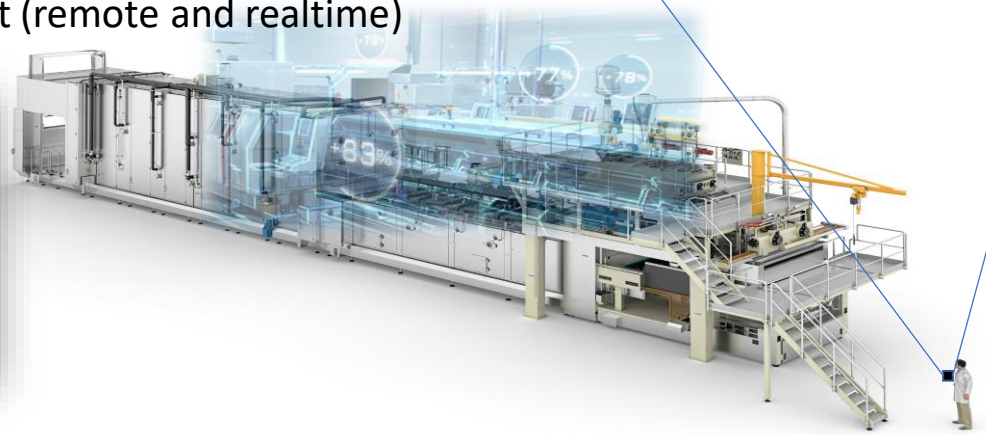
- to let **Customers to be able to take actions and decisions** to run business operation on time and on cost targets and looking at Machinery “Life-Cycle-Cost”.

Machinery Performance monitoring

– Energy Management Factory engineering (remote and realtime)

– Machinery Performance Insight (remote and realtime)



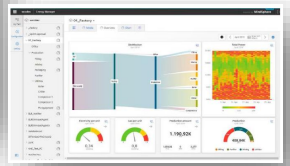


GEA PAVAN monitoring system

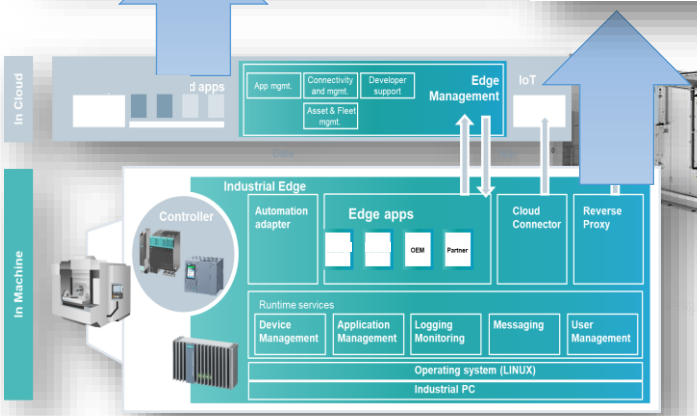
→ Customer's benefits:

- Real Time monitoring
- Remote by GEA
- Enabling improvement
- Productivity info

Machinery management supervisor (LOCAL/CLOUD)



Faults and performance monitor (LOCAL/CLOUD)



Engineering for a better world.