

AVEVA PI WORLD

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# MES Smart Manufacturing in FEEDMILL With AVEVA PORTFOLIO

Krungthai Food Public Co., LTD – Case Study

Presented By: Punya Sahoo



AVEVA

ENDORSED  
System  
Integrator

Endorsed Operate



Punya Sahoo  
**Regional Director – SouthEast Asia**

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## INDEFF Team

- Long experience with a lot of successful projects: multi-site, multi-country
- Dairy Experts, Food & Beverage, CPG
- Highly certified on AVEVA products
- Act as One
- Strong Project Methodology



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Countless Parts.  
One Flow.



Asset Performance  
Management



Manufacturing  
Execution Systems



Industrial  
Automation

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#### IN NUMBERS

- : Since 2003
- : +1000 projects
- : 11 offices
- : 24/7 support

# About KRUNGTHAI Food Public Co., Ltd.

- Krungthai Food Public Company Limited is a subsidiary of GFPT. which acts as a producer and distributor of animal feed for Krungthai Farm Company Limited, M.K.S. Farm Company Limited and GP Breeding Company Limited, which are affiliated companies that operate chicken farms for grandparents, parent chickens, and broilers. Krungthai Food have 3 factory.

The animal feed production business of Krungthai Food Public Company Limited has a wide range of products such as chicken feed, broiler feed, swine feed, cow feed, fish feed, frog feed, shrimp feed, goat feed, quail feed, beef and dairy cattle feed, dog food.

- In the Krungthai Food 1 factory (KT1), located in SamutPrakan Province, Thailand. It is one of the important factories that are responsible for production. With a total production capacity of 599,000 tons per year, the products produced are mainly distributed to general customers.
- In the Krungthai Food 2 factory (KT2), it is a new animal feed factory located at BanBueng District, Chonburi Province. It opened in 2009 with a production capacity of 512,000 tons per year.
- In the Krungthai Food 3 factory (KT3), it is a new animal feed factory located within same production area as KT2. It is just in commissioning phase with a target production capacity of 803,250 tons per year.





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# Opportunity

- **AUTOMATION OF A GREENFIELD FACTORY  
WITH MES SMART MANUFACTURING AT KT3**
- **MES/BATCH MANAGEMENT ARE ESSENTIAL  
ON THE WAY TO OPERATION EXCELLENCE**
- **ADVANCED PLANNING & SCHEDULING**
- **MAXIMIZE USAGE OF PRODUCTION LINE**
- **REAL TIME INVENTORY MANAGEMENT**



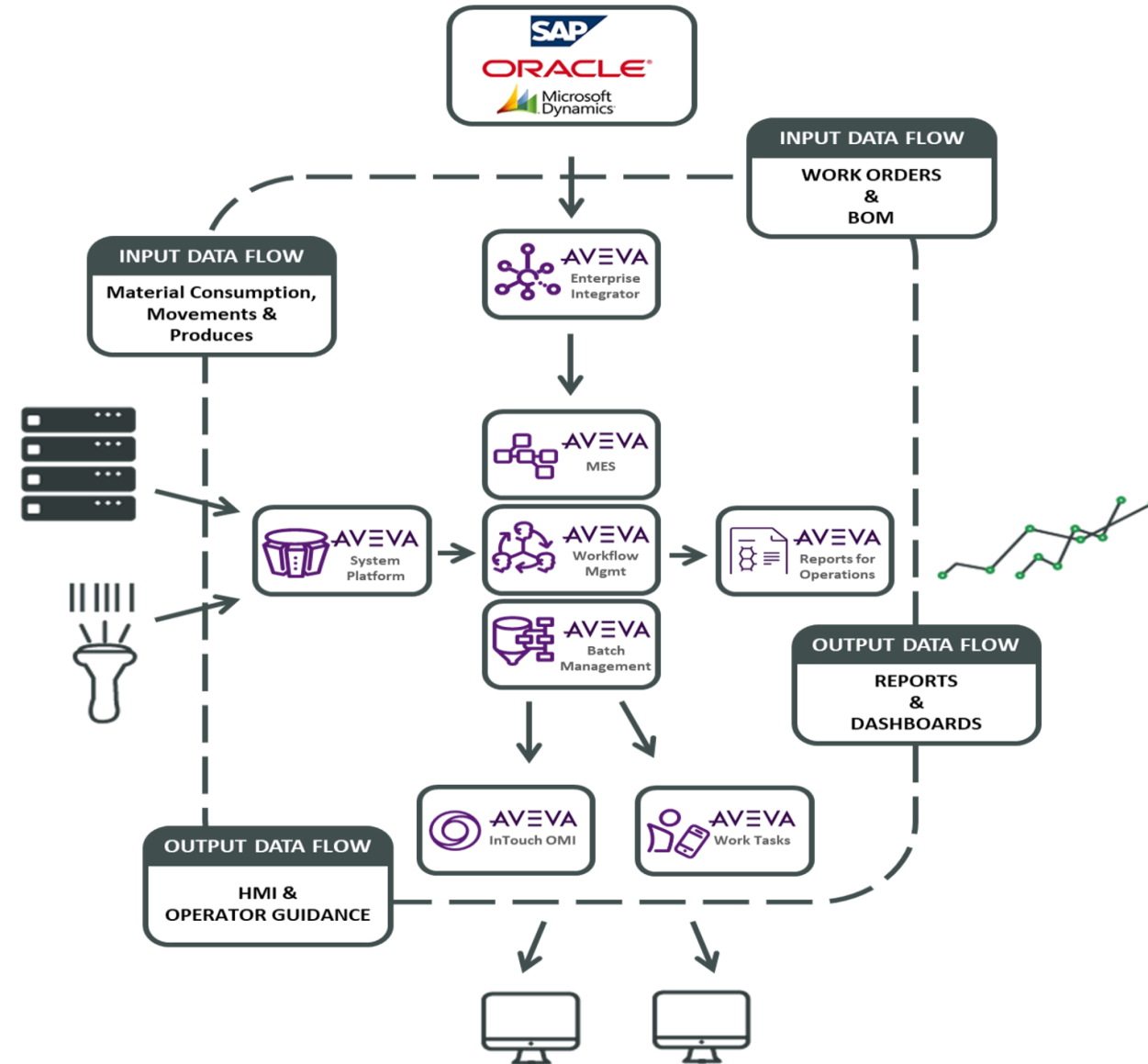
# Challenges / Goals

- **FULLY INTEGRATED, COMPANY-WIDE SAP INTEGRATION, 3<sup>rd</sup> PARTY RECIPE INTEGRATION.**
- **RELIABLE – STANDARD – FLEXIBLE**
- **TRACEABILITY/PRODUCTION MANAGEMENT THROUGHOUT THE SUPPLY CHAIN**
- **TRUCK CONTROL SYSTEM, WITH RAW MATERIAL INTAKE AND FINISH GOOD REGISTRATION WITH SAP.**
- **MULTISITE ROLLOUT WITH STANDARD SOLUTION**



# Enabling Solution/Delivery Approach

- SYSTEM PLATFORM WITH INTOUCH OMI
- PLANT MES/ QUALITY / WORKFLOW
- BATCH MANAGEMENT
- ENTERPRISE INTEGRATOR
- REPORTS FOR OPERATIONS



# Enabling Solution/Delivery Approach

- **MODEL DRIVEN MES APPROACH – STRONG AVEVA PORTFOLIO**
- **INVENTORY MANAGEMENT**
- **PRODUCTION TO FOLLOW WITH PLANNING & SCHEDULING**
- **LABELING AND SCANNING WITH CUSTOM-MADE LABELS**
- **STRONG PROJECT METHODOLOGY IS KEY TO SUCCESS**
- **PROCESS EXPERTISE/LIBRARIES**
- **A STRONG CUSTOMER BASED KNOWLEDGE**





# Result

- **UNIQUE MES MODEL** that cooperates perfectly with the ERP system. Truck loading system which tracks all InTake and Finish Good and link to each order in ERP. Better coordination between Production & ERP.
- **CENTRALIZE** production information (UNIFIED OPERATIONS CONCEPT)
- **CENTRALIZED** Recipe control, Parameter management, BOM, Formula management.
- **TRACEABILITY** throughout Factory, Cross-factory.
- **SCANNER APPLICATION** to register production and consumption, movement Of material across factory, right in time to avail for production use.



# Lessons Learned / Insights

- **STRONG PLATFORM PORTFOLIO**
- **COLLABORATION IS KEY**
- **STANDARD FUNCTIONALITY CUSTOM MODIFICATIONS**
- **INDEFF 80X20 APPROACH.**
- **HIGH LEVEL ARCHITECTURE AND SYSTEM MONITORING WITH SECURITY MODEL IN PLACE**



THANK YOU

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NGIYABONGA

TEŞEKKÜR EDERİM

DANKIE

TERIMA KASIH

GRACIES

WHAKAWHETAI KOE

DANKON

TANK

TAPADH LEAT

SALAMAT

SPASIBO

GRAZIE

MATUR NUWUN

ХВАЛА ВАМ

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GRAZIE

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FAAFETAI

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DI OU MÈSI

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MERCI

GRAZZI

PAKKA PÉR

HATUR NUHUN

PAXMAT CAĞA

CẢM ƠN BẠN

WAZVIITA

FALEMINDERIT

ありがとうございました

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UA TSAUG RAU KOJ

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# DATWYLER – Shopfloor Integration

Global rollout

Presented By: Bart Drieman





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Bart Drieman  
**Senior Account & Project Manager**  
20 years experience

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- Multiple Regions, 11 Offices, Act as One

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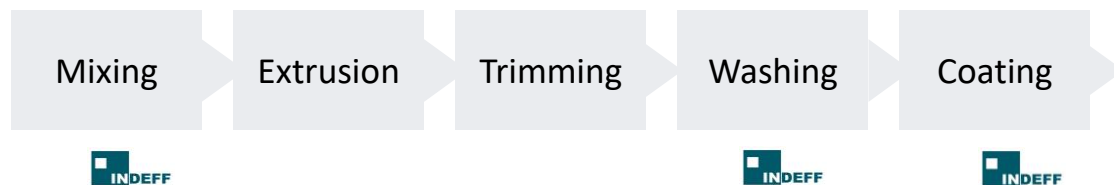
# About **DATWYLER**

- **At home in Switzerland, at home in the world**
  - Founded in **1915**
  - **20+** operating sites, divided into healthcare and industrial solutions divisions
  - Annual sales of more than CHF 1'000 million in **100+** countries
  - **7'000+** employees
  - Leading and growing positions in attractive global markets such as **healthcare, mobility, oil & gas** and **food & beverage**
- **Datwyler Healthcare – sealing solutions**
  - Leading provider of high-quality, system-critical elastomer components for pharmaceutical industry



# Strategic partnership

- The cooperation between DATWYLER and INDEFF started in 2008 and has proven to be a driving force behind a **global standardization process**.
- Driven by success, DATWYLER pronounced INDEFF as its **strategic partner** for production automation and shopfloor integration to ERP.
- The production process starts by mixing pure rubber with other substances. After the mixture is extruded, formed, washed and coated, it is **fit for medical and specialized applications around the world**.

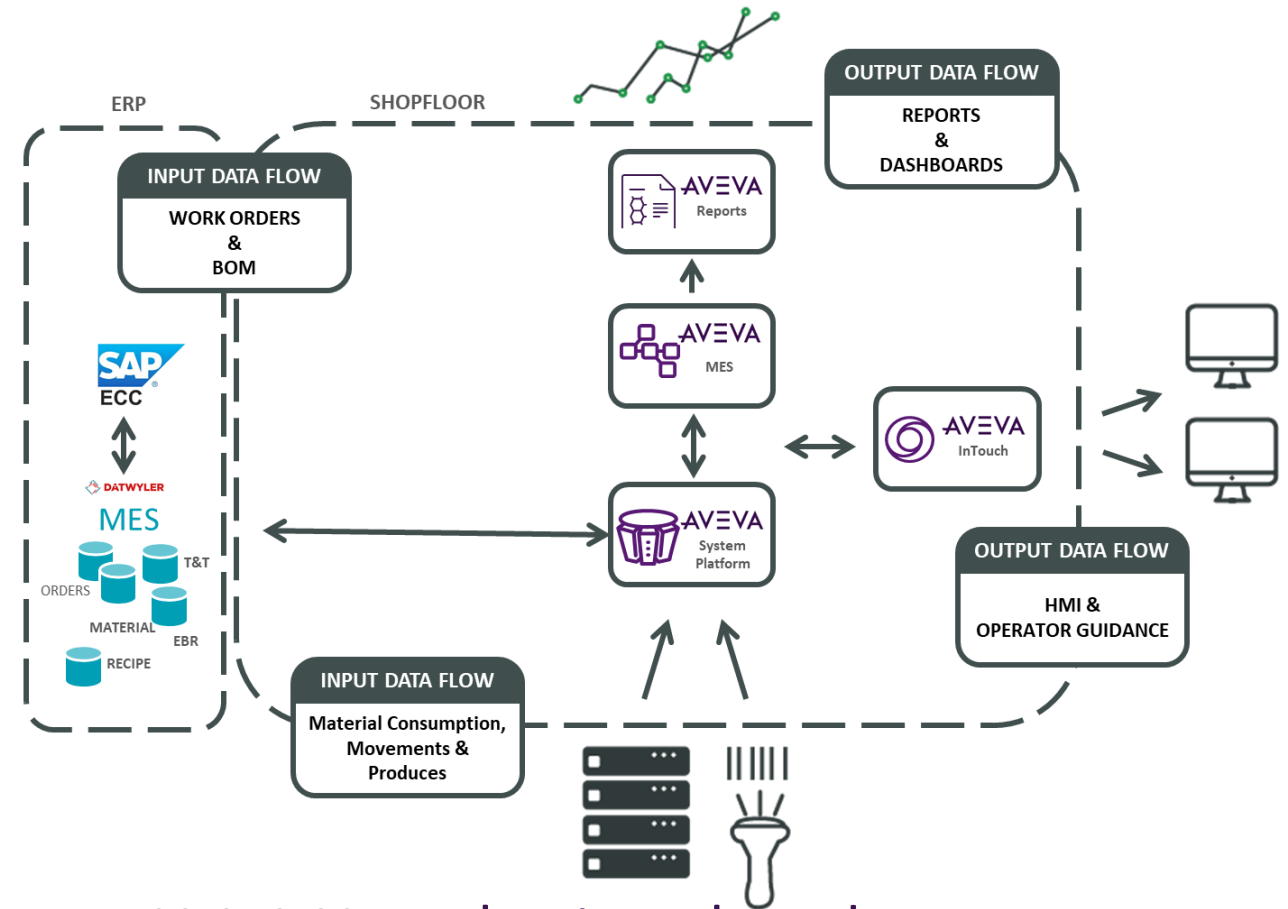




# Problem / Challenge / Opportunity

- **Problem**

- Existing MES system uses outdated technology. Utilization of global innovation (Industry 4.0) is at risk
- Highly entangled with the production floor, leading to downtime progression across platforms and throughout the organization.
- Key system knowledge is centralized and limited to [very] few resources.
- Organization expansion could no longer be secured
  - due resource limitations
- Business continuity (24/7 support) is at risk
- SAP ECC-HANA conversion

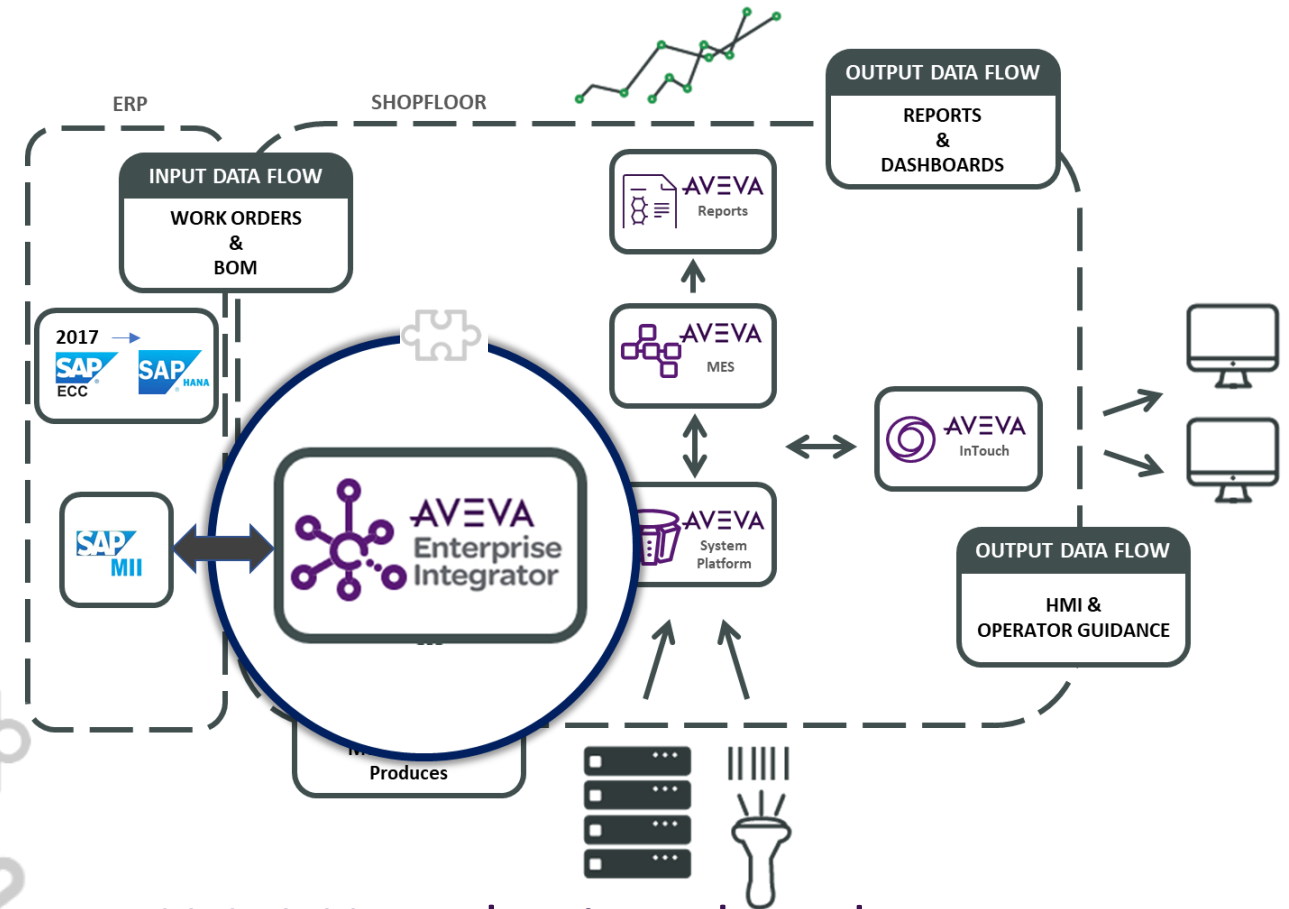


AVEVA solution landscape

# Problem / Challenge / Opportunity

- **Challenge**

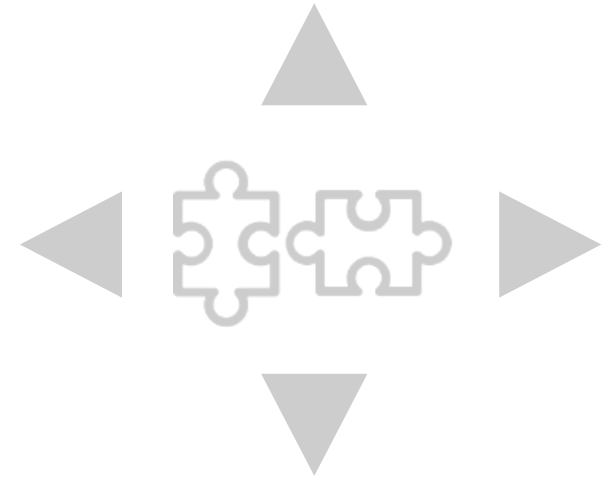
- Replacing the customized solution by a standard, flexible & accessible automation solution while adhering to industry standards for documentation, validation and project methodology.
- Synchronizing projects for production expansions, installed base roll outs with the Global SAP4-Hana conversion



AVEVA solution landscape

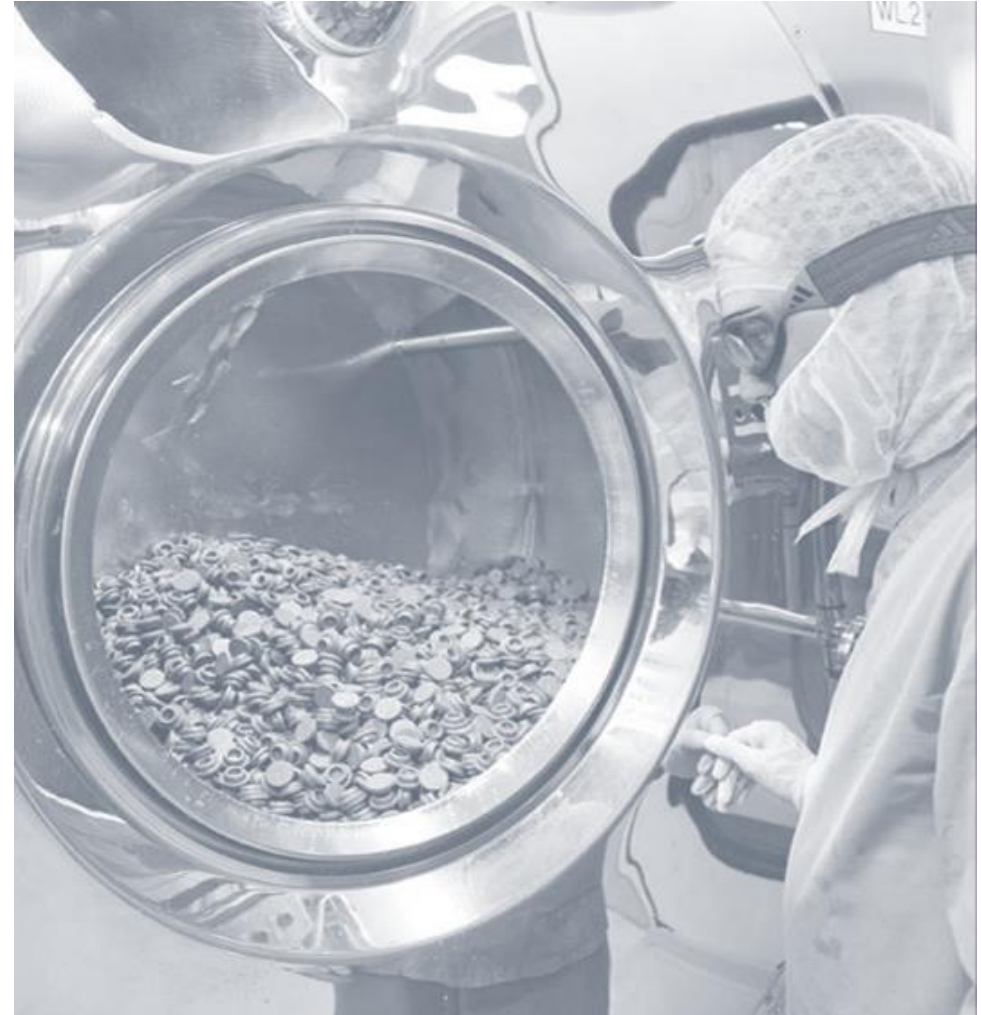
# Problem / Challenge / Opportunity

- **Opportunity**
- The new, AVEVA EI solution provides Datwyler with a fixed, flexible MES interface standard which enables faster expansion capabilities leverages production efficiency.
- The project already expanded far beyond the Belgian pilot plant in Alken, to production sites in India, Italy and brand-new facilities in the United States.
- Exploration EI integration in other production areas
  - Packaging
  - Vision inspection
  - Energy management systems



# Result / Status

- ✓ Standard MES solution for process units across the globe
- ✓ Accessible and insightful for a larger group of engineers
- ✓ Easy to maintain and support
- ✓ Significant reduction of downtime and support call's
- ✓ Reduced system entanglement





# Lessons Learned / Insights

- Good collaboration with the customer and integration partners
- Clear project methodology and agreements
- DTAP testing approach
- The right tool for the right purpose



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