



AVEVA WORLD



# Agropur's Digital Journey

*Leveraging MES Capabilities  
with CONNECT*

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# Agenda

- ✓ Agropur Overview
- ✓ What Started the Journey
- ✓ Current MES State
- ✓ Hybrid MES Rollout
- ✓ Lesson's Learned



# Agropur Overview

**Agropur plays a key role in the nutrition of communities by offering healthy, high-quality dairy products.**

- Beyond our brands, Agropur is a major processor in the business-to-business (B2B) trade for:
  - ✓ Industrial customers and further processors
  - ✓ Foodservice: restaurant chains and institutions such as hotels, schools and hospitals
  - ✓ Private labels of major grocery chains
- Our passion for excellence and commitment to quality have made us:
  - ✓ The largest dairy processing cooperative in Canada
  - ✓ One of the five largest cheesemakers in the US
  - ✓ One of the top 20 dairy processors in the world

# Highlights

## ***Founded***

**1938**

Granby, Qc

**87** founding members

## ***Members***

**Close to 2,700**

dairy farmers

## ***Sales***

**C\$ 8.8** billion

## ***Milk processed***

**6.8 B** litres

## ***Head Office***

**Longueuil, (Québec)**

## ***Plants***

Total **29**

Canada **22**

USA **7**

## ***Employees***

Total **7,000**

Canada **5,000**

USA **2,000**



# Our Brands

*Natrel*<sup>MD</sup>

OKA<sup>TM</sup>

MONSIEUR  
GUSTAV<sup>TM</sup>

*Sealtest*<sup>\*</sup>

L'EXTRA

Québon<sup>MD</sup>

island  
FARMS<sup>TM</sup>



Farmers<sup>MD</sup>

AGROPUR  
Grand Cheddar<sup>MD</sup>

lucerne<sup>MD</sup>  
DEPUIS 1904

SCOTSBURN<sup>MD</sup>



# Cygnus Overview

**Cygnus Consulting Inc. is an experienced Systems Integrator focused on delivery of digital manufacturing systems**

- Locations in Markham Ontario and Laval Quebec
- Certified AVEVA System Integrator
  - ✓ System Platform
  - ✓ MES Operations and Performance

# Challenges of managing 29 sites

- ✓ No standard, each plant had its own system
- ✓ No visibility on costs & application footprint
- ✓ Customization for plant specific needs
- ✓ Hard to sustain & support

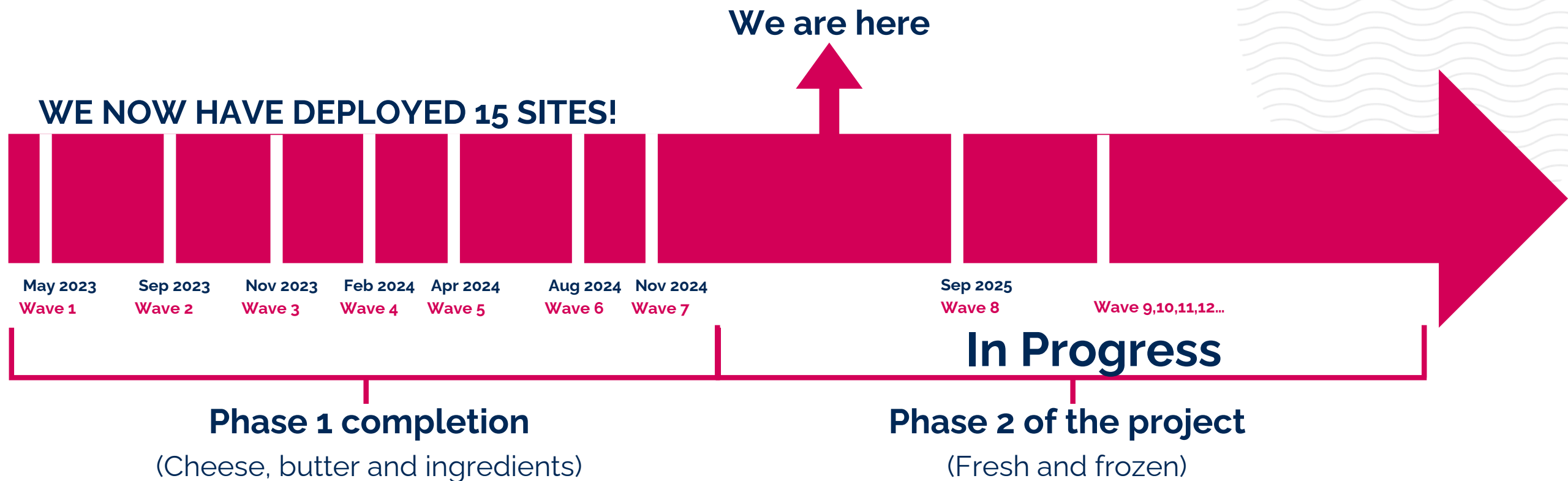
- 
- |                            |                              |
|----------------------------|------------------------------|
| ★ Head office              | 📍 Cheese plant               |
| ★ Offices                  | 📍 Ingredient plant           |
| 📍 Fluid Milk / Fresh plant | 📍 Cheese / Ingredients plant |
| 📍 Ice cream plant          |                              |



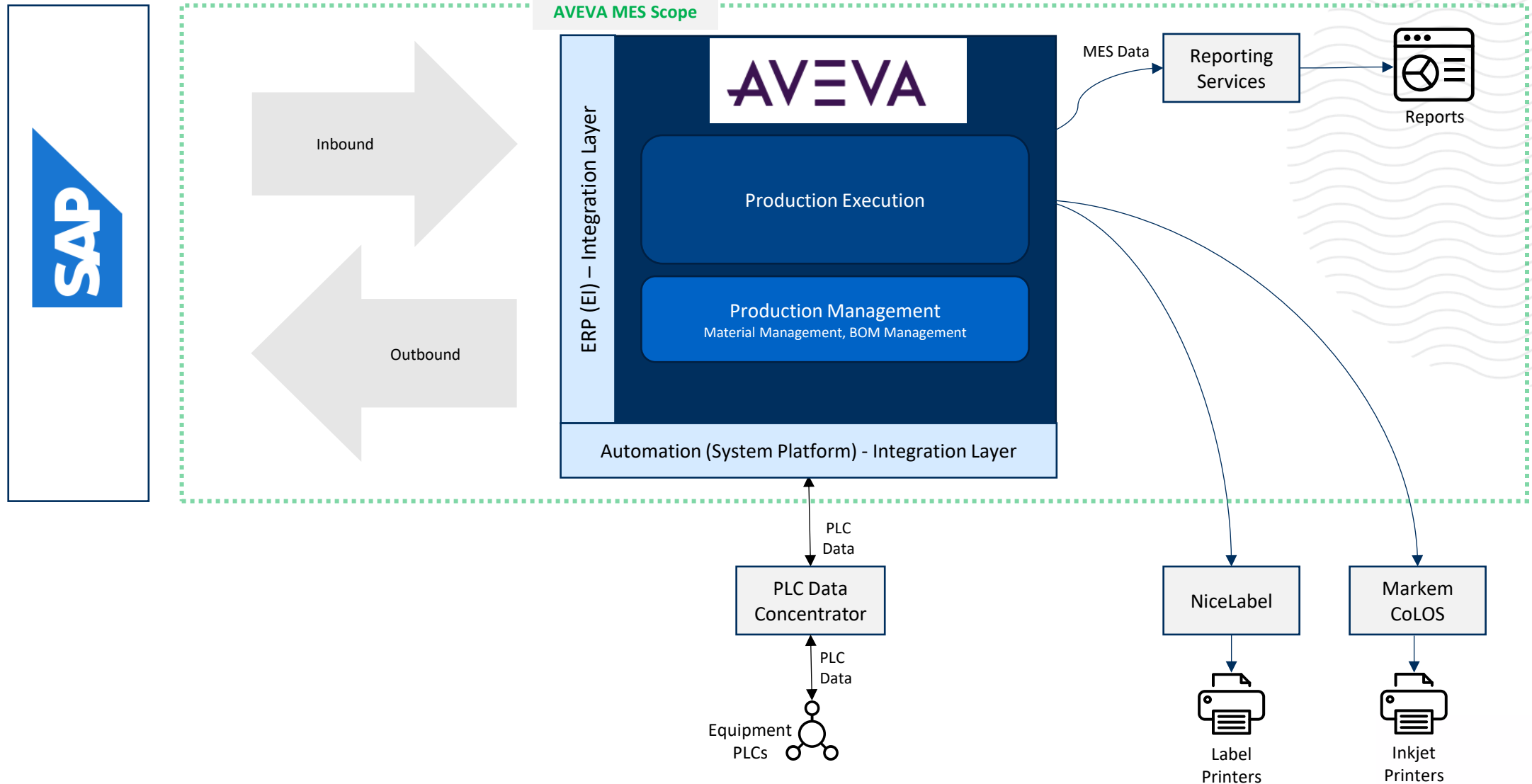
# LEAP 1.2 Overview



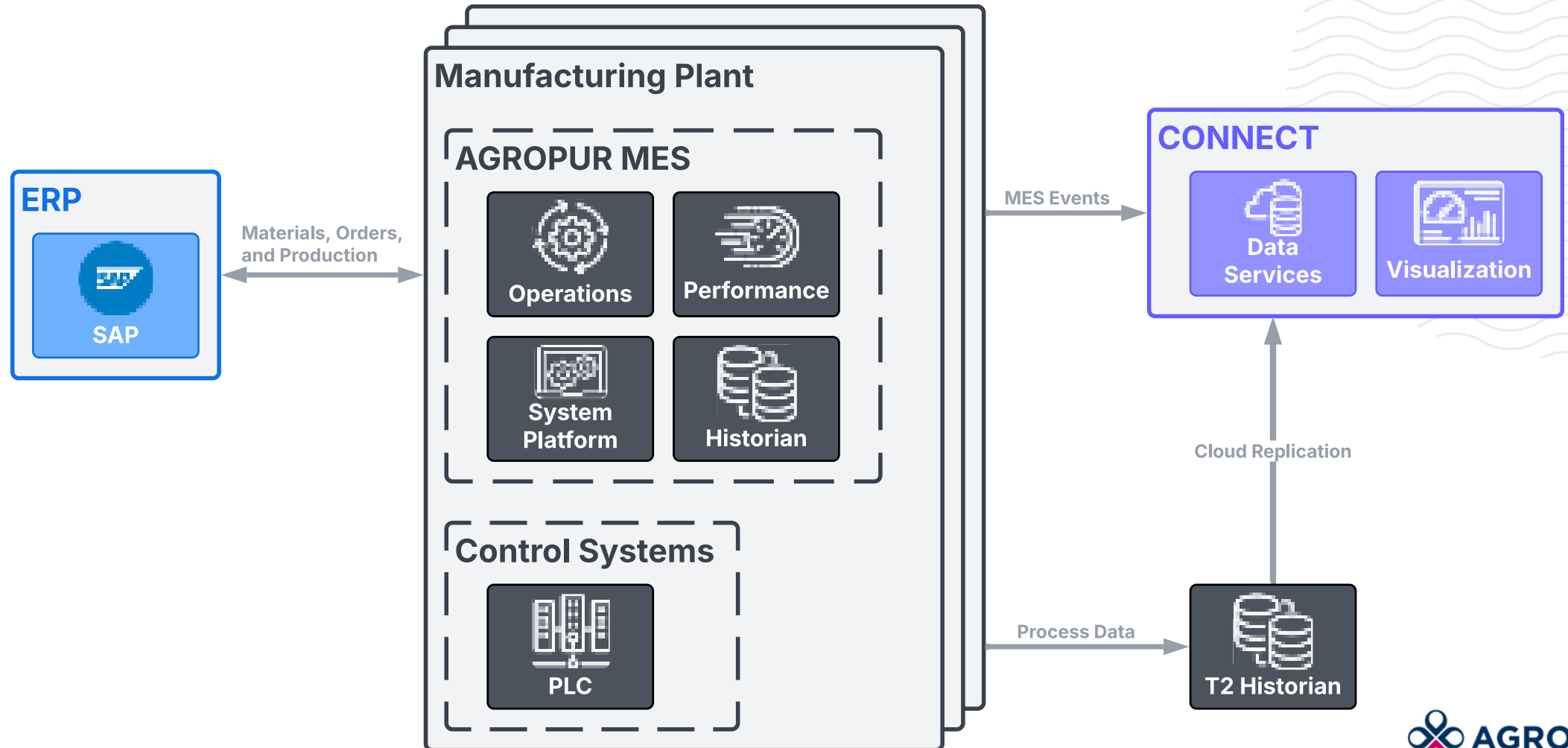
# LEAP Deployment Roadmap



# MES Context Diagram

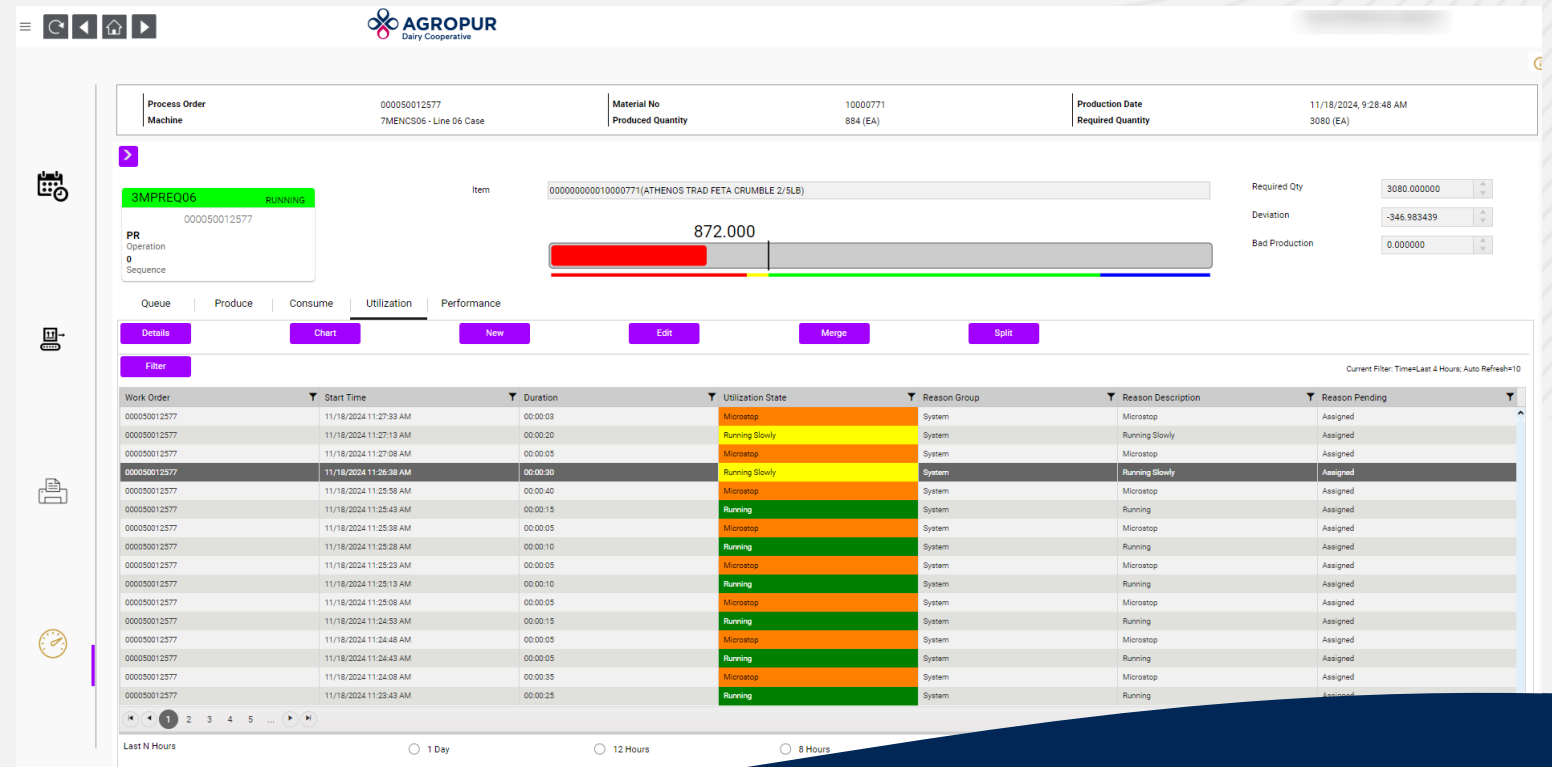


# Hybrid MES



# MES Screens Integration

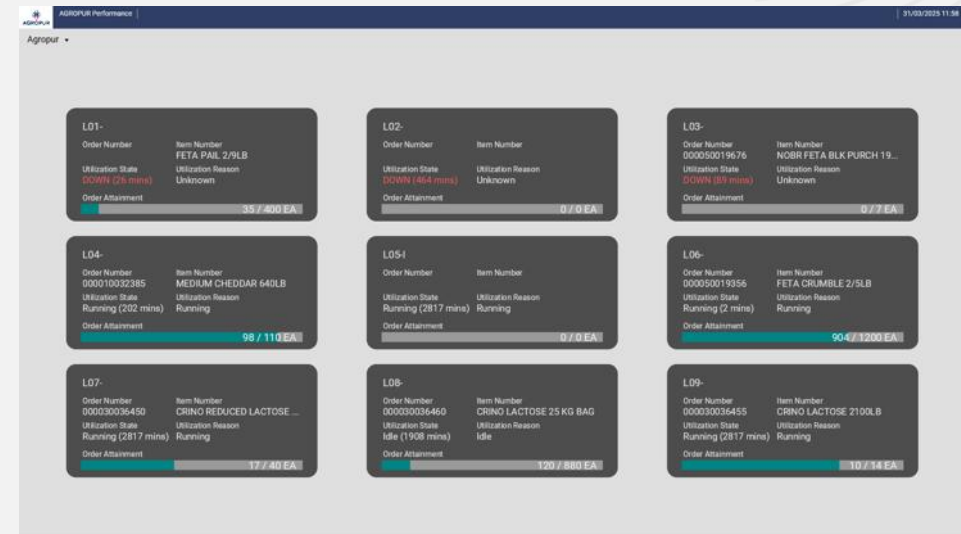
- Operators Integrated into the MES Operator screens
- Transparent for using MES



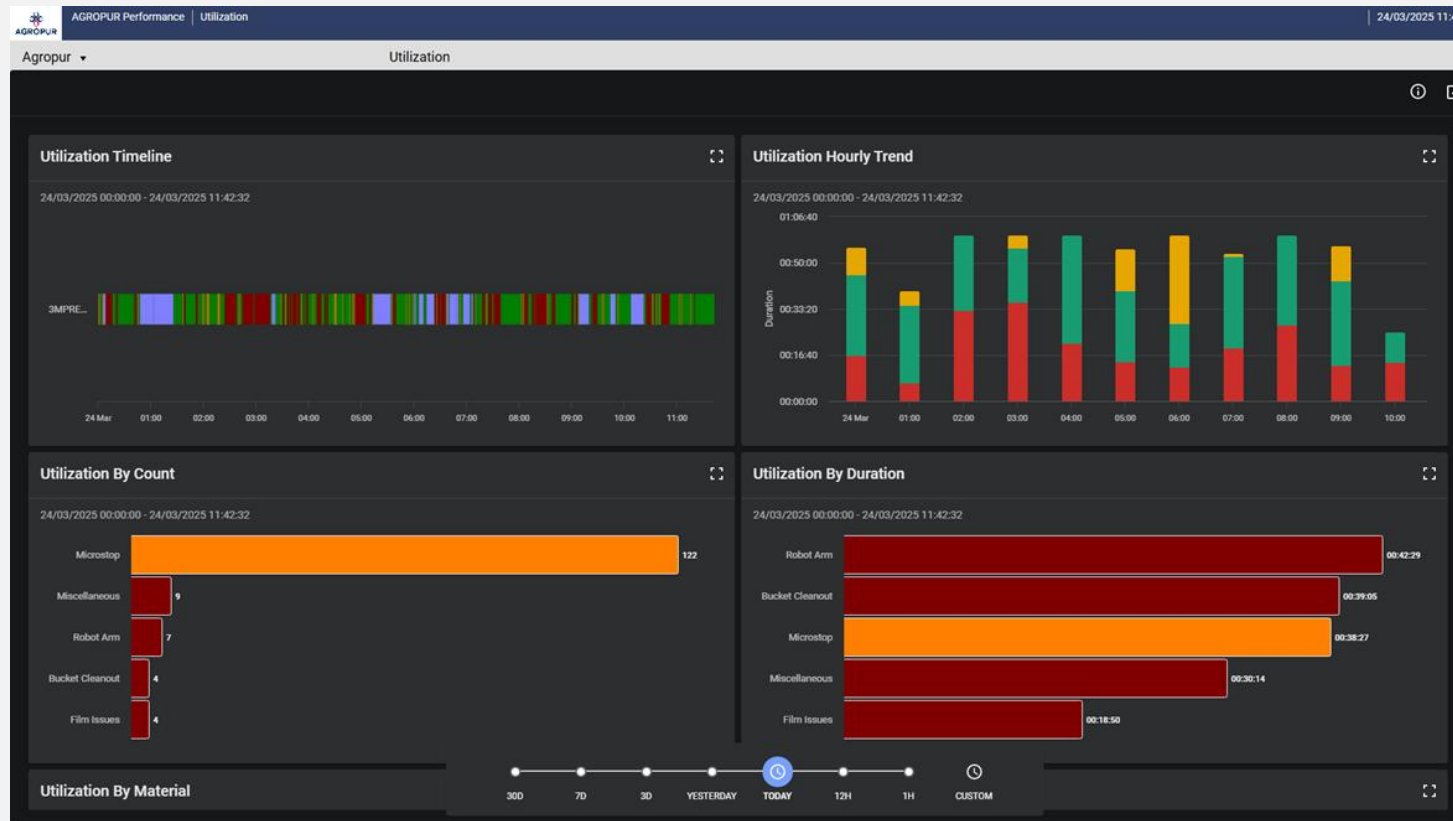


# OMI Visualization

Publish OMI Viewapps to CONNECT Visualization

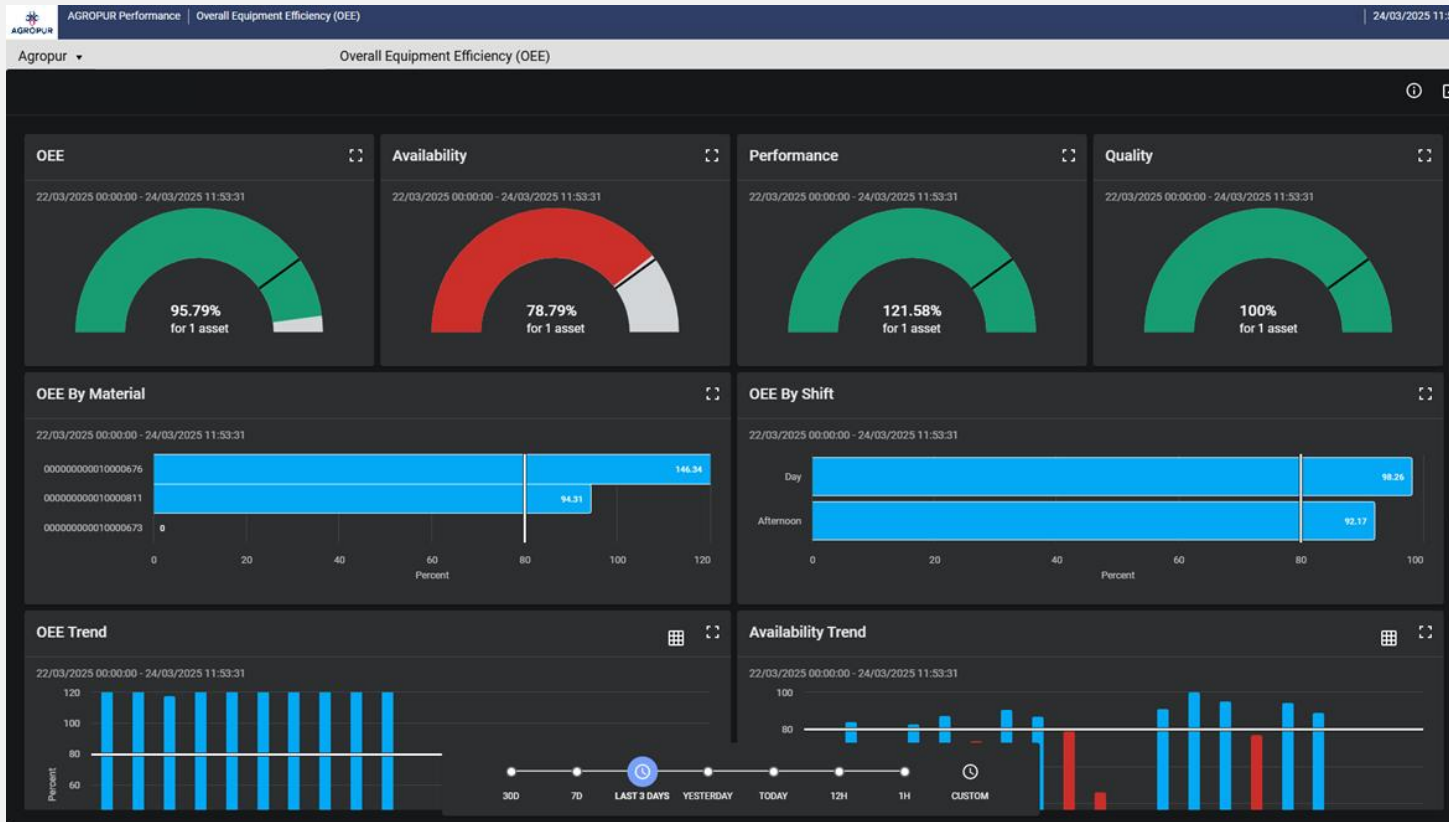


# CONNECT MES Visualization



Visualize utilization  
data using built-in widgets

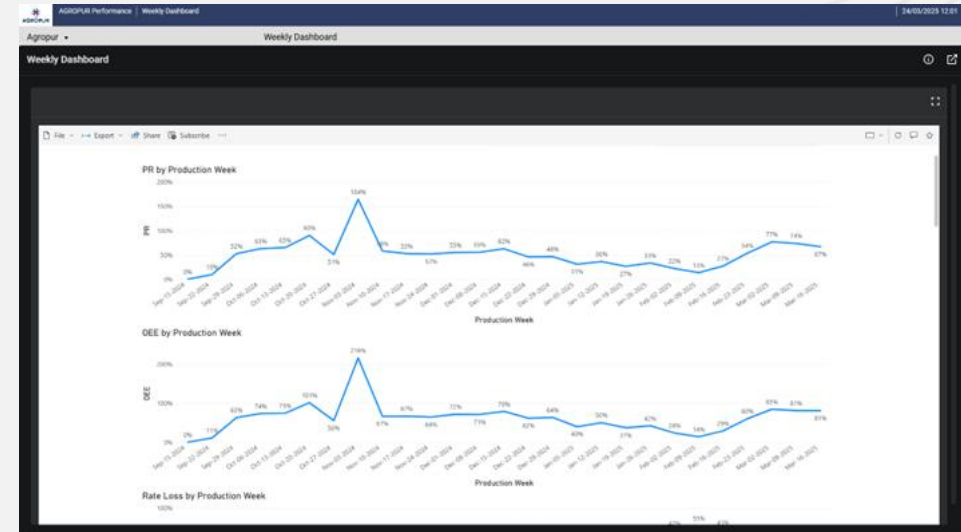
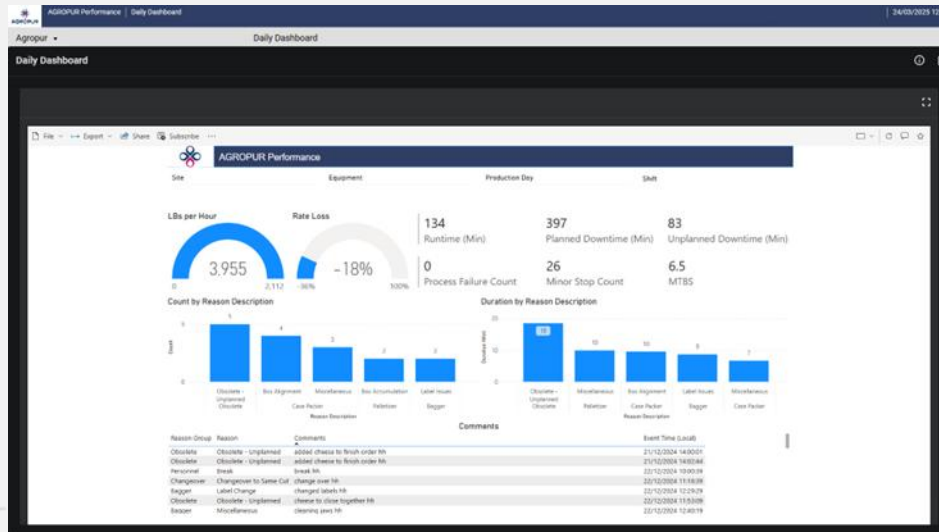
# CONNECT OEE Visualization



Visualize OEE trends  
using built-in widgets

# CONNECT PowerBI Integration

Embed Power BI reports to CONNECT visualization

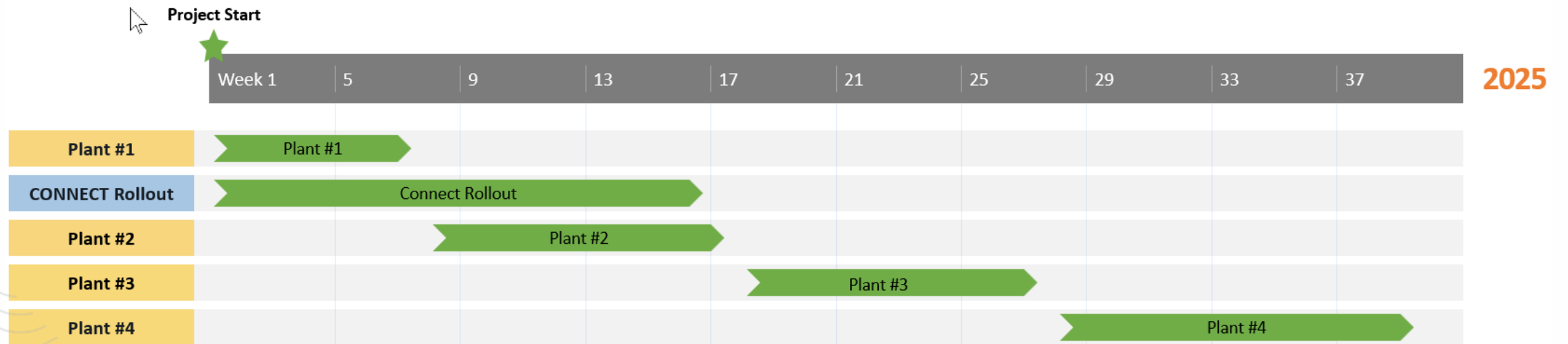


# Hybrid MES Project

- Phased Approach
  - ✓ Phase 1 Rollout to four US Cheese & Ingredient sites
- MES Performance with Model Driven MES (MDM) configured into existing AVEVA MES system
- Configuration of CONNECT to each site
- Joint effort between Agropur, AVEVA, and Cygnus
  - ✓ Regular design sessions with Agropur plant process improvement teams
  - ✓ Assistance with design from AVEVA
  - ✓ Development of custom CONNECT visualization by Cygnus and AVEVA



# Project Status



# Lessons Learned & Takeaways



Personalise Training curriculum for business targeted needs



Collaboration with AVEVA to bring Corporate visibility on all plant's initiatives



Well defined implementation strategy



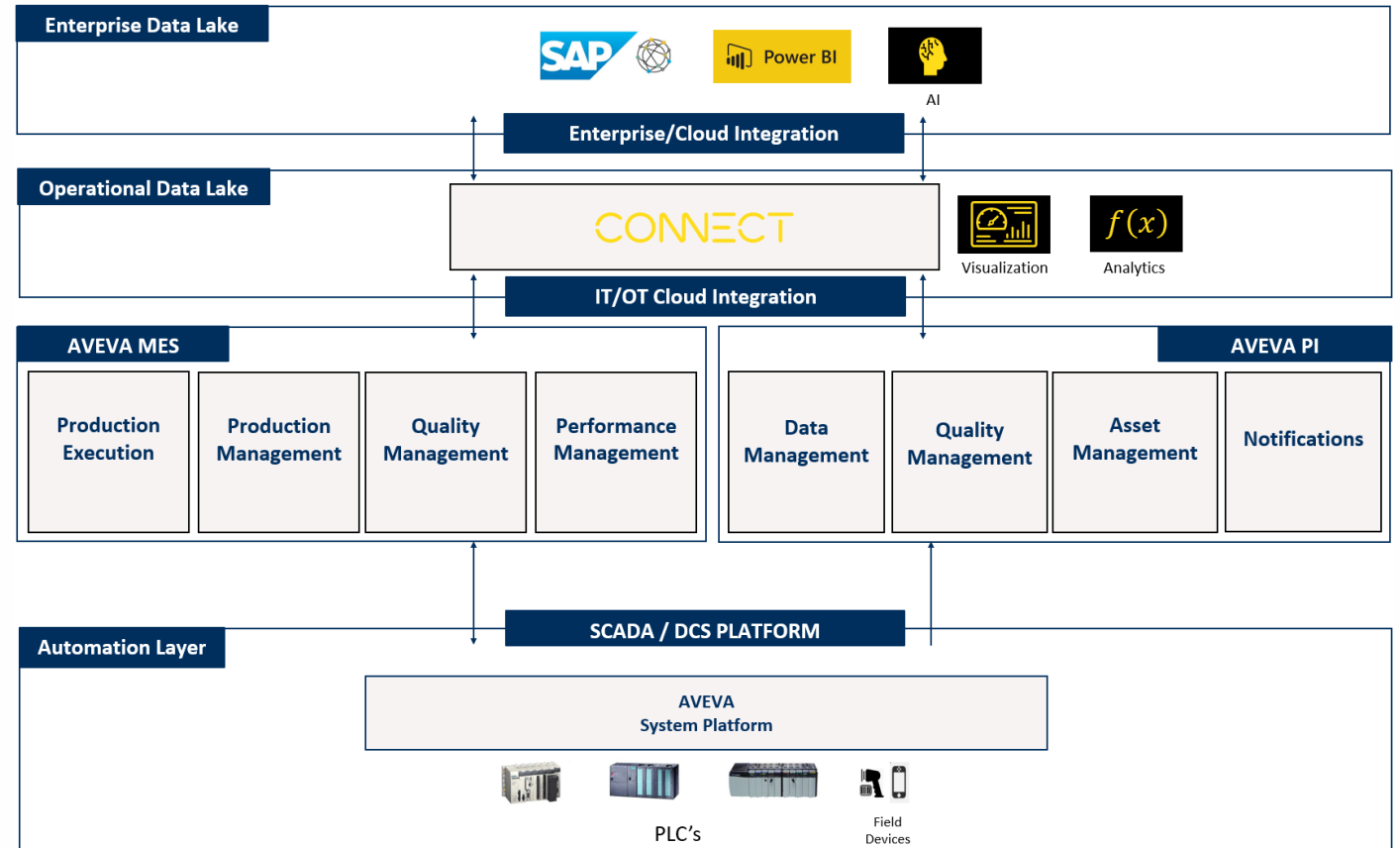
Clearly define business stakeholders that wants your system



Don't underestimate the impact of change management

# Upcoming for Agropur

- Guiding Principles:
  - ✓ One global design
  - ✓ One system
  - ✓ Fits local plant specifications
- Future Goals
  - ✓ Capitalize on AVEVA MES Platform
  - ✓ Aligning with industry 4.0 principles
- Data Flow Model Improvements
  - ✓ Leveraging PLC data from Data Concentrator, AVEVA Historian & AVEVA PI



# Agropur Cooperative standardize and scale implementation approach

## Challenge

- Customization for plant specific needs
- No standard, each plant had its own system
- Different ways of calculating
- No centralized and common view for Executives

## Solution

- Deployed AVEVA MES to streamline data collection, access and calculations.
- Leveraged CONNECT as a centralized solution for analysis, reporting & trends

## Results

- **Integrated MES system to manage operations and analyze operational data, helping to improve overall equipment effectiveness (OEE)**
- **Real-Time Visibility to Divisions and Plant Production Performance KPI's enhanced with Power BI reports embedded in CONNECT platform**





# Questions?

Better Dairy. Better World.







Better Dairy.  
Better World.

