

AVEVA PI WORLD

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# Enabling multi-site standards with model-driven templates

ViskoTeepak case study

Presented By: Henrik Tarvainen, ViskoTeepak & Teppo Haantie, ROIMA

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# Presenters



## Henrik Tarvainen

- Production Manager in Hanko / Finland since 2010
- M.Sc. Chemical Engineering
- 20+ years of production experience
  - Worked as production engineer, process engineer and plant manager
  - Planning and start up of polymerisation line in Finland
  - Implementing recipe based batch automation
  - Start up of greenfield plant in Russia



## Teppo Haantie

- Lead Consultant, MES / Roima Intelligence / Since 2006
- M.Sc. Information Technologies in Industrial Automation
- 15+ years of industrial IT experience
  - Lead Architect for multiple AVEVA SCADA, MES and Integration Projects
  - Strong understanding in process industry requirements and business in general
  - MES template development for large global F&B customers

# Company presentation

## ViskoTeepak

- Global leader on fibrous casing market
- More than 1 100 employees worldwide
- Belongs to the Eriksson Capital Group at Mariehamn, Åland Islands
- Group turnover 185 Meur
- 6 production sites
- Products produced
  - Cellulose Casings (Belgium)
  - Fibrous Casings (Finland and Belgium)
  - Plastic Casings (Mexico)
- Main Markets:
  - USA, Eastern-Europe, Russia, Central-Europe



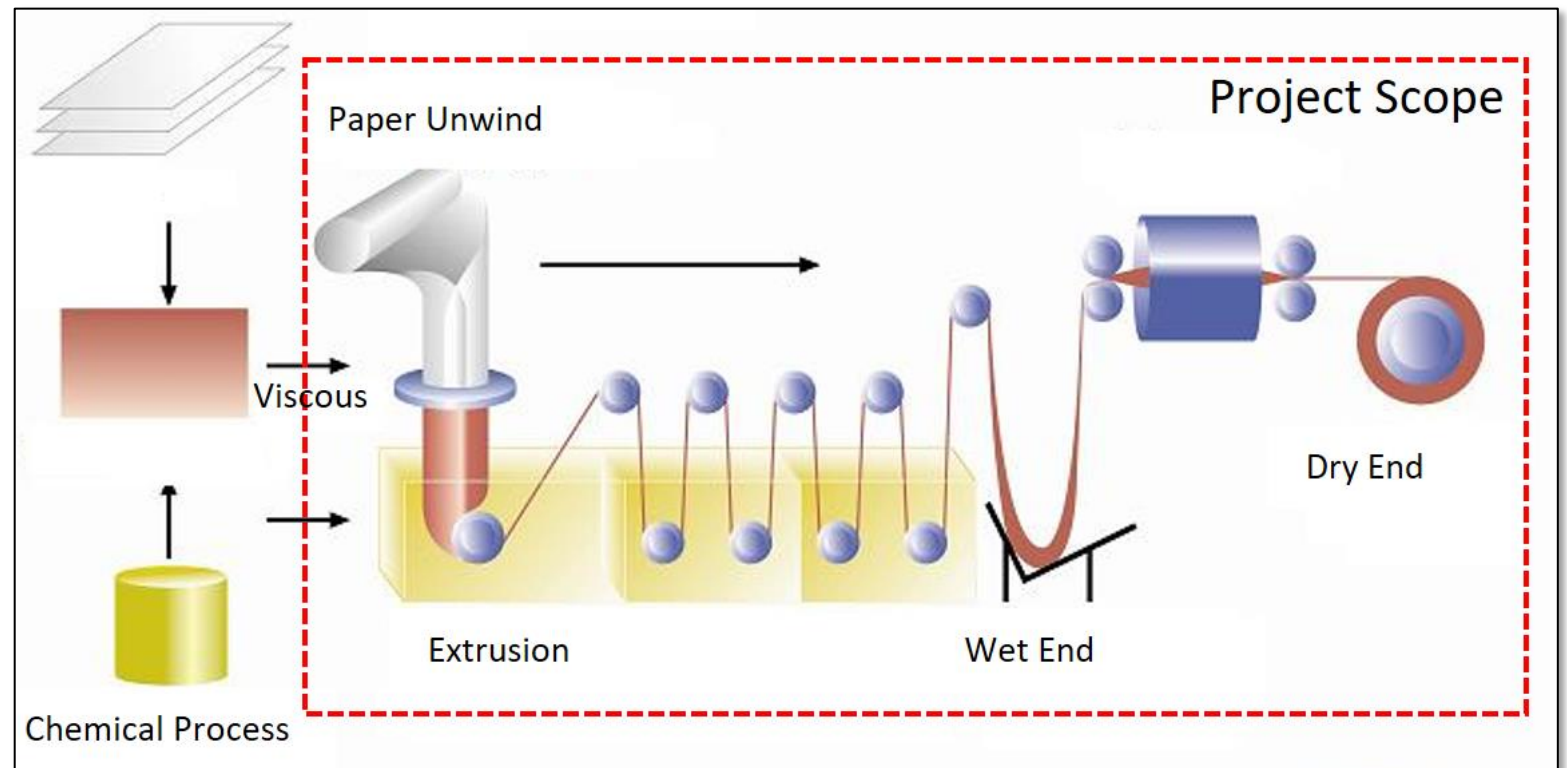
# Background

## Why we wanted to invest in new MES system

- Multiple site solution
- Commercial configurable system
  - Outdated system in use
  - Several custom legacy applications in MES area
- Integration of systems: Specification database <-> Planning tool <-> MES <-> Automation
- Downtime tracking and reporting capabilities needed
- Paperless production and connectivity to automation
  - Online production information on shopfloor
  - Automated change of production parameters
- Need to improve main raw material handling and traceability
- Decrease work load of Shift supervisors
  - Remove paper work
  - Changeover to be done by operators
  - Better online overview of how production is running

# Processes in Scope

- Fibrous casing process
- Continuous process
- 5 shift with 24-7-365 production
- 1<sup>st</sup> site 26 production lines
- 20 operator work stations in production
- Production run's from few hours to several weeks
- 2<sup>nd</sup> site is 20 production lines
  - Go-live in mid November





# Enabling solution / delivery approach

## Roima Intelligence

- MES program started with prestudy in mid 2019
  - Requirements analysis, Technology demonstrations etc.
- Model-Driven MES approach
  - Harmonized operating procedures across sites
    - Example: Optimized changeover procedures
- Solution scope
  - System Platform (Automation integrations)
  - MES operations, performance and quality
  - Work Tasks (Workflows, Tasks&Alerts)
  - EI (Enterprise integrations)



**ROI**ma  
TRUE INTELLIGENCE



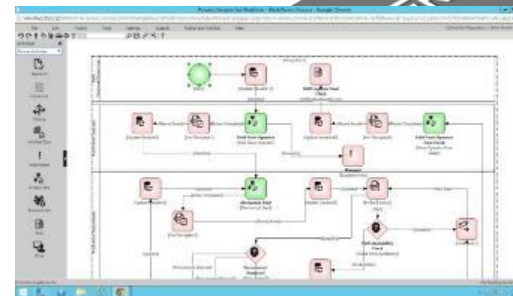
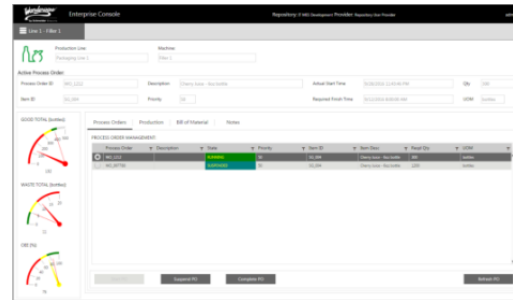
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# Roima Best Practices for AVEVA Model-Driven Templates

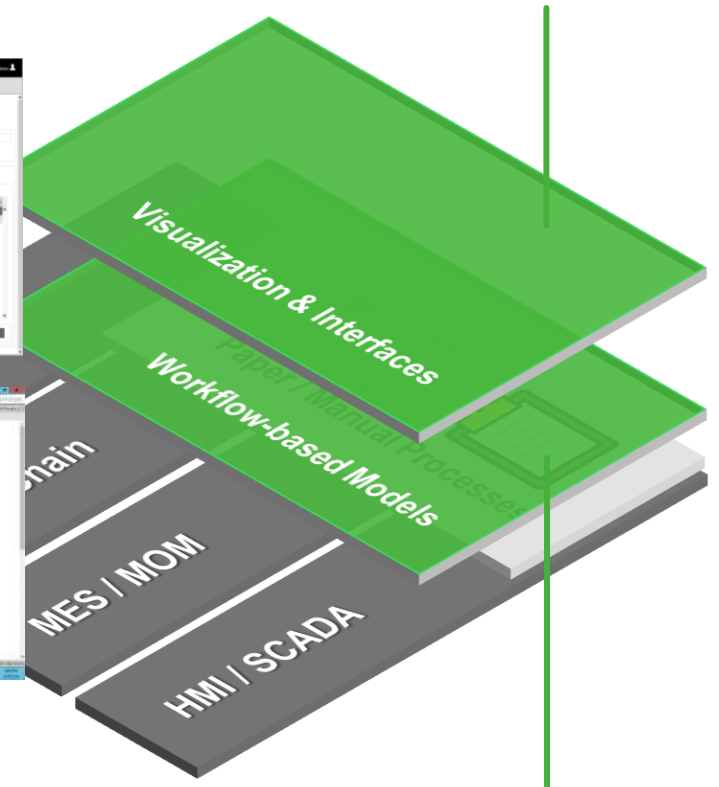


## The Leading Know-How in AVEVA Templates for:

- 1 Modeling Process Industry processes (workflows)
  - Production Execution
  - Quality Management
  - Material Management and Preparation
  - Recipe Management
  - Asset Performance Management
- 2 Modeling Process Industry User Experience on shop floor
- 3 MESA- & ISA-95-based standard process models



Adaptable User Experience



Adaptable Work Processes

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# Result

- Stable system since go-live
- Very good support from Roima
- Goals achieved
  - User-friendly
  - Integration of systems
  - Very user-friendly downtime tracking / OEE
  - Online production information
  - Automated production parameter change
  - Main raw material handling improved
- Implementation of paperless production still ongoing
- Delay in project timetable due to complexity
- Second site deployment ongoing

The screenshot displays the 'Enterprise Console' interface. At the top, there's a blue header bar with 'Enterprise Console' on the left and 'UserProfileDE' with a user icon on the right. Below the header, a navigation bar contains tabs: 'SPECS', 'PLANNING', 'PROBLEMS', 'MEASUREMENTS', 'INVENTORY', and 'T&A'. The main content area shows a table with columns for 'Plan qty', 'Rem qty', 'Hold qty', 'Interruption extrusion', 'Interruption dry end', 'Line hold', 'Special lot', 'Est job end', and 'Cla'. The table lists several production items, with the first row highlighted in green. On the right side of the interface, there's a sidebar with the text 'Dry end', the user name 'Bengt Jansson', a green 'LOGOUT' button, and a timestamp '28 DT 1:54 PM'.

	Plan qty	Rem qty	Hold qty	Interruption extrusion	Interruption dry end	Line hold	Special lot	Est job end	Cla
8S00G1001-000000	96000	92800	0					20-02 13:10	
8S00G1001-000000	192000	158400	0					22-02 14:17	
5S40Y1B01-000000	39750	39000	0					18-02 20:37	
8S00G1001-000000	192000	38400	4800					18-02 19:28	
8S00G1001-000000	192000	24000	1600					18-02 8:15	
8S00G1001-000000	192000	36800	3200					18-02 18:56	
7S00C1001-000000	73700	14300	2200					18-02 1:48	





# Takeaways, lessons learned, insights

- Involvement of end users in project, testing and training are key factors for success
  - We failed to have end users involved enough during the project
  - We succeeded in training operators
    - A lot of resources in training
  - Proper testing paid off in go-live

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