

#### Factsheet

# **Process Industry**

## Fomulation

Compliance



### Quality

# ERP for substances









#### **About YAVEON:**

YAVEON AG - with more than 75 employees – deliver products and consulting services for:

- Enterprise Resource Planning (ERP)
- Business Intelligence (BI)
- Supply Chain Management (SCM)
- Project Management
- Business Process Re-Engineering

#### **Market Expertise:**

- Chemicals
- Painting & Coating
- Pharmaceuticals
- Cosmetics
- Food Industry
- Medical Devices

#### **Consulting Expertise:**

- Enterprise Resource Planning
- Supply Chain Management
- Logistics
- Business Process Re-Engineering
- Validation

# YAVEON Process Industry

# ERP for your substances



#### **Topics**

#### **Microsoft Dynamics ERP:**

- Leading ERP-Platform
- Complete Integration
- International Standards

#### **Quality & Compliance:**

- Hazardous Substances
- Operational Safety
- Standard Operating Procedures

#### **ERP-Modules:**

- Finance
- Lot Management
- Manufacturing
- Quality Assurance and Quality Control
- Logistic
- Supply Chain Management
- EDI
- Workflow

#### **Consulting:**

- New Business Processes
- Implementation
- GoLive-Support
- Support
- Validation





Microsoft Dynamics



#### **Your Challenges**

#### Internationalization

- Supply Chain Efficiency
- Local Varieties
- International Standards

#### • Adaptability

- Market Changes
- Product Updates
- New Business Processes

#### • Compliance

- Documentation
- REACH, GHS, GMP, IFS
- SOX, Basel II
- Hazardous Substances
- Operational Safety

#### • Efficiency

- Controlling
- Workflows
- RFID and Logistic
- Quality Control

## Process Industry – A Strong Market



The process industry in Germany is as multifaceted as probably nowhere else in the world. It is the driving force for the supplying industry and for electrical or plant engineering. It is a strong partner on a national and on a global basis.

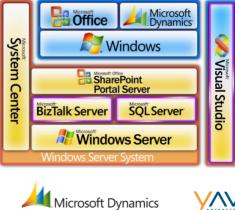
Therefore, it is quite clear, that this market has needed international and mature ERP-solutions ever since. Today, traditional mid-market and upper mid-market companies can rely on Microsoft Dynamics<sup>™</sup> and YAVEON. The process industry, more and more, strives for supply chain efficiency (independently from the respective company size).

No matter, if a company includes facilities with large scaled, continuous manufacturing processes, or if it includes the variety of the fine chemicals, pharmaceuticals or paint & coating industry: every company faces similar constraints to meet complex manufacturing processes, established manufacturing specifications, and an all-time availability of sales items, all at the same time.

#### Microsoft – A Strong Platform

#### **Completely focussing Microsoft-Technology**

YAVEON base their business solutions on the integrated platform of Microsoft. This creates product suites that fit seamlessly into your IT infrastructure.









# Our Solutions for Your Company

- International Finance and Controlling
- Lot Tracking
- Production Planning
- Manufacturing Specifications
- Sequence Planning
- Quality Management
- Vendor Rating
- Warehouse & Logistics
- Mobile Devices
- Compliance-Support based on GAMPcompliant software development Audit Trail
- EDI

# **Quality Matters**

Organizations today aim on quality, environmental protection, and safety on the one hand, whereas on the other hand the development of new products, market penetration, and the development of new business models may not be forgotten.

A market specific business solution, that integrates the business processes from production through long-term planning, from vendor to customer, enables the organization to cope with today's challenges on global markets.

#### **ERP with Substance for Your Substances!**

YAVEON offer the chemical industry a suite of ERP-solutions and modules that are designed to fit midmarket and upper mid-market companies. On the basis of Microsoft Dynamics <sup>™</sup>, the "YAVEON Pro-Suite", and third party add-ons, we build business solutions that optimize your supply chain, that secure you manufacturing processes, and that enhance logistics and the "in time"- availability of sales items.

YAVEON Chemicals support the compliance of your business processes with regulatory and industry standards, the building and management of an international organization, as well as the implementation of standard operating procedures and quality policies.

#### **Automated Processes**

YAVEON workflows lead employees through defined manufacturing and logistic processes and enable the documentation of all deviations. "Event Messages" warn against bottlenecks in the supply chain, machine center maintenance, and resource availability.



With our integrated "YAVEON Pro- Suite", material and value flows become transparent and are optimized.

#### **Our core: Your Batch**

In order to assure secured material handling in the chemical industry, it is crucial to carefully administer lot and trading unit information (or serial numbers) with all dependent attributes. YAVEON offer a lot and trading unit management, but furthermore we offer an outstanding feature and specification management module.

The module offers the definition and management of static features as well as the dynamic calculation of feature values based on complex formulas that can be used all along your supply chain. Hence, the lot status can arbitrarily be defined and thus the lot can be uniquely identified in all processes.

Microsoft Dynamics







# Audit Trail and Lot Tracking

#### Audit Trail and Lot Tracking

The audit trail functionality tracks every single change performed with a data record. Once an object is classified as "critical", the system logs the changes in the audit trail protocol automatically in the background.

## Lot Tracking

The lot tracking system lists an on demand overview of the usage of a lot; either forward or backward. Besides the normal material handling transactions this overview includes all quality relevant transactions (e.g. lot release).

The lot management considers over und under delivery as well as deviations in the potency of a specific lot (active ingredient). The active ingredient calculation considers planned and actual potency values.

An integrated text module facilitates the creation and management of work or process instructions. These can be used as internal pop-up messages as well as external texts to be used on printed documents.

The automated batch split in the supply chain or the manual splitting and joining of lots offer the greatest possible flexibility in handling lots and trading units.

## **Data Security**

To assure a compliant process organization it is necessary to base functions and system access on a role and user specific concept. The user access can be based on various restrictive criteria.

Data field security can be administered and defined Independently of database tables or modules.

During the setup of user rights, it can be decided to establish different verification methods. As such, there are password, second set of eyes-principle, or using a qualified electronic signature.









# Recipe and Manufacturing Specification

Recipes and manufacturing specifications must be maintained and monitored in the system, in order to guarantee the safe and comfortable data handling throughout all processes.

YAVEON offer integrated business solutions that enable users to comply with these. Besides managing common manufacturing specifications, the system can handle additional work instructions.

The built-in active ingredient calculation adjusts the quantities of the active substances and all fillers according to the actual potency values (lot specific).

A recipe can be maintained in different versions and for different product groups, as to facilitate referring to it in a later process stage based on product features, seasonal or customer specific constraints.

All lot attributes can be inherited out of the components list, including the expiry date of the lot.

# Lot- and Process Industry

## **Research and Development**

Using manufacturing specifications and research items in the development phase is fully supported, using the complete manufacturing functionality in Microsoft Dynamics. By means of a "system transformation"- dialog these objects can be transitioned into productive usage.

#### Subcontracting

Integrating a contract manufacturer includes all aspects of quality control and lot tracking. The system supports over and under delivery from the contract manufacturer without losing the track of the production order or the manufactured lot.

#### **Production and Sequence Planning**

The resource planning of the production can be based on limited and unlimited resources.

The "YAVEON Pro-Suite" offers a component/availability overview including item stock forecasts that may be used for disposition (purchase). Production orders can be split and shifted, completely or in parts, onto other work centers. The sequence planning and a setup time matrix can be used to better schedule the production program. An algorithm for optimization assists the planning process and can arbitrarily be defined by the user.

## Filling and Re-Filling

The system manages filling and refilling orders and maintains filling and re-filling BOMs. Using filling orders the system tracks all lot attributes and inherits values from initial lot to (re-)filled lot.









#### **Vendor Rating**

It is required to obtain a continuous quality through the entire supply chain. Therefore, all aspects have to be included: business as well as product related ones.

The system automatically rates "quantity as ordered" and "in-time delivery".

The test results (sampling analyses) are automatically assigned to the correct vendor rating. The quality control can optimize the sampling process based on the results of previous quality tests. Apart from these ratings, the system can manage manual ratings from audit inspections or vendor selfassessments.

All rating results can be used for an overall vendor classification that will be automatically updated based on the pre-defined rating scheme. As a consequence, any inconvenience in the vendor relation can be detected and be solved.

The integration of the vendor with the help of the YAVEON ProE-SCMSuite facilitates a clear and error-free reference between batch or trading unit, delivery, and rating result. Thus, the vendor rating will be as precise as can be.

# Vendor Rating and Quality Control



## **Quality Control (LIMS)**

The quality control does not only analyze lots delivered from vendors, but also the produced goods and the stored lots or items that must be tested.

Only companies that can assure high quality standards will achieve high rating results at customers.

YAVEON offer solutions for resellers and manufacturers in the chemical industry that contain a complete quality control module dedicated to all processing stages:

At goods receive, in the production (in-process control), ad-hoc analysis, and at goods shipment.

This module also supports retesting of stored lots, analyses after quarantine periods, and complex stability testing.

The quality control module manages testing orders and testing devices at the same time. Test plans may contain either general, customer, vendor, or lot specific criteria and instructions.

The integration of external laboratories enables the management of outsourced analyses into the Quality Control module of YAVEON Pro.

Detailed reports and analyses help to compare the testing efforts with the testing results, and thus lead to a better understanding









#### Warehouse and Logistics

Goods and material management in the chemical industry are closely intertwined. YAVEON enhanced the supply chain management of the Microsoft Dynamic standard to assure sufficient stock, correct and in-time replenishment, and finally just in-time delivery to the customer.

#### Picking

The warehouse setup optimizes the processes of put-away and picking and storage restrictions, e. g. different items may not be stored next to each other, can be defined arbitrarily. The picking process can be organized according to FEFO or FIFO. Furthermore, the system can manage customer specific criteria, e. g. minimum time before expiration, deliveries that contain one lot only, and other sales restrictions.

#### **Mobile Handhelds**

The logistic chain and processes are complete and safe only if barcodes and relevant data are supported by the system (readable) throughout the entire process, at every handover. Mobile handhelds communicate with the "YAVEON Pro"-suite to ensure secured identification and data transfer.

# Warehouse and Logistics & Weighing System

## Weighing System

The recipe weighing system covers the entire process chain according to ERP standards and archives actual values. The following process steps are released based upon these dispensing results. All actions and process data are properly stored and documented.

The most important function of the computerized system is the centralized and de-centralized dispensing module. The system supports several dispense types such as: single weighing, additive weighing, bulk dispensing, difference and yield weighing, and manual weighing.

The different weighing modes can be combined modularly. All materials can be solid, semi-solid, or liquid on the one hand or unsterile and sterile on the other.

## Process-Oriented ERP-Implementation and Consulting

Compliance For production and resale in the process industry, reaching compliance of all processes is crucial for success. YAVEON offer support to meet compliance with SOX, Basel II, REACH, GMP and other important international standards.



The process-oriented consulting and implementation of the solution ensures a Life-Cycle-Management including the necessary documentation that refers to your business processes.

The YAVEON' employees use the process oriented approach beginning with the requirement analysis through the process oriented documentation of the solutional concept until the final software implementation.

As a result, we deliver solutions that help you optimize your daily procedures, are accepted by the users, enhance the transparency of your processes, and increase the profitability and success of your business.

In the course of our consulting services we develop and analyze process-, application-, and technology- architectures together with our clients. Together we create a business model that maximizes profitability.

We analyze the operational and organizational structure, role or job definitions and responsibilities using the YAVEON methodology and we manage relevant changes together with you, our customer.









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