

PIPECHAIN TECH PAPER ACADEMY:

# VENDOR MANAGED INVENTORY (VMI) – FOR REAL DEMAND DRIVEN SUPPLY CHAINS

In a traditional supply chain process the customer takes the major decisions and the supplier is in a more reactive mode, expected to follow what is given by the customer in a delivery plan or a purchase order.

When you aim for real demand driven supply chains, VMI or VMR (Vendor Managed Replenishment) is an interesting option.

## PIPECHAIN VMI IN BRIEF

With PipeChain VMI the process is transformed from being order driven to be demand driven.

The main difference between replenishment through traditional order management and replenishment through VMI, is the shift in responsibility. The customer makes an agreement with a supplier to replenish the customer's stock without handling purchase orders from the customer.

Instead, the customer makes information available to the supplier regarding inventory levels as well as real requirements in time and quantity for the individual products. This information is then used as one of the components in the calculation of replenishment quantities.

The other component of the calculation are the agreed rules set up in PipeChain on a product level regarding things like min/max coverage time, safety balance, transport schedules and lead times etc.

The process can be more or less automated depending on the level of integration of the different messages that are exchanged in order to bring the flow and process forward.



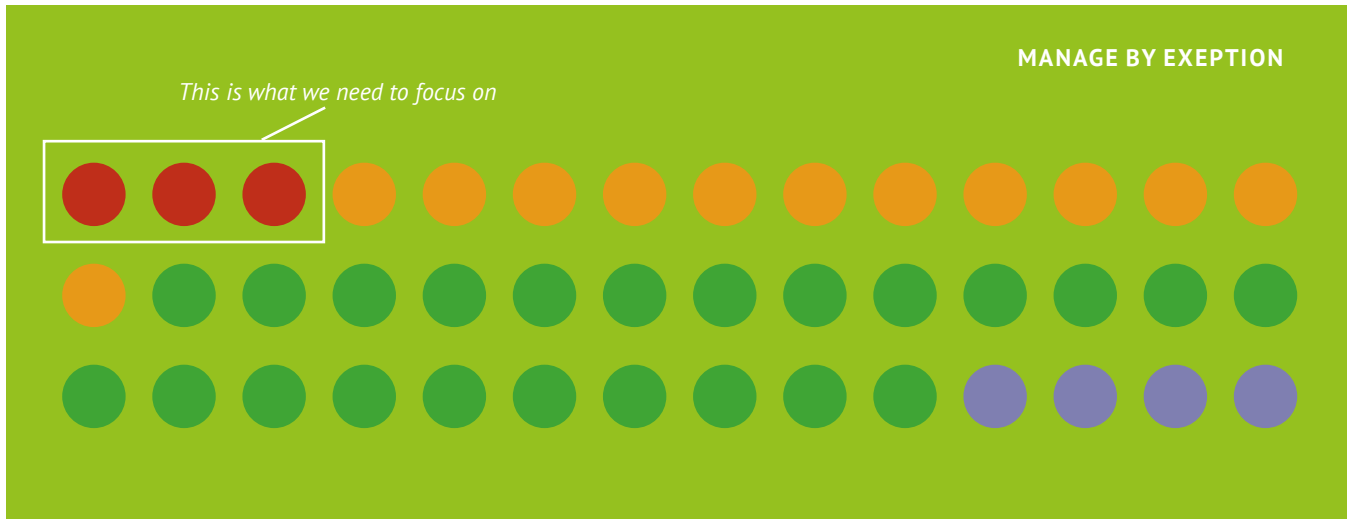
A highly automated process is supported by PipeChain's graphical user interface that allows the users to gain a good overview of the complete flow combined with functionality that highlights deviations and errors. Real time

visualisation of the entire process is given by colour coded status overviews based on the traffic light approach and can be combined with email alerts when action is required.

The purpose of these features is to enable the supplier to monitor the flow in real time and based on what is shown take action and make decisions in the daily operation. This gives flexibility when circumstances change quickly or extraordinary things happen.

## VMI BENEFITS

PipeChain will add several benefits to a VMI process due to a standardized way of working, with automation of the replenishment process and full control via monitoring, visualization and alerts.



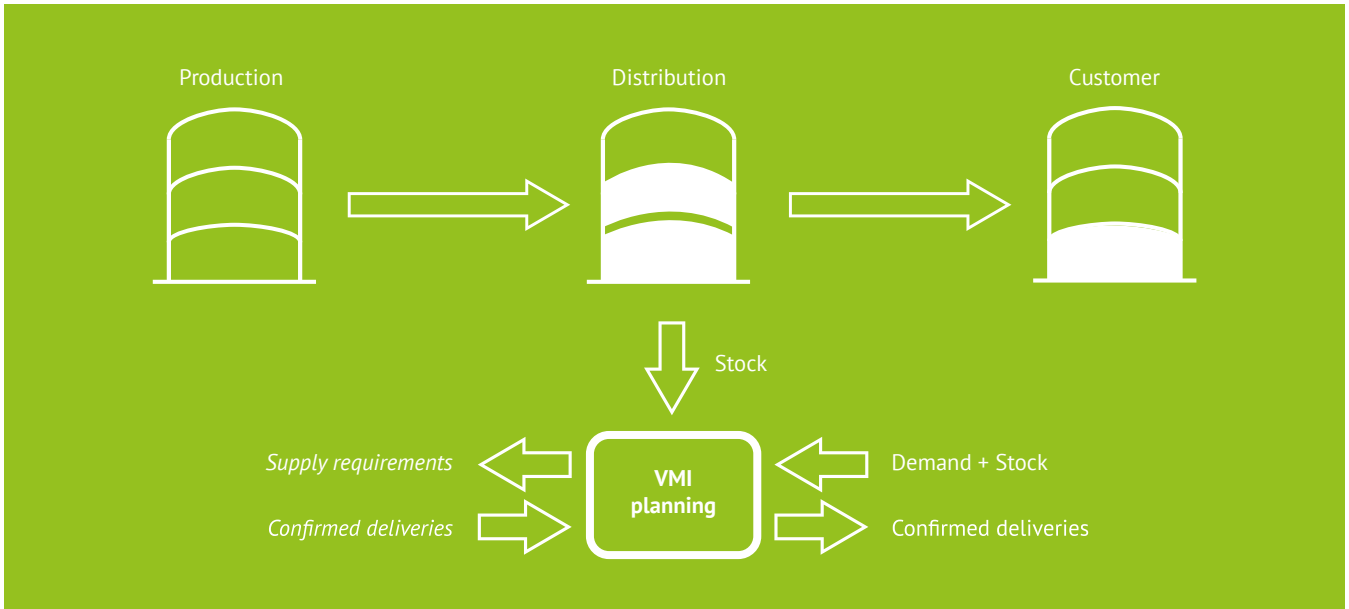
### BENEFITS FOR THE SUPPLIER:

- Proactive monitoring and error notification, i.e. Management by exception
- Service level and product availability at Customer close to 100%
- Lower transportation costs
- Lower stock levels
- More flexible operation; production, planning, ordering
- Less fire fighting
- Reduced transaction costs
- Improved customer service, closer attachment to customer
- Increased productivity; eliminates manual work

### BENEFITS FOR THE CUSTOMER:

- Proactive monitoring and error notification, i.e. Management by exception
- Reduced transaction costs
- High availability of required products
- Lower transportation costs
- Reduced risk of stock outs
- Reduced order lead time
- Lower stock levels
- Increased productivity; eliminates manual work

## VMI PROCESS



1. Information about gross demand and inventory levels are sent from the customers ERP to PipeChain. The gross demand can be a production plan and/or planned customer orders. This information can be sent as often as required, but normally at least once a day.

- This information along with parameters on product level regarding safety/max coverage time, safety stock etc. will be used by PipeChain to calculate what the supplier must deliver in order to keep his part of the agreement.

2. Information about actual stock situation in own warehouse is added to get own capabilities short term.

3. PipeChain can also be used for calculating production or purchasing requirements at the Supplier.

4. Information about confirmed incoming deliveries.

5. PipeChain will calculate Delivery suggestions per item and customer, based on inventory level, demand and the parameters that have been set up.

- If a transport schedule has been defined in PipeChain, the deliveries will be calculated accordingly.

6. PipeChain sends a Despatch advice to the customers ERP.

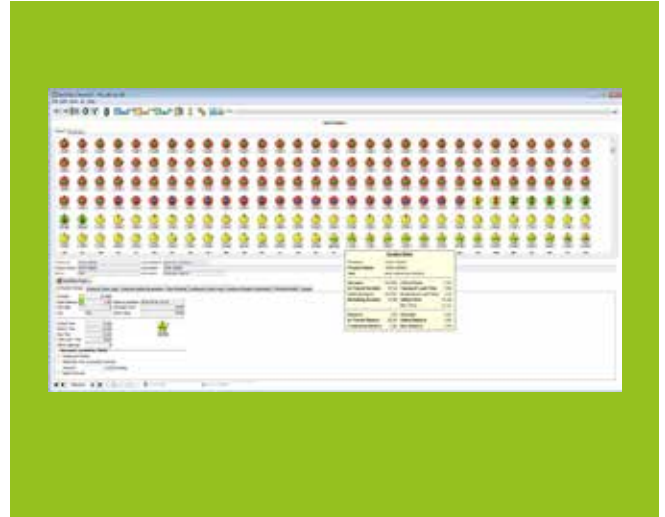
7. When the customer receives the goods, a message is sent to PipeChain where the order is closed.

### OPTIONAL SCENARIOS:

Optional Scenarios to a VMI process can be to combine it with a Consignment stock setup and to include invoicing in the process steps. PipeChain VMI has support for these optional scenarios.

## VISIBILITY AND VMI MONITORING

There are several features for monitoring and surveillance in PipeChain. The most powerful feature is the visual monitoring. With colors, intuitive symbols and graphs it provides a quick overview of the key performance indicators, the inventory status and the status of the deliveries.



### KEY PERFORMANCE INDICATORS IN A VMI PROCESS

Due to the different responsibility split between Supplier and Customer in the VMI process you also need to adjust your KPI's for follow up compared to traditional processes. Some of the most important KPI's to use in a VMI process and that you will find in PipeChain are:

