

# FROM PLM TO OPTIMIZED PLANNING

## Operations Engineering

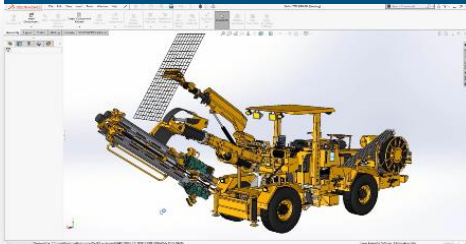
### Process Planning

Product Engineering

Process Engineering

E-Bom

## Operational Capacity and Profit Optimization



## Operations Planning -What if optimization

### Integrated Business Planning / S&OP

Demand/Portfolio Planning

Supply Planning

Integrated Reconciliation

Planning Bom

### Master Production Scheduling

Factory Planning

Logistics Planning

Workforce & Crew Planning

Planning Bom

## Operations Management

### Manufacturing Execution

Detailed Scheduling

Production Management

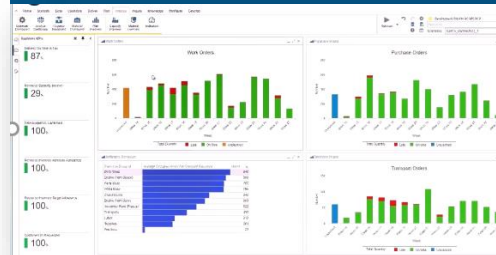
M-Bom

## Increase Productivity and Quality



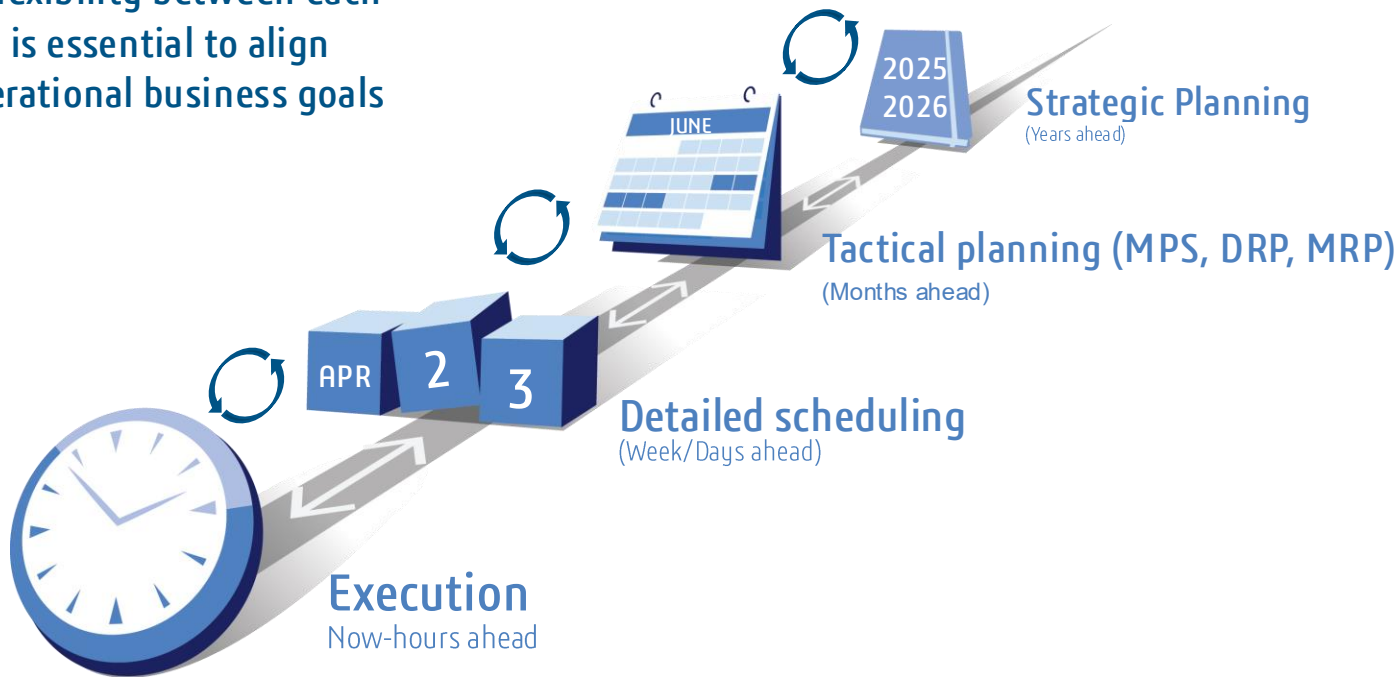
Monitor quality through KPIs

## Operational Capacity and Profit Optimization



# INTEGRATED BUSINESS PLANNING | VERTICAL INTEGRATION

Integration and flexibility between each planning level is essential to align company and operational business goals



# CUSTOMERS & BENEFITS

## IBP / S&OP



## MPS



## SCHEDULING



## LOGISTICS



## WORKFORCE

Late Orders: -75%	Truck Utilization: >99%	Setup Times: -20%	Transportation Costs: 5-15%	Cost: -15%
Inventory: -20%	Inventory: -25%	Lead Time: -58%	Service Levels: +5%	Output: +5%
Output: +5%	Capacity Utilization: +10%	Stock-Outs: -50%	Distance/CO2: -7%	Planning Effort: -75%
Planning Effort: -75%	Lead Time: -50%	Service Level: +20%	Assets Required: -10%	ROI: 6 Months
ROI: 6 Months	Order Fulfillment: >90%	Production Delays: -25%		

