Collaborate
all stakeholders share common understanding of management processes

Engineer
all Industrial Processes, eliminating time and waste

Operate
the Physical Industrial Operations with synchronization and efficiency

Optimize
Supply Chain and Operations with Dynamic Scheduling & Predictive Analytics

Real time 3DEXPERIENCE

3DEXPERIENCE Manufacturing
DELMIA Capabilities

ENGINEER
- COLLABORATIVE MANUFACTURING
- PROCESS PLANNING
- ERGONOMICS
- ROBOTICS
- FABRICATION

OPERATE
- PRODUCTION
- QUALITY
- WAREHOUSE
- MAINTENANCE
- LABOR

OPTIMIZE
- SCHEDULING
- INTELLIGENCE
- CENTER OF EXCELLENCE
- TRACEABILITY
Challenges

...and their consequential requirements for Manufacturing Engineering

- Global engineering and manufacturing at low cost
- Ensure superior quality, reduce complexity and non-value activities
- Aggressive timing in new product launches

How to achieve first time right for all production sites world-wide?

How to monitor and increase planning quality to meet commitments?

How to increase product portfolio and the number of product variants?
Manufacturing Engineering as core element

...in highly parallelized Product Development Processes

Manufacturing Engineering links Product Development and Production
App. 70% of Production costs are defined in Product Development
App. 50% of material costs are defined in Product Development
Cooperation in Manufacturing Engineering

Today…
Cooperation in Manufacturing Engineering

...and with the 3DEXPERIENCE Plattform
Manufacturing Engineering Application Examples

- Process planning
- Layout planning
- Worker ergonomics
- Time analysis and worker utilization
- Cost tracking
- Work instructions
Synchronization between Engineering and Production

High Value generated through Digital Continuity

2D / 3D Electronic Work Instructions on the shop floor

Produce the same product everywhere for lowest total cost, consistent global quality compliance, paperless manufacturing Automize Shopfloor Dimensions and Tolerances

Synchronize Engineering Change Requests

Reduce time-to-market; improve quality, compliance and configuration management while improving responsiveness

Achieve and sustain continuous improvement

Closed-loop quality and performance feedback for continuous product and process improvement
DELMIA Delivers DIGITAL CONTINUITY | Use case

INDUSTRIAL ANALYTICS & PREDICTIVE INTELLIGENCE

Supply Chain Planning & Operations
- Sales & Operations Planning
- Master Planning (MPS+MRP)
- Detailed Scheduling & Re-scheduling

LEAN MANUFACTURING

Engineering
- Collaborative Manufacturing Engineering
- Product Engineering
- Process Engineering
- Robotics
- Fabrication
- Ergonomics

Manufacturing Operations Management
- Intelligence & Traceability
- Production
- Quality
- Warehouse
- Plant maintenance
- Field Operations

IIOT EDGE INTEGRATION LAYER

Factories

Field
A Normal Day on the Production Shopfloor

- Dispatch and track execution
- 5’ meeting to start the day
- Execute Production Orders
- Production Issue
- Optimize Virtual Twin & perform Virtual Certification
- Problem solving session
- Update & Optimize Production plans
- Manage Mitigation actions

Update & Optimize Production plans 5’ meeting to start the day
Optimize Virtual Twin & perform Virtual Certification
Validate and simulate the virtual model with real-time data

Correlate V+R to improve the model continuously

DELMA
3D EXPERIENCE MANUFACTURING TWIN
KEY TAKEAWAYS
PRODUCTION LINE (APRISO)
- Dispatch and track execution

MANUFACTURING MANAGEMENT (3D LEAN)
- 5’ meeting to start the day
- Update & Optimize Production plans
- Problem solving session
- Execute Production Orders
- Manage Mitigation actions

PRODUCTION ENGINEERING (DIGITAL MANUFACTURING)
- Optimize Virtual Twin & perform Virtual Certification

MANUFACTURING MANAGEMENT (3D LEAN)
- PRODUCTION PLANNING (ORTEMS)
- Dispatch and track execution
- 5’ meeting to start the day
Synchronization between Engineering and Production

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