SAP EWM LESSONS LEARNED: CASE STUDIES FROM THE WAREHOUSE FLOOR

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LogiStar Solutions
Key Presentation Points

- Learn how SCM EWM can support various business and operational requirements, including advanced functionality
- Listen to three real world EWM Case Studies across multiple industries
- Understand Best Practices and how to apply these to your EWM implementation
Who Is LogiStar?

**Expertise**
- SAP Supply Chain Execution is our sole focus
- Average experience 10+ years with SAP

**Certifications**
- SAP Select Partner
- SAP Services Partner
- Third Party Consulting Partner
- Pre-Release Test Partner
- RDS Partner
- EWM EEP Reseller
- Certified Products

**Solution Focus**
- SAP SCM EWM
- SAP LES WM
- SAP SCM TM

**Industry Experience**
- Medical Devices
- Pharmaceuticals
- Food & Beverage
- Service Parts
- Wholesale Distribution
- Automotive
- Consumer Products
- Retail
### LogiStar Core Services

#### Project Types
- Greenfield Sites
- Legacy WMS Replacements
- 3PL Replacements/In Sourcing
- WM Optimizations
- Upgrades
  - IM ➔ WM
  - WM ➔ EWM

#### Service Offering
- Turn Key Projects
- Staff Augmentation
  - Functional
  - Technical
  - Project Management
- Blueprint Services
- Advisory services
SAP EWM Functionality Overview

- SAP ERP WM had evolved but did not provide advanced features or functionality
- SAP SCM Extended Warehouse Management solution is an entirely different platform from ERP WM
- Can accommodate simple to complex warehouses
- Functionality has advanced and grown based on additional Version Releases
- Created to “fill the GAP” with advanced functionality
  - i.e. Labor Management, Slotting, etc.
SAP EWM Functionality Overview (con’t)

- Robust Warehouse Management System
- Placement/Removal Strategies
- Data Collection with SAPConsole or ITSMobile (RF)
- Advanced Wave Planning
- Unique Pallet ID Management – Handling Units
- Material Flow Systems (MHE Control)
- Packing
- Quality Inspection Engine
SAP EWM Functionality Overview (con’t)

- Warehouse Monitoring Tools / Reporting / Graphical Cockpits
- Resource Management Functionality
- Physical Inventory / Cycle Counting
- Cross Docking
- Yard Management
- Value Added Services / Kitting
- Slotting
- Labor Management
### Solution Details SAP EWM - A Complete Offering Resulting from solid, Continuous Investment

- **EWM 5.0**
- **EWM 5.1**
- **EWM 7.0**
- **EWM 7.01**
- **EWM 7.02**
- **EWM 9.0**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Inbound Processing</strong></td>
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<tr>
<td>- ASN data receiving, validation, correction</td>
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<td>- Transportation unit mgmt.</td>
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<td>- Goods receipt</td>
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<td>- Putaway bin determination</td>
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<td>- Internal routing</td>
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<td>- Deconsolidation</td>
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<td>- Putaway</td>
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<td>- Returns / reverse logistics</td>
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<td>- Goods receipt optimization</td>
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<td>- Advanced returns mgmt.</td>
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<td><strong>Storage &amp; Operations</strong></td>
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<td>- Rearrangement</td>
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<td>- Slotting</td>
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<td>- Inventory counts / record accuracy</td>
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<td>- Replenishment</td>
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<td>- Freight order management</td>
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<td>- Scraping</td>
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<td>- Kit-to stock</td>
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<td><strong>Outbound Processing</strong></td>
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<tr>
<td>- Order deployment</td>
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<td>- Route determination</td>
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<td>- Transportation unit mgmt.</td>
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<td>- Wave management</td>
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<td>- Picking bin determination</td>
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<tr>
<td>- Warehouse order creation</td>
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<td>- Work assignment</td>
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<td>- Picking, packing, staging</td>
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<td>- Loading &amp; goods issue</td>
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<td>- Kit-to-order</td>
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<tr>
<td>- Direct outbound delivery</td>
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<td>- Production supply</td>
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### CROSS PROCESSES
- Transportation cross docking
- Pick from goods receipt/push deployment
- Yard management

### CORE PROCESSES
- Warehouse Monitor
- RF / RFID enablement
- Quality inspection
- Import / export integration
- EH&S integration
- eSOA enablement
- Migration tools
- Pick by Voice

### SUPPORTING AREAS
- Packaging specification
- Batch management
- Serial numbers
- Catch weight
- Material Flow System
- Warehouse cockpit
- Dock Appointment Scheduling
- Integration with SAP TM

- Graphical warehouse layout
- Transp. integration (LES)
- Claims & Returns
- ERP transportation integration
- Multiple EAN
- Cartonization
- Rapid deployment solution
- KPIs, Performance dashboard

Source: SAP
Native integration with SAP Business Suite: Comprehensive, Smooth, & Real-time Process Integration

**Sales and distribution**
- Order processing
- Customer relationship management (CRM)
- Back-order processing (global available to promise)
- Advanced claims and returns management
- Track and trace

**Procurement**
- Advance shipping notification (ASN)
- Inbound quality management

**SAP Manufacturing**
- Comprehensive production supply support (process orders and crate parts)

**SAP Environment, Health, and Safety Management**
- Dangerous goods handling
- Storage and document printing

**SAP Global Trade Services**
- Compliance with import and export regulations
- Customs; bonded warehouse

Source: SAP
Overview SAP EWM Customer & Market Status - Strong Customer Growth & Implementation Momentum

Facts and Figures

- Over 200 active customers added in 2012
- More than 500 distinct live/active customers
- Productive use of SAP EWM in more than 20 countries and 24 industries

Sample Customers

- Coca-Cola Enterprises
- Dansk Supermarked
- EvoBus
- Ford
- Indigo Bookers, Inc.
- Sony
- Würth
- Daimler
- Ferrero
-esco
- Artoni

Live Customers and Live Sites

Source: SAP
LogiStar Case Study #1
Harry & David
Logistar SAP EWM Customer Case Study: Harry & David

- One of the nations oldest mail order catalog companies
- Full implementation of SCM EWM for two distribution facilities, replacing Catalyst and RedPrairie WMS solutions.
- Design included full EWM functionality including Wave Planning, Labor Management, Value Added Services, and Kitting.
- High volume operation with over 450,000 orders per day during peak season.
- Successful go-live and stabilization in Q1 2013
Harry & David – Process for Reviewing EWM

- Provide end-to-end warehouse management capabilities for all sites and all divisions
- Provide full visibility to all materials across all locations
- Close integration between EWM and Manufacturing
- License plate bar coding and tracking required
- Full RF capabilities
- Wave creation and assignment
- Elimination of manual processes
  - Clerical
  - Kitting
  - Order close
  - Data entry
- Improve inventory transfers between sites & plants
- Improve batch control at the end customer level
Harry & David – Rationale for Selecting EWM

- **Simplify the IT Landscape**
  - Consolidate aging and custom applications under one platform reducing operational risk
  - Reduce IT complexity – Single Platform
  - Reduce/eliminate MS Excel, Access and other “side” systems
  - Reduce maintenance cost of two disparate WM systems
  - Reduce interface complexity and maintenance cost with a tightly integrated system

- **Enhanced Capabilities**
  - Labor Management
  - Full HU tracking (LPN)
  - Value Added Services
  - Slotting
  - Cross Docking
  - Yard Management
Harry & David – Project Expectations

- Provide the business with the means to manufacture and fulfill orders in the quickest, most cost effective manner
  - Improved customer experience through order accuracy, processing order changes/cancellations, order consolidation and status visibility with SAP EWM and its tight integration to current SAP ERP.
- Improved visibility
  - Enterprise view of orders and inventories
  - Inventory accuracy and management
- Single system supporting standardization across facilities
- Improved productivity through optimized tasks and workflow management
Harry & David – Project Expectations

- Eliminate the need for:
  - Maintaining data in external local sources
  - External tools like EXCEL, ACCESS
  - Non-system processes – Enabling the various value added warehouse and production activities within the WMS, eliminating manual processes and external databases

- Gain increased capabilities for labor management including labor planning and overall labor performance

- Improved dock management and carrier accountability though Yard Management

- Increased system based quality management with EWM Quality Inspection Engine

- Improved facility utilization with new EWM organization structure design like PSA and Work centre’s for Production process, Work centre’s for VAS process
Harry & David – Lessons Learned

- Early informational training to key users is vital for the success of the project.
- Defining reporting requirements early in Blueprint Phase
- Need to have a willingness to accept change process. Without it, the project will not be successful.
LogiStar Solutions SAP EWM Case Study: Kimberly Clark Healthcare

- Why did Kimberly-Clark choose EWM
- Scope of Kimberly-Clark EWM implementation
- SAP EWM Landscape
- SAP EWM functionalities deployed
- Realized benefits of SAP EWM
- Lessons Learned
Kimberly Clark - A Global Health and Hygiene Leader

Well-known global brands

HUGGIES®  KLEENEX®  SCOTT®  KOTEX®  PULL-UPS®  DEPEND®

58,000 employees worldwide

$21.1 Billion in Net Sales in 2012

#1 or #2 position in more than 80 countries

1.3 billion consumers use our products daily
Kimberly Clark Businesses

- Personal Care
- Consumer Tissue
- Health Care
- K-C Professional
Why SAP EWM for KIMBERLY CLARK HEALTHCARE?

1. Paper based tracking of materials led to errors and lost paper
2. Needed visibility to inbound receipts from vendors
3. Time wasted finding an empty bin for putaway
4. Time wasted finding the bin that contained the materials to pick
5. Cycle counting was a challenge
6. Regulatory requirements
Project Scope

- Implement EWM at a Health Care location which contained 80% of all Health Care processes to establish global template
- Use template approach to complete 18 EWM rollouts in 3 years!
- EWM would manage vendor receipts, production staging, production confirmation, stock transfer orders, customer sales orders and physical inventory
- EWM project scope expanded to include:
  - Activation of batch management on selected materials
  - Standardize labels
  - Implementation of wireless mobile data collection devices
  - Activate gATP
  - ARIBA ASN for top customers
Integrating SAP EWM into Overall System Landscape

SAP EWM deployed as stand-alone solution

- Kimberly-Clark was already running two SCM 5.1 servers; one for DP, SNP, and PPDS and another for gATP. Didn’t want to upgrade existing servers to SCM 7.1.
- Concerns about EWM affecting APO optimization and gATP processing

Solution Benefits:

- Potential to use dedicated EWM server as a global instance
- Potential growth to implement EWM across other business
- Stand alone server allows more freedom for enhancement and OSS implementation coordination
- Ability to transact in EWM if ECC is down
## SAP EWM Functionality: Meeting KCH Needs

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Solution</th>
</tr>
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<tbody>
<tr>
<td>Receive vendor purchase orders and inbound STOs</td>
<td>Inbound Delivery Receipts (PRDI)</td>
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<tr>
<td>Efficient putaway and picking</td>
<td>Process Oriented Storage Control</td>
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<tr>
<td>Production confirmation receipts &amp; component backflushing</td>
<td>Inbound Delivery (PRDI) Outbound Delivery (PRDO)</td>
</tr>
<tr>
<td>Push product to other sites instead of responding to an STO</td>
<td>Direct Outbound Delivery</td>
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<tr>
<td>Efficient material movements</td>
<td>Handling Units</td>
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<tr>
<td>Picking for multiple customer orders</td>
<td>Outbound Delivery (PRDO) Wave</td>
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<tr>
<td>Requirement</td>
<td>Solution</td>
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<td>----------------------------------------------</td>
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<tr>
<td>Automated replenishment</td>
<td>Fixed Bin Replenishment Order Based Replenishment</td>
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<tr>
<td>Visibility to quality</td>
<td>Inspection Document</td>
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<tr>
<td>Centralized location for reporting</td>
<td>EWM Warehouse Monitor</td>
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<tr>
<td>Ease of use of physical inventory</td>
<td>Physical Inventory Document</td>
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<tr>
<td>Better management of inbound and outbound trailers</td>
<td>Future Yard Management Implementation</td>
</tr>
<tr>
<td>ARIBA ASN with vendors</td>
<td>Future Implementation with ASNs (PRDI)</td>
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Realized Benefits of EWM

- Standardized warehouse structure increased efficiency of putaway and picking tasks
- Visibility to the exact location of inventory
- Direct Outbound Delivery functionality in EWM allowed us to free 8 hours of resource time
- MB56 – Batch Where Used List
Kimberly Clark Healthcare: SAP EWM Lessons Learned

- Don’t be afraid to over communicate!!
- Ensure project team includes a representative from all system touch points
  - ECC MM
  - EWM MM
  - PP
  - OD
  - OT
  - APO
  - gATP
  - PI
  - BI
  - Legacy Systems
- Prioritize nice to haves versus must haves
Kimberly Clark Healthcare - SAP EWM Lessons Learned

- Allocate enough time in project timeline for testing and training
- Treat system cutovers as dress rehearsals
- Face-to-face testing cycle allowed testing cycle to stay on-track
- Include COE/SME/KUT resources as part of testing phases
- Background knowledge of CIF was key
- Don’t forget about security
LogiStar Case Study #3
Bombardier
LogiStar Solutions SAP EWM Customer Case Study

- Global Aerospace Manufacturer
- After Market Parts Distribution Operation
- Converted SAP ERP WM run by 3PL to customer-owned SAP EWM facility
- “Big bang” Full lifecycle EWM implementation approach for two facilities in USA and Europe.

Project Scope included:
- Complex inbound and outbound processes
- Batch Management
- Serial numbers
- ERP QM integration
- Significant FAA documentation requirements
- Wave Planning
- Slotting
- Resource Management
Key Drivers for SAP EWM

- Business requirements changed over the last several years.
- International and Domestic products mixes have changed
- Changing Customer Requirements:
  - More flexibility
  - More diverse services
  - Improved efficiency
- The existing solution had limited functionality to meet needs
Key SAP EWM Integration Points

- Synchronization & Communication between EWM & ERP
  - Master Data
  - Transactional Data between EWM and ERP – (Sales orders, Purchase orders and Stock Replenishment orders)
  - Inventory Updates – Inventory postings
  - Financial Integration – Financial Posting for Post Goods Issue (PGI) and Post Goods Receipt (PGR)
- Other Communication to ERP or Legacy systems needed based on the scope of EWM functionality such as Environmental Health and Safety (EH&S), Billing Systems, and Global Trade Services
- CIF (‘Core Interface’) – Communication exchange of data between SAP ERP and SAP EWM ensuring Data Consistency and Integrity
Key Changes

- Improved process for inbound, outbound and inventory control
- Heightened visibility throughout the entire warehouse
  - 100% inventory visibility
  - Every Physical part movement captured in EWM with user ID, date and time
- Eliminate interfaces IDOCs and external Data bases
- Radio Frequency Technology
- Minimize Waste
  - Duplicate processes
  - Manual data entries, (minimize errors)
  - Duplicate auditing
  - Reduce paperwork
- Wave Management
  - Consolidation of customer orders allowing financial benefits for customers
  - Reduce delays in processing, AOG orders ship < 2 hrs
  - Real time status improves accuracy
Solution Benefits

- Improved material handling processes
- Reduction in manual entries and subsequent errors
- Eliminate external databases and interfaces
- Eliminate dual processing and auditing
- Eliminate paper, fully RF based processing
- Reduce delays in processing
Solution Benefits

- Reprint capabilities, mobile printing
- Real time transactions results in improved accuracy
- Wave management allows for optimized work flow
- Customer order consolidation allows internal financial benefits and for the customer
- Reduction in manual entries and subsequent errors
- Standardized support and development team
Key Lessons Learned

• Utilize standard functionality as much as possible
  – EWM offers comprehensive functionality to fit many complex processes, it’s important to fully understand the depth of functionality

• Invest in design prototypes early on in the project timeline
  – Demos functionality to key users to help drive key decisions

• Business and IT participation / ownership / engagement
  – Key decision makers must fully support project objectives
  – Power Users to be on boarded from blueprint onward
  – Business units outside of the Warehouse need to be integrated into the Blueprint
  – Post go-live on-site support can not be underestimated in terms of effort or duration
  – An overall Business Change Lead to be assigned from the beginning

• Roles and responsibilities (Business and IT) must be clearly defined within the project team
Lessons Learned (Continued)

- Cutover plan can not be too detailed and must include contingency
  - Communication and planning for all areas can not be underestimated (Business plan, IT plan)
  - Contingency planning is critical (what if scenarios)
- Testing and dry-runs need to be comprehensive and long enough
  - Do not underestimate the number of business areas and business users that will require testing
  - Need to test with realistic volumes (data, transactions, users etc)
  - Need to ensure the time to consolidate training & practice in the new system “with” the new processes and tools
- “Day In The Life” testing and simulation
  - Pay attention to the small stuff during dry-runs and go-live scenarios, the impact of small variances will be magnified with go-live volumes
  - Don’t assume the basics will be acceptable without validation
Best Practices

- Leverage standard EWM functionality where possible -- solution offers comprehensive functionality
- Involve key users across all solution touch points early in the project to increase knowledge base and solution ownership
- Embrace Change and have established systems to effectively manage change across the organization and your customers
- Onsite face-to-face testing cycles combined with realistic test data (transactions, volume, users) significantly improves results
- Variety of implementation methodologies are available (ASAP, Agile, Prototyping) – use approach that fits your project best
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THANK YOU FOR PARTICIPATING.

SESSION CODE: 0302

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