



Water-Efficient  
Plumbing from  
Sloan Valve



SLOAN.

# I<sup>1</sup>PRO 306

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## **TECHNOLOGY AND BUSINESS INNOVATIONS TO IMPROVE OPERATIONS**

**FACULTY INSTRUCTOR: JOHN CALTAGIRONE  
PROJECT SPONSOR: STEVEN RODGERS, SLOAN VALVE**

# Agenda

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Introduction

- Introduction & Team Structure

Supplier Data  
Optimization  
Review

- Supplier Data Optimization Review

Warehouse  
Management  
Review

- Warehouse Management Review

Conclusion

- Conclusion

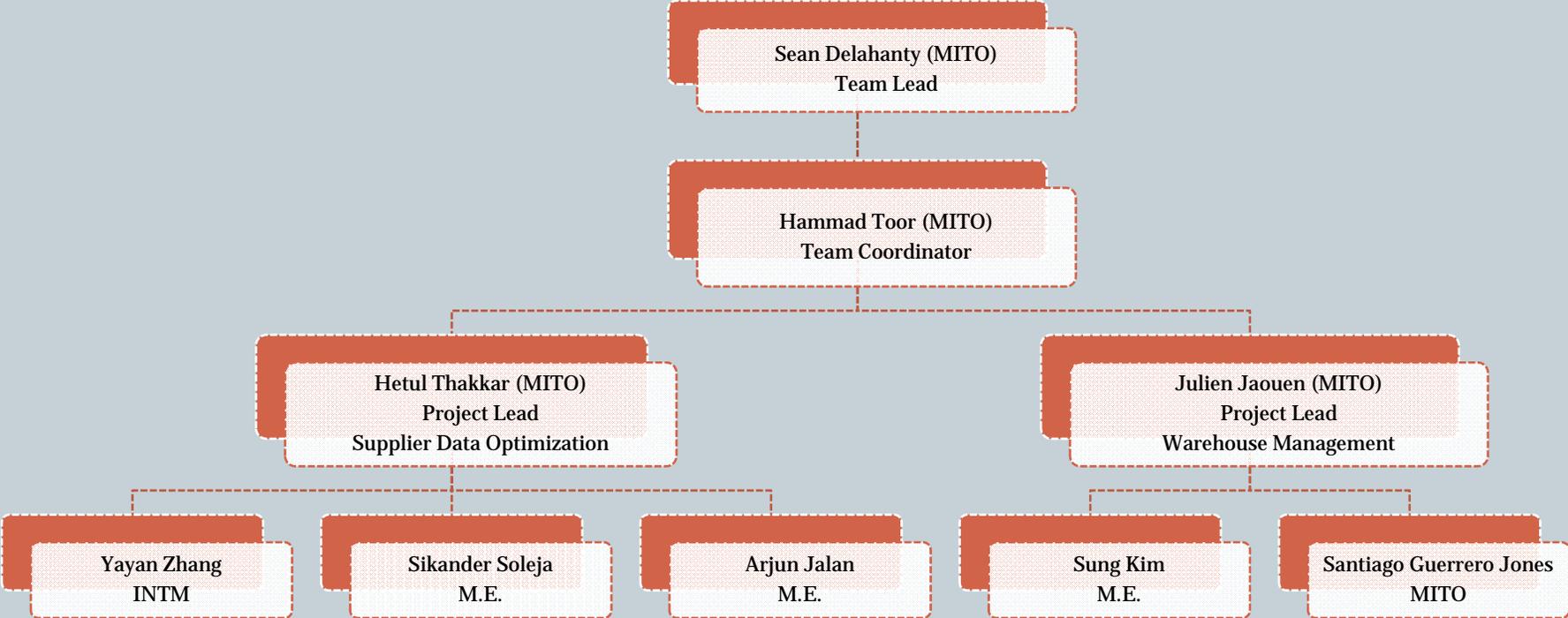
# Introduction

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- **Sloan Valve**
  - Industry Leader and Innovator
  - Green Initiatives, Commitment to Sustainability
  - [www.SloanValve.com](http://www.SloanValve.com)
- **IIT Students**
  - Diverse Group of 9 INTM & ME students
- **IPRO 306**
  - Creating Process Efficiencies Through the Use of Technology
    - ✦ Optimization of Supplier Data
    - ✦ Warehouse Improvements via Warehouse Management System (WMS)

# Team Structure

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# Supplier Data Optimization Review

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# Supplier Data Optimization – Global Sourcing

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# Issues

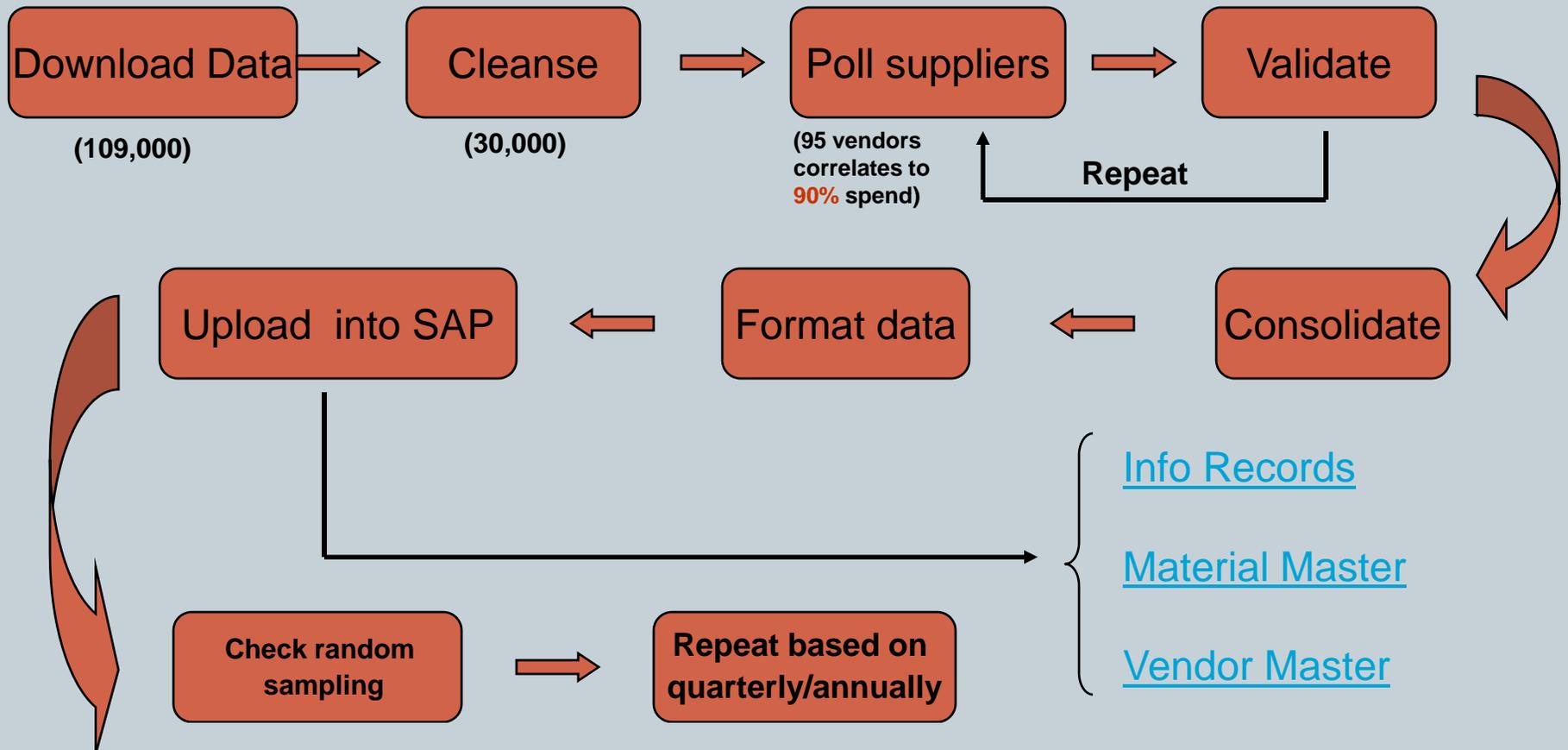
7

- **109,000 Suspect Data Records Currently in SAP**
- **Data Records Are Obsolete, Duplicate or Have Incomplete Information**
- **Currently No Process Exists to Manage and Accurately Maintain Data**



# To-Be Process

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# Solutions

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## Tactical Solution (Short)

Mass Emailing

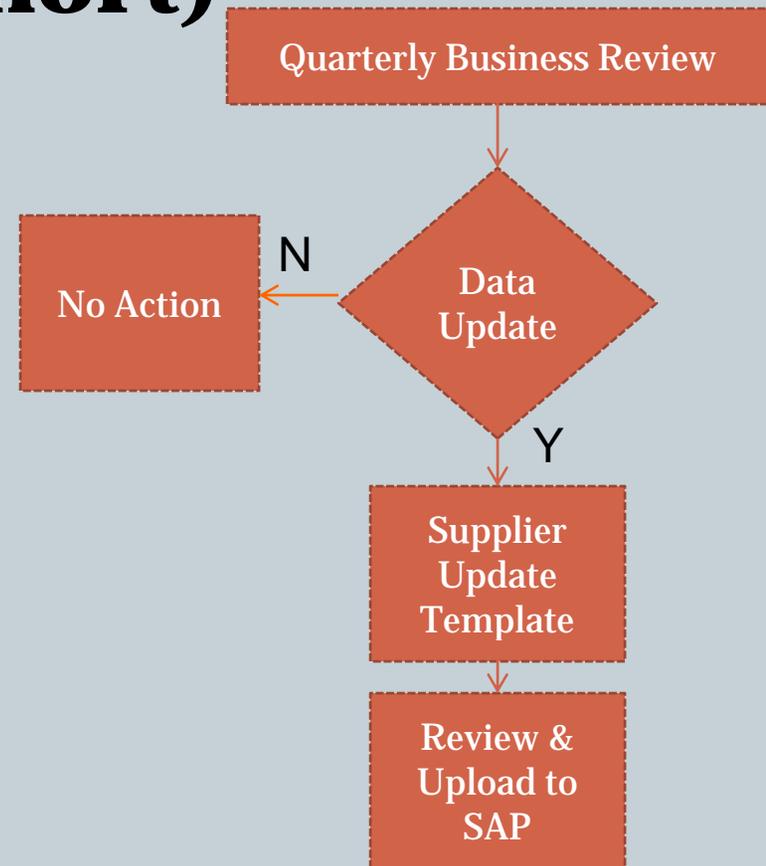
Quarterly Review

Tool

Microsoft Access

Mail Merge

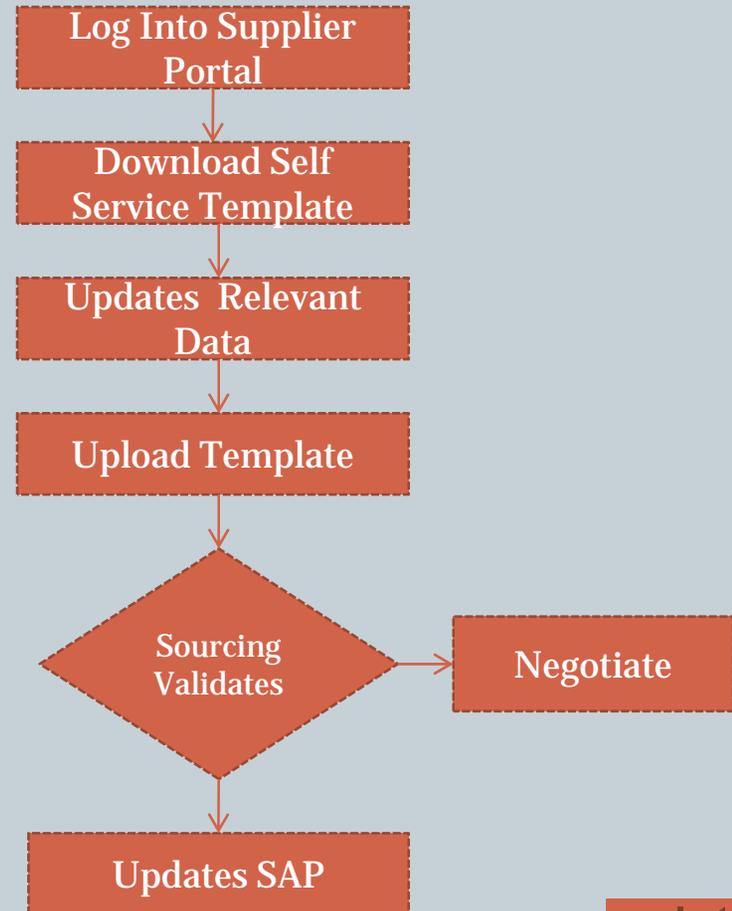
Mail Group



# Solutions (cont'd)

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- **Strategic Solution (Long)**  
**Supplier Web Portal**



# Implementation

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- **Supplier Portal Development / Creation**
  - Web Development Process
- **Data Record Management Process**
- **Refine Process**

# Warehouse Management Review

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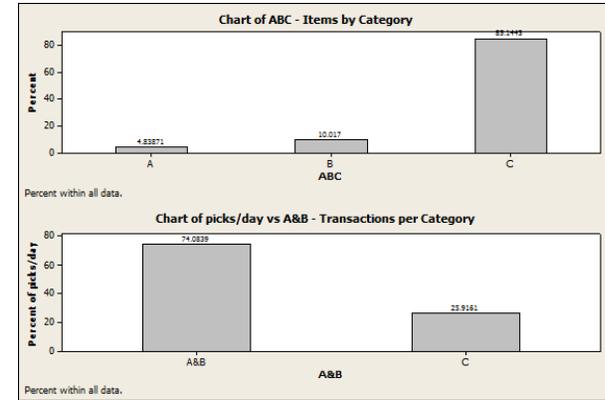
# Supply Chain Optimization – Current Issues

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- **Increased operational complexity**
- **No formal procedures on how to store items**
  - Manual processes
  - Wrong people making put-away decisions
- **Warehouse organization**
  - Hard to identify products in storage locations
  - Bins not clearly defined
  - Inventory is not stored by volume of transactions
- **Shipping errors on outbound and internal orders**

# Accomplishments

New ABC ----- Identify fast movers



CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7	CD 8	CD 9	CD 10	CD 11	CD 12	CD 13	CD 14	CD 15	CD 16	CD 17	CD 18	CD 19	CD 20
CD 21	CD 22	CD 23	CD 24	CD 25	CD 26	CD 27	CD 28	CD 29	CD 30	CD 31	CD 32	CD 33	CD 34	CD 35	CD 36	CD 37	CD 38	CD 39	CD 40
CD 41	CD 42	CD 43	CD 44	CD 45	CD 46	CD 47	CD 48	CD 49	CD 50	CD 51	CD 52	CD 53	CD 54	CD 55	CD 56	CD 57	CD 58	CD 59	CD 60

CD 61	CD 62	CD 63	CD 64	CD 65	CD 66	CD 67	CD 68	CD 69	CD 70	CD 71	CD 72	CD 73	CD 74	CD 75	CD 76	CD 77	CD 78	CD 79	CD 80
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CD 121	CD 122	CD 123	CD 124	CD 125	CD 126	CD 127	CD 128	CD 129	CD 130	CD 131	CD 132	CD 133	CD 134	CD 135	CD 136	CD 137	CD 138	CD 139	CD 140
CD 141	CD 142	CD 143	CD 144	CD 145	CD 146	CD 147	CD 148	CD 149	CD 150	CD 151	CD 152	CD 153	CD 154	CD 155	CD 156	CD 157	CD 158	CD 159	CD 160
CD 161	CD 162	CD 163	CD 164	CD 165	CD 166	CD 167	CD 168	CD 169	CD 170	CD 171	CD 172	CD 173	CD 174	CD 175	CD 176	CD 177	CD 178	CD 179	CD 180

CD 181	CD 182	CD 183	CD 184	CD 185	CD 186	CD 187	CD 188	CD 189	CD 190	CD 191	CD 192	CD 193	CD 194	CD 195	CD 196	CD 197	CD 198	CD 199	CD 200
CD 201	CD 202	CD 203	CD 204	CD 205	CD 206	CD 207	CD 208	CD 209	CD 210	CD 211	CD 212	CD 213	CD 214	CD 215	CD 216	CD 217	CD 218	CD 219	CD 220
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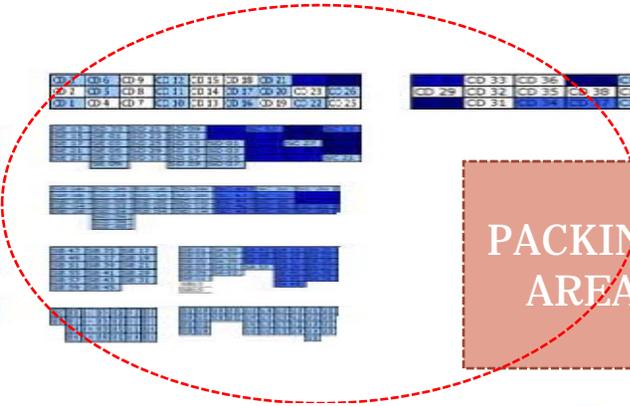
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CD 281	CD 282	CD 283	CD 284	CD 285	CD 286	CD 287	CD 288	CD 289	CD 290	CD 291	CD 292	CD 293	CD 294	CD 295	CD 296	CD 297	CD 298	CD 299	CD 300

PACKING AREA

CD 301	CD 302	CD 303	CD 304	CD 305	CD 306	CD 307	CD 308	CD 309	CD 310	CD 311	CD 312	CD 313	CD 314	CD 315	CD 316	CD 317	CD 318	CD 319	CD 320
CD 321	CD 322	CD 323	CD 324	CD 325	CD 326	CD 327	CD 328	CD 329	CD 330	CD 331	CD 332	CD 333	CD 334	CD 335	CD 336	CD 337	CD 338	CD 339	CD 340
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CD 361	CD 362	CD 363	CD 364	CD 365	CD 366	CD 367	CD 368	CD 369	CD 370	CD 371	CD 372	CD 373	CD 374	CD 375	CD 376	CD 377	CD 378	CD 379	CD 380
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CD 401	CD 402	CD 403	CD 404	CD 405	CD 406	CD 407	CD 408	CD 409	CD 410	CD 411	CD 412	CD 413	CD 414	CD 415	CD 416	CD 417	CD 418	CD 419	CD 420

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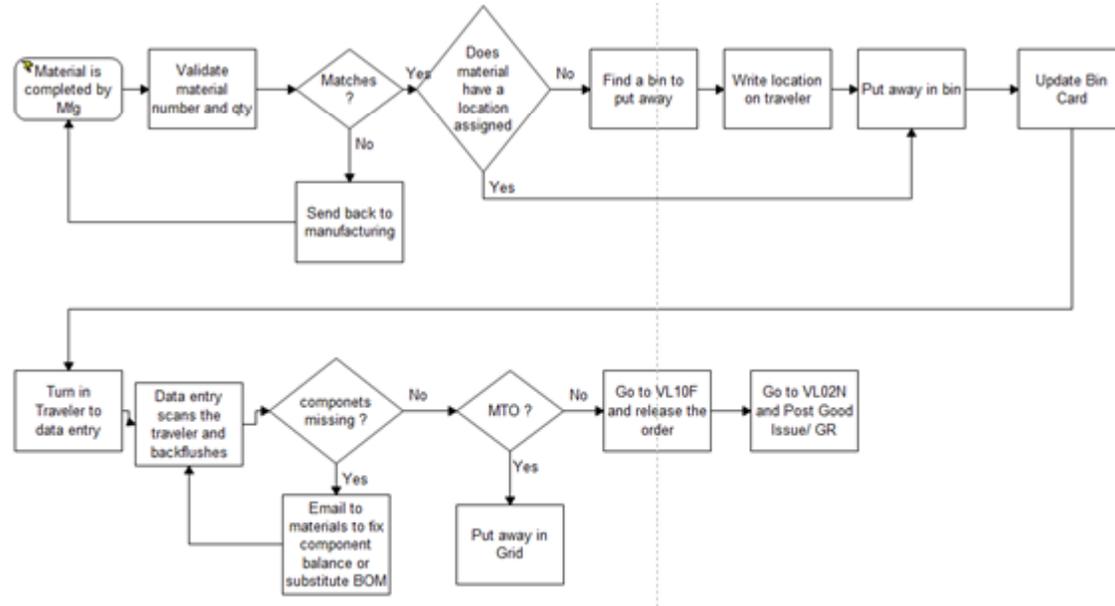


PACKING AREA

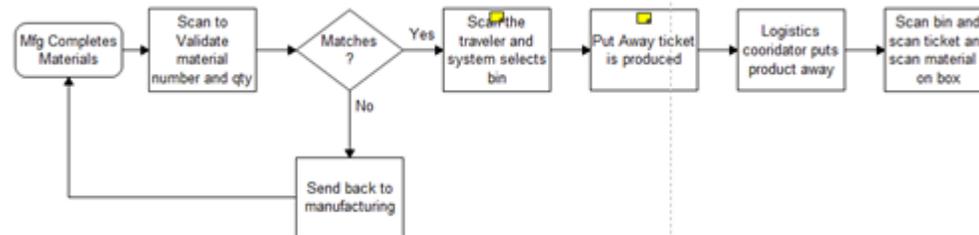
# Accomplishments

## New and Improved PROCEDURES

Current Process



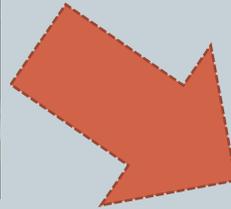
Future Process



# Accomplishments

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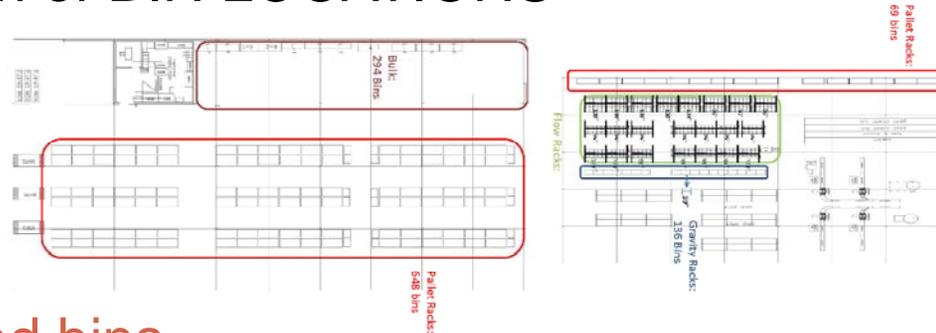
## Warehouse ORGANIZATION



# Additional Accomplishments

## • Definition and quantification of BIN LOCATIONS

- BULK 294 Bins
- PALLET RACK 719 Bins
- FLOW RACK 172 Bins
- GRAVITY RACKS 136 Bins



## • Identification of products and bins



## • DEMO development, testing and instruction material

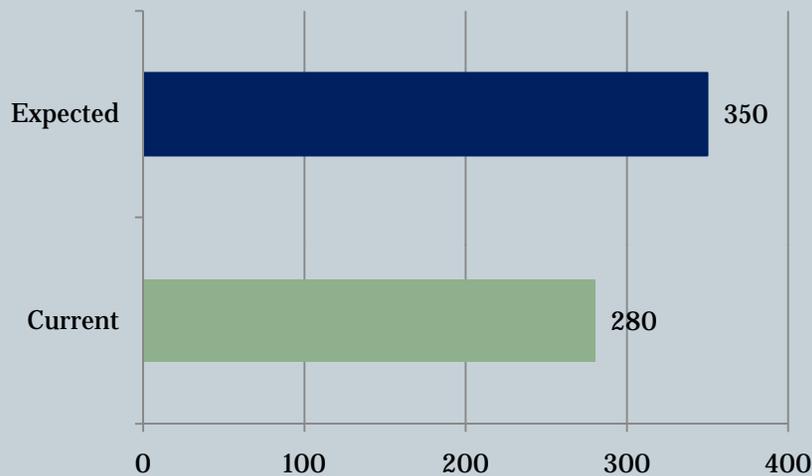
The screenshot shows a software interface with a menu bar (List, Edit, Copy, Environment, System, Help) and a toolbar. The main window title is 'Inventory by Cycle Counting: List Sorted by Material'. Below the title bar, there are icons for 'Storage Bin' and 'Inventory'. The main content area displays 'Whse number WMD Warehouse management demo' and 'Quant Information: InventoryProposal 1, Later / block 0, Bin Information: 829, Empty bins 814, Inventory active 2'. Below this, there is a table titled 'Inventory by Cycle Counting: List Sorted by Material'.

Bin	Storage Bin	Material	Description	Old PI Date	New PI Date
002	DH-02-02	0301134	overdue / blocked		11/18/2009
002	DH-02-02	0318031	overdue / blocked		11/18/2009
005	Dh-28-02	3010000	overdue / blocked		11/18/2009
005	Dh-21-01	3010000	overdue / blocked		11/18/2009
005	Dh-05-01	3010100	overdue		11/18/2009

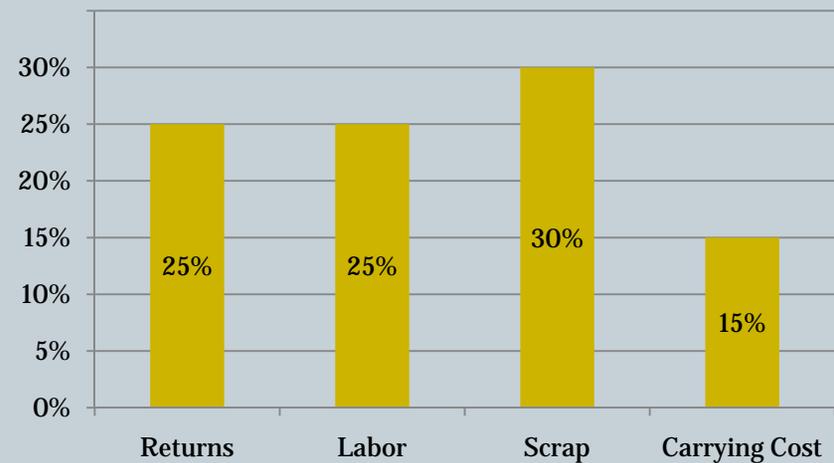
# Expected Implementation Results

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## Picking Productivity Improvement



## Savings



- Increased Inventory Control
- Better Information Accuracy and Visibility
- More Efficiently Managed Workforce

# Recommendations

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- Radio Frequency technology is required to maintain accuracy level and achieve expected results
- Move the demo site to a fully configured warehouse management module in the testing system
- A comprehensive implementation project plan needs to be developed
- Further enhancement to Unit and Integration test scripts

# Conclusion

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# Conclusion

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## **IPRO 306 Takeaways**

- Common, Real World Issues
- Collaboration, Working “With”, Not “For”
- Impact! Both Short and Long Term

# Questions?

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**Thank You for Your Time and Attention!**  
**Questions?**

### Change Info Record: General Data

Purch. Org. Data 1    Conditions    Texts

Info Record: 5300025630  
 Vendor: 600495    WARD MANUFACTURING CO  
 Material: 0318009    HY8 BUTTON INSERT  
 Material Group: 110    Do Not Use

**Vendor Data**  
 1st Rem./Exped.    Days  
 2nd Rem./Exped.    Days  
 3rd Rem./Exped.    Days  
 Vendor  
 Vendor  
 VSR So  
 Vendor  
 Points  
 Salespe  
 Teleph  
 Return  
 Prior V

Vendor: 600495  
 Purcha Material: 0318009  
 Order Purchasing Org.: 1  
 Conve Plant: FKP  
 Var. O Info Record:

- Info category**
- Standard
  - Subcontracting
  - Pipeline
  - Consignment

### Change Info Record: Purch. Organization Data 1

General Data    Conditions    Texts

Info Record: 23 5300025630  
 Vendor: 600495    WARD MANUFACTURING CO  
 Material: 0318009    HY8 BUTTON INSERT  
 Material Group: 110    Do Not Use  
 Purchasing Org.: 1    Plant: FKP Standard

	A	B	C	D	E	F	G	H	I	J	K	L
1	Info Rec.	Plnt	Info category	Tx	Standard Qty	minimum Qty	Ctry of Origin	Region	lead time	Price Per	Net price	Valid from
2	(Actual)			(Actual)	(1)	(Blank)	(Blank)	(Blank)	(pl. deliv. Time)	(each or 1000)		
3												
4												

**Validity periods**

Valid From	Valid to
11/03/2009	12/31/9999

Conditions

- Net Price
- Effective Price
- Qty Conv.
- Pr. Date Cat.
- Incoterms

Choose   
  New validity period   
  New with reference   

Not active

Purchasing Foreign trade import Purchase order text MRP 1 MRP 2

Material 0318009 HY8 BUTTON INSERT

Plant FKP FRANKLIN PARK PLANT

Foreign trade data

Comm.imp. code no. 8481.90.7000(7) Parts Un

Export/import group 0001 G0001

CAS number (pharm.)

PRODCOM no.

Control code

0318009 HY8 BUTTON INSERT

FKP FRANKLIN PARK PLANT

type F Batch entry

Requirement 39 Prod. stor. location FAS

age Default supply area

Sales text Purchasing Foreign trade import Purchase order text

Material 0318009 HY8 BUTTON INSERT

FKP FRANKLIN PARK PLANT

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	A	B	C	D	E	F	G	H
1	Material	Plant	Lot Size	Minimum Lot Size	Planned Deliv. Time	Country of Origin	Rounding value	Material Group
2	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)		
3								

MRP procedure

MRP Type PD MRP

Reorder Point 0 Planning time fence 0

Planning cycle MRP Controller PP2

Lot size data

Lot size EX Lot-for-lot order quantity

Minimum Lot Size 200 Maximum Lot Size 0

Maximum stock level 0

Assembly scrap (%) 0.00 Takt time 0

Rounding Profile Rounding value 0

Unit of Measure Grp

MRP areas

MRP area exists

MRP areas

0 days Underdel. Tolerance 5.0 percent

0 days Overdeliv. Tolerance 5.0 percent

0 days Min. Del. Qty in % 0.0 percent

0 days  Unltd Overdelivery  Acknowledgment Reqd

Manufacturer data

1 days  Source list  Critical Part

JIT Sched. Indicator

Mfr Part Profile

Manufact.



# Display Vendor: Initial Screen

Vendor  WARD  
 PurchasingOrganization  Main Purchasing Org

**General data**  
 Address  
 Control

**Purchasing**  
 Purchasing  
 Partner

**Name**  
 Title   
 Name

**Search Terms**  
 Search term 1/2

	A	B	C	D	E	F	G	H	I	J	K
1	Vendor Name	Sales Person	Street	City	State	Zip	Country	Telephone	Fax	E-Mail	
2			(not in Vendor Master)								
3											

FAX	Fax
INT	E-Mail
PAG	Pager Services
PRT	Printer
RML	Remote Mail
SSF	Secure Store & Forw.
TEL	Telephone
TLX	Telex
TTX	Teletex
URI	URL (Homepage)
X40	X.400

Company Postal Code

**Communication**  
 Language    
 Telephone  Extension   
 Fax  Extension   
 E-Mail   
 Standard Comm.Method   
 Data line   
 Telebox

Comments

