

Inventory Management User Manual

Good Issue RMX

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Document / Reference	Storage
EBM Business Blueprint Manufacturing	
MAN5 & MAN6 - EBM Inventory management - Goods Issue	https://docs.google.com/a/holcim.com/presentation/d/1VM_HVhWjX5QzZXkiYPagMb1w6pDlysUp7KEAgTx9Bz0/edit#slide=id.p50

Distribution List

Function / Role	Company

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1. Introduction

This is the document that provides all the necessary information to enable the End User to perform their activities of SAP and no SAP systems, related with Inventory Management, on the respective go-life date, in line with the following criteria:

- Speed of execution of tasks
- Quality of data entry
- Compliance with management rules
- Maximum user ease

Throughout this document explains in detail each of the activities necessary to carry out the processes in Inventory Management.

2. Glossary & Abbreviations

The table below lists all the abbreviations used in the document with their complete description.

Abbreviation	Description
CEM	Cement
AFR	Alternative Fuels and Raw Materials
RMX	Ready mix
EMEA	Europe, Middle East and Africa
EBM	European Business Model
LHARP	LafargeHolcim Accounting and Reporting Principles
LHAC	LafargeHolcim Asset Coding
MEC	Month End Closing
MM	Material Management
IM	Inventory Management

3. Organizational Elements

3.1 Organizational Elements used in Inventory Management Processes

3.1.1 Plant

General Concept

The plant represents a physical location within LafargeHolcim where products are manufactured, received or distributed.

In EBM, a plant could be:

- **Manufacturing plant:** cement plant, grinding station, blending station, AFR unit, MIC plant, quarry, pit, RMX plant (fix/mobile), asphalt plant, etc.
- **Shipping point / terminal / storage location:** when it is not located in the same physical location as the production plant and transportation costs must be added to the cost of products.
- **Office / headquarters / trading plant:** when they are not located in a production plant
- Third parties (suppliers): O2C tech.& legal requirement to create them as virtual plants (just 1 per country).
- **Power generation plants:** just if it is not located next to a CEM plant. If the power generation plant is located next to the CEM plant, only 1 plant code will be created in SAP for both CEM and power plant.
- **Mixed plants:** LHARP rule 11.1 2.2.2.5 to be followed. If the secondary business is below 20% of cash cost and below 1 Mio. USD, only 1 plant is created, assigned to the main business segment and secondary business is treated as by-product. If the thresholds are achieved, 2 plants should be created and assets properly split.

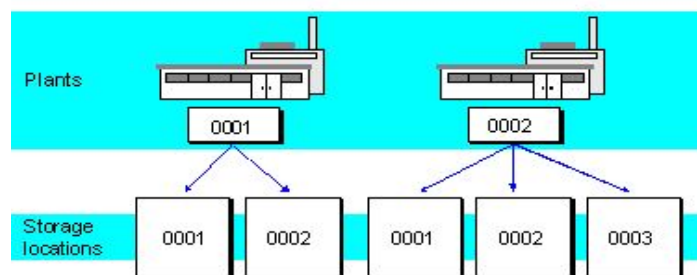
The material stocks will be managed and valued at plant level.

3.1.2 Storage Location

General Concept

Organizational unit that allows to differentiate between various types of stock within a plant.

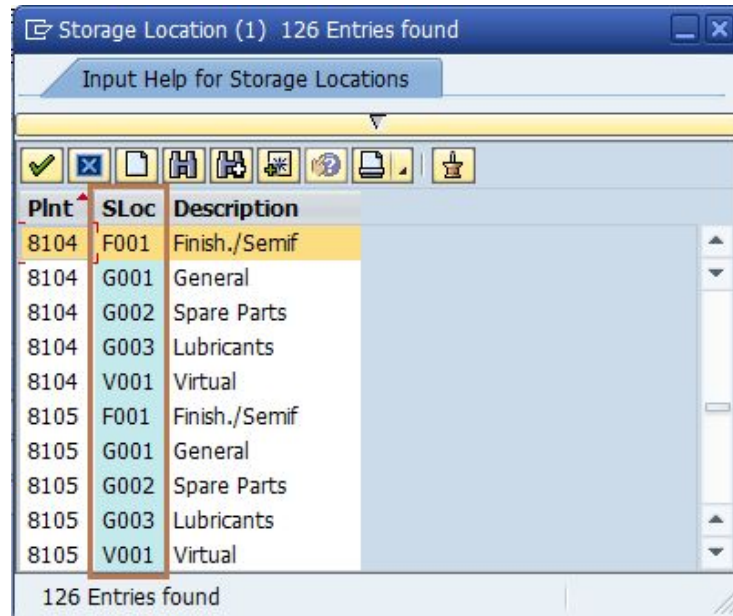
- Storage locations are created at plant level.
- Inventory Management is carried out at storage location level (Goods movements).
- Stocks are managed only on a quantity basis and not on a value basis at storage location level.
- Simplification of goods movements (Receipts, issues, transfers,...) management .
- Physical inventories are carried out at storage location level.



Coding

It has a 4 digit coding, “XXXX”, where the first digit identifies the usage of the storage location and the remaining 3 are sequential numbers

- **F**: For finished/semi-finished products
- **G**: For general materials (maintenance materials, production materials – fuels, raw materials, packing,...)
- **V**: For virtual warehouse



Plnt	SLoc	Description
8104	F001	Finish./Semif
8104	G001	General
8104	G002	Spare Parts
8104	G003	Lubricants
8104	V001	Virtual
8105	F001	Finish./Semif
8105	G001	General
8105	G002	Spare Parts
8105	G003	Lubricants
8105	V001	Virtual

Storage Location for Finished and Semi-finished products

Follows the General EBM concept. A single storage location is created for each plant for finished/semi-finished products (Simplification)

It allows «negative stocks». Due to the fact that Process Order Confirmations are done on a weekly/monthly basis and outbound deliveries daily, it is necessary to allow the negative stocks during the month. As part of the Month End Closing the stocks are adjusted.

It is codified with a «**F**» letter as first digit:

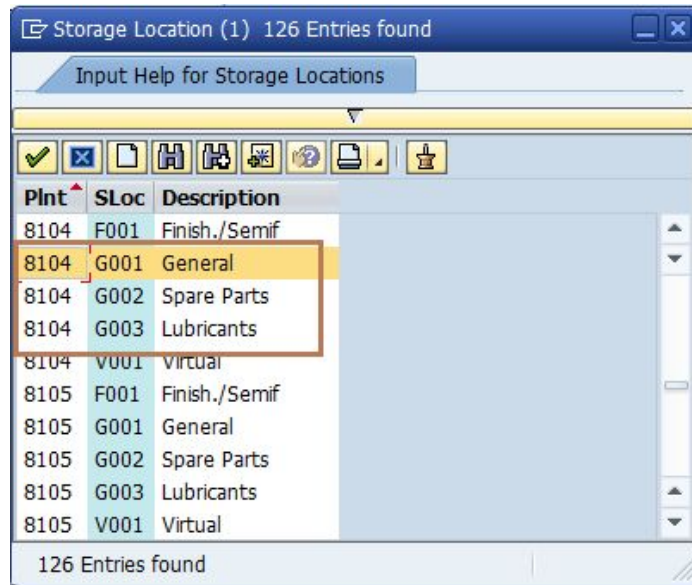
- **F001**: Finished/Semi-finished products

Storage Location for Production Materials

Follows the General EBM concept. A single storage location is created for each plant for production materials (Simplification).

It is codified with a «**G**» letter as first digit

- **G100**: General Storage for Production Materials
- **G200**: General Storage for Maintenance Materials



Detailed coding of storage location is described in Manufacturing Blueprint.

		Plant segment			
		CEM	AGG	RMX	AFR
Material types	Finish and semi-finish	F001 F900 (<i>stock in transit</i>) F002 (<i>quarry with internal transfer</i>) F00X (<i>ship / train loadings</i>)	F00X F900		F001
	Production and Raw	G100 G106 (<i>Intermediate stock</i>)	G1XX	G100	G100
	Maintenance	G200 G2XX (<i>special-legal storages</i>) G299 (<i>obsoletes</i>)	G200 G2XX G299	G200 G2XX G299	G200 G2XX G299
	Virtual	V200	V200		
	Packaged				G101 G161
	Handling				H101 H161

4. Goods Issue in RMX

4.1 Process Background

A goods issue (GI) is a goods movement with a material withdrawal or material issue, a material consumption, or a shipment of goods to a customer is posted. A goods issue leads to a reduction in warehouse stock.

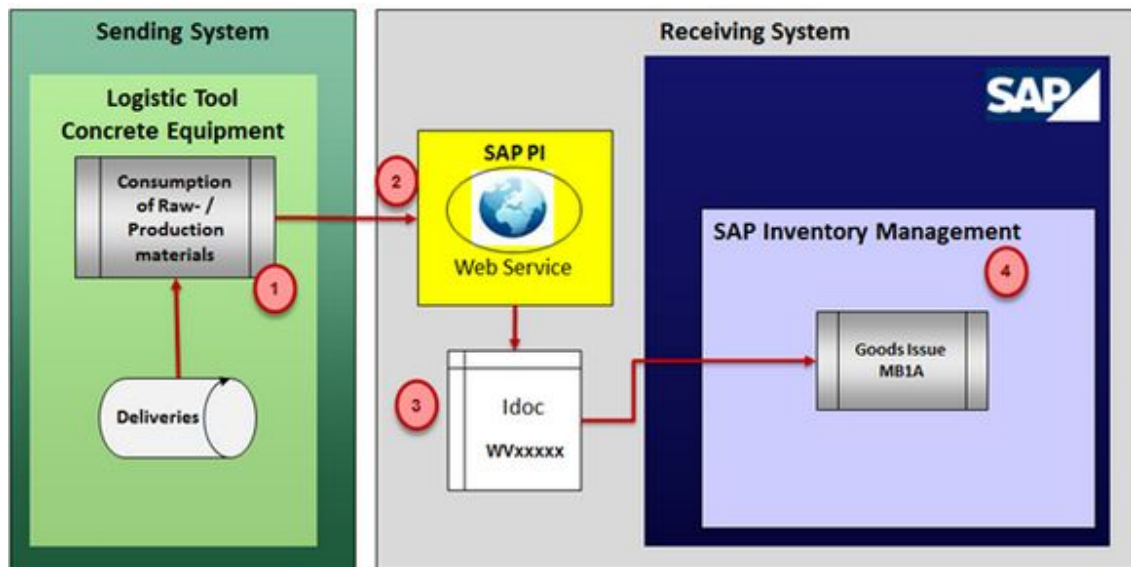
The Inventory Management system supports the following types of goods issues:

- Withdrawal of material for production orders
- Scrapping and withdrawal of material for sampling
- Return deliveries to vendors
- Other types of internal staging of material
- Deliveries to vendors without the involvement of the SD Shipping component

4.2 Process Steps

Deliveries of RMX are handled in the local RMX Logistics systems

Consumption of Raw and Production Materials must be transferred from the local system to SAP through this interface in order to post the goods issue in SAP ECC 6.0.



Step Nbr.	Process Step	Resp.	Process Description	System	Period Execution
1	Collect consumptions	Automatic batch	Collect all consumptions of raw- and production materials out of the deliveries	CEC	Day-end
2	Send data to SAP	Automatic batch	Data are sent to SAP PI and an automatic batch via web service generates an IDoc for further processing of the data	CEC	Day-end
3	Check IDoc	Back Office	Check and correct the IDoc's with Logistic Cockpit (ZLOG005)	SAP PI	Daily
4	Process IDoc	Automatic batch	Automatic batch to process the IDoc to post the goods issue in SAP	SAP IM	Immediate

IDoc's must be daily checked to ensure that they have been correctly processed, and also to identify incorrect messages, analyse the cause of the error, fix the error, and then trigger the processing of the IDoc again if needed.

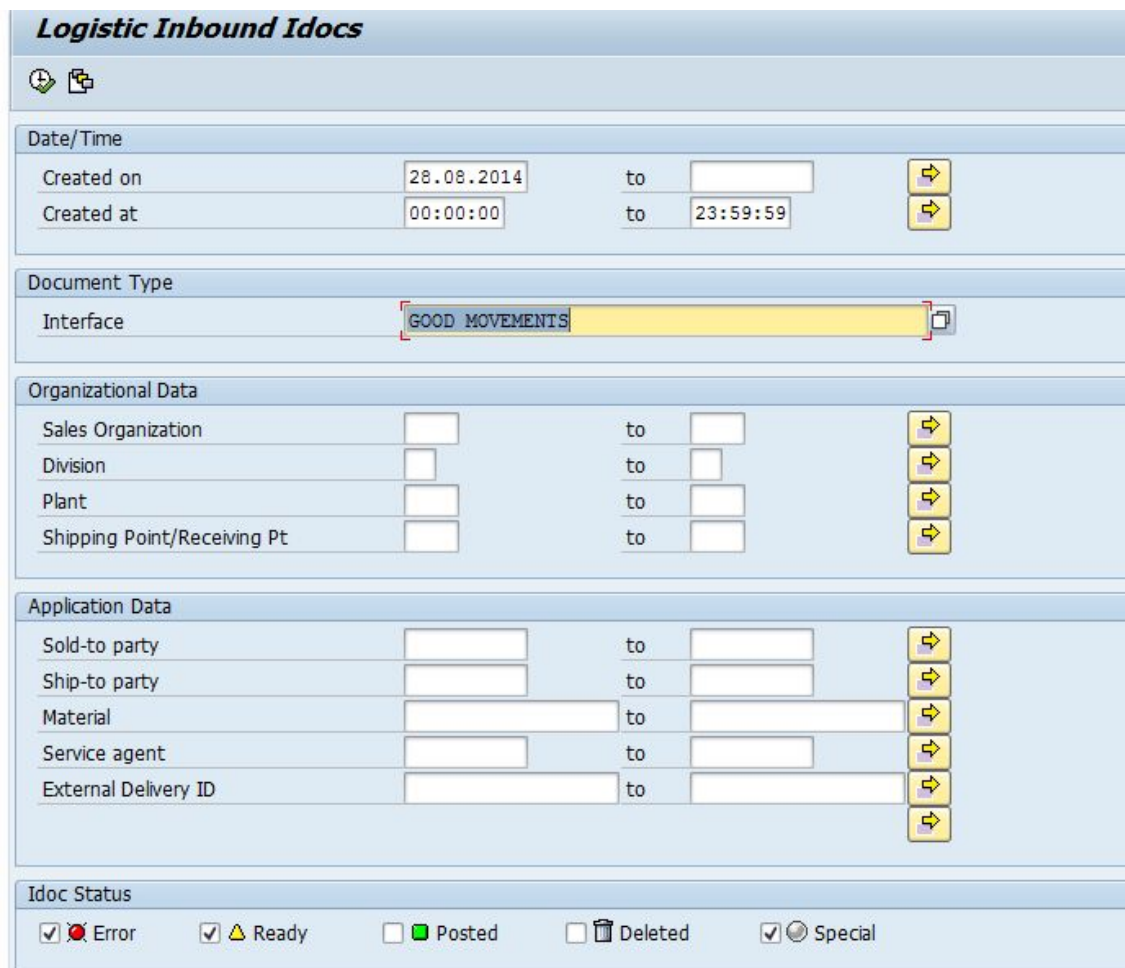
Logistics Cockpit has been created as a tool to manage the IDoc's:

- To guarantee the access of the right user to the right information selection screen according to specific organizational and technical data.
- This tool will be used to speed-up the monitoring and handling of the inbound IDocs received in SAP from external systems.



Good Issue RMX Interface

Transaction:


ZLOG005 - Logistic cockpit




Logistic Inbound Idocs


 

Date/Time


Created on 28.08.2014 to 


Created at 00:00:00 to 23:59:59 


Document Type


Interface GOOD MOVEMENTS 

Organizational Data


Sales Organization to 


Division to 


Plant to 


Shipping Point/Receiving Pt to 


Application Data

Sold-to party to 






Ship-to party to 

Material to 

Service agent to 


External Delivery ID to 

Idoc Status

☒  Error ☒  Ready ☐  Posted ☐  Deleted ☒  Special

Select the Interface: "Goods movements".

Use the selection fields: Dates, Plant, Sales Organization....in order to help your IDoc finding.

After, the selection fields has been fulfilled, you have to press "Execute" button,  .

Logistic Inbound Idocs

Interface : GOOD MOVEMENTS
10.000 Idocs selected.

St.	Status N.	Idoc No.	Date created	Time	Document Da	Posting Date	TCODE	External Delivery	Material Number	Plant	Storage Locat.	Batch Number	Movement Type	Special Stock Indicator	Quantity
51	33942063	26.04.2014	22:29:14	25.04.2014	25.04.2014	MB1A			15001469	F4F2	G100		201		89440
51	33942073	26.04.2014	22:29:14	25.04.2014	25.04.2014	MB1A			10000047	F4F2	G100		201		33
51	33942099	26.04.2014	22:29:21	25.04.2014	25.04.2014	MB1A			10001582	F493	G100		201		21
51	33942106	26.04.2014	22:29:21	25.04.2014	25.04.2014	MB1A			15001184	F493	G100		201		278280
51	33942112	26.04.2014	22:29:21	25.04.2014	25.04.2014	MB1A			10000321	F493	G100		201		39.45
51	33942175	26.04.2014	22:29:35	25.04.2014	25.04.2014	MB1A			10000145	F487	G100		201		285.14
51	33942177	26.04.2014	22:29:35	25.04.2014	25.04.2014	MB1A			15001298	F486	G100		201		18130
51	33942184	26.04.2014	22:29:35	25.04.2014	25.04.2014	MB1A			15001701	F487	G100		201		3730
51	33942189	26.04.2014	22:29:38	25.04.2014	25.04.2014	MB1A			10000145	F487	G100		201		890.257
51	33943203	26.04.2014	22:33:00	25.04.2014	25.04.2014	MB1A			10000136	F4EK	G100		201		2.42
53	10764167	06.05.2013	12:23:17	03.05.2013	03.05.2013	MIGO			14000101	F446	G100		101		27.4
53	10764168	06.05.2013	12:23:20	02.05.2013	02.05.2013	MIGO			15001287	F4A2	G100		101		30.52
53	10764169	06.05.2013	12:23:20	02.05.2013	02.05.2013	MIGO			15001287	F4A2	G100		101		31.44
53	10764170	06.05.2013	12:23:20	02.05.2013	02.05.2013	MIGO			15001287	F4A2	G100		101		29.94
53	10764171	06.05.2013	12:23:21	02.05.2013	02.05.2013	MIGO			15001287	F4A2	G100		101		30.06
53	10764172	06.05.2013	12:23:23	03.05.2013	03.05.2013	MIGO			15001593	F434	G100		101		20.25
53	10764173	06.05.2013	12:23:23	03.05.2013	03.05.2013	MIGO			15001287	F4A2	G100		101		30.42
53	10764174	06.05.2013	12:23:23	02.05.2013	02.05.2013	MIGO			15001287	F4A2	G100		101		26.62
53	10764175	06.05.2013	12:23:23	02.05.2013	02.05.2013	MIGO			15001287	F4A2	G100		101		25.82

The status of the IDOCs is displayed with traffic lights.

Red light:

Idoc in error

Yellow light:

Idoc not processed

Green Light:

Idoc processed successfully

Idoc flag for deletion

Idoc original of a modification


For the IDoc with error (Red), clicking on the "IDoc Number" it is possible to navigate to the IDoc information

Logistic Inbound Idocs

Interface : GOOD MOVEMENTS
10.000 Idocs selected.





St.	Status N.	Idoc No.	Date created	Time	Document Da
51	33942063	26.04.2014	22:29:14	25.04.2014	
51	33942073	26.04.2014	22:29:14	25.04.2014	
51	33942099	26.04.2014	22:29:21	25.04.2014	
51	33942106	26.04.2014	22:29:21	25.04.2014	
51	33942112	26.04.2014	22:29:21	25.04.2014	
51	33942175	26.04.2014	22:29:35	25.04.2014	

And review the sent information from Concrete equipment system and check where is the error.

For the IDoc not processed (Yellow), it is possible to “reprocess” it, you have to select the IDoc line to reprocess, and click on “Re-processing IDoc” button, .

Logistic Inbound Idocs

Interface : GOOD MOVEMENTS
4 IDocs selected.

Status	Status No.	Idoc No.	Date created	Time	Document Date	Posting Date	TCODE
	64	33977097	13.05.2014	15:30:59	13.05.2014	13.05.2014	MIGO
	64	33977098	13.05.2014	15:31:02	13.05.2014	13.05.2014	MIGO
	64	33977100	13.05.2014	15:51:13	13.05.2014	13.05.2014	MIGO
	64	33977101	13.05.2014	15:52:44	13.05.2014	13.05.2014	MIGO

In case that the IDoc was correctly processed (Green), you can display the SAP Material document created clicking on “SAP Movement” number.




Logistic Inbound Idocs


Interface : GOOD MOVEMENTS
5,935 IDocs selected.

External Delivery	Material Number	Plant	Storage Location	Batch Number	Movement Type	Special Stock Indicator	Quantity in unit of entry	Unit of Entry	Cost Center	SAP Movement	Status message
	14000101	F446	G100		101		27.4	TNE	F446M4000	5001403212	Document 5001403212 posted
	15001287	F4A2	G100		101		30.52	TNE	F4A1M4000	5001403240	Document 5001403240 posted
	15001287	F4A2	G100		101		31.44	TNE	F4A1M4000	5001403264	Document 5001403264 posted
	15001287	F4A2	G100		101		29.94	TNE	F4A1M4000	5001403250	Document 5001403250 posted
	15001287	F4A2	G100		101		30.06	TNE	F4A1M4000	5001403199	Document 5001403199 posted
	15001593	F434	G100		101		20.25	TNE	F434M4000	5001403239	Document 5001403239 posted
	15001287	F4A2	G100		101		30.42	TNE	F4A1M4000	5001403200	Document 5001403200 posted
	15001287	F4A2	G100		101		26.62	TNE	F4A1M4000	5001403249	Document 5001403249 posted

Then, you navigate to the SAP Material document.

Display Material Document 5001403212 : Overview



 Details from Item Material Accounting Documents...

Posting Date  Deliv.Note Name

Items

Item	Quantity	EUn	Material	Plnt	SLoc	PO	Item	S	DCI
		BUn	Material Description			Batch	R	MvT	S S
1	27,400	TO	14000101	F446	G100	5500004465	20		
			CEM II/A-LL 42,5 N CP2 vrac				101	+	

Note: You can find more details regarding Good Issues on the User Manual of “MAN5 - EBM Inventory Management_Good Issues_Training User Manual_V0” that is available in the EITS training google site.

Please, click on the following link to access to it:

<https://docs.google.com/a/lafargeholcim.com/document/d/1PXf4u hpMYp fwLgo4lAK1ZpVCQsD4iyN9Dmrzj1OGGN0/edit?usp=sharing>

5. Annexes

Indicators

For the PPI indicator point of view the indicator that are more affected are the ones highlighted in green of the following list of Inventory management indicators

PPI notation	Functional definition	Priority	UoM	Business objective
Non-standard material movements [count]	<p>Number of non-standard material movements</p> <p>The categorization of the goods movement is completed and delivered as per the attached document.</p> <p>This is a combination of the input from the workstreams, a precaution principle was applied and the highest criticality was allocated in case of conflict.</p> <p>It includes as well the movements not identified by the workstreams but existing in the system in configuration and/or used in the movement extraction from 2012 available (to which the highest criticality was applied).</p> <p>Some arbitrage were done after review with the various team members in accordance with the best practices.</p>	1	#	Inventory management exceptions (inventory differences, scrapping, reversals, transfers) should be minimized

Note:

- *The Standard movement types (regular business process) are as following :*
101, 102, 161, 162, 201, 202, 221, 222, 231, 241, 242, 251, 252, 261, 262, 291, 292, 301, 302, 303, 304, 305, 306, 309, 310, 311, 312, 313, 314, 315, 316, 321, 322, 323, 324, 325, 326, 341, 342, 343, 344, 351, 352, 411, 412, 541, 542, 543, 544, 601, 602, 631, 632, 633, 634, 641, 642, 643, 644, 647, 648, 653, 654, 655, 656, 703, 704, Z01, Z02
- *The Critical movement types (foreseen but monitoring required) are as following :*
103, 105, 122, 511, 512, 531, 532, 551, 552, 553, 554, 555, 556, 701, 702
- *The Exceptional movement types (not foreseen but configured and not blocked by the system and/or used despite not foreseen) are as following :*
141, 142, 232, 281, 282, 317, 318, 319, 320, 331, 332, 333, 334, 335, 336, 340, 349, 350, 413, 414, 415, 416, 441, 442, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 501, 502, 503, 504, 505, 506, 521, 522, 523, 524, 525, 526, 557, 558, 561, 562, 563, 564, 565, 566, 571, 572, 573, 574, 575, 576, 581, 582, 603, 604, 606, 621, 622, 646, 651, 661, 662, 671, 672, 6A5, 6A6, 6B5, 6B6, 6W5, 6W6, 707, 708, 711, 712, 713, 714, 715, 716, 717, 718, 721, 722, 731, 732

PPI notation	Functional definition	Priority	UoM	Business objective
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Slow moving stock (no consumption within last 365 days) [value ratio]	Materials for which no goods movements were posted within the period of analysis This analysis is based on quantity managed material master records that have a positive stock quantity at the moment of analysis and no client or plant deletion indicator set. Slow or non moving stock is defined as materials for which no goods movements were posted within the period of analysis or the latest goods movement is more than 365 days ago.	1	%	Slow / non moving inventory PPI will help identifying inadequate inventory management / materials planning procedures. (eg: materials used in a maintenance process but not decreased from inventory in connection to a work order, materials stored but never used in any process). Slow / non moving inventory may result in write-offs and as a result, capital loss (not driven by the PPI but by LHARP process). Therefore, due to the impact on costs, unnecessary funds immobilization, slow moving stock should be limited as much as possible.
MRP usage	Nr of PCS03 & PCS04 in MRP vs total number of PCS03 & PCS04 It measures the ratio of purchase requisitions created through the MRP to the total of created purchase requisitions (for the PCS 03* and 04*) .	2	%	
Use of bar coding system	Nr of WH activities w/ bar coding vs total material documents This measures the usage of the Bar Coding system: Goods Issue , Goods Receipt and physical inventory(for the PCS 03* and 04*)	2	%	Optimize the GI posting by using the tool and saving time avoiding manual tasks
Reversal material movements	Number of reversed material documents In a good process there should not be reversals of goods movements	2	%	Material movement reversals should be minimized
Material inactive with pending open items (Count)	Volume of material flagged for deletion or inactive with existing inventory To be detailed : Materials can be flagged for deletion but having existing stock registered and valued. The stock level is not allowed for transfer, sell, usage in production hence should be disposed.	tbd	#	To be detailed : The aim is to avoid managing inventory level of items that cannot be used for any business purpose and still need to be inventoried, physically handled on a regular basis.

Transaction List

Transaction	Description
Good Issue	
ZLOG005	Logistic Cockpit