

SAP University Alliances

Version 2.01

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Materials Management (MM) ↔

Product

SAP ERP 6.0 EhP4
Global Bike Inc.

Level

Beginner

Focus

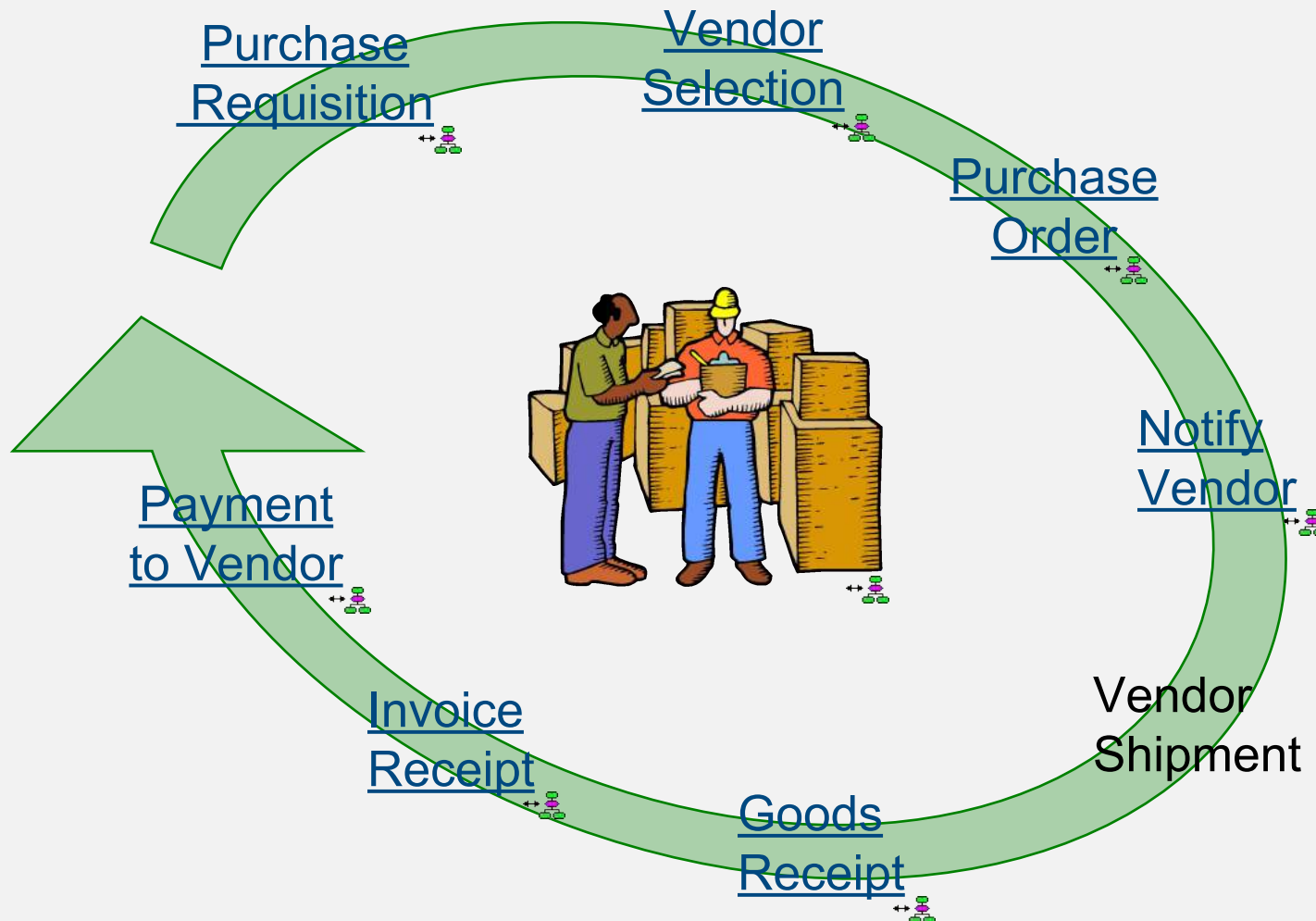
Cross-functional integration
Materials Management

In addition to the standard Materials Management slides, this presentation includes links to business process models provided by a team at Hochschule Harz in Germany led by Prof. Dr. Hans-Jürgen Scheruhn.

These business models represent the processes in the case study 100% and thus facilitate an integrated view on data, functions and persons responsible.

Each link in the presentation is indicated by the symbol ↔. A list of all links can be found on the second last page.

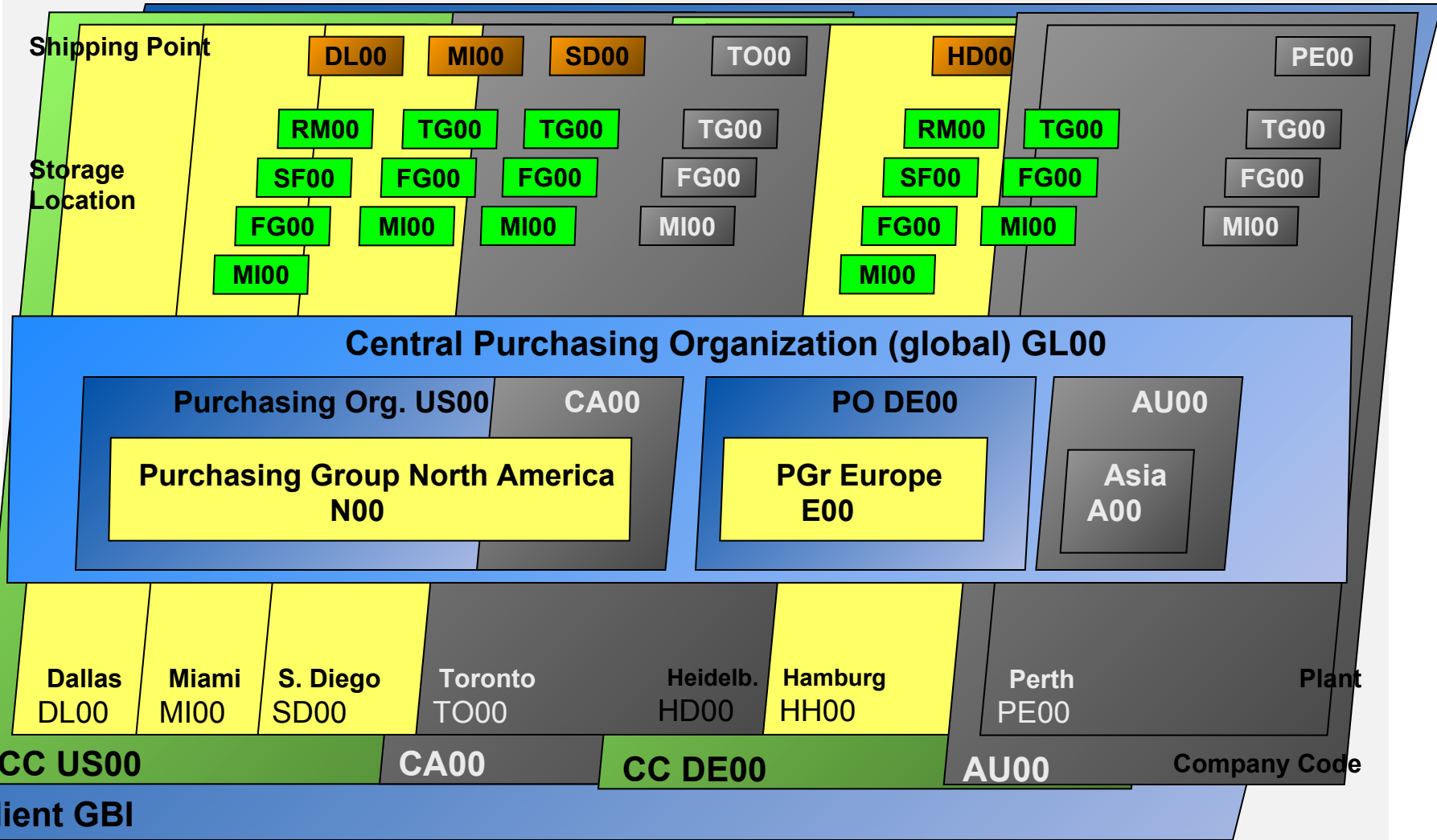
- Introduction to SAP
- Navigation
- Introduction to GBI
- Sales & Distribution
- **Materials Management**
- Production Planning
- Financial Accounting
- Controlling



- MM Organizational Structure
- MM Master Data
- MM Processes
 - Procure-to-Pay Process

SAP ERP

GBI 2.0 Enterprise Structure in SAP ERP (Logistics)





- Client
 - An independent environment in the system
- Company Code
 - Smallest org unit for which you can maintain a legal set of books
- Plant
 - Operating area or branch within a company
 - Manufacturing, distribution, purchasing or maintenance facility
- Storage Location
 - An organizational unit allowing differentiation between the various stocks of a material in a plant



- Purchasing Organization
 - The buying activity for a plant takes place at the purchasing organization
 - Organization unit responsible for procuring services and materials
 - Negotiates conditions of the purchase with the vendors
- Purchasing Group
 - Key that represents the buyer or group of buyers who are responsible for certain purchasing activities
 - Channel of communication for vendors

SAP ERP

MM Master Data



Purchase Order Edit Goto Environment System Help

Create Purchase Order

Document Overview On Hold Print Preview Messages Personal Setting

NIB Standard PO Vendor: 135000 Mid-West Supply Doc. date: 04/29/2010

Delivery Invoice Conditions Texts Address Communication Partners Additional Data Org. Data Status

Purch. Org.: US00 GBI US
 Purch. Group: 000 North America
 Company Code: US00 Global Bike Inc.

S. Itm	A	Material	Short Text	PO Quantity	U...	C Deliv. Date	Net Price	Curr...	Per	O...	Matl Group	Plant	Stor. Loc
10		CHL01000	Chain Lock	200	EA	07/29/2010	32.00	USD	1	EA	Utilities	DC San Diego	Trading

Default Values Add Planning

Item: 1 [10] CHL01000, Chain Lock

Material Data Quantities/Weights Delivery Schedule Delivery Invoice Conditions Texts Delivery Address Confirmations Condition Control

Qty: 200 EA Net 6,400.00 USD

N.	ConTy	Name	Amount	Crey	per	U...	Condition value	Curr.	Status	Nu...	OU	CCon...	Un	Condition value	CdCur	Stat
1	FBO	Loss Price	32.00	USD	1	EA	6,400.00	USD		1	EA	1	EA	0.00		
		Net value incl. disc	32.00	USD	1	EA	6,400.00	USD		1	EA	1	EA	0.00		
2	NAVS	Non-Deductible Tax	0.00	USD			0.00	USD		0		0		0.00		
		Net value incl. tax	32.00	USD	1	EA	6,400.00	USD		1	EA	1	EA	0.00		
3	SKTD	Cash Discount	0.00	%			0.00	USD		0		0		0.00		
		Actual price	32.00	USD	1	EA	6,400.00	USD		1	EA	1	EA	0.00		
4	W0TB	OTB Procurement	32.00	USD	1	EA	6,400.00	USD		1	EA	1	EA	0.00		

Condition rec. Analysis Update

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Vendor Master Data

Material Master Data

- Vendor Master
 - Contains all the necessary information needed to business with an external supplier
 - Used and maintained primarily by the Purchasing and Accounting Departments
 - Every vendor MUST have a master record

Create Vendor: Address

Vendor: INTERNAL

Name: Company (Title), Mid-West Supply (Name)

Search Terms: Search term 1/2: 000

Street Address: Street/House number: 335 W Industrial Lake Dr, Postal Code/City: 68528 Lincoln, Country: US USA, Region: NE Nebraska, Time zone: CST

PO Box Address: PO Box, Postal code, Company postal code

Communication: Language: EN English

- Material Master
 - Contains all the information a company needs to manage about a material
 - It is used by most components within the SAP system
 - Sales and Distribution
 - Materials Management
 - Production
 - Plant Maintenance
 - Accounting/Controlling
 - Quality Management
 - Material master data is stored in functional segments called Views

Display Material DXTR1000 (Finished Product)

Additional Data Org. Levels

Basic data 1 Basic data 2 Sales: sales org. 1 Sales: sales org. 2 Sale...

Material: DXTR1000 Deluxe Touring Bike (black)

General data

Base Unit of Measure	EA	each	Material Group	BIKES
Old material number			Ext. Matl Group	
Division	BI		Lab/Office	
Product allocation			Prod.hierarchy	
X-plant matl status	<input type="checkbox"/>		Valid from	
<input type="checkbox"/> Assign effect. vals			GentemCatGroup	NORM Standard item

Material authorization group

Authorization Group:

Dimensions/EANs

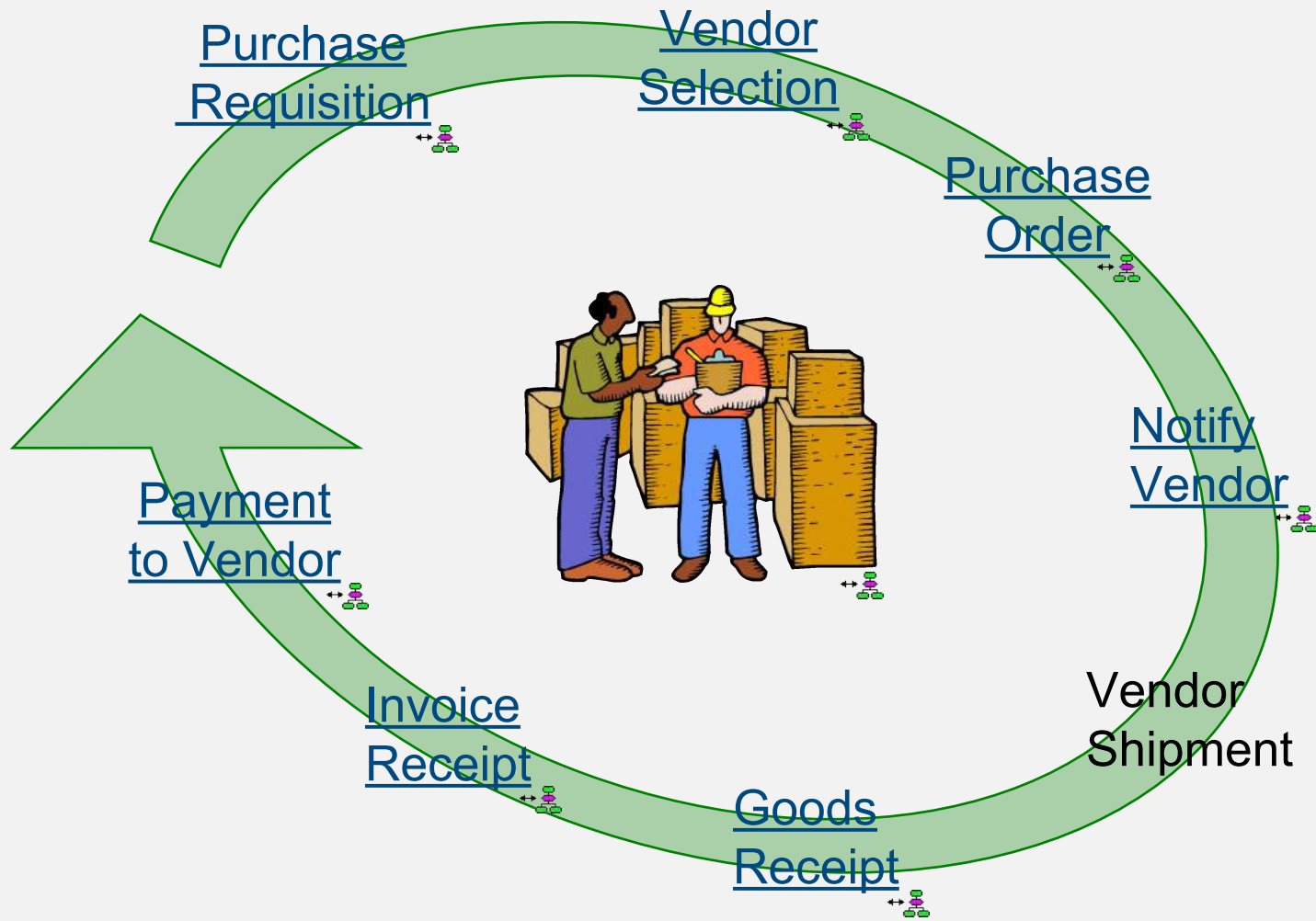
Gross Weight	8,510	Weight unit	6
Net Weight	8,510		
Volume	0,000	Volume unit	
Size/dimensions	<input type="text"/>		
EAN/UPC	<input type="text"/>	EAN Category	<input type="checkbox"/>

Packaging material data


Matl Grp Pack.Matls:

Basic Data Texts

Languages Maintained: 0 Basic Data Text Language:





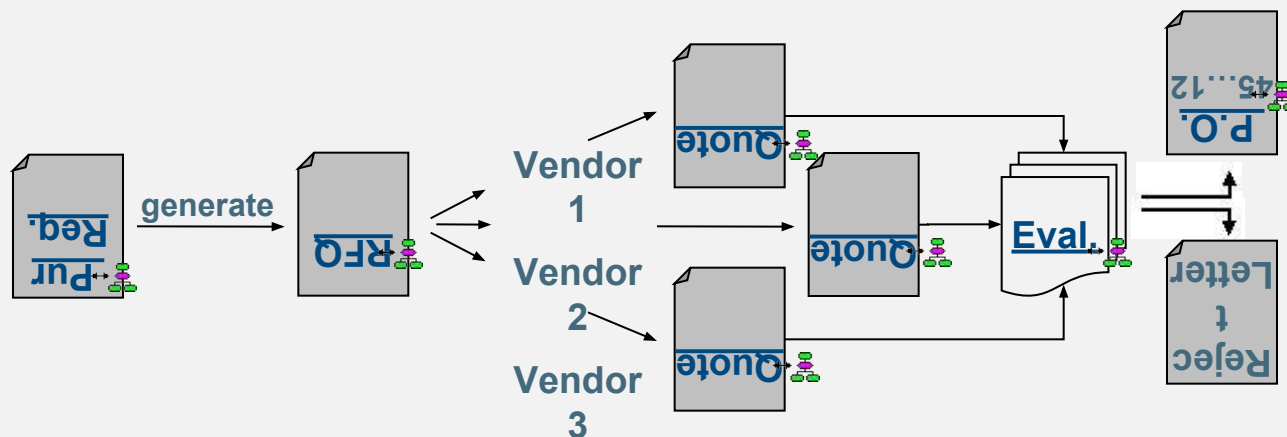
- Internal Document instructing the purchasing department to request a specific good or service for a specified time
- Requisitions can be created two ways:
 - Directly - Manually
 - person creating  determines: what, how much, and when
 - Indirectly - Automatically
 - MRP, Production Orders, Maintenance Orders, Sales Orders

- Once the requisition has been assigned a source of supply it can be released for processing
- There are a variety of ways that a purchasing department can process a requisition to determine the appropriate Source of Supply:
 - Internal Sourcing Requirements
 - Source List
 - Outlined Agreement
 - [RFQ](#)





- If nothing exist in the system we may need to submit a request for quotation to our vendors. An RFQ is an invitation to a vendor by a Purchasing Organization to submit a bid for the supply of materials or services
 - The accepted quotations will generate Purchasing Information Records
 - Perform Quotation Price Comparisons
 - Finally Select a Quotation





- The quotation received by your company is a legally binding offer, should decide to do business with the vendor, containing price's and conditions for the materials specified in the RFQ for a predefined period of time.
 - In SAP the RFQ and the Quotation will be become a single document, you will enter the vendor's response in the RFQ you created.



- Vendor evaluation helps purchasing evaluate vendors for sourcing while also enabling the company to monitor vendor relationships through performance scores and criteria you put in place.
 - Supports a maximum of 99 main criteria and 20 sub criteria for each main:
 - Price
 - Price Level
 - Price History
 - Quality
 - Goods Receipt
 - Quality Audit
 - Complaints/Rejection level
 - Delivery
 - On-time delivery performance
 - Quantity reliability
 - Compliance with shipping instructions
 - Confirmation Date
 - You then must establish a scoring range (1 -100) and determine the weight factors of scores for each.

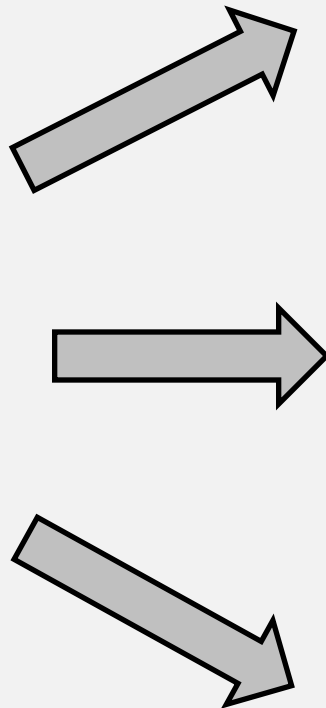
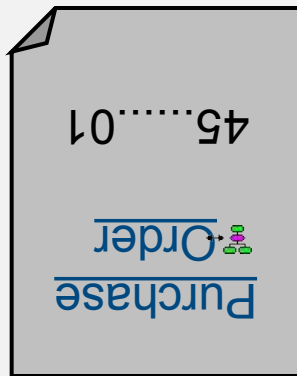
- A purchase order is a formal request to a vendor for a specific material or service under the stated conditions
- Purchase Orders can be created manually
 - [Reference a Purchase Order](#)
 - [Reference a Purchase Requisition](#)
 - [Reference a RFQ/Quotation](#)
 - [Without Reference](#)
- Purchase Orders can be create automatically

The screenshot displays the SAP 'Create Purchase Order' interface. At the top, the document overview shows 'NB Standard PO' for vendor '135000 Mid-West Supply' with a document date of '04/29/2010'. The purchase organization is 'US00 DBI US', the group is 'N00 North America', and the company code is 'US00 Global Bike Inc.'. Below this, a table lists one item: '10 CHL01000 Chain Lock' with a quantity of 200 EA and a net price of 32.00 USD. The pricing elements table shows a gross price of 6,400.00 USD, net value including discounts and taxes, and a final actual price of 6,400.00 USD.

N	Qty	Name	Amount	Crry	per	U	Condition value	Curr	Status	NumC	QUn	CCon	Un
FB00		Gross Price	32.00	USD		1 EA	6,400.00	USD			1 EA	1 EA	
		Net value incl. disc	32.00	USD		1 EA	6,400.00	USD			1 EA	1 EA	
NW5		Non-Deductible Tax	0.00	USD			0.00	USD			0	0	
		Net value incl. tax	32.00	USD		1 EA	6,400.00	USD			1 EA	1 EA	
SKT0		Cash Discount	0.000	%			0.00	USD			0	0	
		Actual price	32.00	USD		1 EA	6,400.00	USD			1 EA	1 EA	
W0TB		OTB Procurement	32.00	USD		1 EA	6,400.00	USD			1 EA	1 EA	

SAP ERP

Purchase Order Structure



Header	
Vendor	Date
Doc. Number	Currency
Terms of Payment	PO Price
Item Overview	
Materials	Price/UofM
Quantities	
Delivery Date	
Line Item	
PO History	Tolerances
Line Price	
Delivery Schedule	

- Once a Purchase Order has been created the vendor needs to be notified
 - Printed
 - E-mail
 - EDI
 - Fax
 - XML

- There are a variety of forms that aid in the purchasing process and are generated from the Purchase Order
 - Purchase Order Output
 - Order Acknowledgement Forms
 - Reminders
 - Schedule Agreements



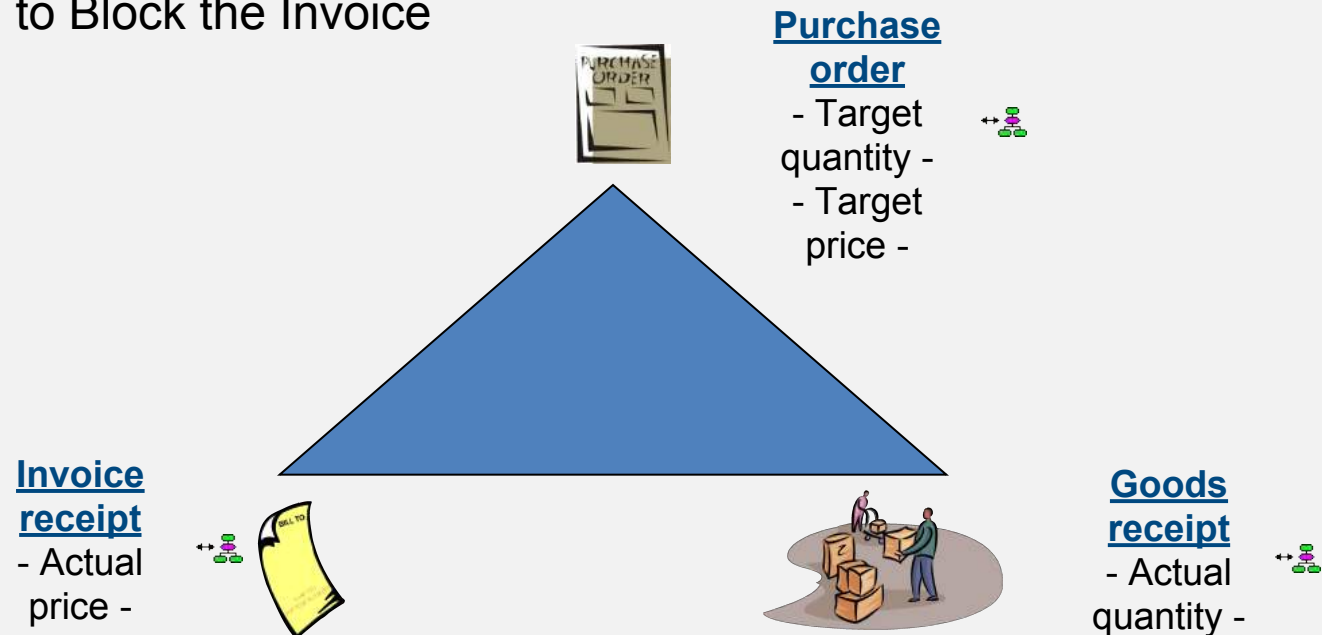
- Goods movement in which we accept goods into our system
- If materials are delivered against a Purchase Order we will reference that Order
 - Determine if we got what we ordered
 - System can purpose data for us from the PO
 - Material, quantity
 - Purchase Order History is update with the receipt
 - Updates Physical Inventory
 - Updates Inventory G/L Account




- When a Goods Movement for the receipt of goods takes place a series of events occur
 - Material Document is Created
 - Accounting Document is Created
 - Stock Quantities are Updated
 - Stock Values are Updated
 - Purchase Order is Updated
 - Output can be generated (GR slip / pallet label)



- Incoming Invoices are reference against a Purchase Order to verify their content, prices, and arithmetic.
- If discrepancies arise between the purchase order or goods receipt and the invoice the system will generate a warning or an error
 - Depending on system configuration the difference could cause the system to Block the Invoice





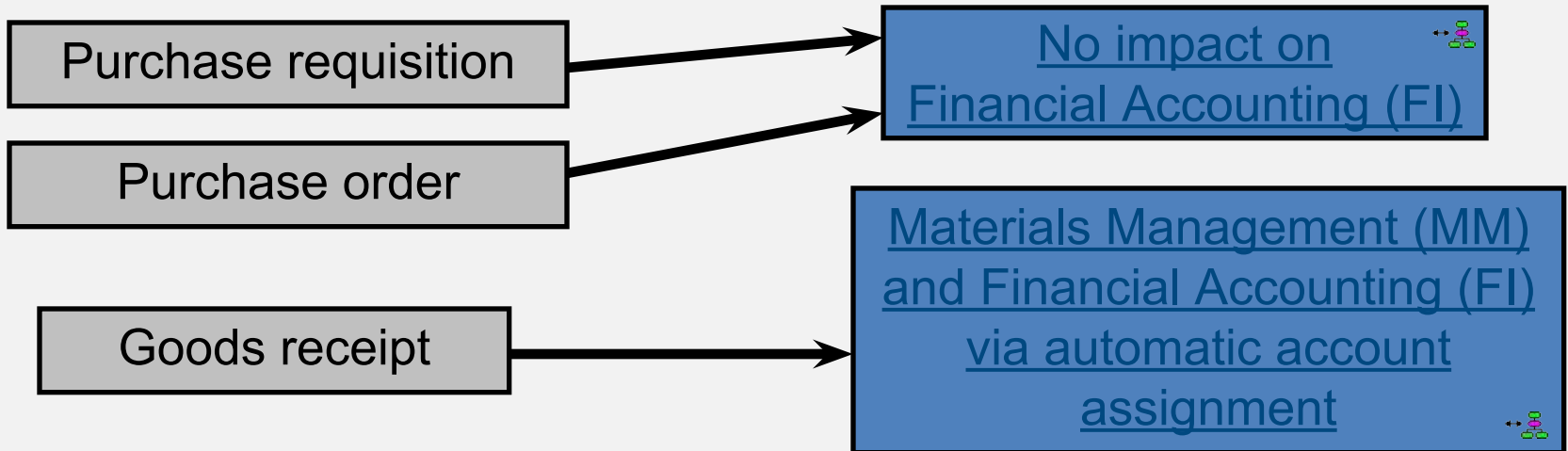
- Can be done automatically or manually
 - Post Outgoing Payment vs. Payment Program 

- Elements of the Payment Transaction:
 - Payment Method
 - Bank from which they get paid
 - Items to be Paid
 - Calculate Payment Amount
 - Print Payment Medium

- Process will create a financial accounting document to record the transaction

SAP ERP

Goods Receipt / Invoice Receipt
Reconciliation Account



Inventory		GR / IR	
Dr	Cr	Dr	Cr
\$100			\$100

SAP ERP

Goods Receipt / *Invoice Receipt*
Reconciliation Account

Invoice receipt



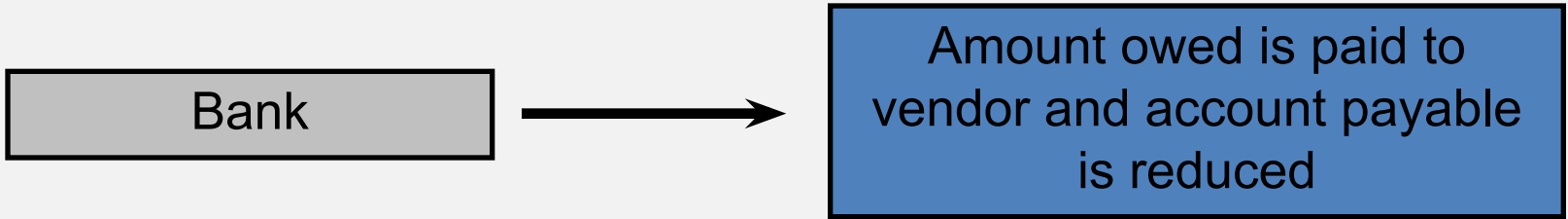
Amount owed is assigned and transferred to vendor account payable

GR / IR	
Dr	Cr
\$100	

Vendor A/P	
Dr	Cr
	\$100

SAP ERP

Vendor Payment



Bank

Dr	Cr
	\$100

Vendor A/P

Dr	Cr
\$100	

SAP ERP

FI – MM Integration Point



Goods Receipt

Invoice Receipt

Payment Program

Inventory

GR / IR

AP (Vendor)

Bank

Dr	Cr
\$100	

Dr	Cr
\$100	\$100

Dr	Cr
\$100	\$100

Dr	Cr
	\$100
