

# **COSTING IN OPM:**

## **Understand the Concepts and Processes of Standard Costing**



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**Schreiber Foods**  
**Mgr Cost and Systems Development**

# Company Background

- Founded 1945
- \$3+ billion dollar global company
- World's largest Customer Brand Dairy Company
- World's largest supplier of private label dairy products
  - Natural Cheese, Process Cheese, Cream Cheese, Yogurt

# Company Background, Cont

- Production Facilities
  - 19 in US and throughout World
- Distribution Facilities throughout US
- 5,000+ employees
- OPM/GEMMS user since 1995 (v3.1)
- Currently on 11.5.10
- Implemented additional Oracle products continuously since 2000

# My Background

- With Schreiber Foods 17 years
- Working with OPM for past 12 years
- Involved in all upgrades v3.1 to 11.5.10
- Process SIG Membership chairperson
- Process SIG Enhancements chairperson
- Process SIG Costing Sub-Committee chairperson

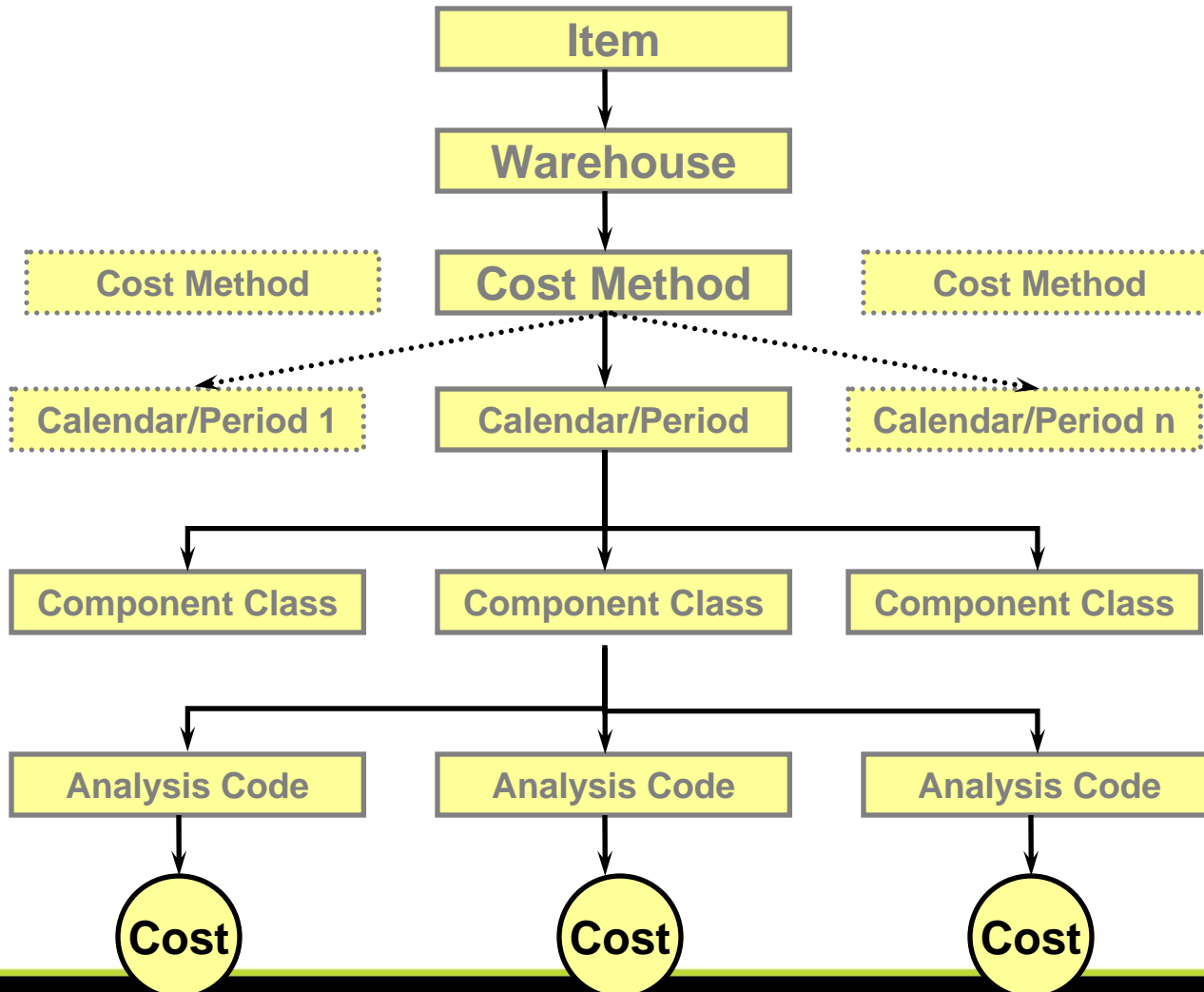
# Agenda

- General Information - Overview
- OPM Costing Setups
- Establishing Standard Costs
- Schreiber Standard Costs
- Actual, Lot Costing Overview
- Release 12 Costing Overview



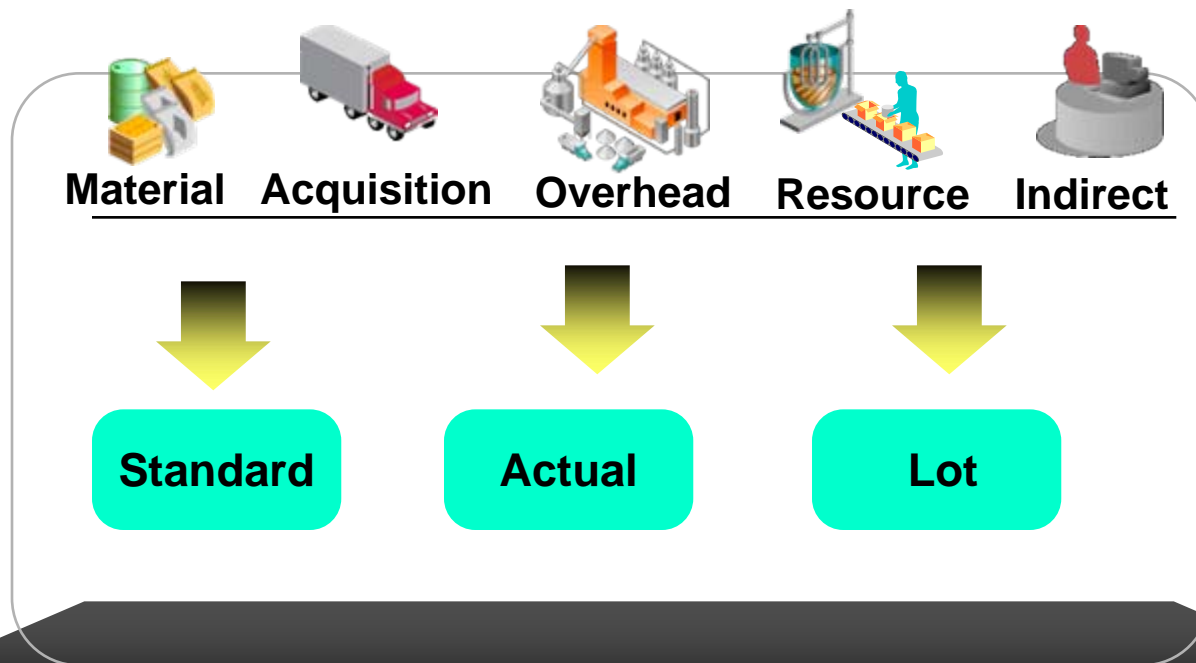
Oracle Product Development Team

# OPM Cost Structure



# Oracle Process Manufacturing Costing

*Support All Phases of Costing*





# Multiple Costing Methods

*Supports different Costing needs*

**Standard Costing**

**Calculates based on formula and routing cost rollups**

**Actual Costing**

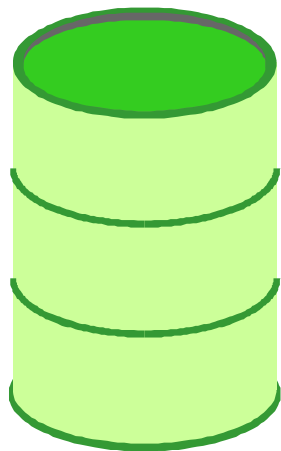
**Calculates based on actual production data and allocations**

**Lot Costing**

**Calculates based on actual production data for a specific lot**

# Maintain Multiple Cost Models Simultaneously

*Effectively compare costs by using various methods*



**Item**

Standard Cost = 4.00
Actual Cost Method, Period Average = 3.75
Lot Cost Method, Lot X = 3.45

# Common Costing Setups

- Establish a Cost Method
  - Classify it as Standard or Actual
    - Standard Cost Method
      - » General or Lab use
    - Actual Cost Method
      - » Specify Raw Material Calculation average type: PWAC, PMAC, PPAC, LSTI, LSTT
      - » Specify Product Calculation average type: PWAC, PMAC, PPAC

# Common Costing Setups

- Establish one or more Cost Calendars
  - Unlimited periods within a Cost Calendar with varying durations
  - Setup for a given OPM Company and Cost Method
  - For any date there is only one costing period for given cost method/company
  - Need not be the same as GL Fiscal Periods

# Common Costing Setups

- Establish Cost Component Classes
  - Unlimited user defined cost component classes
  - Must be one of the following 5 usage types
    - Material
    - FM Route (resource)
    - Burden (overhead)
    - Allocation
    - Standard Cost Adjustment
  - Include or exclude contribution to a Product Cost
  - Include or exclude for Valuation
  - Sort sequence for display and reporting

# Common Costing Setups

- Establish Cost Analysis Codes
  - Unlimited user defined cost analysis codes
  - Use to further classify the Component Classes

# Common Costing Setups

- Establish Cost Warehouse Associations (optional)
  - Associate several inventory warehouses to a single Cost Warehouse
  - Costs need to be established in the cost warehouse only
  - Reduces maintenance and storage requirements
  - Aggregates transactions in all the inventory warehouses for Actual Cost averaging

# Burdens (Overheads)

- Additional costs associated to any item
- Set up for an Item within a warehouse by identifying a resource that generates the overhead
- Set up for a specific cost method, calendar and period
- Costs are added to the ingredient or rolled up product costs
- Unlimited burdens can be established
- Apply to both Standard and Actual Costs



# Cost Calculations

- Costs are always carried at the cost component and analysis code granularity
- Multiple cost components in ingredients or resources in routings are tracked all the way to the top. This applies to Standard and Actual Costs
- Unlimited Cost Components mean the cost portion from the lower most ingredient can be tracked at the topmost product

# Benefits of unlimited cost components

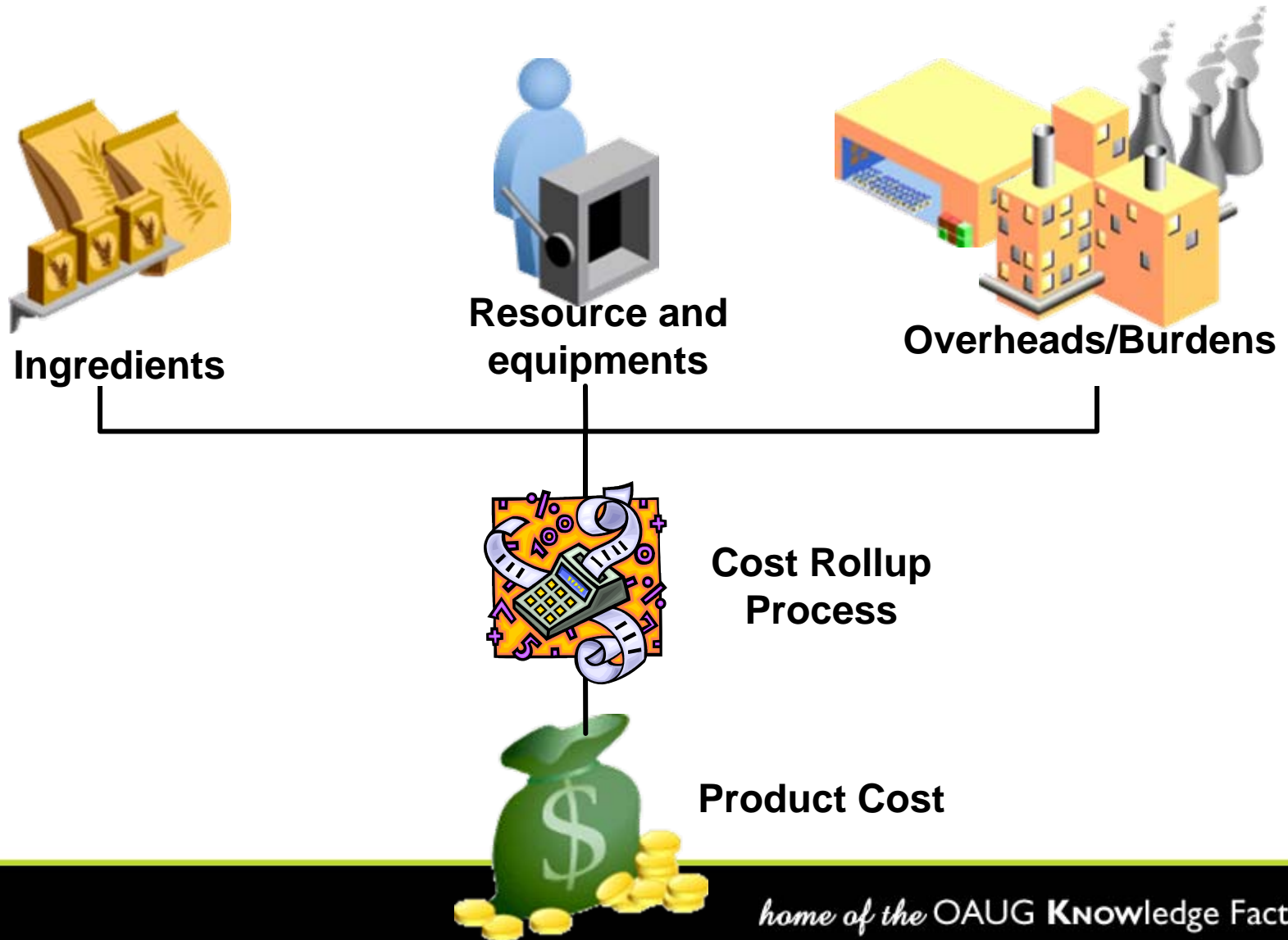
- Captures & tracks ingredients, resources and overhead
- Maintains complete audit trail of costs
- Focuses on activities that impact costing
- Provides granularity necessary for detailed cost analysis at the level that your company needs it

# Impact of By-Products

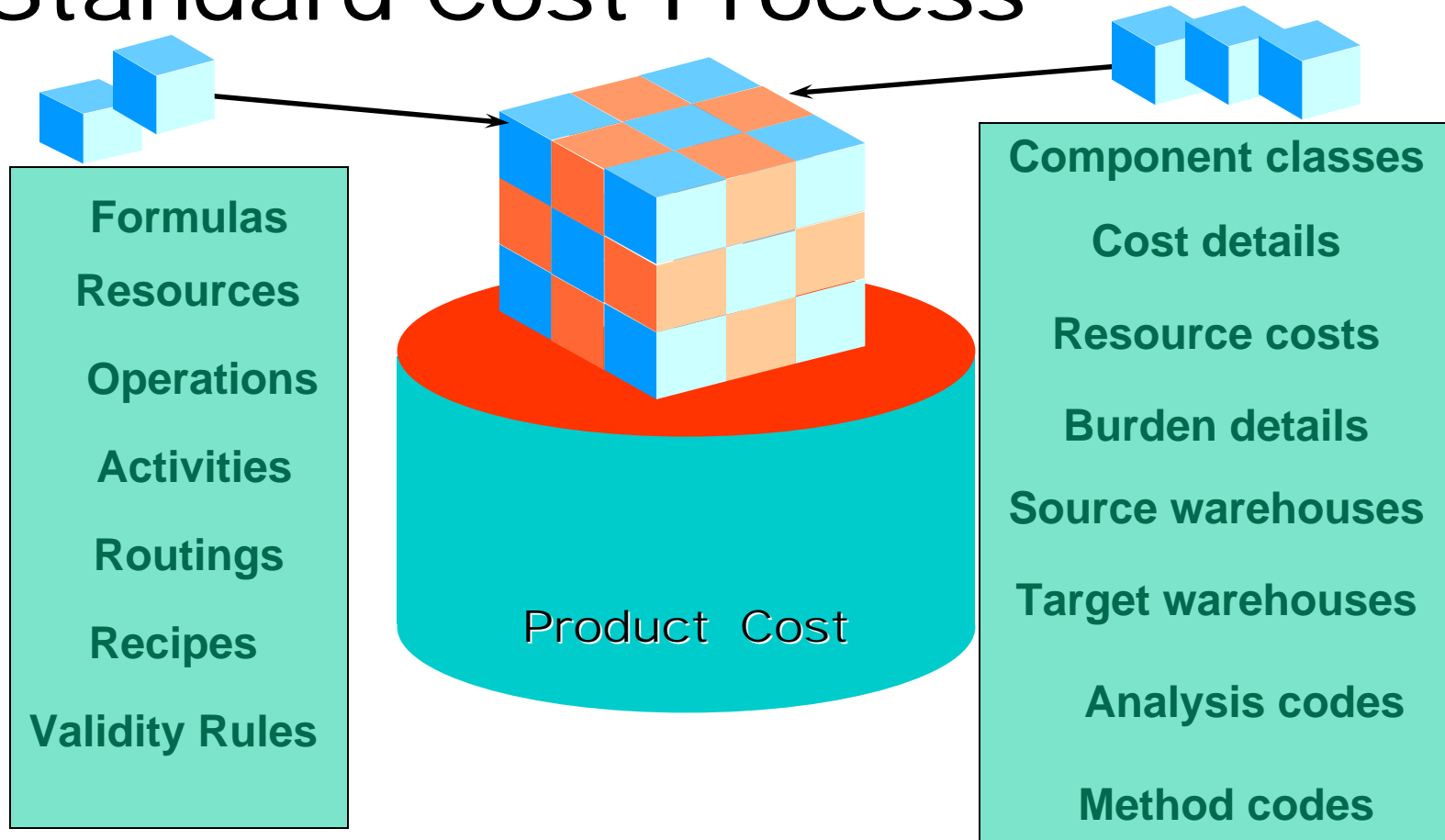
- By-Products are handled both by Standard Cost Rollup and Actual Cost processing
- If a by-prod is set up with a + cost then the product cost is reduced appropriately.  
Example: when the by-product can be sold profitably
- If the by-prod requires additional cost for disposal, set up a – cost and the product cost is increased by that amount. Example: any unwanted or hazardous waste from production

- Establishing Standard Costs

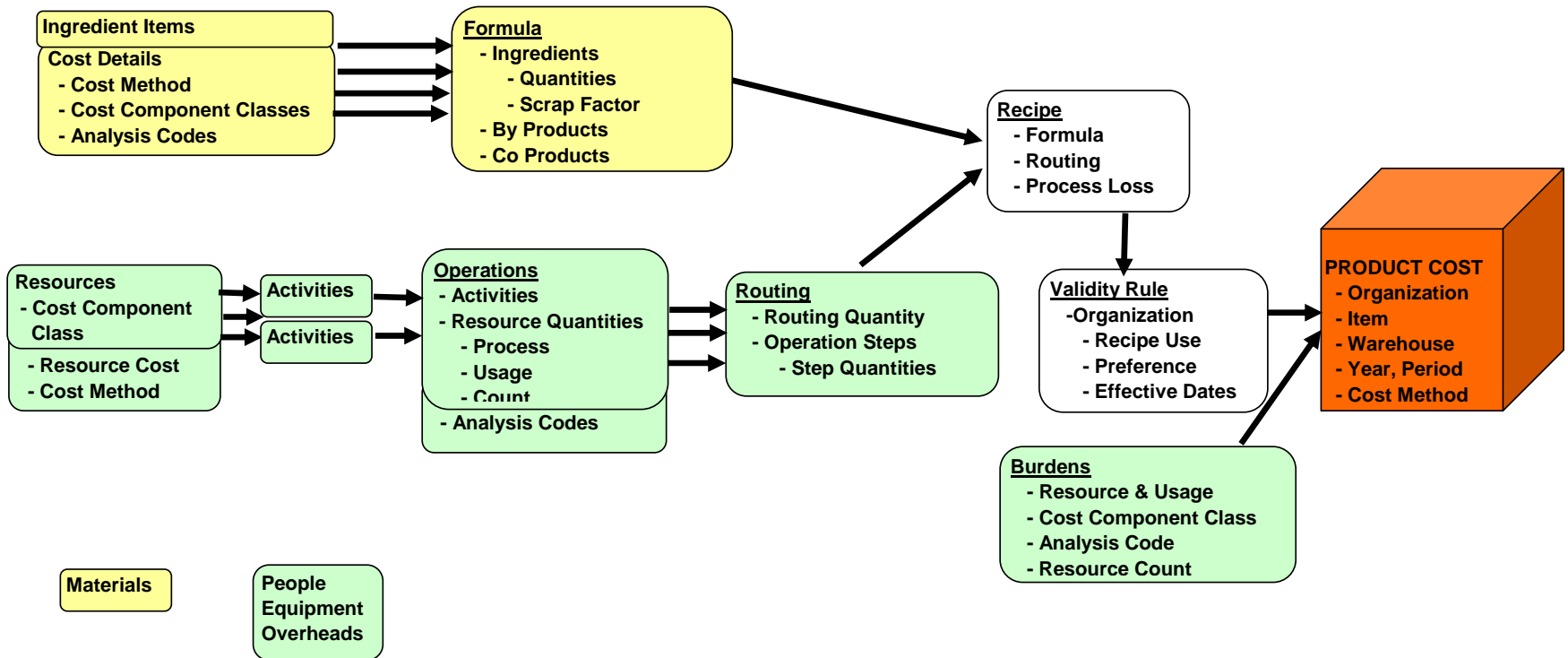
# Standard Costs – Elements



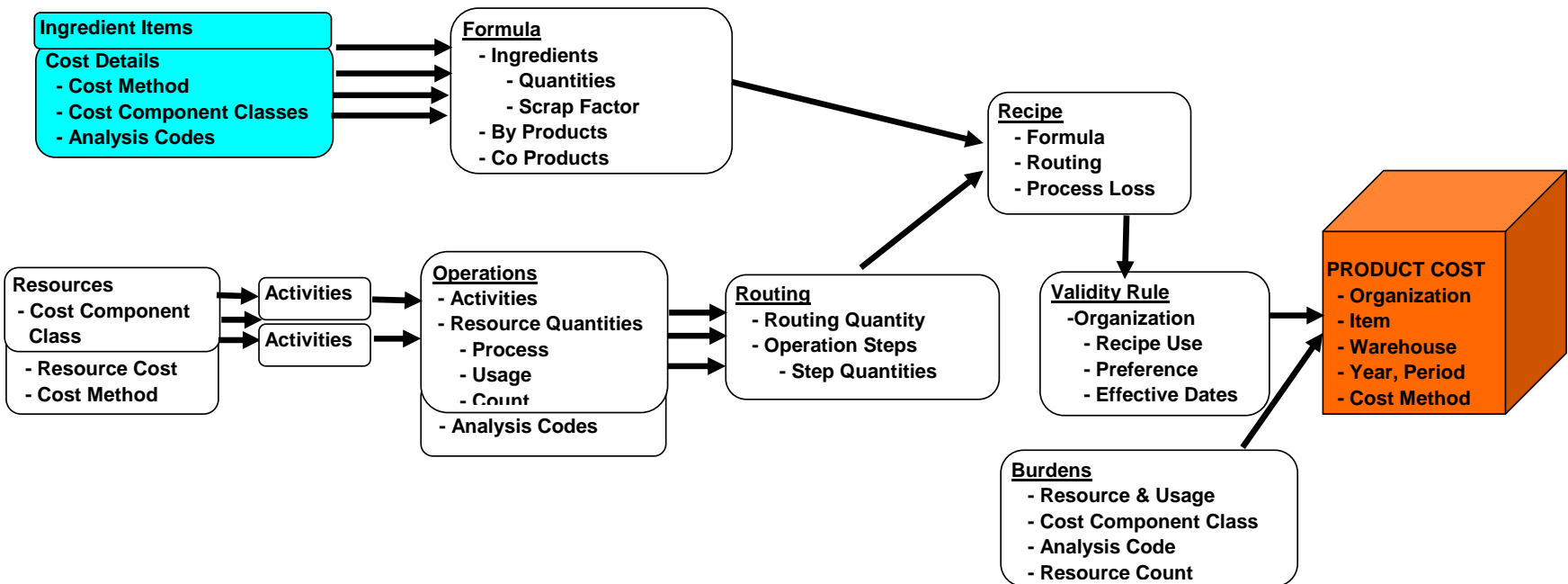
# Standard Cost Process



# Basic Cost Flow



# Raw Material Costs

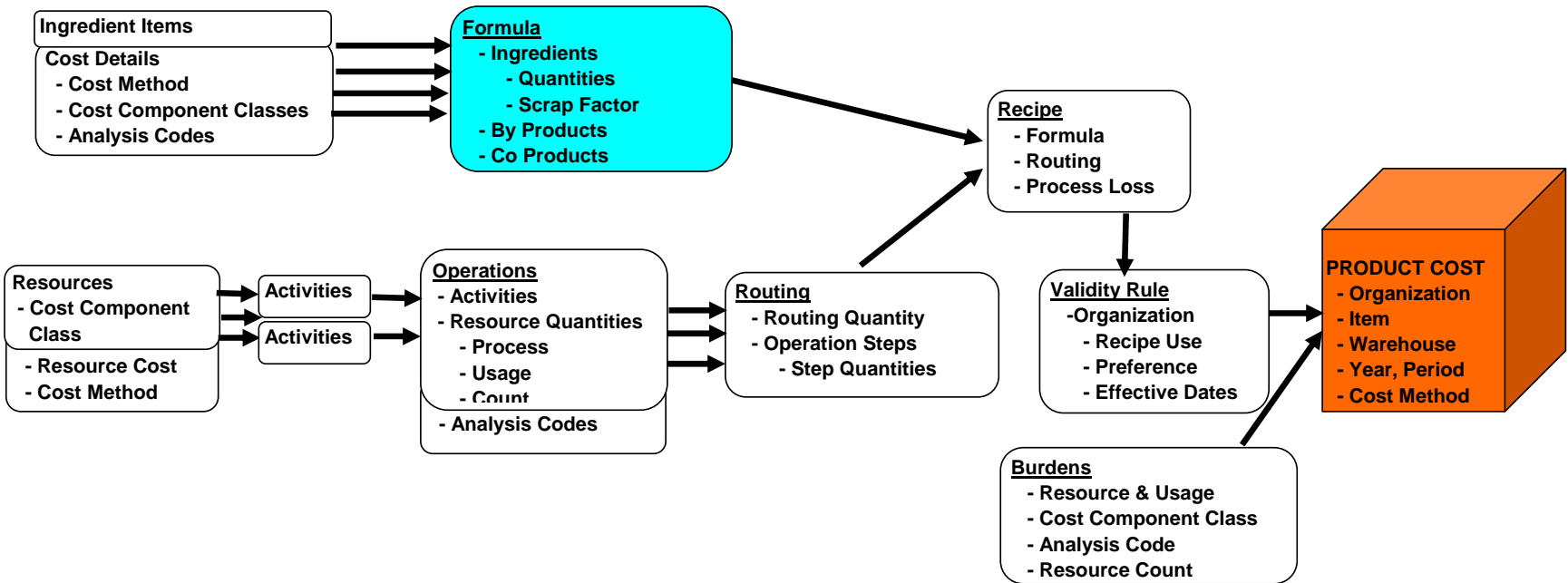




# Raw Material Costs

- Establish Rollup Source Warehouse(s)
- Establish Rollup Target Warehouse
- Establish Raw Material Costs
  - Enter for each warehouse, item, cost period and cost method
  - Enter one or more component costs...
  - Mass copy item costs from one period to one or more periods, to one or more warehouses
  - Automatically adjust costs by fixed amount or a %

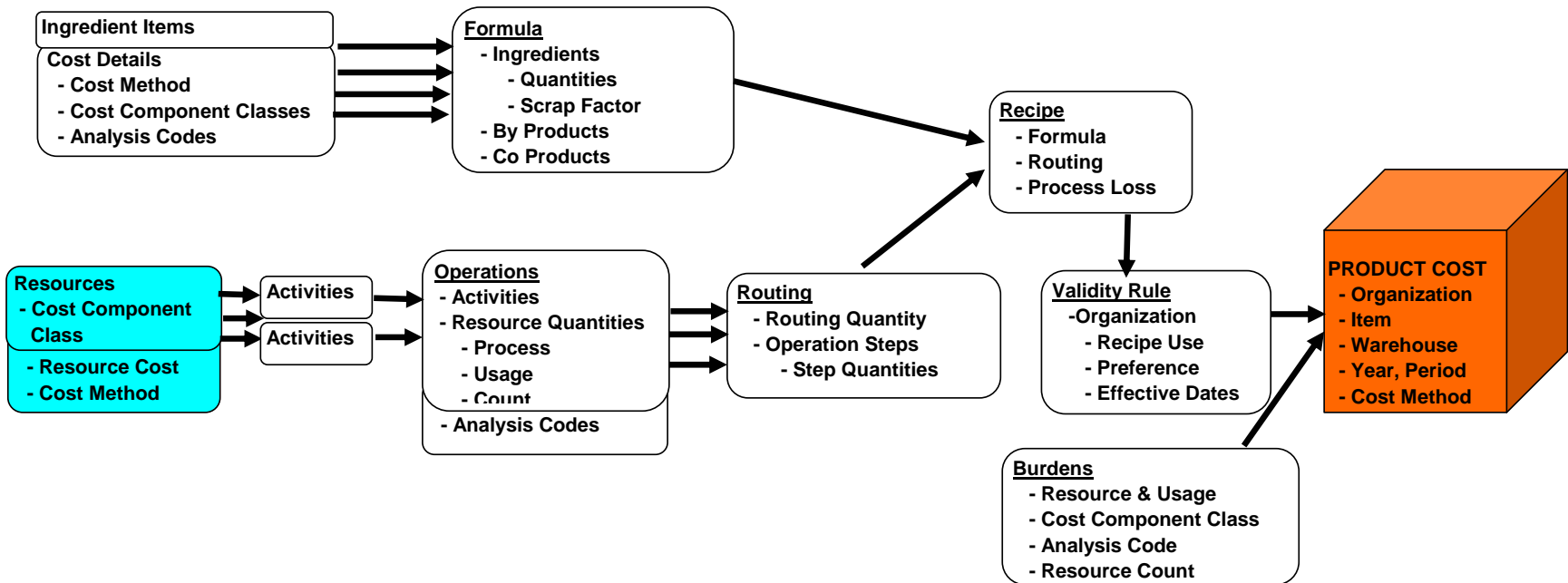
# Formulas



# Formulas

- Establish Inputs to Formula
  - Ingredients
    - Quantities & scrap factors
- Establish Outputs to the Formula
  - Product/CoProducts
    - Quantities and cost allocation
  - By-Products
    - Quantities

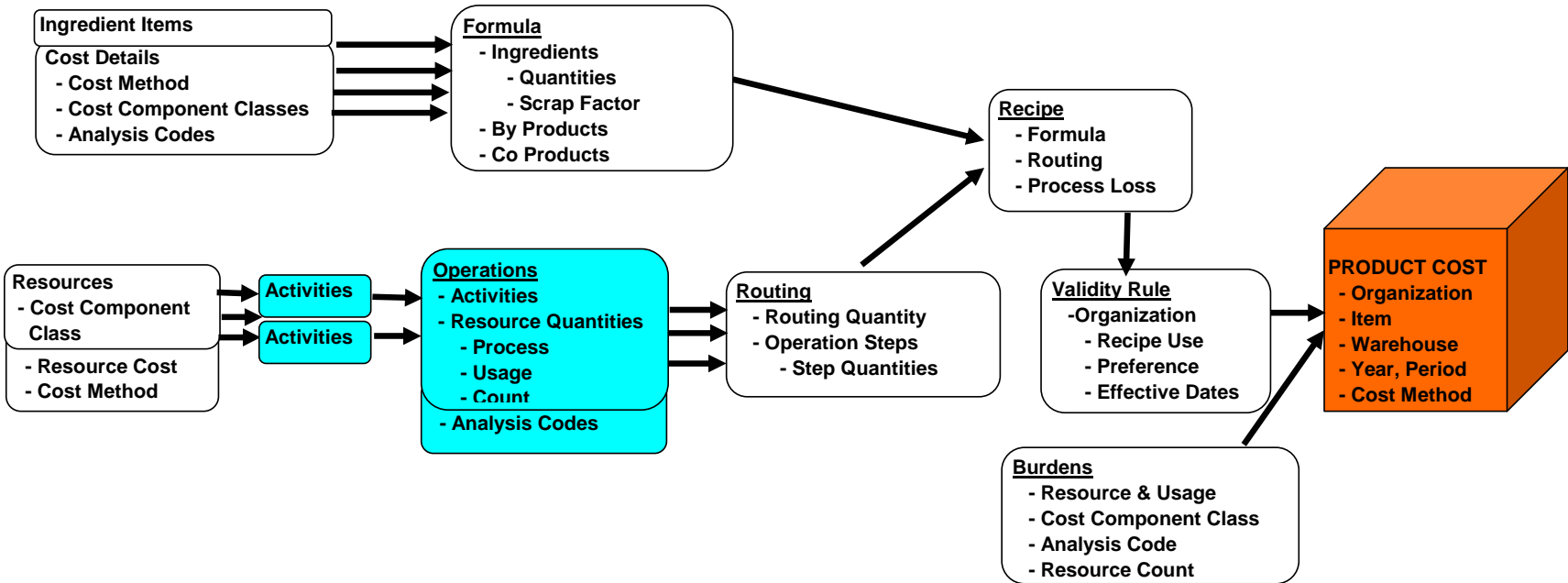
# People & Equipment Costs



# People & Equipment Costs

- Establish Resource Costs
  - Setup Resources (People & Production Equipment)
    - Usage Unit of Measure
    - Capacity parameters
  - Setup Resource Cost
    - Enter for each warehouse, item, cost period and cost method

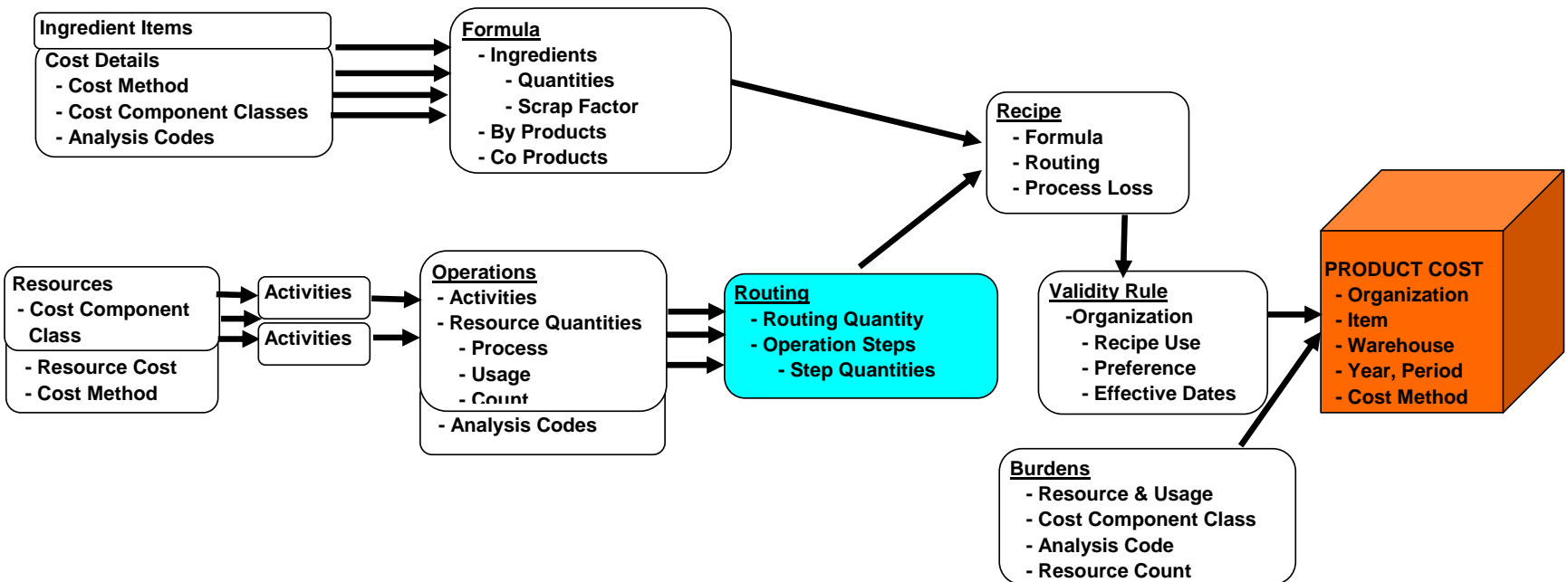
# Activities & Operations



# Activities & Operations

- Establish Activities
  - Grouping of basic tasks
- Establish Operations
  - Composed of a sequence of Activities
  - Specify the Resources and the corresponding usage, process quantity and counts for each Activity

# Routings



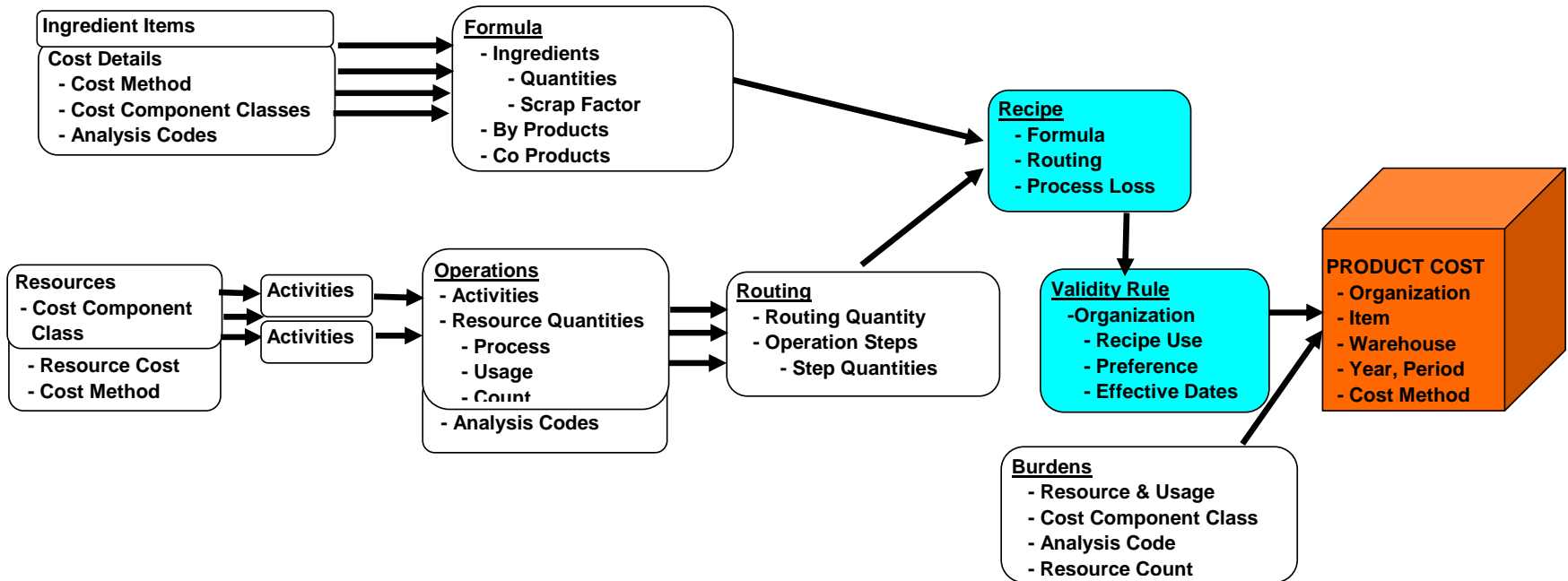


# Routings

## – Establish Routing

- Group of Operations required to complete a production batch
- Organized in sequential Steps
- Setup the Routing Quantity and Unit of Measure
- Setup the Process and Theoretical Loss
- Setup the Operations and corresponding quantities for each Step

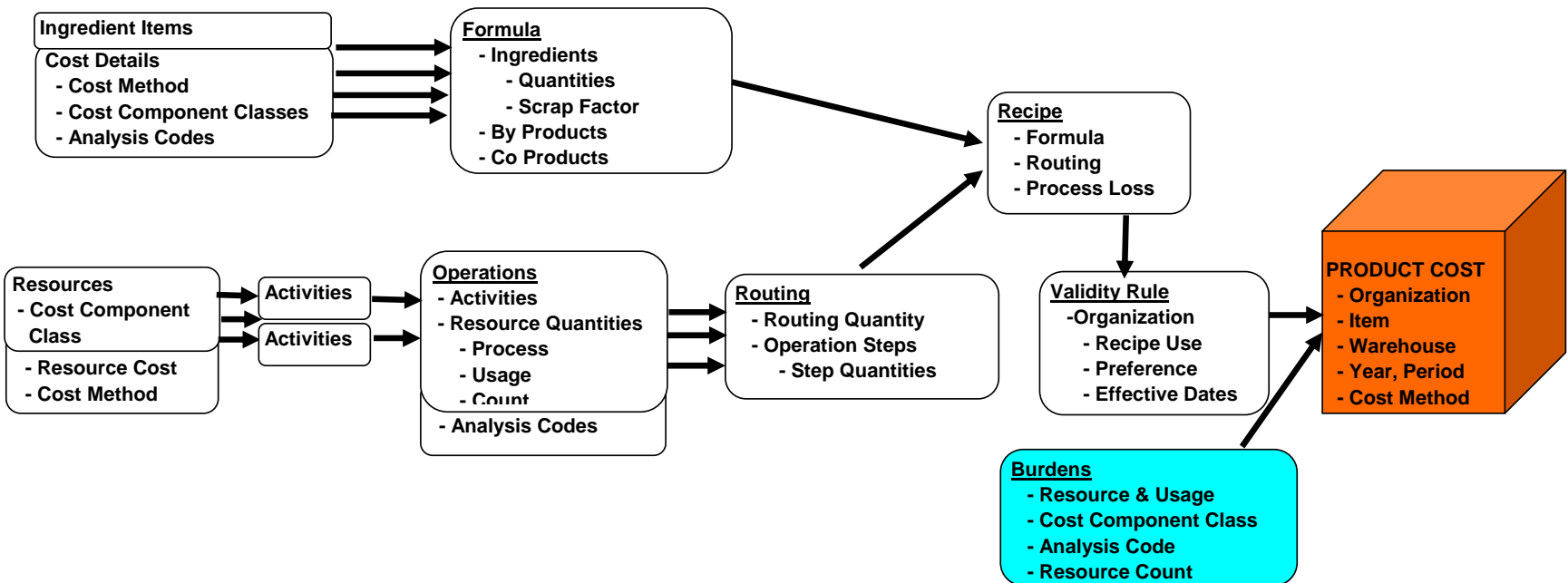
# Recipes & Validity Rules



# Recipes and Validity Rules

- Establish Recipe
  - Links the Formula and the Routing together
    - Formula & version
    - Routing & version
    - Process Loss
- Establish Validity Rule
  - OPM Organization
  - Start and End dates
  - Preference
  - Usage (Costing or Production)

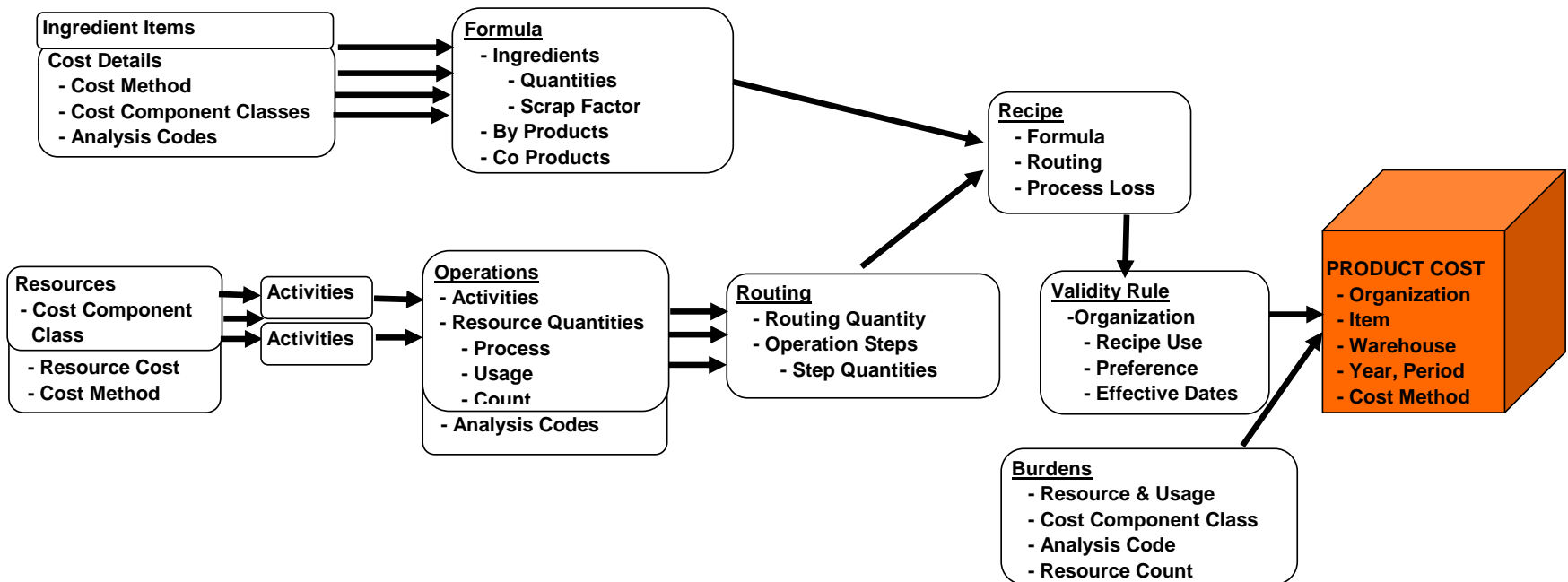
# Burden & Overhead Costs



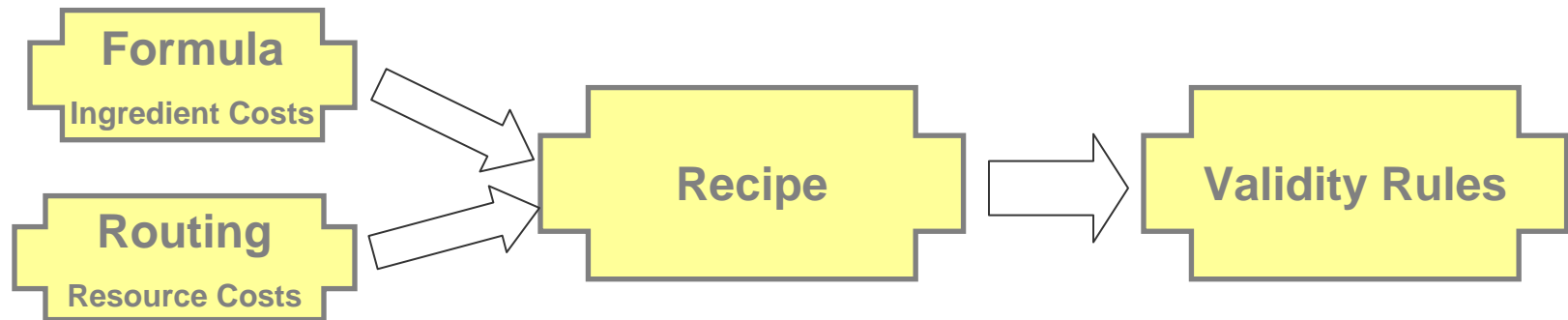
# Burden & Overhead Costs

- Establish Burdens for raw materials & products (optional)
- Establish % Burdens (variable burdens) [optional]
  - Similar to regular Burdens but calculated based on a percentage of material and/or resource cost components
  - Configurable using item categories, warehouses, percentages and parameters
  - Options to apply directly to items or as a consumption related burden to the product

# Standard Cost Process Flow



# Rolling up Product Costs



- Rollup selects the most appropriate Validity Rule based on
  - OPM Organization
  - Start/End dates on the validity rule
  - Preference
  - Production or Costing Usage Indicator

# Rolling up Product Costs

- Criteria for selection of Validity rules
  - Profile: “GMF: Use Only Costing Validity Rules for Cost Rollup”
    - If YES, use only Costing Validity rules
    - If NO, look for Costing Validity rules. If not available, pick Production Validity rules
  - Validity rules have to be valid for the ENTIRE PERIOD for which the roll up is run



# Rolling up Product Costs, Cont.

- Criteria for selection of Validity rules
  - If multiple Validity Rules exist for the same item, the following factors are used (in the same order)
    - Formula Use (Lab or General Use)
    - Generic or Organization Specific
    - Preference (1 being the highest)
    - Creation Date (Latest to Oldest)

# Rolling up Product Costs

- Multiple versions of a Formula (BOM) or Multiple different Formulas can exist for a Product at the same time
- Multiple versions of a Routing or Multiple different Routings can exist for a Product at the same time
- The most appropriate Formula & Routing is selected based on the Recipe Validity Rule for that Product

# Rolling up Product Costs

- Run the Rollup Process
  - View item costs using Cost Details Form
    - Costs displayed by level (this & lower level)
    - Costs displayed by component class/analysis codes
  - View formula & recipe details
  - View routing & resource details
  - View burden details
  - Run item cost detail report or view online

# Schreiber Standard Cost Processes

- Use Standard Cost process only
- Update raw material costs on a period basis
  - Use API's and copy cost functions
    - Bulk Cheese/Market related ingredients based on forecasts
    - Ingredients/Packaging based on prior period ending inventory value
    - Purchased finished product based on forecasts

# Schreiber Standard Cost Processes

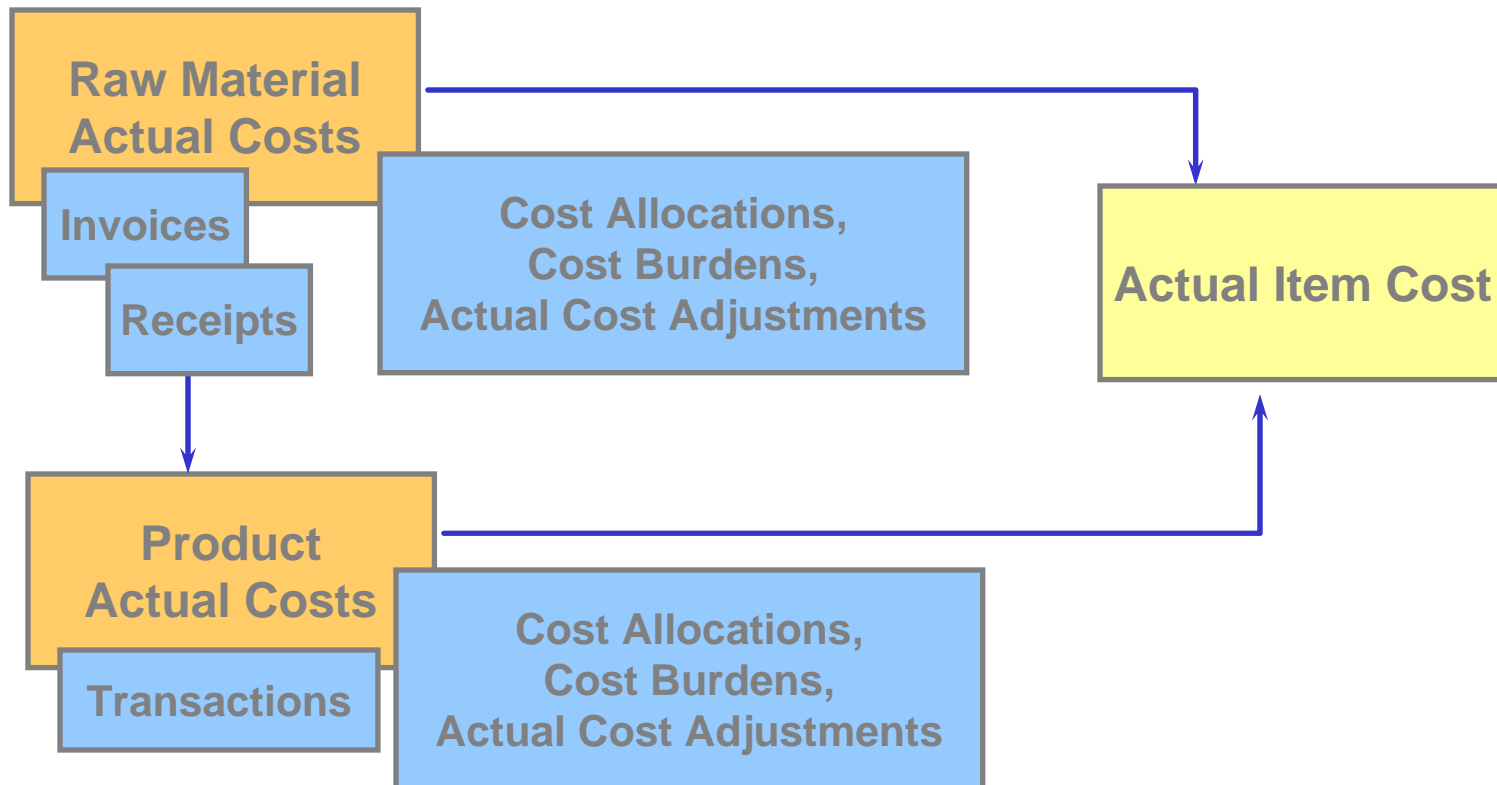
- 62 Cost Component Classes
  - 9 Cost Component Groups
- 3 Standard Cost methods
- Update standards in current period for next period costs
- Do not use CoProducts
- Production and Costing Validity Rules

# Schreiber Standard Cost Processes

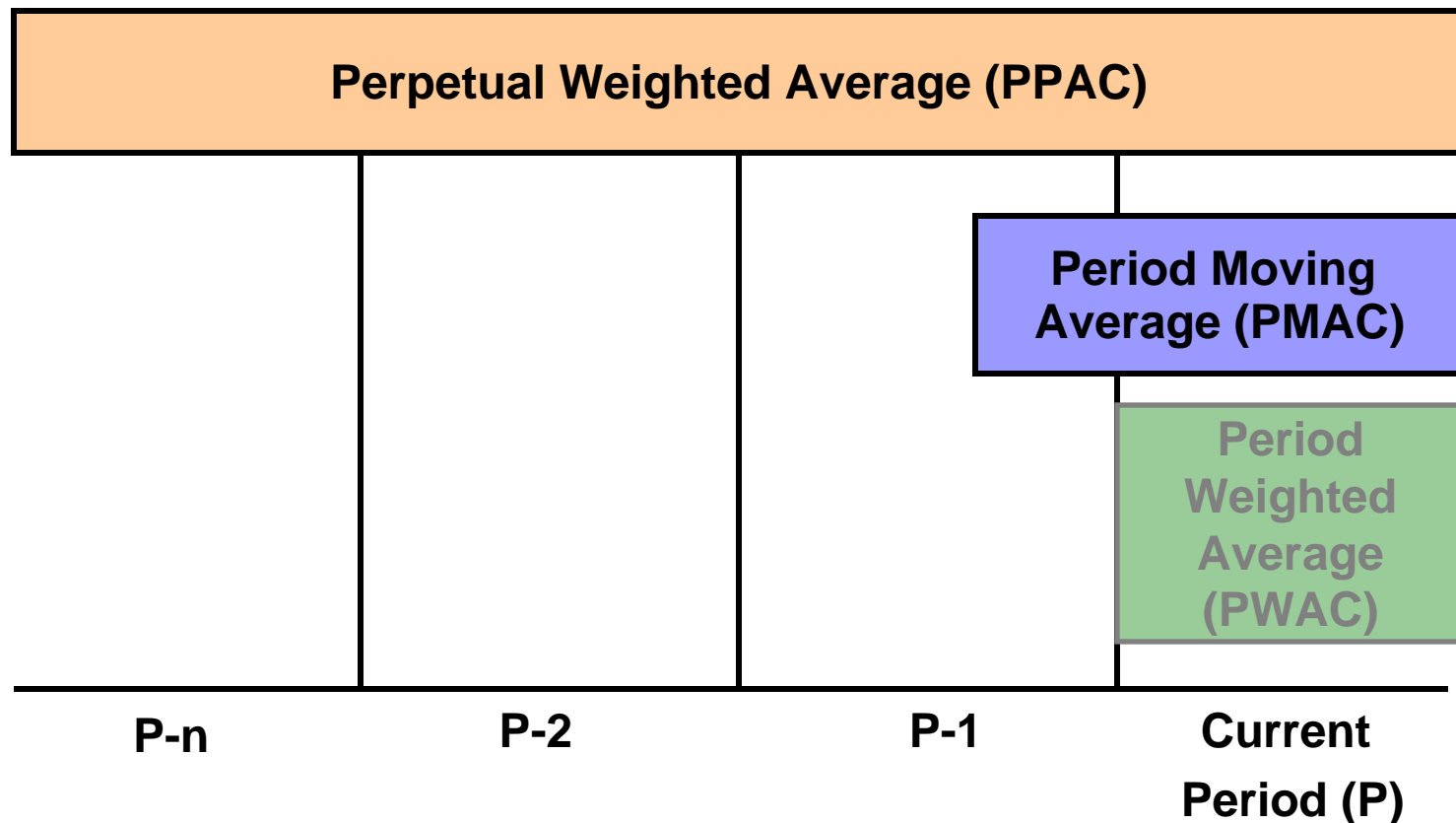
- Update resource costs annually
  - Employee resources only
- Review Routings annually

# Actual Costs

## *Monitor Actual Production Costs*



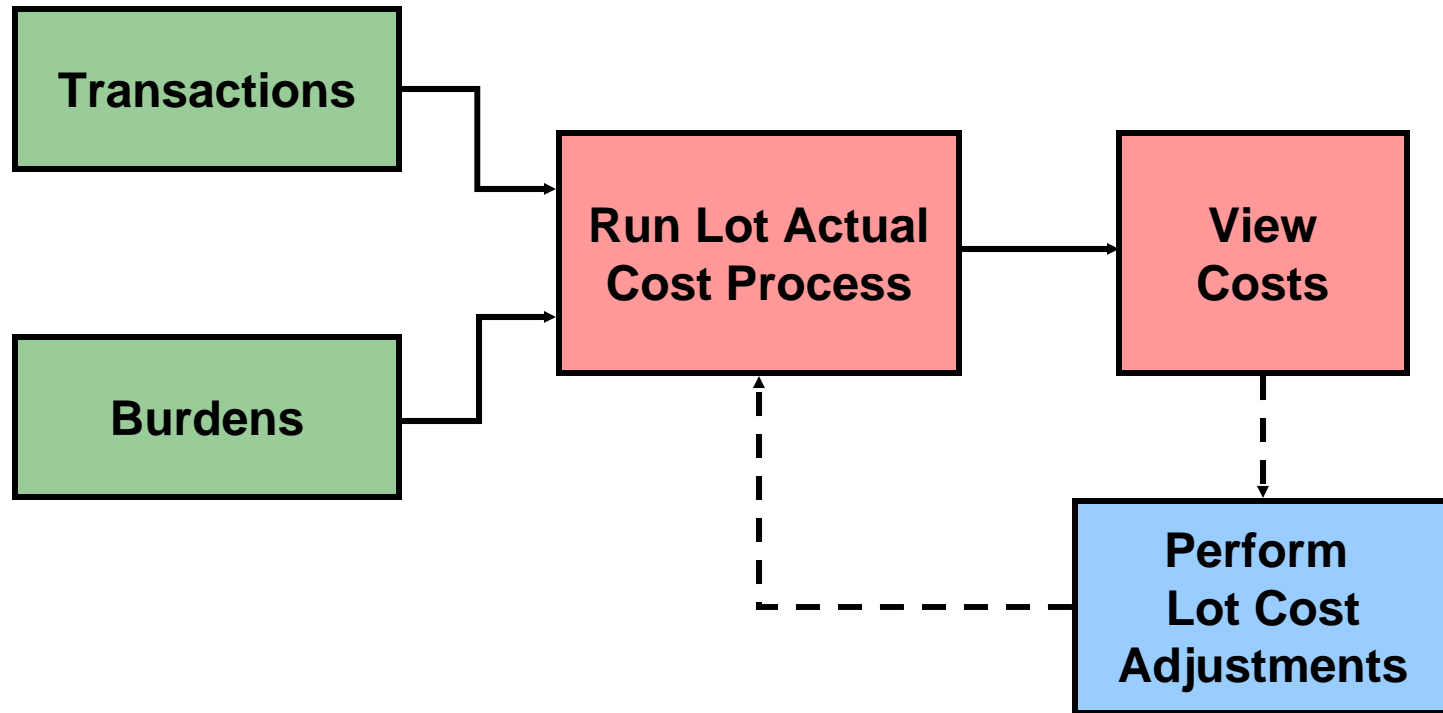
# Actual Cost Averaging Algorithms





# Lot Costing

*Manage Variability in material costs*



# Lot Costing

- Specific Identification type of Costing
- Another type of Actual Cost
- Every Lot/Sublot carries its own cost
- Valuation of transactions happen at the Lot Cost
- Flexible set up of items that are to be costed by lot
- Available in OPM Family Pak L (11.5.10)

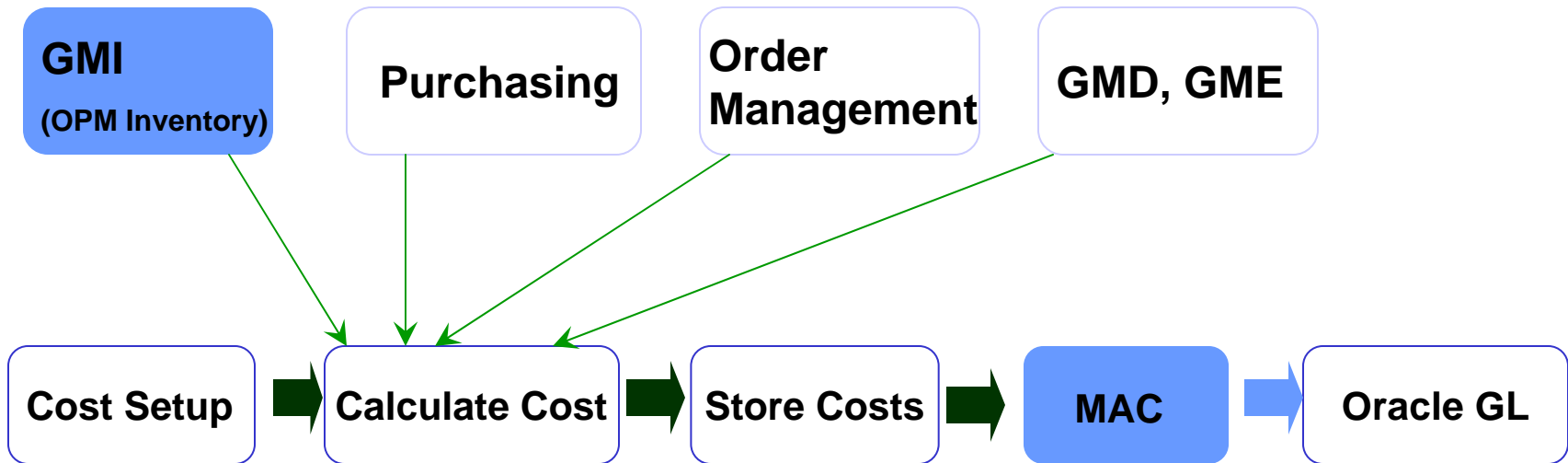
# OPM Costing – Release 12

- Converged inventory model
- Inventory Organizations that are Processed will use Process Costing
- Process users are denied access to Discrete Costing forms
  - Process Enabled organizations can not setup costs in the Discrete Costing application
- Inventory transfers between discrete and process organizations will account respective side of transaction

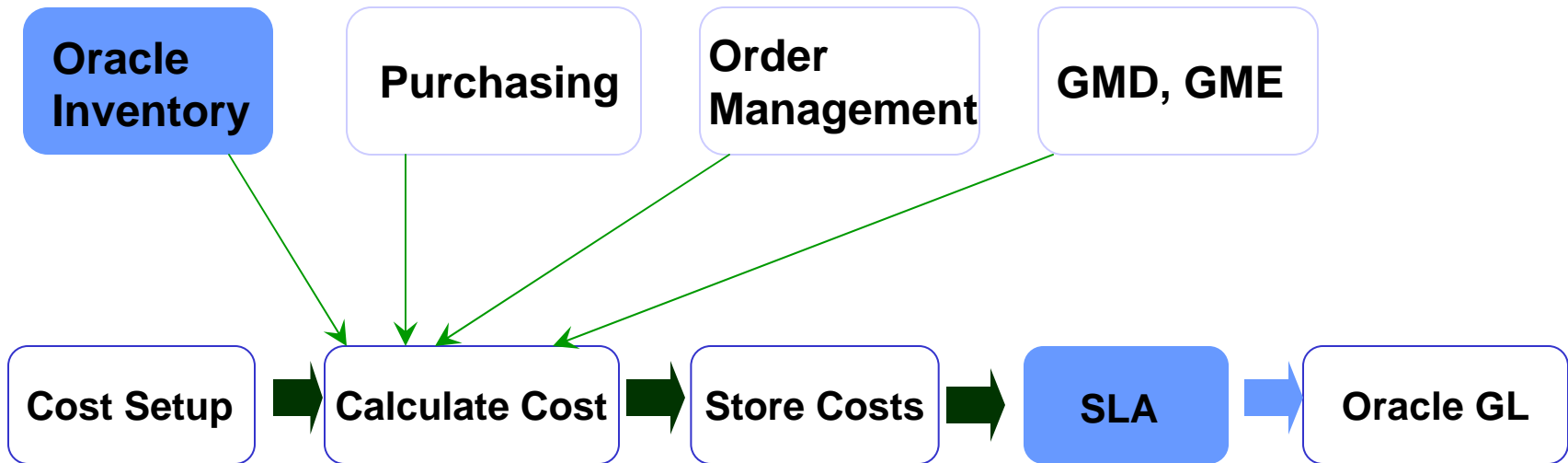
# OPM Costing – Release 12

- Sub Ledger Architecture (SLA) replaces MAC
- Financial Integration (FI) is obsolete since SLA takes care of data push to GL

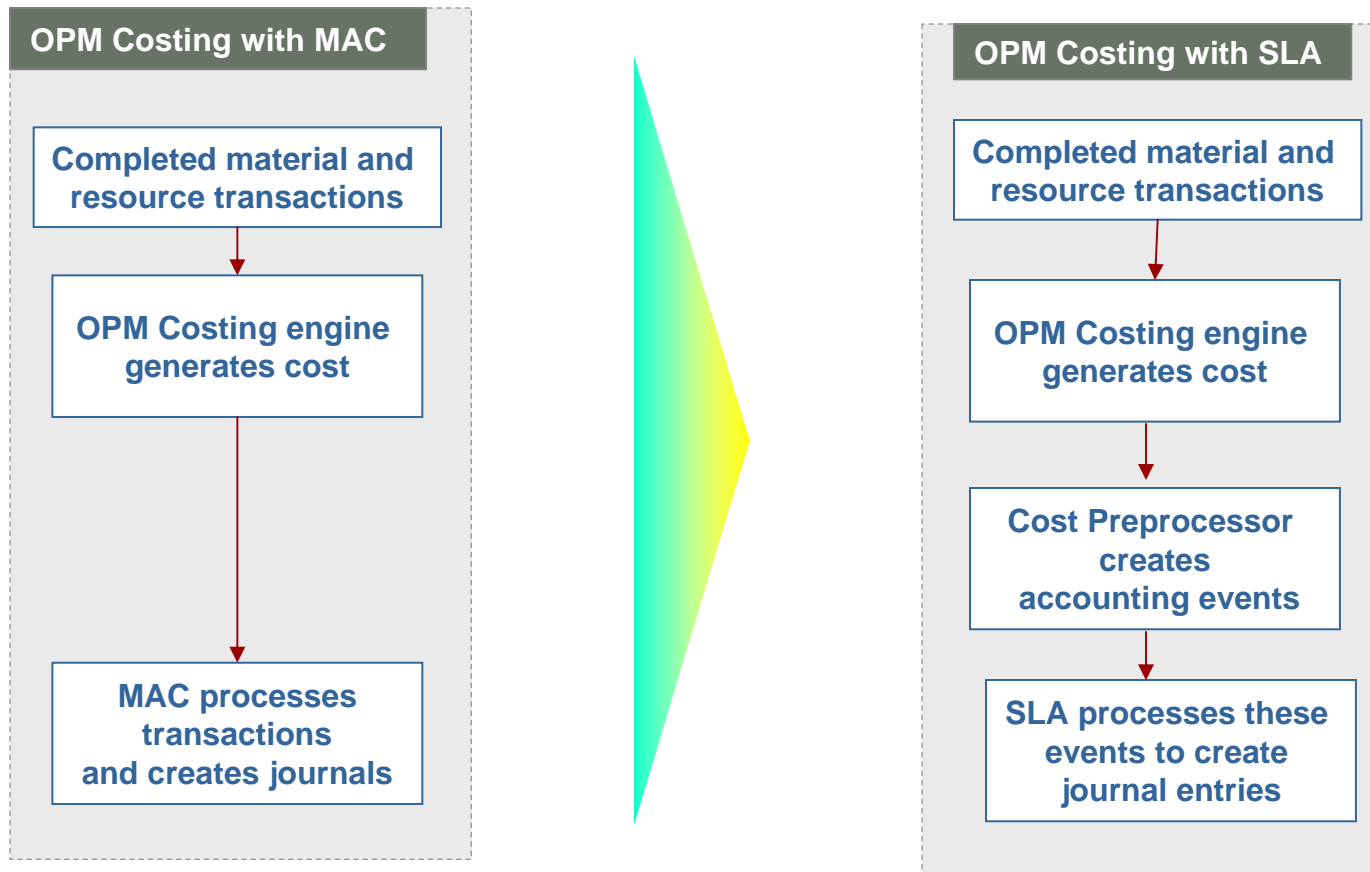
# OPM Costing – Release 12, Cont.



# OPM Costing - Release 12, Cont.



# Subledger Accounting Replaces MAC



# SLA Equivalent Functionality

OPM MAC	SLA	Comments
Source	Process Category	
Event	Event Entity	
Sub-Event	Event Class	
Account Titles	Journal Line Types (JLT)	
Account Template	Application Accounting Definitions (AAD)	
Account Mapping Attributes	(SLA) Sources	
Priorities and Account Mapping	Account Derivation Rules (ADR)	
Test Mapping		
OPM Currency, OPM Ledger, OPM Exchange Rates		Use GL setups



# SLA Equivalent Functionality

OPM MAC	SLA	Comments
Test and Actual Subledger	Draft and Final Accounting	
Subledger Program	Accounting Pre-Processor	
Run Subledger for multiple valuation/cost methods for a ledger	Supports multiple valuation methods	SLA supports multiple representations at the same time
Detailed Subledger Report		SLA offers comparable reports/inquiries

# MAC to SLA Migration

- Most of the steps automated using migration scripts
- All the Account definitions migrated as ADRs
- Manual Steps to be completed are:
  - Assign Account Derivation Rules to Journal Line Definitions
  - Validated Application Accounting Definition
  - Assign User SubLedger Accounting Method to Ledger

# OPM Costing – Release 12

- Additional Information can be found on Process SIG website  
<http://procsig.oaug.org> under Costing Sub-Committee
  - Introduction to SLA powerpoint
  - SLA Account Derivation Rules Setup Viewlet

# Oracle Process Manufacturing Costing

*Support All Phases of Costing*

