

# Funds Management – Reporting

FI-FM-007

November 18, 2008



# LaGOV

**Version 1.0**

Last updated: Nov 17, 2008





# Ground Rules

- Has everybody signed in?
- Everybody participates – Blueprint is not a spectator sport
- Silence means agreement
- Focus is key – please turn off cell phones and close laptops
- Challenge existing processes and mindsets
- Offer suggestions and ideas
- Think Enterprise & Integration
- Ask questions at any time
- One person at a time please
- Timeliness – returning from break
- Creativity, Cooperation and Compromise





# Introduction

## ■ Roles

- **Process Analyst and Functional Consultant** – lead and facilitate the discussions, and drive design decisions
- **Documenter** – take detailed notes to support formal meeting minutes to be sent by the Process Analyst to all participants for review and feedback
- **Team Members** – provide additional support for process discussions, address key integration touch points
- **Subject Matter Experts** – advise project team members on the detailed business processes and participate in the decisions required to design the future business process of the State

### **Round the Room Introductions**

***Name***

***Position***

***Agency***



# FM Sessions

Session #	No of days	Schedule	Session Description/Major Business Process Group	Overview of major Session Topics
FI-FM-001	1 days	7-Aug	<b>FM Master Data</b>	FM master data fields will be introduced. The use, mapping to legacy, naming convention and maintenance process will be determined.
FI-FM-002	2 days	17-18 Sep	<b>Budget Preparation, Amendments and Integration</b>	Need to coordinate Budget Prep design with FM, GM, GTR and PS in ECC 6.0 for budget preparation and budget amendments. Define FM budgeting characteristics including Budget Versions, Budget Types/processes (Original, Carry Forward, Supplementary, Transfers & Returns), Budget & Posting address (Budget Structures), Budget Doc types. Discuss options for Budget Amendments/Adjustments (AS-IS & TO-BE). Determine the frequency of "Plan" Retraction to SAP R3 (FM, GM, PS, HR-PBC) and update frequency of "Actual" data into BW cubes, from ECC and other systems
FI-FM-003	2 days	22-23 Oct	<b>Budget Availability and Control - General</b>	Define budget control level (AVC addresses) in FM for departments/agencies, capital projects and grant budgets (by FM Master Data) by fund and expense type. Define exceptions for budget control. Define the FM standard and budget tolerance profiles used by SBBC. Review other FM functionality which may be useful in budget control
FI-FM-004	1 day	13-Nov	<b>Budget Availability and Control - Work Orders</b>	Define budget control address for work orders from PM and Agile Assets. Determine use of automatic reservations at time of order creation. Determine the process for creating related FM master data and coordination with PM/Agile assets master data.
FI-FM-005	1 day	1-Oct	<b>FM Budget Consumption - Expenses and Encumbrances</b>	Process by which FM gets updated for actual expenditures (posting address) Pre-encumbrances and encumbrances from MM FM Earmarked funds – type, use and liquidation process Use of non-consumable budget types for reservations
FI-FM-006	1.0 days	8-Oct	<b>FM Period End Processing</b>	Review FM Month End Activities including Opening / Closing FM Periods and Transferring Commitments to FI-GL. Review Additional FM Year End Activities including Commitment and associated budget balance carry-forwards, Residual Budget Carry-Forwards and Fund Balance Carry-Forwards.
FI-FM-007	1 day	18-Nov	<b>Budgetary Basis Reporting</b>	Review requirements for budget basis reporting Review current reports Determine To Be reports framework





# SAP Glossary – FM module

**FUND (FUND, MOF (TBD))** - A fiscal and accounting entity with a self-balancing set of accounts which are segregated for specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations.

**FUND CENTER (AGENCY, APPROP EXPENSE PROGRAM, AFS DIV/SECTION, DOTD DISTRICT or SECTION/DIV/GANG)** - lowest level areas of responsibility for budgetary monitoring and control.

**COMMITMENT ITEMS (BAL. SHEET ACCOUNT, OBJECT, SUB-OBJECT, REVENUE SOURCE)**– represent balance sheet, revenue and expenses accounts in FM.

**FUNDED PROGRAM (CAPITAL PROJECTS, GRANT PROGRAMS)** - lower level internal programs or initiatives, such as capital projects, grant funded programs, grantor programs, expense projects or maintenance orders, used for budgetary control & reporting in FM.

**FUNCTIONAL AREA (ACTIVITIES, FUNCTIONS)**– Cross-organization FM object used to divide organizational costs according to functional aspects, activities or programs to meet legal or internal reporting requirements

**GRANT (REPORTING CATEGORY)** – Lower-level funding instruments used to document, control and report on the results of an agreement between a sponsor and an organization. Represents externally funded grants.





## Work Session Objectives

- Review the overall reporting strategy
- Provide an educational overview of standard SAP reports
- Provide an educational overview of BI reporting
- Review and identify key AFS / DOTD budget based reports
- Attempt to define a the requirements for a standard budget analysis report to be used by all Agencies
- Discuss potential FRICE-W reports



# Funds Management



**Fund Accounting**

**Budgetary Controls**

**Budget Execution**

**Budgetary Basis  
Reporting**

**Commitment Accounting**



# Process Improvement Opportunities

- On demand, self-service reporting
- Multi-dimensional, real-time (ECC) or near real time (BI) budget reporting, with drill down capability
- One report design can be used and sorted in multiple ways, instead of creating several different reports (e.g. budget master)



# SAP Reporting Sources and Tools

Standard Reports

- \* Delivered with the system for each module
- \* Preformatted rows and columns

Report Painter

- \* Tool for users to create custom reports
- \* Point and click technology

ABAP Programming

- \* Programming language for advanced reporting applications.



Data Extraction

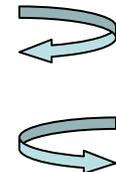


Standard Reports

- \* Delivered with the system for each reporting area
- \* Preformatted rows and columns

BEx Analyzer

- \* Flexible, Excel-based reporting tool
- \* Drag 'n drop technology



WEB Presentation

- \* WEB-based reporting
- \* Standard MS desktop configuration



# Overall Reporting Strategy

- BI will be the primary reporting tool for the State
- Transfers the processing load from the transactional database (ECC) to the reporting database (BI)
- Provides enhanced reporting capabilities including filtering, sorting, analysis, calculations, exporting, and presentation
- Generally, BI is refreshed overnight
  - Typically, delta loads for transactional data and full loads for master data
- Real time reporting requirements to support daily decision making process will need to be supported by ECC
  - Example: Available budget at any point in time to deal with budget errors



# Budgetary Reporting

- FM data (via the FM ledger or BI FM cubes) is the only source which contains all budget, actual expenses and expense commitments / pre-commitments
- Thus, FM data is the logical source to perform, according to any combination of FM master data :
  - Actual Expense vs. Budget Reporting
  - Budget and Budget Breakdown Reporting
  - Available Budget Reporting
- FM Budgetary Reporting is based on the FM master data:
  - Funded
  - Funded Program
  - Fund Center
  - Commitment Item
  - Functional Area
  - Grant
- Budgetary Reporting can captures data for all three FM addresses: Posting, Budget and Budget Control Address
- Budgetary reporting requirements are met via a combination of BI custom reports and ECC Standard FM Reports



# FM Reporting

## **SAP Standard FM Reports:**

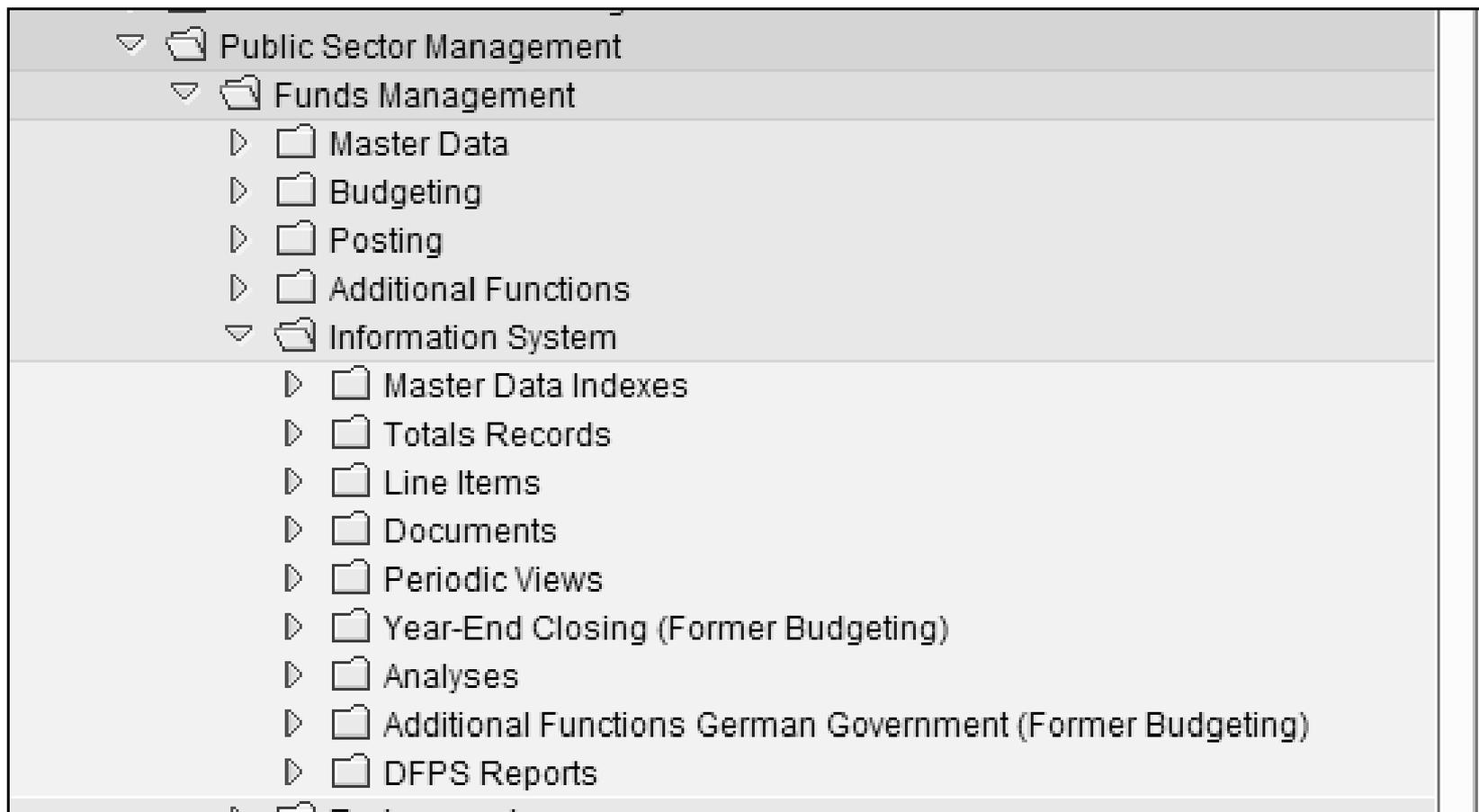
- Master Data Indexes – Individual reports available for displaying all FM master data, including master data characteristics
- Budget Line Item Reports
- Actual Line Item Reports (Expenditures/ Encumbrances)
- Budget Availability Reports

## **Custom Reports:**

- Develop Standard Report(s) to be used by all Agencies for Actual vs Budget (with variance) and detailed drilldown.
- Developed to be run in BI as format can be customized to meet client needs



# FM ECC Reporting Tree





# Example: FM Reporting – Master Data Index

Dynamic selection for other reporting selection criteria

Reporting Icons (ALV)

Program Edit Goto System Hel

Index of Commitment Items

Classification

Report Object

FM Area

Variant 000

Commitment Item to

Selection Parameters

Entered by to

Created on to

Postable to

Financial transaction to

Item Category to

Funds Center to

Layout

Layout

Drop Down selection

Index of Commitment Items

04/23/2008 18:13:51

Cmmt Item	Name	Description	Dir. pst.	Tr	ItmCat
11111000	POOLED CASH BALANCIN	POOLED CASH BALANCING ACCOUNT	2	90	1
11111050	GM IDC CASH CLG ACCT	GM IDC CASH CLEARING ACCOUNT	2	90	1
11111099	ZBA CLEARING	BANK OF AMERICA - ZBA CLEARING	2	90	1
11111100	BOA CONC #2566	BOA CONCENTRATION MAIN 2566	2	90	1
11111101	BOA CONC #2566	BOA CONCENTRATION WIRE OUT 2566	2	90	1
11111102	BOA CONC #2566	BOA CONCENTRATION ACH OUT 2566	2	90	1
11111103	BOA CONC #2566	BOA CONCENTRATION CHECKS-OUT 2566	2	90	1
11111104	BOA CONC #2566	BOA CONCENTRATION DIRECT DEBIT 2566	2	90	1
11111105	BOA CONC #2566	BOA CONCENTRATION DEPOSITS ACH-IN 2566	2	90	1
11111106	BOA CONC #2566	BOA CONCENTRATION WIRES-IN 2566	2	90	1
11111107	BOA CONC #2566	BOA CONCENTRATION TREASURY IN 2566	2	90	1
11111108	BOA CONC #2566	BOA CONCENTRATION TREASURY OUT 2566	2	90	1
11111109	BOA CONC #2566	BOA CONCENTRATION MISCELLANEOUS 2566	2	90	1
11111110	BOA DISB #2579	BOA DISBURSEMENT MAIN 2579	2	90	1
11111111	BOA, Disb, #2579	BOA, Disbursement, Wire Out-2579	2	90	1
11111112	BOA, Disb, #2579	BOA, Disbursement, ACH-Out,2579	2	90	1
11111113	BOA, Disb, #2579	BOA, Disbursement, Checks-Out,2579	2	90	1
11111114	BOA, Disb, #2579	BOA, Disbursement, Direct Debit,2579	2	90	1
11111115	BOA, Disb, #2579	BOA, Disbursement Deposits/ACH-in,2579	2	90	1
11111116	BOA, Disb, #2579	BOA, Disbursement Wires-In,2579	2	90	1
11111117	BOA, Disb, #2579	BOA, Disbursement Treasury In, 2579	2	90	1
11111118	BOA, Disb, #2579	BOA, Disbursement Treasury Out,2579	2	90	1

Multiple Selections

Drill down to master record

Display Commitment

Change documents

Commitment Item 11111000

FM Area SBBC School Board Broward Cnty

Basic Data Alternative Hierarchy

Name POOLED CASH BALANCIN

Description POOLED CASH BALANCING ACCOUNT

Financial trans. 90 Post cash holdings

Commitment item Cat. 1 Balance

Authorization group

Carryfwd item cat. Stat commitment item

Proposal Funds Ctr.

Hierarchy Assignment

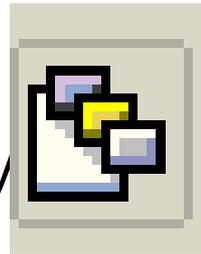
Superior commitment item Standard variant

FM master data indexes for Funds, Funds Centers, Funded Programs, Functional Area and Commitment Items



# Variants

- Many ECC reports supports variant selection

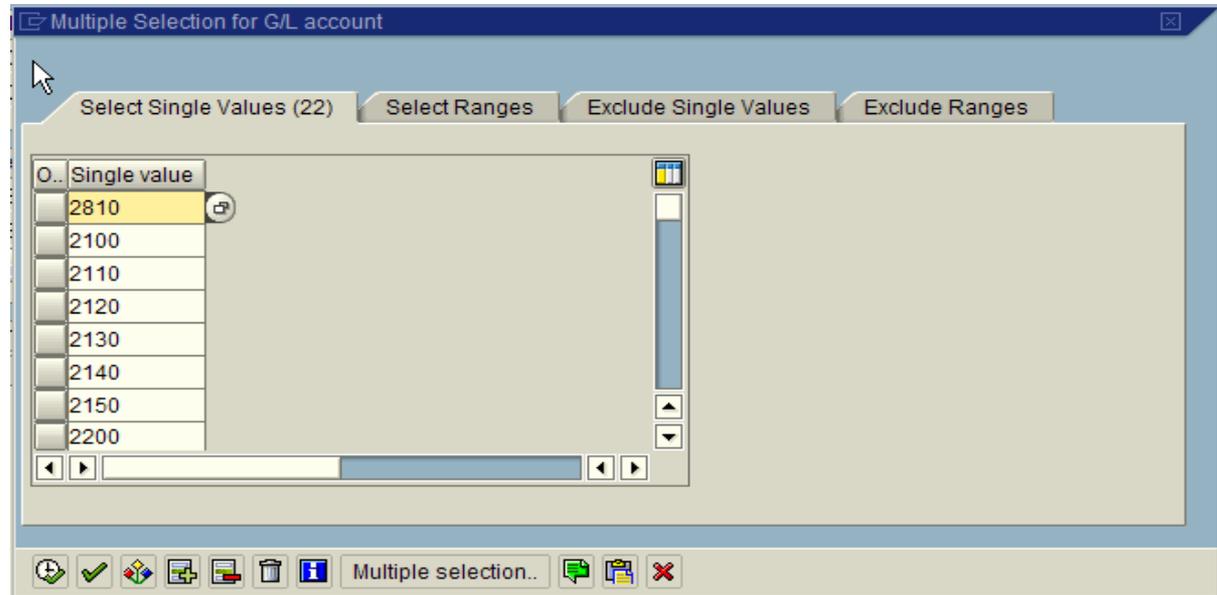
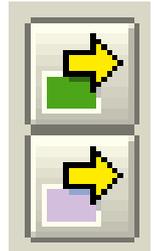


- Variant selection allows you save defined selection criteria for future use
- Saved variants are available to all users and can be protected from change
- Variant naming convention should be established if functionality is widely deployed



# Multiple Selections

- Multiple selection functionality allows the user to select or deselect multiple single values or ranges for a given criteria
- The green color indicates that a multiple selection is active
- Multiple Selection allows for the following options:
  - Single Values
  - Ranges
  - Exclude Single values
  - Exclude Ranges





# Reporting Icons – ALV Reports

## SAP Reporting Icons



**FILTER** – Sets filter criteria. Select fields and define values to include or exclude.



**SORT** – Sorts data in ascending order based on the selected column.



**SORT** – Sorts data in descending order based on the selected column.



**CHANGE LAYOUT** – Change which columns are displayed and in what order. Also contains filter, sort, and display options.



**SELECT LAYOUT** – Choose a predefined layout.



**SAVE LAYOUT** – Saves the layout as designed for future use.



**TOTAL** – Totals data by selected column.



**SUBTOTALS** – Subtotals data by selected column.



**MAIL** – Emails selected report.



**LOCAL FILE** – Saves report to a text file or spreadsheet.



**WORDPROCESSING** – Exports data to a Word table.



**SPREADSHEET** – Exports data to an Excel pivot table.



**NAVIGATION** – Toggles navigation window on and off.



**PREVIOUS and NEXT LEVEL** – Changes display by moving up or down one level in the navigation window.



# FM Reporting – Budget Document Reports



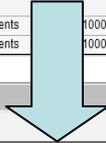
**Entry Document**

FM Area: SBBC  
 Budget Category: 9F  
 Entry Document Number: [ ]  
 Created by: [ ]  
 Original Application: [ ]  
 Created on: [ ]  
 Document Date: [ ]  
 Person Responsible: [ ]  
 Text Name: [ ]  
 BCS Value Type: [ ]  
 Version: [ ]  
 Fiscal Year: [ ]  
 Budgeting Period: [ ]  
 Int. Bdgt. Process: [ ]  
 Budget Type: [ ]  
 Entry Document Type: [ ]  
 Document Status: [ ]  
 Reversal status: [ ]  
 Entry Document Line: [ ]  
 Grant: [ ]  
 Fund: 1000  
 Funds Center: 2220097030  
 Commitment Item: [ ]  
 Functional Area: [ ]  
 Funded Program: [ ]

**Selection List for Entry Documents**

FM Area: SBBC  
 Currency: USD  
 Budget Category: Payment

Doc Year	Type	Entry Docu	Line	Version	Doc. Type	Process	Year	Budget Type	Fund	Funds Ctr	Cmmt Item	Functional Area	Grant
2007	ORGR	1000000060	000001	0	OPBO	Enter	2007	Operating Budget - Recurring	1000	2220097030	53990000	7500000000000000	NOT RELE
2007	AMND	1000000063	000001	0	OPBO	Supplement	2007	Budget Amendments	1000	2220097030	53990000	7500000000000000	NOT RELE
2007	AMND	1000000093	000001	0	OPBO	Send	2007	Budget Amendments	1000	2220097030	53990000	7500000000000000	NOT RELE
2007	AMND	1000000093	000002	0	OPBO	Receive	2007	Budget Amendments	1000	2220097030	53360000	7500000000000000	NOT RELE
2007	AMND	1000000094	000001	0	OPBO	Supplement	2007	Budget Amendments	1000	2220097030	53710000	7500000000000000	NOT RELE
2007	AMND	1000000095	000001	0	OPBO	Return	2007	Budget Amendments	1000	2220097030	53990000	7500000000000000	NOT RELE
2007	AMND	1000000096	000001	0	OPBO	Return	2007	Budget Amendments	1000	2220097030	53360000	7500000000000000	NOT RELE
2007	AMND	1000000097	000001	0	OPBO	Send	2007	Budget Amendments	1000	2220097030	53990000	7500000000000000	NOT RELE
2007	AMND	1000000098	000001	0	OPBO	Send	2007	Budget Amendments	1000	2220097030	53990000	7500000000000000	NOT RELE
2007	AMND	1000000104	000001	0	OPBO	Send	2007	Budget Amendments	1000	2220097030	53990000	7500000000000000	NOT RELE
2007	AMND	1000000110	000002	0	OPBO	Receive	2007	Budget Amendments	1000	2220097030	53710000	7500000000000000	NOT RELE
2007	SUPR	1000000110											



**Entry Document**

Document: 1000000060  
 Process: Enter  
 BCS Value Type: Budget  
 Budget Category: Payment  
 Document type: OPBO  
 Status: Posted  
 Total: 1,000.00  
 Version: 0  
 Document Date: 03/19/2007  
 Document Year: 2007  
 FM Area: SBBC  
 USD  
 Fiscal Year: 2007

**Year: 2007**

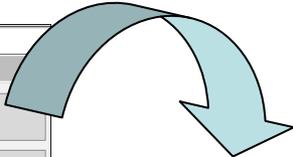
Line	Grant	Fund	Funds Center	Commitment Item	Functional Area	Funded Program
000001	NOT RELEVANT	1000	2220097030	53990000	7500000000000000	NOT RELEVANT

**Drill down to budget document**

**Example:** “Budget Journal” – tcode FMEDDW – Display Budget Entry Documents; this report provides a list of all the budget documents sorted by document type, budget process, budget type, etc:



# FM Reporting – Actual Line Item Reports



**Document Journal**

Classification Data Sources

Financial Management Area  
FM Area: SBBC

FM Account Assignment  
Grant: \_\_\_\_\_ to \_\_\_\_\_ or Group: \_\_\_\_\_  
Fund: 1000 to \_\_\_\_\_ or Group: \_\_\_\_\_  
Funds Center: 2220097030 to \_\_\_\_\_ or Group: \_\_\_\_\_  
Commitment Item: \_\_\_\_\_ to \_\_\_\_\_ or Group: \_\_\_\_\_  
Variant: 000

Functional Area: \_\_\_\_\_ to \_\_\_\_\_ or Group: \_\_\_\_\_  
Funded Program: \_\_\_\_\_ to \_\_\_\_\_ or Group: \_\_\_\_\_  
 Superior FMAAs  
 Subord. acct assgmts

Commitments/Actuals  
Fiscal Year/Period: 2008 | 1 to 2008 | 12

Optimization of database access  
Maximum No. of Hits: 500

Cmnts/Act.  
Value Type: \_\_\_\_\_ to \_\_\_\_\_

**Document Journal**

FM Area: SBBC  
Year Commitment Item:  
Commitment Item: 2220097030  
Funds Center: 1000  
Layout:  
User: FFIGUEROA  
Date/Time: 04/23/2008 17:51:08

RefDocNo	Item	Val.type text	Amt type	Prd	FM pstg d.	Commt bdgt	Fymt Bdgt	Cmmt Item	Funds Center	Fund	G/L Acc	CoCode	Customer	Vendor	Stat
10001255	1	Purchase Requisitions	0100	1	07/31/2007		100.00	55110000	2220097030	1000	55110000	SBBC			
10001257	1	Purchase Requisitions	0200	1	07/31/2007		150.00	55110000	2220097030	1000	55110000	SBBC			
	1	Purchase Requisitions	0100	1	07/31/2007		150.00	55110000	2220097030	1000	55110000	SBBC			
10001768	1	Purchase Requisitions	0100	4	10/06/2007		800.00	55110000	2220097030	1000	55110000	SBBC			
10001769	1	Purchase Requisitions	0100	4	10/06/2007		200.00	55110000	2220097030	1000	55110000	SBBC			
10001770	1	Purchase Requisitions	0100	4	10/06/2007		300.00	55110000	2220097030	1000	55110000	SBBC			
10001787	1	Purchase Requisitions	0100	4	10/10/2007		1,000.00	55210000	2220097030	1000	55210000	SBBC			
	1	Purchase Requisitions	0200	4	10/10/2007		1,000.00	55210000	2220097030	1000	55210000	SBBC			
10001800	1	Purchase Requisitions	0200	4	10/15/2007		2,400.00	55110000	2220097030	1000	55110000	SBBC		100111	
	1	Purchase Requisitions	0100	4	10/15/2007		2,400.00	55110000	2220097030	1000	55110000	SBBC		100111	
100004427	1	Invoices	0100	1	07/17/2007		1,000.00	43412200	2220097030	1000	43412200	SBBC			
	1	Invoices	0100	1	07/02/2007		1,000.00	43412200	2220097030	1000	43412200	SBBC			
100004449	1	Invoices	0100	1	07/04/2007		1,000.00	43425100	2220097030	1000	43425100	SBBC			
	1	Invoices	0100	1	07/17/2007		1,000.00	43425100	2220097030	1000	43425100	SBBC			
100004450	1	Invoices	0100	1	07/04/2007		1,000.00	43412200	2220097030	1000	43412200	SBBC			
	1	Invoices	0100	1	07/17/2007		1,000.00	43412200	2220097030	1000	43412200	SBBC			

**Drill down to actual document (PR, PO, Invoice, etc)**

**Example: “Expenditures/ Encumbrances Journal” – tcode FMRP\_RFFMEP1AX – Display Commitment/ Actuals – All Postings; this report provides a list of all the expenditures and encumbrances line items posted to the selected FM account assignment (fund 110, funds center 1206080, commitment item 506200), within the selected time horizon (May 2005)**



# FM Reporting – Available Budget

Display Annual Values of Control Objects

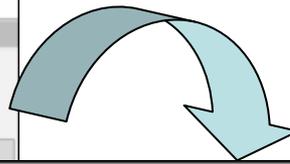
FM Area: SBBC  
Fiscal Year: 2008  
Availability Control Ledger: 9H

Type of Account Assignments  
Account assignments specified below are:  
 Control Objects  
 Budget Addresses  
 Posting Addresses

Selection of Account Assignments  
 Grant: \_\_\_\_\_ to \_\_\_\_\_  
 Fund: 1000 to \_\_\_\_\_  
 Funds Center: 2220097030 to \_\_\_\_\_  
 Commitment Item: \_\_\_\_\_ to \_\_\_\_\_  
 Functional Area: \_\_\_\_\_ to \_\_\_\_\_  
 Funded Program: \_\_\_\_\_ to \_\_\_\_\_

Restriction According to Attributes  
 Multiple Selection FM Account Assignm. Variant Name: \_\_\_\_\_

Layout Options  
 Display Options  
 Use View 'Outgoing Amounts'  
 Use View 'Incoming Amounts'  
 Maximum Usage Rate: 100.00  
 Display Budget Deficits Only  
 Only Obj. With Annual Checks  
 Hierarch. View of AVC Elements



Data from Selection screen

Control Objects Data: Annual Values

FM Area: SBBC (USD)      Grant: NOT RELEVANT  
 Fiscal Year: 2008      Fund: 1000  
 Control Ledger: 9H      Funds Center: 2220097030  
 Funded Program: NOT RELEVANT

Hierarchy of Control Objects - Budget Addresses - Posting Addresses	Consumable B	Consumed Amt	Available Amt
<Several Commitment Item Values>	27,109.00	4,872.10	22,236.90
43412200	0.00	0.00	0.00
43425100	0.00	100.00-	100.00
43469600	1,000.00	0.00	1,000.00
43481107	0.00	50.00-	50.00
53000000	8,879.00	0.00	8,879.00
55000000	17,230.00	5,022.00	12,208.00
500000000000000000	60.00	20.00	40.00
720000000000000000	6,750.00	3,900.00	2,850.00
750000000000000000	10,420.00	1,112.00	9,308.00
NOT RELEVANT/1000/2220097030/55110000/750000000000000000	10,420.00		
NOT RELEVANT/1000/2220097030/55110000/750000000000000000		412.00	
NOT RELEVANT/1000/2220097030/55210000/750000000000000000	0.00		
760066000000000000	0.00	10.00-	10.00
999999999999999999	0.00	0.00	0.00
56800000	0.00	0.10	0.10-

Drill down to actual documents or budget documents

Example: tcode FMAVR01. Available Budgets Report will be run in ECC to view the available budget in real time by any FM dimensions desired. Useful in confirming budget errors and in determining where to transfer budget from in order to continue processing original posting. Available budget report excludes non-consumable budget types.



# FM Reporting – Earmarked Funds

**Earmarked funds journal**

Document Header Data

Earmarked Funds [ ] to [ ]

Doc. Category [ ] to [ ]

Document type [ ] to [ ]

Company Code [ ] to [ ]

Document Date [ ] to [ ]

Posting Date [ ] to [ ]

Created by [ ] to [ ]

Costs due on [ ] to [ ]

Line Item Data

Controlling Area SBBC to [ ]

GL Account [ ] to [ ]

Cost Center [ ] to [ ]

Order [ ] to [ ]

WBS Element [ ] to [ ]

FM Area SBBC to [ ]

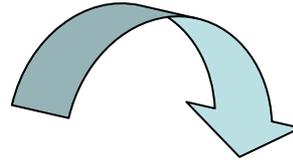
Commitment Item [ ] to [ ]

Funds Center 2220097030 to [ ]

Fund 1000 to [ ]

Vendor [ ] to [ ]

Customer [ ] to [ ]



**Earmarked funds journal**

Date 04/23/2008  
Time 18:28:18

Doc. No.	Item	Cat	DT	Posting Date	Fund	Cost Center	WBS Elem	Order	GL Account	Functional Area	Amount	Open amt	C	Text	Created by	Grant
5100000017	1	30	Z1	08/02/2007	1000	2220097030			55110000	5000000000000000	10.00	10.00		TNGUYEN	NOT RELEVANT	
5100000019	1	30	Z1	08/20/2007	1000	2220097030			55110000	5101000000000000	10.00	10.00		TEST.FMX1	NOT RELEVANT	
5100000020	1	30	Z1	08/22/2007	1000	2220097030			55110000	5101000000000000	10.00	10.00		TEST.FMX1	NOT RELEVANT	
5100000022	1	30	Z1	08/22/2007	1000	2220097030			55110000	5101121020000000	0.00	0.00		TEST.FMX1	NOT RELEVANT	
5100000028	1	30	Z1	10/06/2007	1000	2220097030			55110000	7200000000000000	1,000.00	200.00		TLONGHURST	NOT RELEVANT	



**Funds reservation: Display Overview scrn**

Document number 5100000017 posted Document Date 08/02/2007

Document type Z1 SBBC Funds Reserv -School Posting Date 08/02/2007

Company Code SBBC USD School Board Broward Cnty Currencyrate USD

Doc. text

Currency USD

Grand total 10.00

ID	Overall amount	Original amou	Fund	Cost Center	WBS Element	Order	GL Account	Funds Center	Func	Commitm	Funded Prog
1	10.00	10.00	1000	2220097030			55110000	2220097030	5000000000000000	55110000	NOT RELEVANT

**Drill down to FM Earmarked Fund (Funds Reservation)**





Funds Management  
BI Reporting

# LaGov

Version 3.10



# **Business WareHouse (BI) Reporting**

**Tom Hislop**



# What is a reporting strategy?

## A set of guidelines that establish:

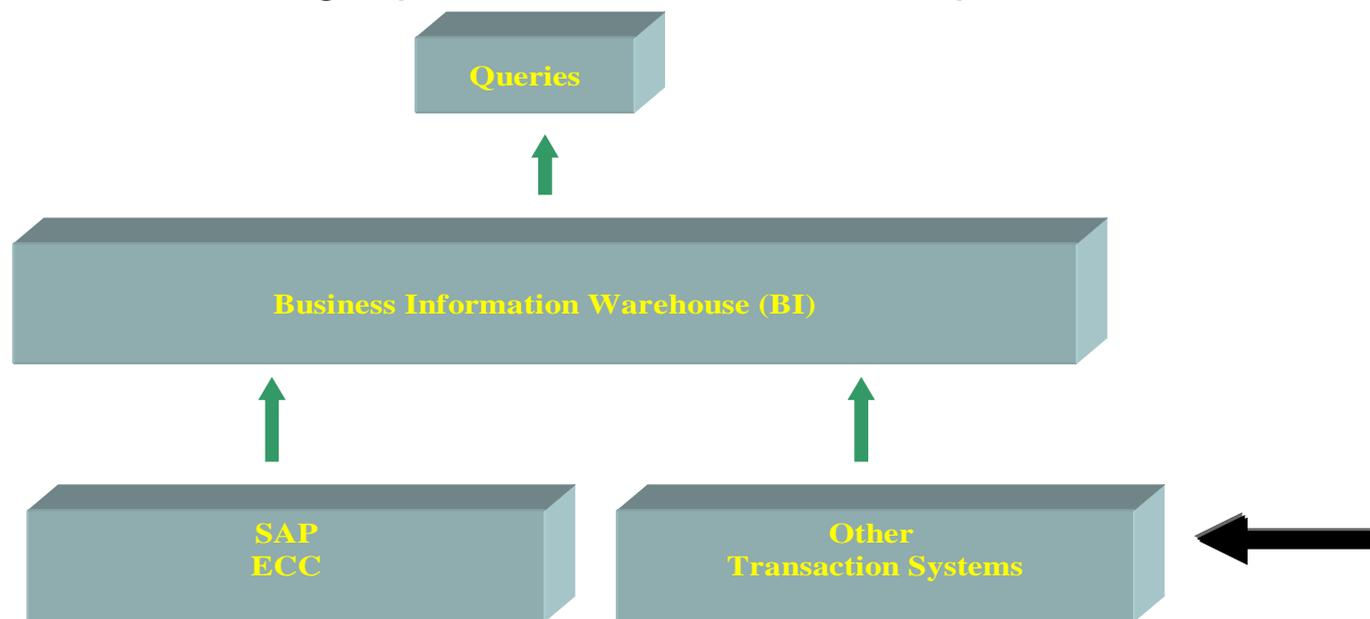
- What information is made available to whom, when, and how by determining:
- What types of **reports/queries** will be made available?
- How will new reporting requirements be met?
- What criteria will be used to prioritize new reporting requirements?
- Who will ensure that standards are maintained?
- What tools are used to deliver the information?
- What are the Roles and Responsibilities?
  - **Same security as ECC?**
- **Performance – take reporting off the transaction system**



# What is a Data Warehouse?

A data warehouse is a repository of an organization's electronically stored data

- Data warehouses are designed to **facilitate reporting and analysis**
  - **However – Budget Formulation is done in BW**
  - **Retracted to FM in ECC for Budget Execution**
- Usually receives its data from Transaction systems (e.g. SAP ECC).
- Performance – gets faster with use
  - ECC – slow running report, user runs the slow report a 5<sup>th</sup> time





# BI Glossary - 1

➤ **Business intelligence (BI):** In-depth analysis of detailed business data. Includes database and application technologies, as well as analysis practices. Sometimes used synonymously with “decision support,” though business intelligence is technically much broader.

➤ **Data Mart** – A subset of an organizational data store, usually oriented to a specific purpose or major data subject

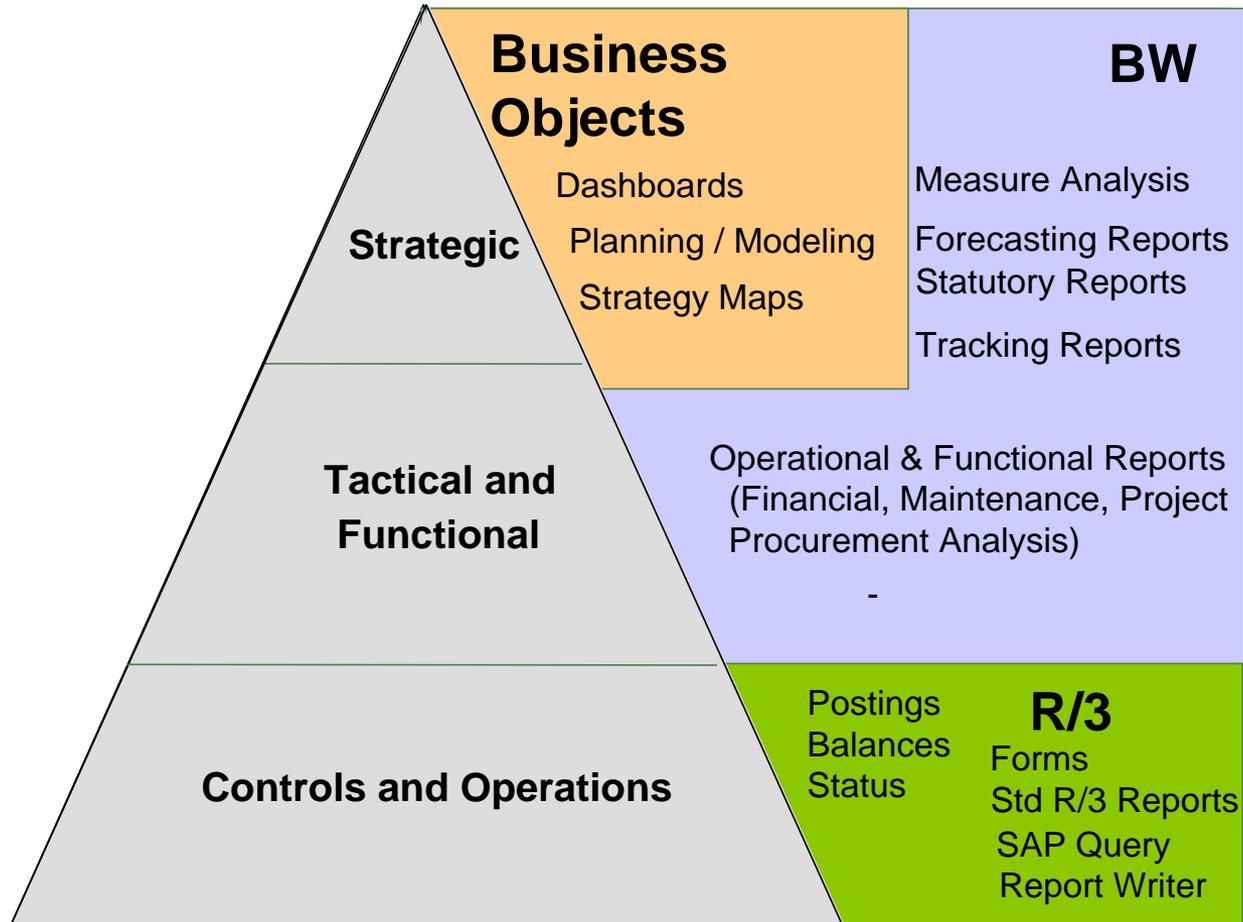
➤ **ETL** - Extract, Transform, and Load in reference to moving data from one system, and converting, and loading it to the conform of a target system.

➤ **InfoCube** – An SAP BI system that consists of a quantity of relational tables created according to the star schema: a large fact table in the center, with several dimension tables surrounding it. It provides a self-contained dataset which can be used for analysis and reporting

**OLAP - On-line Analytical Processing** enables the analysis of large sets of data by providing quick, consistent, interactive access to various views of the data. This is as opposed to an OLTP or on-line TRANSACTION processing such as SAP ERP (**SAP Transaction system is OLTP**)

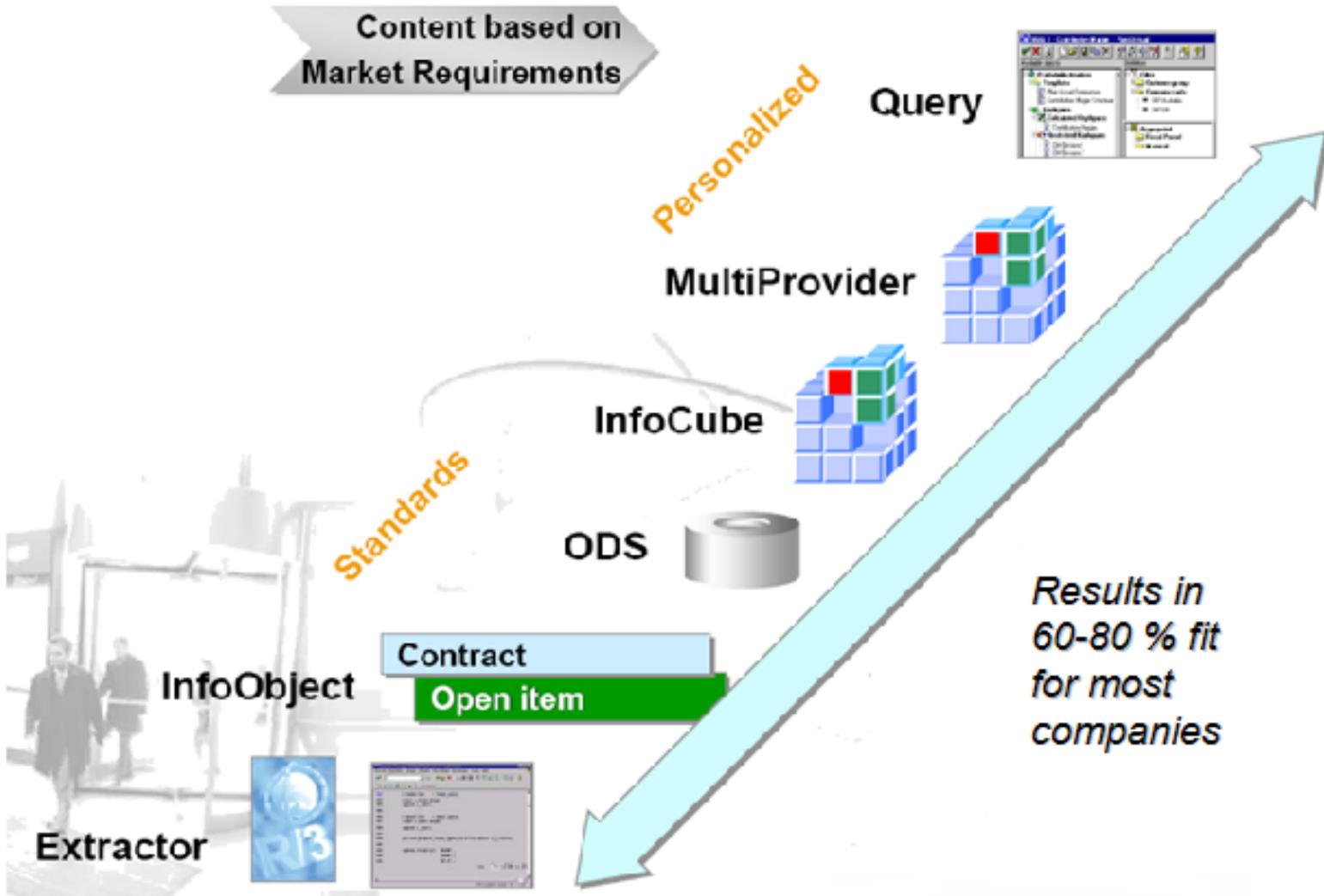


# Reporting Hierarchy





# SAP BI Standard Business Content Anticipation of Reporting Needs





# Business Content Navigator

The screenshot shows a web browser window titled "SAP Library - BI Content - Windows Internet Explorer". The address bar contains the URL: [http://help.sap.com/saphelp\\_rvw04/helpdata/en/3d/5fb13cd0500255e1000000a114084/frameset.htm](http://help.sap.com/saphelp_rvw04/helpdata/en/3d/5fb13cd0500255e1000000a114084/frameset.htm). The browser interface includes a menu bar (File, Edit, View, Favorites, Tools, Help), a search bar with the text "plant maintenance", and a navigation bar with buttons for "Expand All", "Close All", "Back", "Forward", and "Synchronize".

The main content area is divided into two panes. The left pane shows a tree view of the "BI Content" structure, with "BI Content" selected. The right pane displays the content for "BI Content".

## BI Content

Business Content is delivered as an add-on to SAP BW. The naming is BI Content 3.5.3 Add-On SP06. This will be referred to as Business Content below.

### Purpose

Business Content is a pre-configured set of role and task-relevant information models based on consistent metadata in the SAP Business Information Warehouse. Business Content provides selected roles within a company with the information they need to carry out their tasks. This information model includes integral roles, workbooks, queries, InfoSources, InfoCubes, ODS objects, key figures, characteristics, update rules, and extractors for SAP R/3, mySAP.com Business Applications, and for other selection applications.

Business Content can:

- be used in particular industries without being modified
- be modified, meaning you can work with it to any degree of detail
- serve as a template or an example for customer-defined Business Content

Moreover, [Demo Content](#), which includes example data and can be used as display material, is available to you with the SAP Business Information Warehouse.

### Implementation Considerations

On one hand SAP Business Information Warehouse's comprehensive Business Content enables a quick and cost-effective implementation. On the other hand, it provides a model that can be used as a guideline during implementation using experience gained from other implementations.

### Features

SAP Business Information Warehouse delivers pre-configured objects under the collective term "Business Content". These objects speed up the implementation of the SAP Business Information Warehouse because they deliver complete solutions for business information requests.

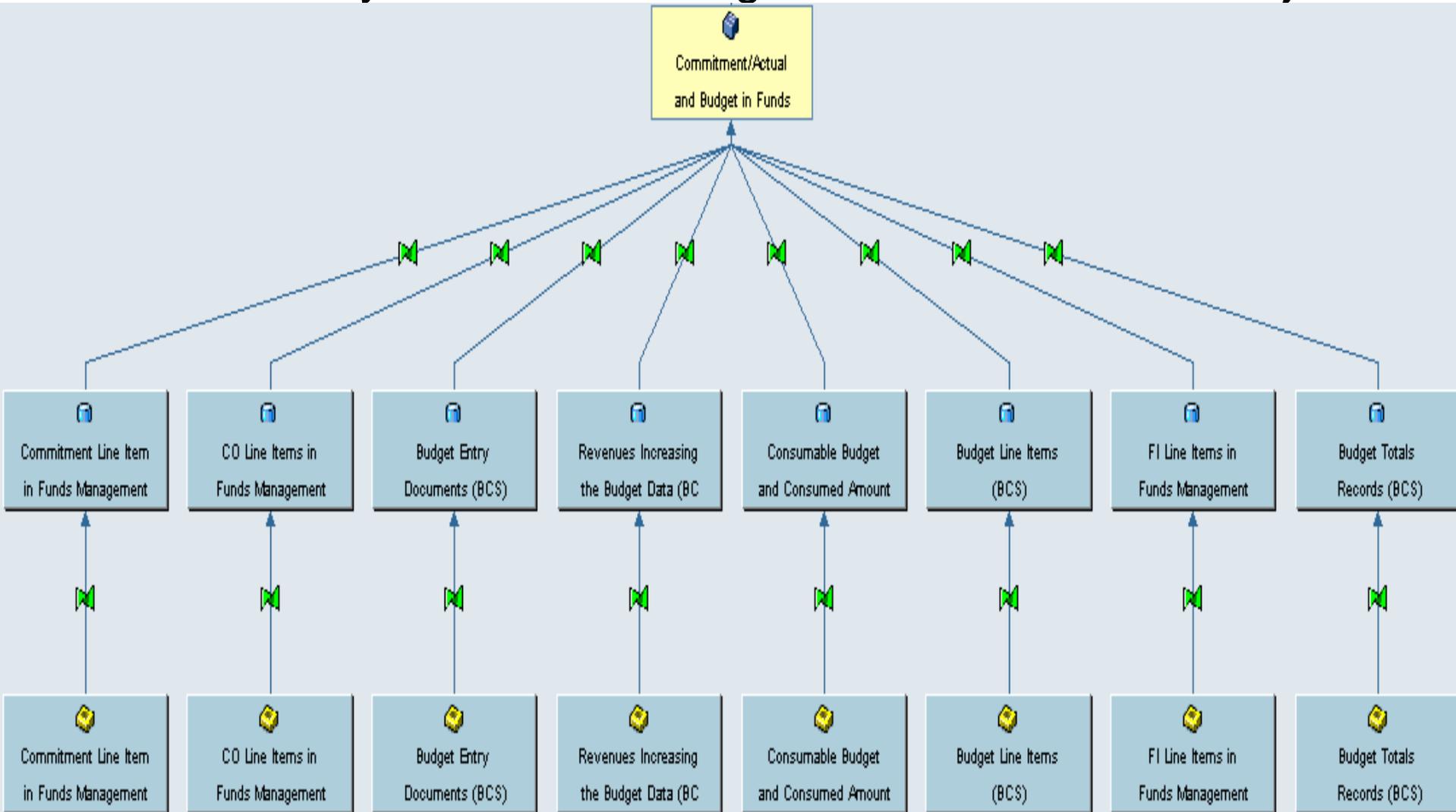
Business Content includes:

- R/3 extractor programs
- DataSources
- Process chains
- InfoObjects
- InfoSources
- Data targets (InfoCubes and ODS objects)
- Variables
- Data mining models
- Queries
- Workbooks
- Crystal Reports
- Web templates
- Roles



# Funds Management Data Flow in the SAP BW System

## Why BW Answer: huge load on ECC for table joins





# Commitment, Actuals, and Budget in Funds Management

- Provide general analysis capabilities necessary for controlling revenues and expenditures against existing budgets
- Contains all the transaction data on budget and commitment/actual postings that has been transferred from ERP
  - Kept forever
- Primary query capabilities include ad hoc analysis of **revenues and expenditures** viewed from the following perspectives
  - Organizational
  - Budgetary
  - Time
  - Commitment
- Combines FI, CO, Budget line items, and Commitments



## Funds Management Dimensions (grouping of InfoObjects – fields)

1. FM Area and Fund
2. Funds Centers
3. Commitment Items
4. Functional Area
5. FI Account Assignment
6. General Details
7. Budget Details
8. Details of Commitments and Actuals
9. Customers
10. Vendors
11. Funded Program
12. Grant
13. Cover Group and Year-End Closing
14. Time
15. Unit



# Funds Management in the SAP BW System

- Delivered query capabilities include
  - Information concerning Assigned Funds
  - Information on the current budget, the original budget entered and budget updates in the FM area/fiscal year for each budget category and version
  - Comparison of the current budget of a budget version with a reference budget version
  - Evaluation of the budget for a selection of budget entry documents.
  - Cumulated totals for the incurred commitments and actuals within a period interval for all FM account assignments posted to in an FM area.



# Commitment, Actuals, and Budget in Funds Management

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# InfoCube Name: Commitment/Actuals and Budget in Funds Management

Technical Name: OPU\_CO2

0PU\_IS\_PS\_41: [Budget Total Records \(BCS\)](#)

0PU\_IS\_PS\_31: [Commitment Line Items in Funds Management](#)

0PU\_IS\_PS\_32: [FI Line Items in Funds Management](#)

0PU\_IS\_PS\_33: [CO Line Items in Funds Management](#)



# Funds Management Dimensions

1. FM Area and Fund
2. Funds Centers
3. Commitment Items
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# InfoObjects (fields) for FM in BW

## Technical name: 0PU\_CO2

0FUNDS_CTR Funds Center	0AMOUNT_TYP Amount Type	0PU_VALTYPE Budgeting value type
0VERSION Version	0CF_LEVEL Carryforward Level	0PU_WFSTATE Workflow Status of a Data Record in the Budget Totals Table
0FI_XARCH Indicator: Original Document Archived	0CHRT_ACCTS Chart of Accounts	0PU_LEDGER Availability Control Ledger
0FM_BUCAT Budget Category in Funds Management	0COMP_CODE Company Code	
0PU_BUDTYPE Budget type	0FM_ACTDETL Commitments and Actuals Detailing in Funds Management	
0FM_CE_YEAR Year of Cash Effectivity	0FM_STATS Funds Management Statistical Indicator	
0FM_VTYPE Value Type in Funds Management	0GL_ACCOUNT G/L Account	
0PU_PROCESS Budgeting Procedure	0FM_DATE Date of Update in Funds Management	
0CMMT_ITEM Commitment Item	0FM_TRANSAC Commitments and Actuals Detailing Transaction	
0FM_AREA FM Area	0PSTNG_DATE Posting Date	
0FUNC_AREA Functional Area	0DEBITOR Customer number	
0FUND Fund	0CREDITOR Vendor Number	
0PU_MEASURE Funded program	0CF_COUNT Number of Year-End Carryforwards	
0GRANT_NBR Grant		

### Key Figures

**0FM\_AMOUNT1**  
Amount FM Area  
Currency

# Time Characteristics

## Key Figures

### Units



- Time Characteristics

- 
- 0FISCPER  
Fiscal Year/Period
- 

- 0FISCVARNT  
Fiscal Year Variant
- 

- 0FISCPER3  
Posting period
- 

- 0FISCYEAR  
Fiscal Year
- 

- Units

- 
- 0FM\_CURR  
Currency Key: FM Area Currency
- 

- 0CURKEY\_TC  
Currency Key: Transaction Currency
- 

navigation attributes:

- 0CI\_TYPE Commitment item category,
- 0FMRESPO Person responsible for funds center in the organizational model 0CUSTOMER Sponsor,
- 0FUNDTYPE Fund type,
- 0AP\_OF\_FUND Application of funds from secondary sources.



# Commitment/Actuals and Budget in Funds Management

## Technical Name: 0FIFM\_C01

- Amount Type
- Application of Secondary Funds
- Budget Category in Funds Management
- Budget Category in Funds Management
- Budget Detailing in Funds Management
- Budget Version
- Business Area added
- Business Transaction for Providing Details on Commitment and Act
- Carryforward Level
- Commitment Item
- Commitment Item Type
- Commitments and Actuals Detailing in Funds Management
- Date of Update in Funds Management
- FI Document Fiscal Year
- FI Document Line Item
- FI Document Number
- Fiscal Year of Reference Document
- FM Area
- FM Line Item Document Number
- Functional Area added
- Fund
- Fund Type
- Funds center added
- Funds center
- Indicator: Document Item Completed
- Indicator: Document Item Deleted
- Major organizational unit added
- Name of Person Responsible for Funds Center
- Number of Year-End Carryforwards
- Payment Document Company Code
- Payment Document Fiscal Year
- Payment Document Line Item
- Payment Document Number
- Person Responsible for Funds Center in Organizational Model
- Posting Line in an FM Line Item
- Posting Sequence
- Previous Account Assignment Number
- Previous Document Line Item
- Previous Document Number
- Previous Document Organization
- Reference Document Line Item
- Reference Document Number
- Reference Document: Account Assignment Number
- Source of Funds added
- Source of Funds Detail added
- Statistical Indicator Funds Management



# Funds Management in the SAP BW System

- Delivered query capabilities include
  - Information concerning Assigned Funds
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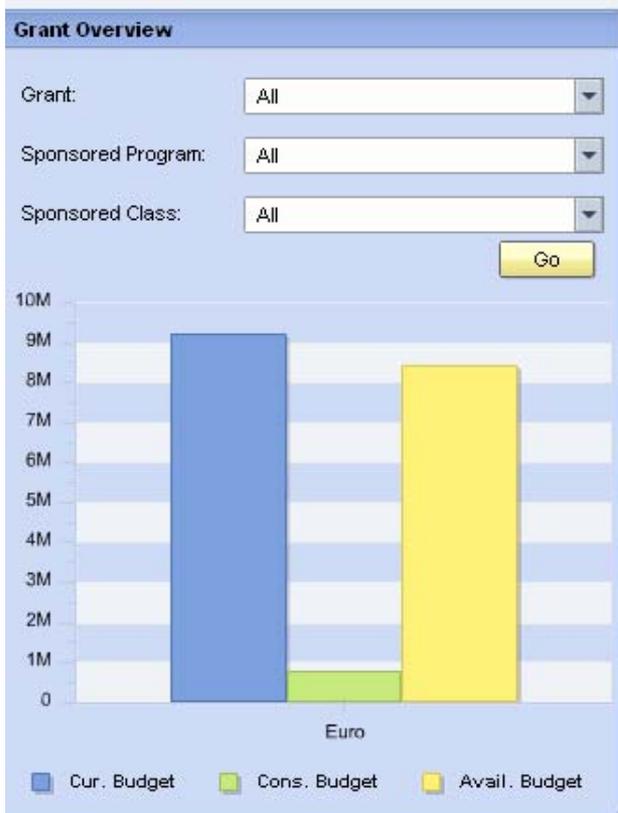


# DashBoard

- **More than one report / query on a single page**
  - More than one format
    - Graph and grid
- **KPI**
- **Action Points called out**



# Grants Dashboard Example



### Critical Grants Monitor: Expenditure Budget below Threshold

Threshold [%]:

Grant ID	Grant Name	Closing On	Spons. Program	Spons. Class	Avail. Budge	Avail. Budget
00000000000000	00000000000000	20061231	JC Program 01	JC Class 01	0,00 %	0,00 EUR
00000000000000	SOLANA'S	20100101	Grant Managem	Generic Expens	0,00 %	-71.500,00 EUR
00000000000000	00000000000000	20100101	Grant Managem	Generic Expens	0,00 %	-200,00 EUR
00000000000000	00000000000000	20100101	Grant Managem	Generic Expens	0,00 %	-250,00 EUR
00000000000000	TEST FOR BILLI	20081231	GM Sponsored	Expense class	0,00 %	-501,00 EUR
00000000000000	ULRIKE INCOMIN	20061231	Education	Equipment	0,00 %	0,00 EUR
00000000000000	ULRIKE INCOMIN	20061231	Education	Travel	0,00 %	0,00 EUR

### Pre-closing Monitor: Grants until Closing Date

Closing Date:

Grant ID	Grant Name	Closing On	Spons. Program	Spons. Class	Avail. Budget in %	Avail. Budget



# DashBoard Query

## Critical Grants Monitor: Expenditure Budget below Threshold

Threshold [%]:

Grant ID	Grant Name	Closing On	Spons. Program	Spons. Class	Avail. Budge	Avail. Budget	
00000000000000	00000000000000	20061231	JC Program 01	JC Class 01	0,00 %	0,00 EUR	▲
00000000000000	SOLANA'S	20100101	Grant Managem	Generic Expens	0,00 %	-71.500,00 EUR	☰
00000000000000	00000000000000	20100101	Grant Managem	Generic Expens	0,00 %	-200,00 EUR	
00000000000000	00000000000000	20100101	Grant Managem	Generic Expens	0,00 %	-250,00 EUR	
00000000000000	TEST FOR BILLII	20081231	GM Sponsored ;	Expense class	0,00 %	-501,00 EUR	
00000000000000	ULRIKE INCOMIN	20061231	Education	Equipment	0,00 %	0,00 EUR	
00000000000000	ULRIKE INCOMIN	20061231	Education	Travel	0,00 %	0,00 EUR	▼



# General Report from Query Example

## Free Characteristics

### Save as a "bookmark"

### (ECC Variant)

DDIC: SAP Training System Powered by .NET Microsoft Technology

**Customer Query 1** Last Data Update: 28.02.2003 10:27:34

Table

				Sales Volume EUR ↕	Incoming Orders ↕
				EUR	EUR
00	Cross-division	10	Final customer sales	0,00	9.000,00
		12	Sold for resale	0,00	25.500,00
		14	Service	4.780,57	8.155,10
		Result		4.780,57	42.655,10
01	Pumps	10	Final customer sales	41.299.064,23	45.102.784,12
		Result		41.299.064,23	45.102.784,12
02	Motorcycles	12	Sold for resale	53.843.011,68	57.846.845,32
		Result		53.843.011,68	57.846.845,32
04	Lighting	12	Sold for resale	67.452.686,20	67.656.161,73
		Result		67.452.686,20	67.656.161,73
07	High Tech	10	Final customer sales	45.437.498,23	52.428.399,72
		12	Sold for resale	53.192.732,78	56.095.407,88
		14	Service	17.532,20	17.532,20
		16	Factory sales	0,00	0,00
		Result		98.647.763,21	108.541.339,80
08	Service	14	Service	1.851.569,35	2.351.003,56
		Result		1.851.569,35	2.351.003,56

Page 1 of 2



# Changing the report

Enhanced options in the filter area help business users to choose the required filter values

**DalSegno Company Analysis**

New Open Save Save As... Display as Table Information Send PDF/Print Export to Excel Filter Settings

Validity of Data: Aug 4, 2004

Product: No filter applied Product Group: Accessories Distribution Channel: Fax, Internet  
Structure: No filter applied Key figures: No filter applied Calendar Year/Month: No filter applied

	Distribution Channel	12/ 2004	12/ 2003	%Var. December	YTD 2004	YTD 2003	%Var. YTD
Billed Quantity Plan	EPN	4,853,626	4,959,912	-2.1	56,665,294	85,339,782	-33.6
	Others	1,768,033	1,906,617	-7.3	21,662,331	30,773,158	-29.6
	Phone	5,095,301	5,366,916	-5.1	61,834,700	90,861,992	-31.9
			12,233,415	4.2	140,162,325	206,974,932	-32.3
			4,810	-0	55,905	86,850	-0
			1,815	-0	21,703	31,426	-0
	Phone	3,007	5,316	-0	61,363	92,523	-0
	Overall Result	11,518	12,011	-0	138,971	210,800	-0

1 of 6

Drag&Drop to columns/rows

Drag&Drop within the navigation block

Drag&Drop into the filter area

Drag&Drop characteristics, characteristic values, or key figures from the grid to remove them



# Query, Analysis, and Reporting

- Analysis Capabilities
  - Multi-dimensional views
  - Generic navigation and interaction (slice and dice, drill-down, drill-thru, pivoting, ...)
  - **Hierarchy navigation**
  - Time dependency
- Additional Features (Future)
  - Alerting to identify and handle exceptions,
    - Pro-active notification
  - Conditions
  - Data Mining
  - Information Broadcasting
  - Graphics
  - Email Push
- Save to Excel / file / share



# Key Challenges to a Successful BI Environment

- Need to make sure end-users are educated on what report (s) they use for what purpose.
- Training impact: Education on setting up and running the reports. Education needs to consider “user types”
- Develop security and authorization strategy to limit access to the data: Open? As needed-basis?
- Agreement and understanding to the centralized and decentralized approach
- **Users can make mistakes if not trained**
  - **Qualification of dates and document type common in FI**



# Homework over course of Project

- Top ten query requirements
- List of (types of) reports/queries prioritized (H,M,L)
- Queries needed to do Statutory Reporting / Matching Grants
- Identification of Key/Super users by Agency
- Questions, Concerns, Special Requirements
- Extra Credit: Top pain points with current reporting schema
- Description of Data Security Requirements within Agency



# Cost Effective Reporting Strategy Development

## Draft for Discussion

### How Reporting Gaps get Filled

1. Capture Key Reporting Requirements:
  - Identify Reporting Characteristics & prioritize
2. Determine if they can be met by standard (“out-of-the-box”) **“Standard SAP R/3 Reports”** available:
  - Select Report – focus on report content, not format
  - Use SAP’s standard Reporting Functions
  - Set up variants (as necessary) for your situation
  - Use Training material
3. If not: Use **“Standard BI Reports”** (Standard Business Content)
4. If not: Build **“Custom BI Reports”**
  1. **SAP / ABAP Query**
    1. Logical databases for reporting
5. If not: Develop **“Custom ECC Reports”** – using other development tools, such as: ABAP, Report Painter, Smart Forms, Crystal Reports, etc.



# Homework over course of Blueprint

- Top ten query requirements
- List of (types of) reports/queries prioritized (H,M,L)
- Queries needed to do Statutory Reporting / Matching Grants
- Identification of Key/Super users by Agency
- Questions, Concerns, Special Requirements
- Extra Credit: Top pain points with current reporting schema
- Description of Data Security Requirements within Agency

If you have already provided some of the items, there is no need to re-submit.



# Any Questions?

## LaGov Contacts

### LaGov Business Warehouse (BI) Contacts

**Will Kelly** – overall lead

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**Ron Burke** – Business Lead / Architect

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**Tom Hislop** – Technical Lead

[Tom.Hislop@La.Gov](mailto:Tom.Hislop@La.Gov) 650-773-3385



**Thank You  
for  
Your Participation!**

**Questions?**



# Financial Reporting

## Requirements Analysis for Financial Reporting

- Gather information on all existing reports and forms
- Identify the currently utilized reports
- Identify emerging, new, information needs
- Identify data requirements, not necessarily the current presentation format:
  - Detailed vs. summarized
  - Summarized groupings
  - Time periods
  - Subtotals
  - Comparisons
- Look at combining similar reporting needs together to reduce the number of requested reports
- Complete review of existing SAP pre-delivered reports
- Identify existing SAP reports and lists that satisfy reporting requirements
- Identify and map any reports that will continue to be handled from current legacy systems, or by an external Data Warehouse system. Confirm that any required data is being included in out bound interfaces to that system. Development specifications will need to be communicated to those reporting teams.



# FM Reporting

## Reporting Requirements

- What are your business critical FM reports?
- What decision do those reports support?
- What are their required format/layout/filter/sort?
- What is the frequency that they are generated?
- Who uses those reports?



# As Is – Budget Reports

Report Title	Frequency	Purpose	Legacy Rpt	SAP
Exp/Rev Organization Responsibility Report	Monthly	This report is a comparison of current month & YTD expenditures and revenue for each lowest level organization.	2G00	BI Custom
Agency Transaction Listing	Daily & Monthly	To provide a listing of transactions processed during the accounting month affecting revenues, expenditures and budget	2G02	FM for Budget Documents Only. Expense documents from GL
Statement of Revenues and Expenditures by Fund	Monthly	To provide the agency with a statement of revenues & expenditures	2G05	How are agencies using this report?
Monthly Expenditures by Organization	Monthly	Provide the user with a list of expenditures by month.	AFS #15	How are agencies using this report?
Program Fund Center Report	Monthly	To compare both expenditures and revenues to budget for the current month and YTD	2G14	How are agencies using this report?
Appropriation Report by Agency	Monthly	This report is to compare current month and YTD expenditures and revenue to budget for each MOF or Appropriated Program	2G15	How are agencies using this report?



# As Is – Budget Reports

Report Title	Frequency	Purpose	Legacy Rpt	SAP
MOF Appropriation Report	Monthly	This report is to compare current month and Inception-to-date expenditures and revenues to the appropriation amount for each MOF in funds 075, 055, & 051 and all appropriations tied fund group Special Appropriations (09) and Major Rev Expense Combined (15)	2G40	Do agencies use this report?



# Leading Practices

- Define Business purpose of reports
  - Who is the recipient?
  - What decision is supported?
  - What are we validating/ensuring/controlling?
- Pre-delivered reports must be utilized whenever possible to meet required needs
- Business reporting should be a statewide design
  - Consolidate and eliminate redundancy
  - Standardize business reports



## Organizational Impacts

- Training of use of real-time, multi-dimensional reporting (navigation around report) in contrast to static reporting, where necessary
- Training on navigation/functionalities on FM BI report(s)
- Business object reports currently processed today will be replaced by standard SAP reports and BI reports. Users will need to be trained on available reports and execution of the key reports



# Next Steps

- Prepare and send out Minutes of this Meeting to all Invitees
- Commence incorporation of details into draft Design document (PDD)
- Follow-up on Action Items identified during this Workshop
- Schedule off-line meeting(s) to discuss areas of special concern, if any
- Plan follow on Workshops, as required
- Review overall design in the Validation Workshop
- Ensure all To-Do's are appropriately documented



# Questions?

