# cme

Chicago Mercantile Exchange

# IT Project Portfolio Management & IT Governance

**Mark Bennett**

# "Best Practices"

**IT Financial Week (Miami)
April 3rd – April 6th , 2006**

# Quick Intro
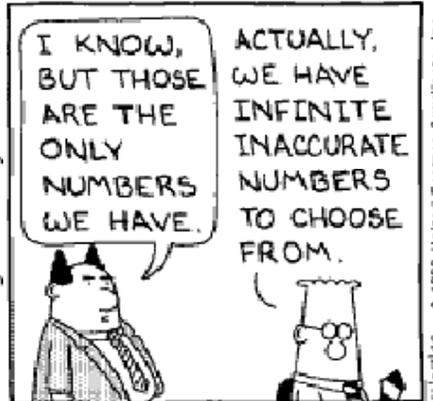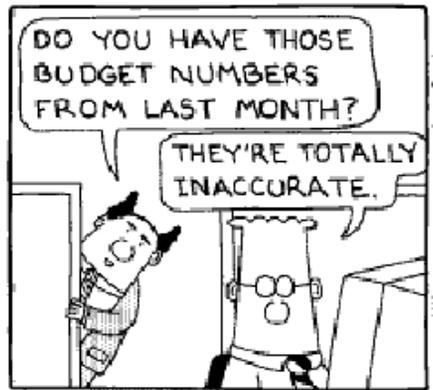


- **Mark W. Bennett, Associate Director Project & Financial Controls**

- **Chicago Mercantile Exchange (CME)**
  - Chicago Mercantile Exchange Inc.® (CME) is the largest futures exchange in the United States and is the largest futures Clearing House in the world for the trading of futures and options on futures contracts.
  - Became first publicly traded financial exchange in the United States, December 2002

- **Technology Division**
  - Approximately 650 employees and consultants
  - More than 300 technology projects per year
  - Multiple project sponsors within and outside of the Technology Division
  - *In other words, we're like a lot of other IT organizations*

# What you'll see in this presentation?

- **Quick overview of IT Governance at CME**
  - What is IT Governance and Portfolio Management?
  - Some of our challenges
  - Why IT Governance and Portfolio Management can be difficult?
  - Our high-level planning process for the Technology division
  - Our phase approach and goals with respect to Portfolio Management

- **Implementing a Portfolio Management Solution**
  - The mechanics of our budgeting & planning process
  - Key components of our implementation
  - Getting started – our approach and tools
  - Modeling your portfolio (a.k.a. investments)
  - Reporting & Dissemination

- **Finding and understanding the value**
  - The road to understanding and decision making
  - Key benefits that we have seen at CME
  - Areas of continued focus and improvement

- **Wrapping it up**
  - Key points & other comments
  - Q & A

# What is IT Governance & Portfolio Mgmt?

***Portfolio Management*** **is the process of aligning investments with corporate objectives and business needs.**

- Which projects best support the corporate strategy?

- How should resources be allocated?

- Do we have enough resources with the right skills?

- What is more important? Prioritization.

- What is the impact of adding a new project to the portfolio?

- How well are we performing?

***IT Governance*** **is the structure of relationships and processes used to direct and control the enterprise – it encompasses Portfolio Management.**

# Why is it difficult to effectively implement?

- **Information is typically spread across the organization**

- **Stakeholders want to see a quick return (or may even be disinterested)**

- **IT and business units often speak different languages**

- **New tools, processes and behavior changes are required – all at the same time**

# Initial challenges we wanted to solve

- **Manual linkage between strategic goals, related projects, and budget commitments difficult to maintain**

- **Multiple sources of budgetary & planning information**

  - Different levels of granularity
  - Different formats
  - Manually intensive to "merge" the information
  - Difficult stack and compare projects competing for the same resources
  - Difficult to level resource demands
  - More prone to human error

- **Frequently shifting priorities need to be reflected in the mix of projects, financial targets, and the budget on an ongoing basis**

- **Management needed frequent ad-hoc reporting throughout budgeting and planning process**

- **Desire for closer integration of planning information with actual project execution (i.e., how are we doing against our plan?)**

# High-Level Planning Processes at CME

- **Planning process is dynamic – it continuously evolves with the organization and the leadership**

- **Annual planning & budgeting**
  - ◆ **Review of corporate-level strategic goals**
  - ◆ **Updated three-year technology plan**
  - ◆ **Other sponsor driven objectives**

- **Continuous planning throughout the year**
  - ◆ **M & A activity**
  - ◆ **Response to market conditions and opportunities**
  - ◆ **Shifts in strategic priorities and goals**
  - ◆ **Adjustments based on project execution**

# Our Phased Approach & Goals

- **Phase I (2003)**

  - ◆ **Technology Division Only**
    - Technology has the most contention between investment demands and available resources
    - Biggest need for a budgeting and project planning support tool
  - ◆ **Centralize the collection point for budget information for two major cost types**
    - Salaries & Benefits
    - Professional Fees
  - ◆ **Allow *Investment* managers to spend more time thinking about scope and estimates rather than the mechanics of creating the budget**
  - ◆ **Make it easier to negotiate and track changes as the budget evolves**
  - ◆ **Better and faster reporting (primarily using Microsoft Excel)**
  - ◆ **Start small and pilot!**
    - Prove the value to management team, without imposing a lot of change to the existing process
    - Find early adopters and champions

# Our Phased Approach & Goals (cont.)

- **Phase II (2004)**
  - ◆ **Use Artemis 7 for project status reporting – involve more managers directly in the tool**
  - ◆ **Use data captured as part of budgeting process to help monitor and control the budget**
    - • Budget vs. Actual
    - • Planned, Forecast, and Actual project dates
    - • Impact of priority changes during the course of the year
  - ◆ **Capture additional cost-types in Artemis 7 for 2005 budget**
    - • Capital
    - • SOP98-1 (capitalization of internally developed software)
    - • Outside Services
  - ◆ **Centralize the collection of project scopes**
  - ◆ **Involve more  managers directly in the tool during the actual budgeting process**
  - ◆ **Improve reporting tools to give our sponsors and managers "one-click" visibility into the budget**
  - ◆ **Ability to export and upload major portions of our budget directly into the Peoplesoft financial system**
  - ◆ **Plan for continued improvements in 2005 and beyond**

# Continuous Improvement

- **2005 & Going Forward**

  - **Primary goals met, look for continuous improvement opportunities**
    - Improve quality and coverage of project status information
    - Increase and improve project status distribution
    - Use "forecast" capabilities to capture revised project estimates
    - Increase granularity of resource planning – better resource balancing

  - **Increase use of Artemis 7 to help facilitate balancing the level of investment in major programs vs. company financial targets**

  - **"Demand Management" – look for better ways to manage our ad-hoc work load (e.g., unplanned/minor projects)**

  - **Simplify our suite of project planning, time tracking, and portfolio management tools**

  - **Explore opportunities to expand use of Artemis 7 and best practices learned in IT to other areas of the company**

# Implementing a Portfolio Mgmt Solution

- The mechanics of our budgeting & planning process

- Key components of our implementation

- Getting started – our approach

- Modeling your portfolio (a.k.a. investments)

- Reporting & Dissemination

\* Throughout this part of the presentation, we will point out and discuss a number of tips and lessons learned.

# Building a Budget

- **A lot of the steps toward building a budget are common no matter what industry, company, or organization**

| Identify Candidate Projects |
|---|

| Select & Prioritize |
|---|

| Scope & Estimate Candidate Projects |
|---|

| Negotiation |
|---|

| Budget Approval & Communication |
|---|

- **Sequence and timing vary**

- **Not necessarily linear**

- **Typically an iterative process**

- **Both qualitative & quantitative analysis play an important role**

- **"Negotiations" between sponsors can be intense**

# Our Budgeting & Planning Process at CME

Company Financial Targets

Strategic Direction from Management Team

Business Unit (Sponsored) Needs

Other Needs / Requests

Candidate Investments

Painful gap that must be resolved through sponsor negotiation

IT response & estimates to sponsor project requests

Available Resources

Requested Resources
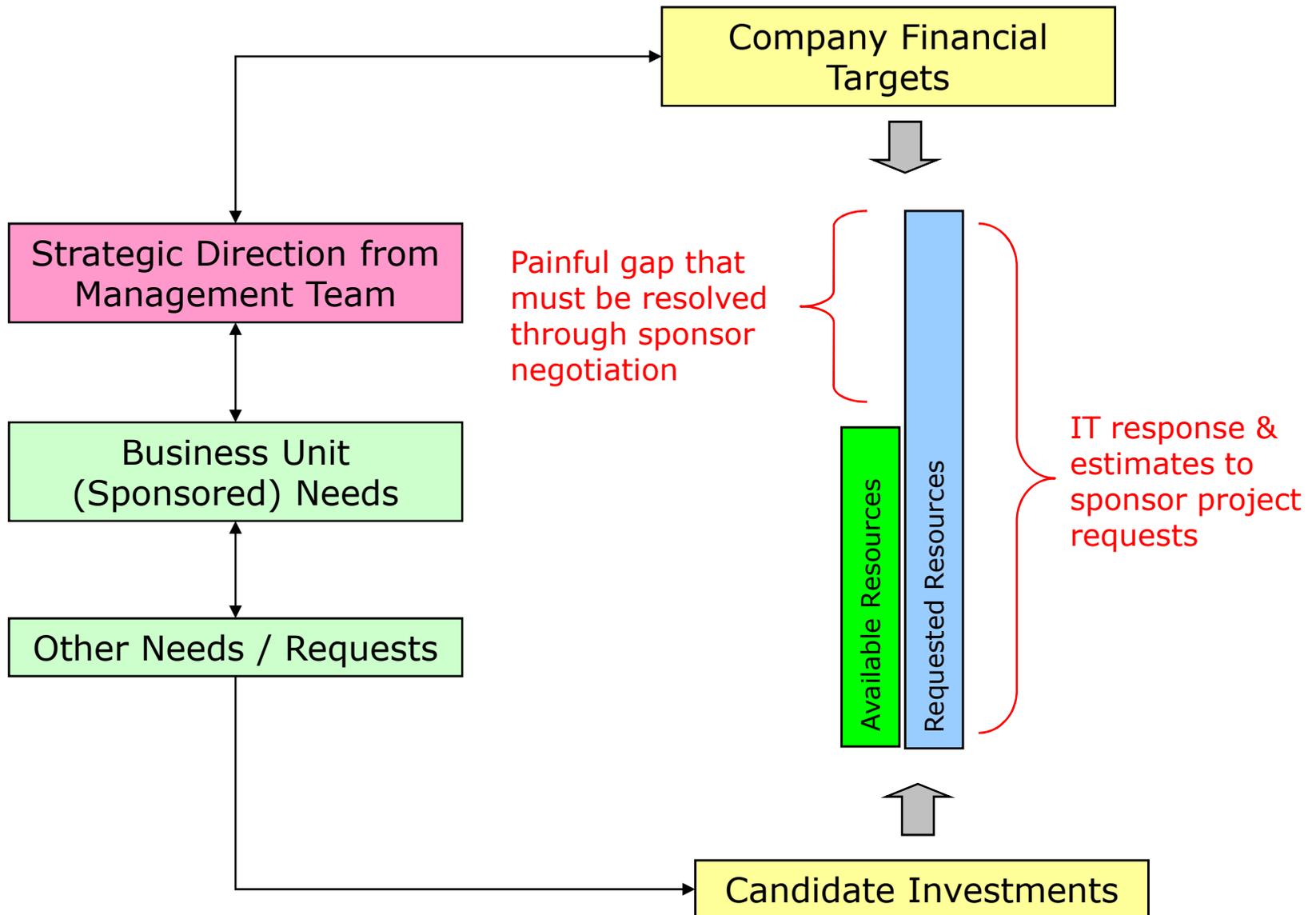
# Key Data Components and Processes



**Key Data Components** (Financial Targets, Project Estimates, Business Case, List of Candidate Investments, Strategic Plan)

**Key Processes** (Financial Planning, Execution & Control, Project Management, Prioritization & Selection, Corporate Planning)
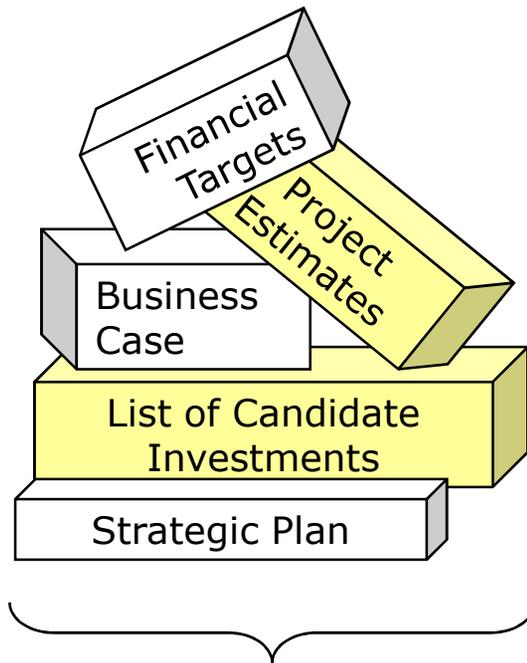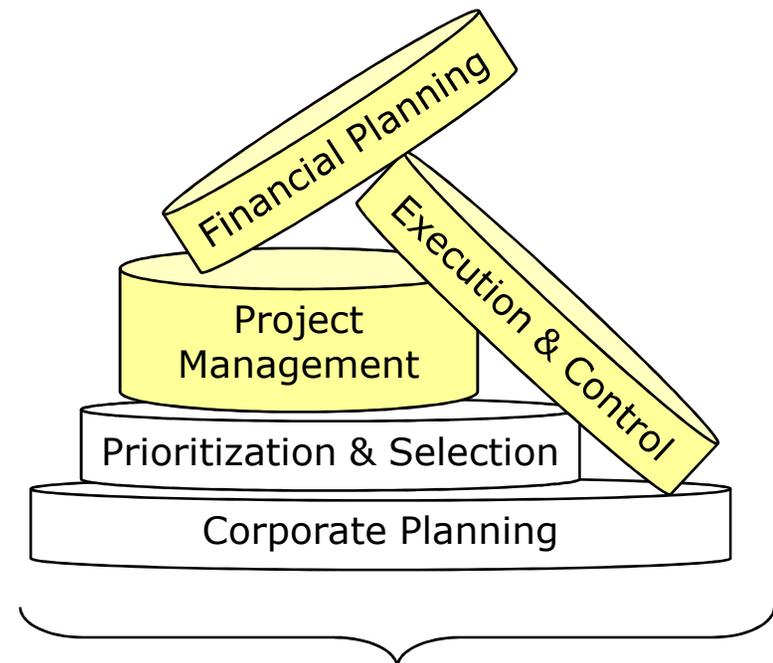
- These data components & processes are present in various stages of maturity and are constantly evolving.

- From a process improvement standpoint, it is difficult to focus on all of them at once

- Look for low-hanging fruit, quick wins, and areas that will generate the most value quickly

- Solve the problems you can solve, influence those you can't

# Getting Started – Our Approach

- **Installed Artemis 7 (approximately 2 months before the start of our 2004 budgeting cycle - June 2003)**
  - Technically, a very straight forward installation
  - Someone with a moderate technical background can get the software up and running in less than a day
  - **TIP:** Have a Database Administrator handy if you are unfamiliar with configuring Oracle, SQL Server, etc.

- **Spent a few weeks familiarizing ourselves with the tool**
  - **TIP:** Bring in vendor for one-on-one training, to share best practices seen at other client implementations, and explore some of the less obvious capabilities and pitfalls.

- **Setup what seemed to be a reasonable model for capturing our investment information and budget**
  - **LESSON LEARNED:** We spent far too little time thinking through the details of how the data would be rolled-up, sliced, reported, etc. It forced us to restructure things in the tool well into our budgeting process – a painful process.
  - **TIP:** This is such an important topic, that I'll spend some time in the later in this presentation and talk a lot more about modeling.

# Getting Started – Our Approach (cont.)

- **Developed templates to help collect information we would need to populate the budget**
  - ◆ Our intent was to keep the number of people who had to directly interact with the tool to a minimum during the pilot phase – reduce the risk of an "another tool syndrome".
  - ◆ Wanted to avoid any extensive change to the way managers currently developed estimates and supporting documentation for the budget - mostly through the use of offline spreadsheets and Microsoft Word documents
  - ◆ **LESSON LEARNED:** In our desire not to impose to much change into the existing process during the pilot phase, we were not explicit enough about the granularity of the information we required (e.g., some groups provided estimates broken out by Quarter when we really needed it by month). This forced us to do a lot of extrapolation and introduced some estimation errors and confusion.
  - ◆ **TIP:** If you are going to collect estimates offline and later enter them into Artemis 7, then provide a template that matches the way the data will be represented in Artemis (see example on next slide).
  - ◆ **TIP:** Having project managers enter their estimates directly into Artemis 7 is highly desirable – increases their understanding of the tool and gives them greater ownership of the estimates.

# Example: Offline Estimation Worksheet

| Project Name | |
| --- | --- |
| **Project Manager** | |

1. Estimates should be entered in 0.25 (quarter) increments.
2. Estimates should be entered in terms of Full-Time-Equivalents.
3. Example: entering a 2.5 under Apr-05 next to 605-BSA, means you need the equivalent of 2.5 people from the BSA group in April 2005

| Resource Loading (FTEs) | Jan-05 | Feb-05 | Mar-05 | Apr-05 | May-05 | Jun-05 | Jul-05 | Aug-05 | Sep-05 | Oct-05 | Nov-05 | Dec-05 | Avg |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **IT: Employees** | | | | | | | | | | | | | |
| 605 - BSA | | | | | | | | | | | | | |
| 605 - Chief Techology Officer | | | | | | | | | | | | | |
| 605 - Customer Access | | | | | | | | | | | | | |
| 605 - Customer Certification | | | | | | | | | | | | | |
| 605 - Delivery Infrastructure | | | | | | | | | | | | | |
| 605 - Electronic Trading | | | | | | | | | | | | | |
| 605 - Environmental Support | | | | | | | | | | | | | |
| 605 - Floor Trading | | | | | | | | | | | | | |
| 605 - Front-End Systems Team | | | | | | | | | | | | | |
| 605 - Market Data Systems | | | | | | | | | | | | | |
| 605 - Market Disseminiation Systems | | | | | | | | | | | | | |
| 605 - Quality Management | | | | | | | | | | | | | |
| 605 - Systems Arch/Adv. Technology | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| **IT: Consultants** | | | | | | | | | | | | | |
| 605 - BSA | | | | | | | | | | | | | |
| 605 - Chief Techology Officer | | | | | | | | | | | | | |
| 605 - Customer Access | | | | | | | | | | | | | |
| 605 - Customer Certification | | | | | | | | | | | | | |
| 605 - Delivery Infrastructure | | | | | | | | | | | | | |
| 605 - Electronic Trading | | | | | | | | | | | | | |
| 605 - Environmental Support | | | | | | | | | | | | | |
| 605 - Floor Trading | | | | | | | | | | | | | |
| 605 - Front-End Systems Team | | | | | | | | | | | | | |
| 605 - Market Data Systems | | | | | | | | | | | | | |
| 605 - Market Disseminiation Systems | | | | | | | | | | | | | |
| 605 - Quality Management | | | | | | | | | | | | | |
| 605 - Systems Arch/Adv. Technology | | | | | | | | | | | | | |

# Modeling your Investment Structure

- **Why is it important?**
  - The manner in which you structure your *Investments* has a major impact on how easily you can rollup, slice, dice, and correlate information into reports.
  - Different stakeholders have different reporting needs
  - To effectively facilitate the prioritization and selection of projects, there should be a clear linkage to your organization's strategic goals.
  - How you structure your investments will impact how you to track execution
  - In the end, the budget you build must map to your organization's official financial system (e.g., Peoplesoft)
  - Other factors (i.e., this is not an all inclusive list)

- **If you don't spend a significant amount of time thinking through the above considerations, it is very difficult to make major structural changes later!**

# Considerations when Modeling Investments



**Strategic Direction**

↑ Mappings

**Project Planning & Estimating** → Data → **Investment Structure** → Data → **Reporting Needs**

↓ Mappings

**Financial Systems**

19
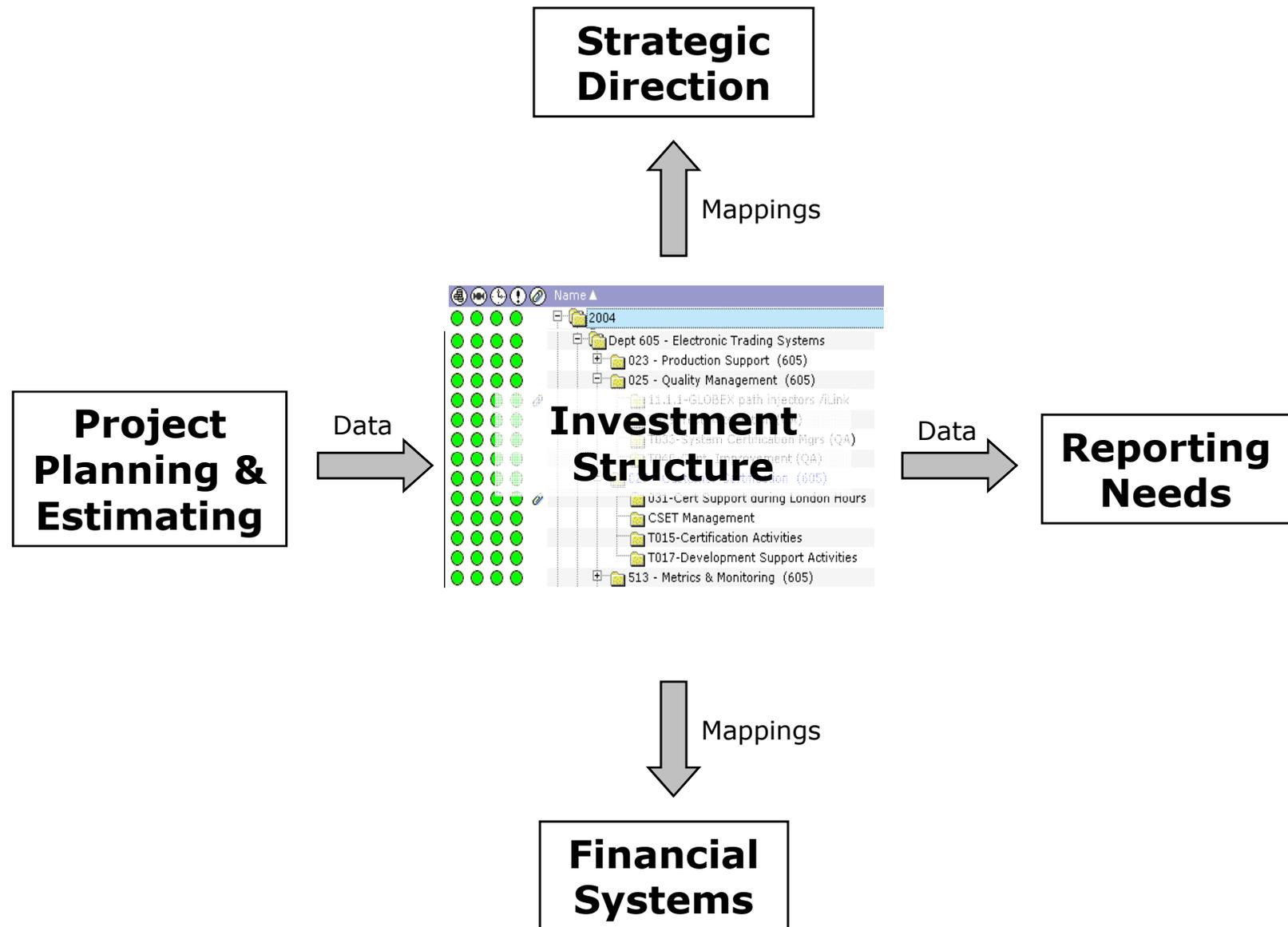
# Example: Mapping to CME's Financial System

- **We generally think of our financial system in terms of the following hierarchy :**

| Peoplesoft Nomenclature | Example | Artemis 7 Nomenclature |
|---|---|---|
| Company | CME | Department |
| ↓ | ↓ | ↓ |
| Divisions | Technology | Department |
| ↓ | ↓ | ↓ |
| Departments | 605 (Elec. Trading) | Portfolio |
| ↓ | ↓ | ↓ |
| Project Codes | 026 (Prod Support) | Investment |
| ↓ | ↓ | ↓ |
| Accounts | 631500 (Pro Fees) | Cost Type |
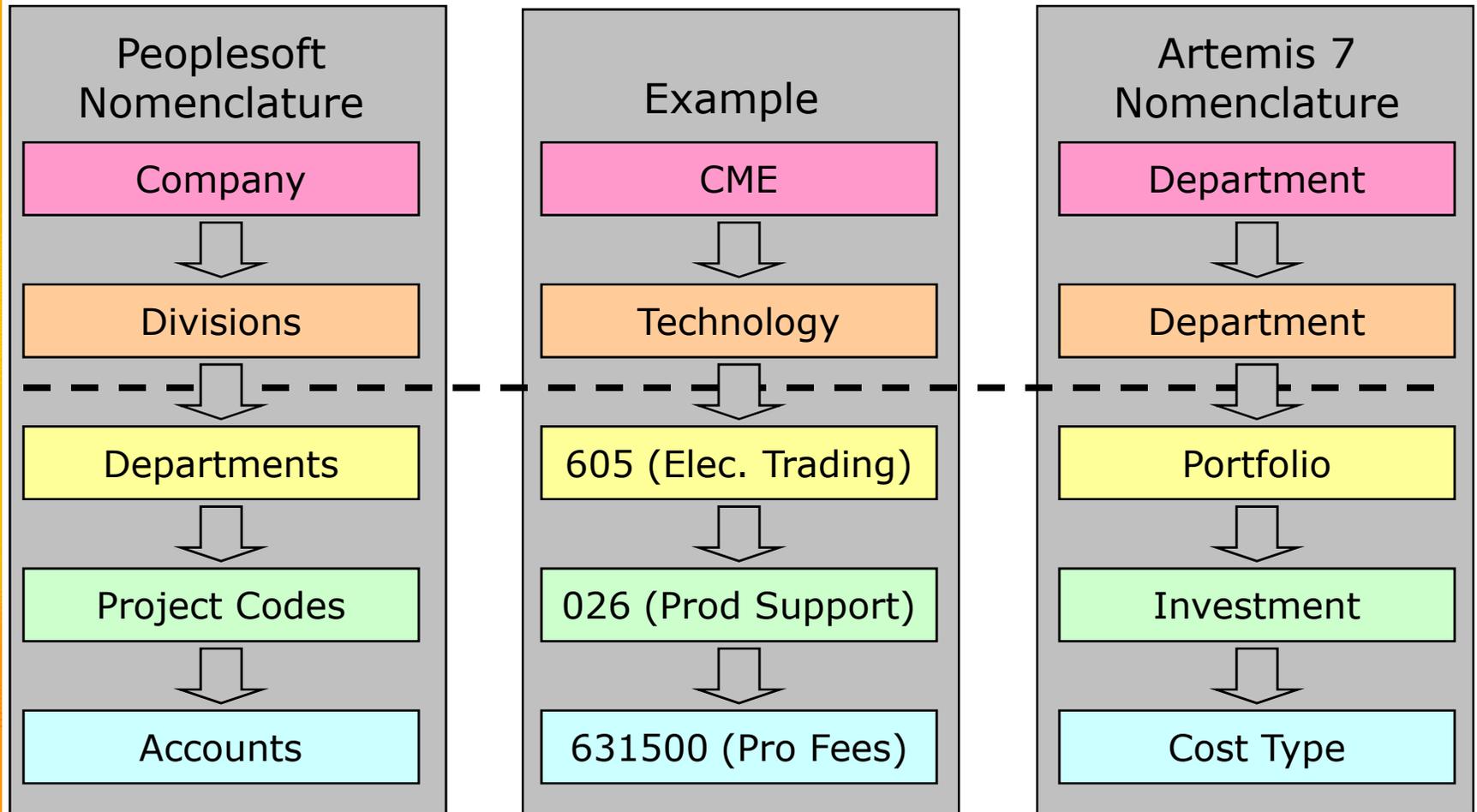
# Using Custom Investment Characteristics

- **Allows you to map *Investments* to your financial system**

- **Allows you to map *Investments* to the company's strategic initiatives**

- **Can be used to "slice" and rollup information for reporting**

| Ownership | Dates | Characteristics | Notes |
| --- | --- | --- | --- |
| Lifecycle Stage | ⓘ | 2. Proposed | |
| IT Budget Coordinator | ⓘ ✉ | (IT) John Harms | |
| IT Project Administrator | ⓘ ✉ | | |
| IT Project Manager | ⓘ ✉ | (IT) Dennis Genetski | |
| Funded From | | Portfolio | |
| Parent Investment | | 023 - Production Support (605) | |
| Account Code | | 605023 | |

The provided "**Account Code**" field maps investment costs directly to our financial system.

Custom characteristic "**Sponsor**" allows us to create reports and categorize costs by sponsor (a.k.a. business unit)

The "Initiative" characteristic maps investments to company initiatives.

| | |
| --- | --- |
| Capital Type | |
| Initiative | Core |
| 3YTP Code | N/A |
| Sponsor | Products & Services |
| Sponsor Contact | John Smith, x2513 |
| SOP98 | No |
| Project ID | TCH030145 |

# Investment Characteristics Used in Reporting

Reporting budgeted
dollars by sponsor

**Artemis 2004 Project Portfolio**
**Example Report**
**by Mark Bennett**

| BUDGET | | Cost Type | Month | | | Professional Fees Total | |
|---|---|---|---|---|---|---|---|
| | | Professional Fees | | | | | |
| SPNOSOR | PROJECT NAME | 3 2004 | 4 2004 | 5 2004 | 6 2004 | | |
| Operations | T003-Customer Access Support | $ 29,440.00 | $ 26,880.00 | $ 28,160.00 | $ 28,160.00 | $ | 112,640.00 |
| | T044-PSG Support (QA) | $ 29,440.00 | $ 26,880.00 | $ 28,160.00 | $ 28,160.00 | $ | 112,640.00 |
| | T041-TOPS Production Support (QA) | $ 7,360.00 | $ 6,720.00 | $ 7,040.00 | $ 7,040.00 | $ | 28,160.00 |
| | T034-SSF Production Support (QA) | $ 7,360.00 | $ 6,720.00 | $ 7,040.00 | $ 7,040.00 | $ | 28,160.00 |
| | T018-Firmsoft Support and Maintenance (QA) | $ 3,680.00 | $ 3,360.00 | $ 3,520.00 | $ 3,520.00 | $ | 14,080.00 |
| Operations Total | | $ 77,280.00 | $ 70,560.00 | $ 73,920.00 | $ 73,920.00 | $ | 295,680.00 |
| Technology | T015-Certification Activities | $ 14,720.00 | $ 13,440.00 | $ 3,520.00 | $ 3,520.00 | $ | 35,200.00 |
| | 916 - Project and Financial Controls (600) | | $ 10,000.00 | | $ 10,000.00 | $ | 20,000.00 |
| Technology Total | | $ 14,720.00 | $ 23,440.00 | $ 3,520.00 | $ 13,520.00 | $ | 55,200.00 |
| Grand Total | | $ 92,000.00 | $ 94,000.00 | $ 77,440.00 | $ 87,440.00 | $ | 350,880.00 |

- **Custom characteristics are very powerful. Make sure your tool of choice supports them and use them liberally.**

# Entering Resource Estimates - Budgeting

Entering headcounts by resource type and "Sub-department"

| Type | Prev | 1 2004 | 2 2004 | 3 2004 | 4 2004 | 5 2004 | 6 2004 | 7 2004 | 8 2004 | 9 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Headcounts | 0.00 | 0.00 | 0.00 | 0.00 | 2.50 | 4.00 | 5.00 | 5.00 | 5.50 | 5.00 |
| 605 - Market Data Systems | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 3.50 | 4.00 | 4.00 | 3.50 | 3.00 |
| IT: Consultant | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| IT: Employee | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.50 | 3.00 | 3.00 | 2.50 | 2.00 |
| 605 - Quality Management | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 1.00 | 1.00 | 2.00 | 2.00 |
| IT: Consultant | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.50 | 1.00 | 1.00 | 2.00 | 2.00 |

Headcounts translate into costs

| Type | Prev | 1 2004 | 2 2004 | 3 2004 | 4 2004 | 5 2004 | 6 2004 | 7 2004 | 8 2004 | 9 2004 |
|---|---|---|---|---|---|---|---|---|---|---|
| Investment Costs (US$) | 0.00 | 0.00 | 0.00 | 0.00 | 27.89 | 48.84 | 61.42 | 58.63 | 73.14 | 64.42 |
| Salaries & Benefits | 0.00 | 0.00 | 0.00 | 0.00 | 21.17 | 27.72 | 33.26 | 31.75 | 28.98 | 22.18 |
| Professional Fees | 0.00 | 0.00 | 0.00 | 0.00 | 6.72 | 21.12 | 28.16 | 26.88 | 44.16 | 42.24 |

**TIP:** Use average labor rates – from a budget perspective it's generally accurate enough and it prevents the data from containing confidential salary information.

# Creating & Disseminating Custom Reports



Artemis 7 Data

costs
resources
characs
dept
other
users
roles
other
rates
access
other
requests
Fiscal periods
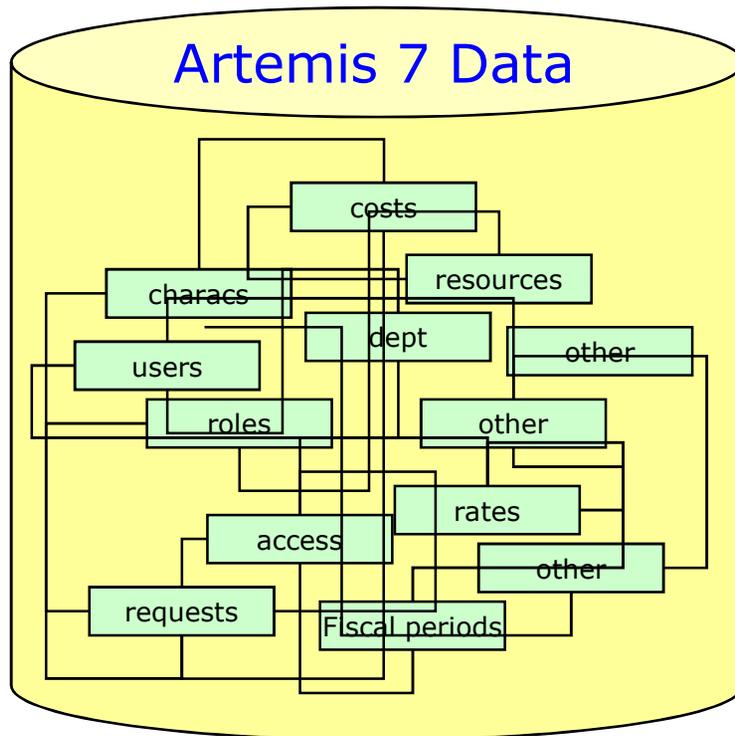
- **LESSON LEARNED:** Trying to build reports from the "raw" data is crazy!

- Yes, you can do it but it's really **really really** complex and only someone crazy and demented (like Mark) would actually enjoy doing it.

- Useful if you need real-time reporting

# The ETL Datamart: Your best friend!



**ETL Datamart**
- Budget rollup
- Resource rollup
- Investment summary
- Investment summary
- Other summary data

**Custom Report**

**Artemis 7 Data** (costs, characs, resources, users, dept, other, roles, other, access, rates, other, requests, Fiscal periods)
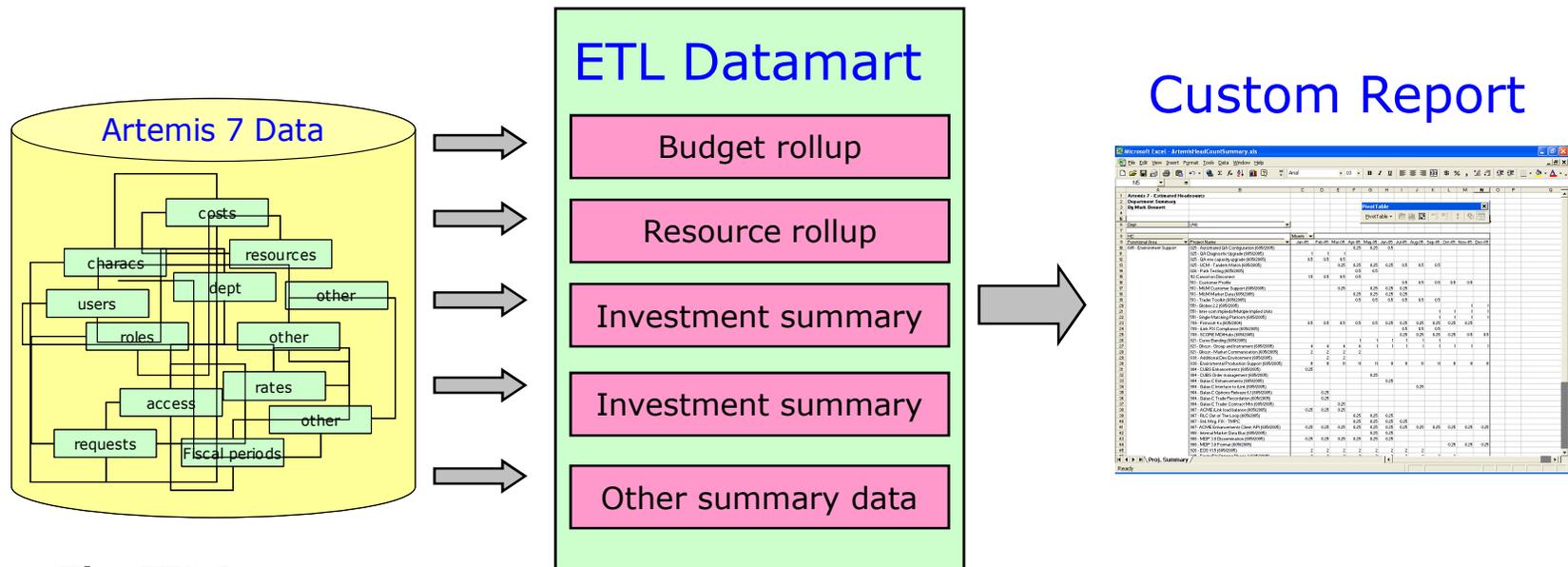
- **The ETL Datamart**
  - ◆ Extract, Transform, Load (ETL) – IT gibberish for taking complex interrelated data and turning it into something useful for reporting
  - ◆ It summarizes and collapses the data into a series of simple tables that allow you you very quickly generate your own reports.
  - ◆ Typically updated via a "batch process" that you can schedule to run at regular intervals or on an ad-hoc basis

- **TIP:** Using Microsoft Excel, you can create reports that directly connect to the datamart and can be updated dynamically.

- **TIP:** Prior to the budgeting process, develop custom reports that extracts your budget from Artemis in a format that can easily be transcribed into your organization's financial system.

- **TIP:** Learning to use Excel *Pivot* tables can be a life altering experience – well, maybe not that dramatic but they are incredibly powerful in this environment.

# Creating a Web-Based Budget Dashboard



- A web-based dashboard is certainly not critical, but very helpful

- This example is a custom web-based view of budget information based on the ETL datamart.

- Allows management team one-click access to summary information and basic sorting/filtering capabilities.

# Web-Based Project Status Dashboard

**2005 Project Status Dashboard**     Watch List     Home   Filter   User Stats   Help

| Status | Summary | Key Milestones / Risks & Issues |
| --- | --- | --- |

**Management Information Systems**

**G**   Data Pilot
(IT) Brian Singer

Percent Complete: 0%

| Dollars: | Salaries | Pro-Fees |
| --- | --- | --- |
| Budget | $580,428 | $449,856 |
| Revised | $580,428 | $449,856 |
| Actual | $192,810 | $301,485 |
| Budget Variance | $387,618 | $148,371 |

| Hours: | Employees | Consultants |
| --- | --- | --- |
| Budget | 8,245 | 6,120 |
| Revised | 8,245 | 6,120 |
| Actual | 2,842 | 2,961 |
| Budget Variance | 5,403 | 3,159 |

☑ Budget Code: 6253911
Last edited by: 9/15/2005 BSINGER
D05625-01/5092
3YTP: STT003

7/22/05
Began process of modeling the Dimensional Schema for the purpose of storing Competitive Exchange Data with an internal CME Oracle Database.

7/29/05
Continue to Receive All Futures and Options on Futures Data from Bloomberg and store it on a CME File Server and transfer it into an Oracle Database.

Working with Linux team to expand the amount of disk space on the development and QA database servers. Linux team is rebuilding all four development and QA boxes to optimize for Oracle and expanding the hardware. One box is completed and available for Oracle installation.

Received the initial draft of the model for Competitive Data and began building ETL scripts to transform competitive data from Oracle Staging Tables into Star Schema.

8/5/2005
Finished the logical layout fo the Competitive Data Star Schema and began the implementation of the schema [more]

| Milestone | Original | Revised | Actual |
| --- | --- | --- | --- |
| Define | 6/30/2005 | | ▮ |
| Design | 8/31/2005 | | ▮ |
| Develop | 11/30/2005 | | |
| Deploy | 12/31/2005 | | |

**G**   Global Registration
(IT) Bill Anthony

Percent Complete: 75%

| Dollars: | Salaries | Pro-Fees |
| --- | --- | --- |
| Budget | $275,172 | $187,776 |
| Revised | $275,172 | $187,776 |
| Actual | $192,996 | $180,153 |
| Budget Variance | $82,176 | $7,623 |

| Hours: | Employees | Consultants |
| --- | --- | --- |
| Budget | 3,910 | 2,550 |
| Revised | 3,910 | 2,550 |
| Actual | 2,751 | 1,952 |
| Budget Variance | 1,159 | 598 |

☑ Budget Code: 6253911
Last edited by: 9/14/2005 BANTHONY
T05625-086/5061
3YTP: RET002

9/14 EDB/EFS prototype demo
8/30 EDB/EFS intergration continuing
8/23 EDB/EFS intergration continuing
8/16 De-Dup is completed
8/02 De-dup process has begun.
7/25 Successfully deployed GRD User Interface. IT has identified 100+ Market Participants to de-dup with business approval. Data Librarian functionality as well as EDB & EFS data integration under way. Continuing discussions with Enterprise Data Warehouse team for future integration

7/18 New search screen coding. Convert some data to show dept where data created. Removed alpha TIN.
7/11 EDB Standardization complete
6/27 Define firms and customers
6/20 Duplicate identified
6/14 Departments reviewing data
6/7 Reports delivered to business owners. Purchase req for Messila software complete
5/31- Approval of Functional Specifications
5/24 - Functional Documents Complete for:
Data St [more]

| Milestone | Original | Revised | Actual |
| --- | --- | --- | --- |
| Project Charter complete | 2/22/2005 | | 3/16/2005 |
| Review final version of GRD Business Requirements | 2/24/2005 | | 2/25/2005 |
| EDB and EFS data analysis | 4/25/2005 | | 4/29/2005 |
| Buy Versus Build Data Cleansing Tool | 4/27/2005 | 4/25/2005 | 4/29/2005 |
| GRD - User Interface | 7/8/2005 | 7/15/2005 | 7/22/2005 |
| EFS Registration Enhancements | 7/15/2005 | | 7/22/2005 |
| Data Standardization | 8/12/2005 | 7/8/2005 | 7/8/2005 |
| Registration Listener (EDB & EFS Integration) | 10/28/2005 | | |
| EDB Data De-Dup | 12/31/2005 | | |

- Provides central location for stakeholders to obtain the status of all active projects
- The ELT datamart provides an ideal data source to drive web-based status reporting
- Status reporting links your budgeting and planning process with project execution – this creates a critical feedback loop that helps improve your planning process over time.

# Finding & Understanding the Value

- The road to better understanding and decision making

- Key benefits that we have seen at CME

- Areas of continued focus and improvement

# From Data to Better Decision Making

Challenge →

**Information**

**Knowledge & Understanding**

**Growth & Expansion**

**Data**

- Incomplete
- Lack of ownership
- Validity challenged

- Data Has meaning
- Growing ownership
- Correlations / Trends
- Shock & Realization
- "Thirst for more"

- How and Why?
- "High-Value" decisions
- Growing visibility

- Integration with other sources of data & business processes
- Broader usage
- "indispensable"

**Planning →**

**Execution →**

- **Getting to where we are today was challenging**

- **Project portfolio management is essentially about using project planning data for making better decisions**

- **Making the journey from "no data" to "knowledge & understanding" doesn't happen overnight**

- **You will likely have multiple "tracks" at different stages of maturity (e.g., planning vs. execution)**

- **You will be creating transparency into processes and parts of your organization that did not exist before – be prepared for resistance.**

- **Knowing the challenges ahead of you is more than half the battle!**

# Key Benefits at CME

- **Improved communication and transparency between business units – particularly between the Technology Division and sponsoring business units**

- **Improved financial awareness at all levels – portfolio management can and should involve all levels of your organization**

- **More explicit understanding of Technology commitments**

- **Ability to rapidly "re-plan"**

- **Major reduction in efforts surrounding our annual budgeting process**

- **Improving scope and project estimates**

- **Increased awareness and focus on areas that need more improvements**

- **<u>Dollars explicitly aligned with corporate objectives</u>**

# Areas of Continued Focus and Improvement

- **Project scoping & estimating –**
  - ◆ **You can never be to good at this**
  - ◆ **Key input into our prioritization and investment selection process**

- **Prioritization & selection process**

- **Improving our "crystal ball"**
  - ◆ **Improving visibility into our future marketplace**
  - ◆ **Quantifying unknowns**
  - ◆ **Financial forecasts**
  - ◆ **Measuring success and learning**

- **Maintain a constant state of readiness**
  - ◆ **Ability to rapidly re-plan during the course of the year**
  - ◆ **Respond to M&A activity**
  - ◆ **Changes in the marketplace**

# Wrapping it Up

- ◆ Key points & other comments
- ◆ Q & A

# Key Points and Other Comments

- **Portfolio management is primarily the process of aligning investment resources with company objectives**

- **Many difficult challenges to overcome all at once**
  - **Have a plan**
  - **Use a phased approach**
  - **Solve problems you can solve, try to influence outcomes of other problems**

- **Major elements/steps of building a budget are similar at most companies and organizations – though there are certainly many variations.**

- **When setting up your portfolio and investment structure, take into consideration how the costs will be rolled-up to your official financial system.**
  - Build a model
  - How will you map *Investments* to strategic goals or initiatives?
  - How will you map and rollup-costs into your official financial system?
  - What are the Management Teams reporting needs during the budgeting process?
  - How do the *Investment* managers develop estimates and balance resources?

- **The ability to rapidly generate reports that your management team needs for decision making is absolutely critical – this is where they will initially see the most value**

- **Understand the road ahead of you and your organizations tolerance for change**

- **Don't expect success overnight! But do look for the quick wins!**

- **You need to be able to sell the value to your management team in order to succeed**

## Q&A

- **IT Governance and Portfolio Management at CME?**

- **Artemis 7?**

- **Philosophical musings about budgeting and project planning?**

- **Questions about CME?**

- **Any other questions?**

- **How to contact us?**
  - **Mbennett@cme.com**
  - **312-207-2513**