

# **Fermilab Management Decision Support Dashboard Charter**

**Developed by:**

**Management Information Systems (MIS)**

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# Fermilab Management Decision Support Dashboard Charter

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## Fermilab Management Decision Support Dashboard Charter

### *Change Log*

Number	Description	Editor	Date	Page(s)
1	Version 1 Published	Scott Nolan	10-25-2007	N/A

# Fermilab Management Decision Support Dashboard Charter

## **Project Title:** Fermilab Management Decision Support Dashboard

**Prepared by:** Scott Nolan

**Date Issued:** 10/25/2007

### **1. *Project Description***

The provision of a "Management and Decision Support Dashboard" (Dashboard) was included in the winning proposal submitted in response to the Department of Energy's (DOE) Fermilab Contract RFP and is now one of Fermi Research Alliance's (FRA) key contractual obligations. The Dashboard will provide information on Key Performance Indicators (KPIs) to authorized management personnel, DOE, and corporate partners to promote better communications and a goal-oriented focus. This includes information contained in, but not limited to, systems that service and/or track the following groups/disciplines:

- Financial
- Project management
- Human capital
- ES&H
- Procurement
- Property management
- Accelerator operations
- Issues Management
- 28 FRA contractual initiatives

The Dashboard's purpose is to assist Fermilab management in the decision making process by presenting the best quality data in a timely fashion. The Dashboard will accomplish this by displaying the required data in near real time.

A considerable amount of Fermilab's scientific and business related data that will be provided through the Dashboard is already concentrated in Management Information Systems and other Division's and Section's data stores throughout the laboratory. However, much of this information is not easily accessible or readily available in its current form. The Dashboard is intended to bring this information together in a common, secure, easily accessible format.

The Fermilab Management Decision Support Dashboard (FMDS) will be the primary deliverable of this project.

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## 2. *Project Objectives*

- Provide a web based "Fermilab Decision Support Management Dashboard" that allows easy, secured access to business information
- Provide access to actionable information from existing enterprise data stores such as Oracle's E-Business Suite, Peoplesoft's HRMS, Sunflower's Asset Management system, ES&H's ESHTRK system, the Assurance Council's Issues Management System, and other Fermilab databases
- Provide high level views of information that can be effectively used by management for decision making, and detailed views that can be "drilled" down into for supporting data
- Streamline management level reporting tools
- Provide an easily accessible communication tool for selected members of Fermilab management, DOE, and corporate partners to review the lab's performance
- Provide near real-time visual indicators that clearly communicate lab-status on key performance metrics

## 3. *Project Stakeholders and Customers*

- Department of Energy (DOE)
- Fermilab senior management
- Fermilab Research Alliance (FRA)
- Corporate Partners (e.g., UoC, EG&G)
- Finance Section
- Human Resources Section
- Business Section
- Environmental Safety and Health Section (ES&H)
- Accelerator Operations
- Management Information Systems Department (MIS)
- Computing Division
- Office of Quality and Best Practices (OQBP)

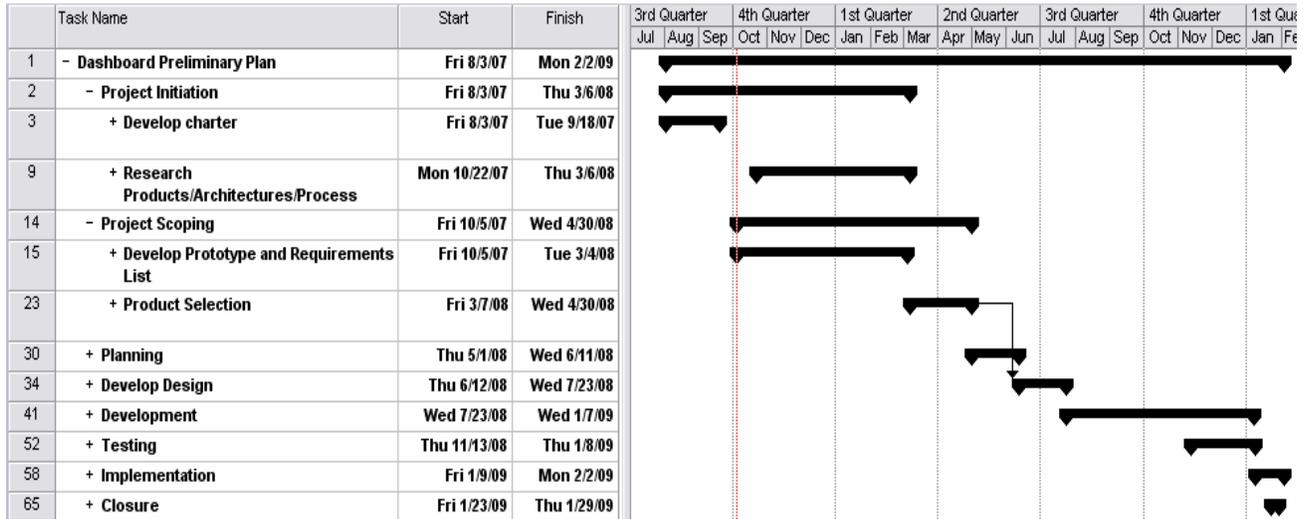
## 4. *Project Deliverables*

- An easily accessible, secure Fermilab Management Decision Support Dashboard (FMDSD)
- A Training Program for the FMDSD

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## 5. Project Time Frame

Due to the complexity of this project, it will be completed in a minimum of two phases. The first phase will focus on implementing the Dashboard infrastructure (e.g., Web Portals, technology stack, etc) along with some basic reporting applications that provide access to financial data. The second phase will be focused on implementing additional reporting tools that access other data stores, commercial applications, and/or custom built applications. The following schedule describes the estimated timings for phase one. A new baseline will be developed after the planning stage and the Design Phase.



## 6. Project Justification

- A Management Dashboard is a key initiative and deliverable in FRA's contract submittal
- Timely, actionable data is vital to operating the lab in an efficient and cost effective manner. An easily accessible, secured Management Dashboard will help accomplish this.

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## 7. *Project Organization*

The overall responsibility for management of Fermilab resides with the FRA Board of Directors. They hold the Director of Fermilab (Pier Oddone) responsible for the successful management of the contract, including the integration of the FMDSD into the laboratory and ensuring it meets the DOE's requirements. Director Oddone has delegated the responsibility for implementation of the Dashboard initiative to Fermilab's Chief Financial Officer (Cynthia Conger). In addition, he has tasked the Head of the Office of Quality and Best Practices (OQBP) (Bob Grant) with overseeing the implementation at a tactical level to help assure that the needs of DOE and the Laboratory are met.

### 7.1. Core Group

Executive Sponsor:	Bob Grant, OQBP
Project Manager:	Scott Nolan, MIS
Lead Analyst:	Nathan Weed, OQBP (EG&G/URS)
Core Team:	Finance Representative – Vacant FESS Representative – Vacant ES&H Representative – Vacant BSS Representative – Vacant ILC Program Representative – Vacant Computing Division Representative – Vacant Accelerator Division Representative – Vacant WDRS Representative – Vacant Lead Analyst – Nathan Weed Project Administration – Cheri Mckenna, MIS Production eBS System Representative – Mike Kaiser, MIS Lead Architect – Vacant

### 7.2. Management Advisory Team:

*Fermilab:*  
Pier Oddone, Director  
Young Kee Kim, Deputy Director  
Bruce Chrisman, Chief Operating Officer  
Cindy Conger, Chief Financial Officer  
Bob Grant, OQBP Head

*DOE:*  
Mark Bollinger

### 7.3. Management Committee:

Bob Grant, OQBP Head  
Dave Carlson, BSS  
Bruce Chrisman, COO  
Cindy Conger, CFO  
Larry Hill, University of Chicago  
Rich Karuhn, MIS  
Mary Logue, ES&H  
Kay VanVreede, WDRS  
Vicky White, Computing Division

Note: Roles and Responsibilities of the organization are in Attachment 1.  
Team member requirements are in Attachment 2.

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## 8. *Project Constraints*

- Budget – There are two major issues that must be addressed regarding the budget; either of which, it is estimated, will exceed the budget as currently defined. The Dashboard Team has discussed the proposed development with other entities that have implemented a dashboard as well as with vendors that supply dashboard systems.

Because of the variability in systems, the number of interfaces, the amount of development, the functionality desired, etc., it is not possible to estimate the full cost at this time. Once Fermilab settles on the system's attributes and functionality, the Dashboard Team will provide a more detailed funding profile and implementation schedule for approval by senior management. The funding profile will be submitted after completion of the scoping and planning stages of the project.

The budget issues are briefly described below:

- The project was initially estimated to require approximately \$500K in incremental M&S funding to be provided during the first year of implementation. This has changed with \$500K funding anticipated to be phased over five years. The anticipated funding profile does not appear to be sufficient, based on our current understanding of the project's scope. A profile will be developed during the scoping and planning phases of the development for senior management consideration.
- Per the FRA contract, the approximate \$100K per year (\$500K over five years) commitment from University of Chicago is actually for two purposes: 1) Dashboard development and (2) to support activities associated with the Laboratory Collaboration Council initiative. The amount allocated for each initiative needs to be defined in order to accurately determine the additional amount required to complete the Dashboard initiative.
- Scope
  - The team is only considering available data for inclusion in this project; any new development will be treated as a change.
  - The number of concurrent users ("Seats") needs to be determined as it has a direct bearing on project cost. This will be determined during the scoping and planning stages of the project and included in the required funding profile.
- Staffing
  - Assistance from Fermilab's Divisions and Sections is required to determine system operational needs, interface requirements, etc. The actual required resource contributions will be identified and communicated during the project initiation phase. It is expected that the cost for this assistance will be borne by the individual's divisions and sections.
  - Assistance from resources outside of the MIS department is highly susceptible to competing priorities. Project schedules will be built with enough float to accommodate anticipated needs; however, it may become necessary to adjust the schedule if key participants are unavailable for extended periods of time or during a time of critical need. This will be communicated between the Dashboard Project PM and the resource's management, if necessary; and will be discussed during monthly status meetings if having an adverse affect on the project schedule or budget.

## 9. *Project Assumptions*

- Commercial Off-the-Shelf (COTS) software will be used whenever possible.
- Division and Section Data Owners and Technical Support resources will be available to provide access to formatted data and customizations as required
- Required funding will be available throughout the project
- Project participants will provide required assistance within the prescribed scheduled timeframes.
  - Participants will attend team meetings to assist in issue identification and resolution. Meeting times will vary with the number of open issues.

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- The MIS project management methodology will be used
- Contributing members named in this charter will participate and schedule time to provide input to the project as agreed to in the communicated project schedule
- Comparison studies and benchmarking will be utilized and documented prior to final product selection
- Division and Section Heads will provide feedback and support in order to define and implement a beneficial dashboard product
- The project will fund training of trainers in each major functional area
- Ongoing operational costs will be identified during the planning phase

### 10. Identified Risk Events

Risk Event Description	Potential Ramifications	Potential Occurrence (H/M/L)	Impact to Project (H/M/L)	Mitigation
Available data in systems does not meet interface requirements	Data cleansing or input activities may need to be undertaken	Medium	High	Project will load contingency into budget and schedule to cover such events. The amount of contingency will be determined by conversation with vendors and initial assessment of existing systems vs. input requirements to be performed during the planning and scoping phases.
Unclear or vague requirements	System that is delivered does not meet expectations	High	High	The project is planning an extensive development of the requirements during the planning, scoping, and design phases.
Uncooperative data owners or technical staff.	Required data will not be accessible	High	Medium	Conflicts, if any, will be identified early and immediately addressed to avoid schedule conflict. The Team will discuss with the user's organization first, then to senior management sponsors and committees as a last resort.
User's computers security features are inadequate to retrieve data from the system	Not all users will be able to access the dashboard.	Medium	Medium	Security interfaces will be part of the initial assessment of Fermilab systems and user's interfaces to identify conflicts early in the project. Upgrades will be discussed, if necessary, prior to initiation. In addition, a set of minimum system requirements will be developed for reference by future users. User's computers will be upgraded prior to logging into the system, if required.
Funding is insufficient or is phased over too long a time period	Project will take longer than anticipated or cannot be finished	High	High	A funding profile will be one of the first deliverables of the dashboard project. The system will be developed with as many independent, functional modules as reasonable to provide an "ala carte" approach to funding and implementation. Ultimately, if the cost is too high or implementation too long, senior management will have to decide which key aspects of the dashboard they must have and delete the remainder or schedule their implementation as a future upgrade.

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## 11. Project Reports

Report Type	Report Distribution	Date Required / Frequency	Report Content
Budget Status	Sponsor	Monthly, (1st Friday)	<ul style="list-style-type: none"> <li>Schedule and Budget Discussion (Plan vs. Actual)</li> <li>Variance Discussions</li> </ul>
Project Status	Sponsor, Management Committee	Monthly	<ul style="list-style-type: none"> <li>Activities Milestone-% Complete</li> <li>Critical Path and Schedule Review</li> <li>Budget and Contingency (ETC / EAC)</li> <li>Key Milestones 90-Day Look-Ahead</li> <li>Issues Management</li> <li>Risk Discussion (quarterly requirement)</li> </ul>
	Sponsor, Management Committee, Key Stakeholders and Customers	Quarterly (Combined Monthly and Quarterly) Meeting	
Core Team Meeting Minutes	Sponsor, Key Stakeholders	Within one week of the full core team meeting	<ul style="list-style-type: none"> <li>Agenda</li> <li>Discussions</li> <li>Decisions</li> <li>Actions</li> </ul>

## Appendices

### Attachment 1 -Project Organization's Roles and Responsibilities

#### Executive Sponsor (Bob Grant)

Roles:

- Project Champion
- Remove roadblocks
- Policy setter
- Setting Scope
- Approves Key Project Members (Project Manager, Core Team Members)

Responsibilities:

- Chair Management Advisory Team
- Approve and issue Project Charter
- Approve Project Plan
- Obtain organizational support and commitment of resources to the project (Personnel and budget)

#### Project Manager (Scott Nolan)

Roles:

- Plan, control and evaluate project activities
- Organize the project team, coordinate tasks and allocate resources
- Decision maker
- Implement Project Plan
- Communication hub of the project

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- Leader of project team
- Negotiates and resolves problems

### Responsibilities:

- Prepare and maintain Project Plan.
- Manage project activities
- Manage and maintain project Budget.
- Build and maintain teamwork.
- Monitor and communicate project status.
- Identify and resolve technical and functional problems.
- Chair Core Team meetings.
- Identify and resolve deviations from plan.
- Escalate issues that can not be resolved at the Project Manager level to the Sponsor with recommended options.
- Provide timely and accurate project information.
- Resolve conflicts

## Core Team

### Roles:

- Core Team Member is a representative to the Core team for their respective organizations' interests
- Provide ready access to subject matter experts in their organizations as required by the project
- Procure time and resources in their organization for accomplishment of various core team tasks, such as application testing, creating documentation, teaching, and research.

### Responsibilities:

- Understand the project charter
- Make sure that information on the impact to and from the representative organization is communicated to stakeholders.
- Act as a trainer and liaison to others in their functional areas.
- During prototyping, the core team is charged with the identification of business issues and recommending a solution. If a customization to the system is recommended, the appropriate core team member will be responsible for creating a business case justifying the customization.
- Track issues and solutions in the project tracking system.
- Bringing in the appropriate member(s) of their business area in a timely manner when needed for prototyping decisions.
- Create data validation test plans and coordinate data validation testing.
- Create system test plans and coordinate system testing activities.
- Create parallel testing plans and coordinate the execution of parallel testing for their business area.
- Coordination and testing of the reports generated as part of the project.
- Creating a documentation plan (outlines) and creation of user procedural documentation.

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- Create a training plan (training outlines and coordination of training rooms) for user training in their business area and provide training to other users in their areas.
- Attend weekly or bi-weekly team meetings.
- Assure that deliverables due from their areas are on time and to the quality standards of the project.

### **Management Advisory Team**

#### Roles:

- Provide senior management perspective on the implementation and guidance for current or future enhancements.

#### Responsibilities:

- Attend and participate in monthly and quarterly team meetings
- Participate in reviewing applicable business case issues and make recommendations.

### **Management Committee**

#### Roles:

- Provide assistance with administrative issues facing the project
- Provide assistance with resource issues.
- Decisions on issues outside the authority of the core team but not requiring the Management Advisory Team (MAT)
- Recommend issues for presentation to the MAT.

#### Responsibilities:

- Attend and participate in monthly and quarterly team meetings
- Participate in reviewing applicable business case issues and make recommendations.

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### Attachment 2 - Team Member Requirements

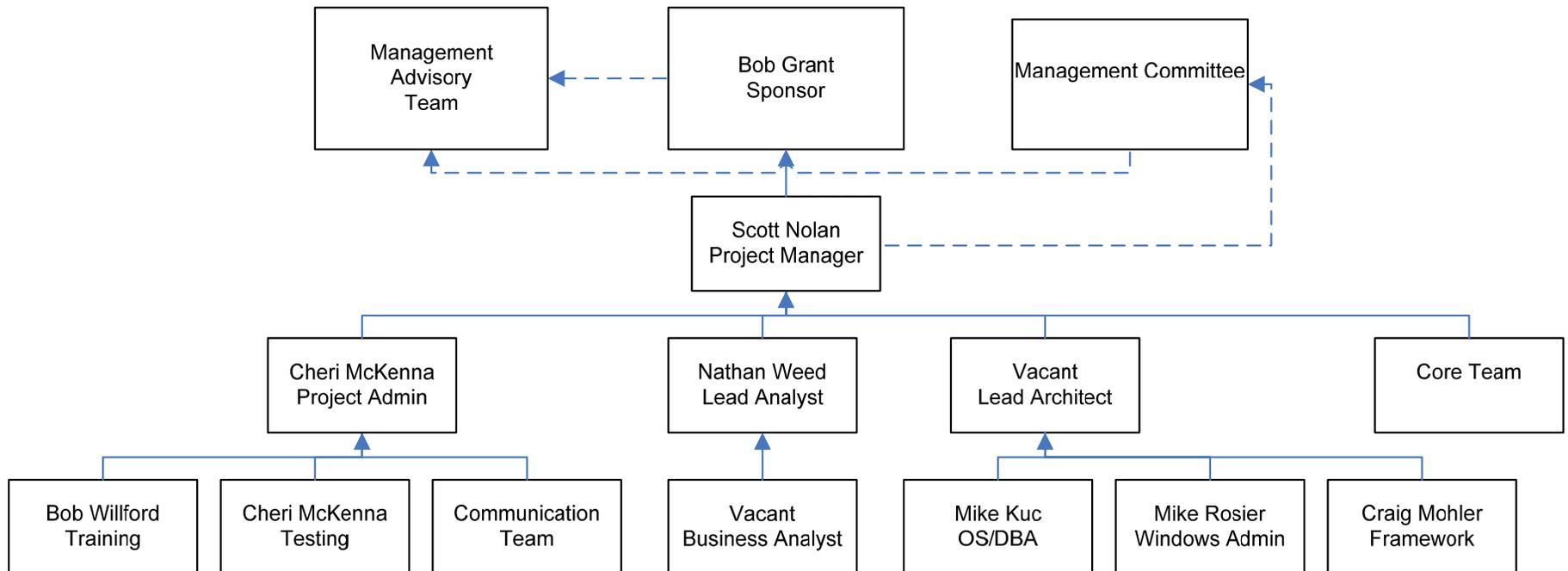
While each team member will have special skills needed to complete the project, a common set of requirements is required of all team members. These include, but are not limited to:

- Reviewing, and understanding the tasks assigned to them in the project plan
- Meeting the due dates of assigned tasks in the project plan
- Communicating status of assigned items
- Communicating any issues that have a potential to impact the project

# Fermilab Management Decision Support Dashboard Charter

Figure 1. – Project Team Structure

Management Decision Support Dashboard Project Team Organization Chart  
(high level chart)



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## *Glossary*

Management Dashboard<sup>1</sup> - A dashboard is a visual display of the most important information needed to achieve one or more objectives; consolidated and arranged on a single screen so the information can be monitored at a glance. (Additional definitions<sup>2</sup>)

## **End of Charter**

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<sup>1</sup> “Dashboard Confusion” , *Stephen Few*, Intelligent Enterprise, March 20, 2004,  
<http://www.intelligententerprise.com/showArticle.jhtml;jsessionid=4U1QTJN4IMXKQQSNDLPSKH0CJUNN2JVN?articleID=18300136&pgno=2>

<sup>2</sup> “Digital Dashboard”, From Wikipedia, the free encyclopedia [http://en.wikipedia.org/wiki/Digital\\_dashboard](http://en.wikipedia.org/wiki/Digital_dashboard)