

Lecture 1

Introduction to Construction

Information Management Systems

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Course Introduction

- ◆ **See syllabus**

Group Project Brief

◆ GUIDELINES

- 1 group: 2 members
- Please submit each deliverable (one per group) at the beginning of the lecture on their respective due dates.
- For this project, each group will design and implement a database management system for a civil engineering application. Each group will define its own topic. Examples include: infrastructure O&M, cost estimating, materials management, quality control, inventory control, payroll, among others.
- Each group must meet with me before starting to draft Deliverable #1. Groups should contact me to schedule this meeting.
- The database management system should be implemented using Microsoft Access, MySQL, or MongoDB.

Group Project Brief

◆ REPORTS

- **Deliverable 1 (10/18) – Database Initial Study (5%)**
 - Problem definition, background, need, objectives, scope, and proposed approach
- **Deliverable 2 (11/1) – Conceptual Database Design (10%)**
 - Revision of Deliverable 1, database analysis and requirements, entity-relationship model, tables, forms, and reports
- **Deliverable 3 (12/13) – Implementation (20%)**
 - Revision of Deliverable 2, project description, final system design, and prototype implementation

◆ PRESENTATIONS

- Phase 1 (11/1) – Deliverable 1 and 2
- Final (12/13) – Deliverable 3 (5%)



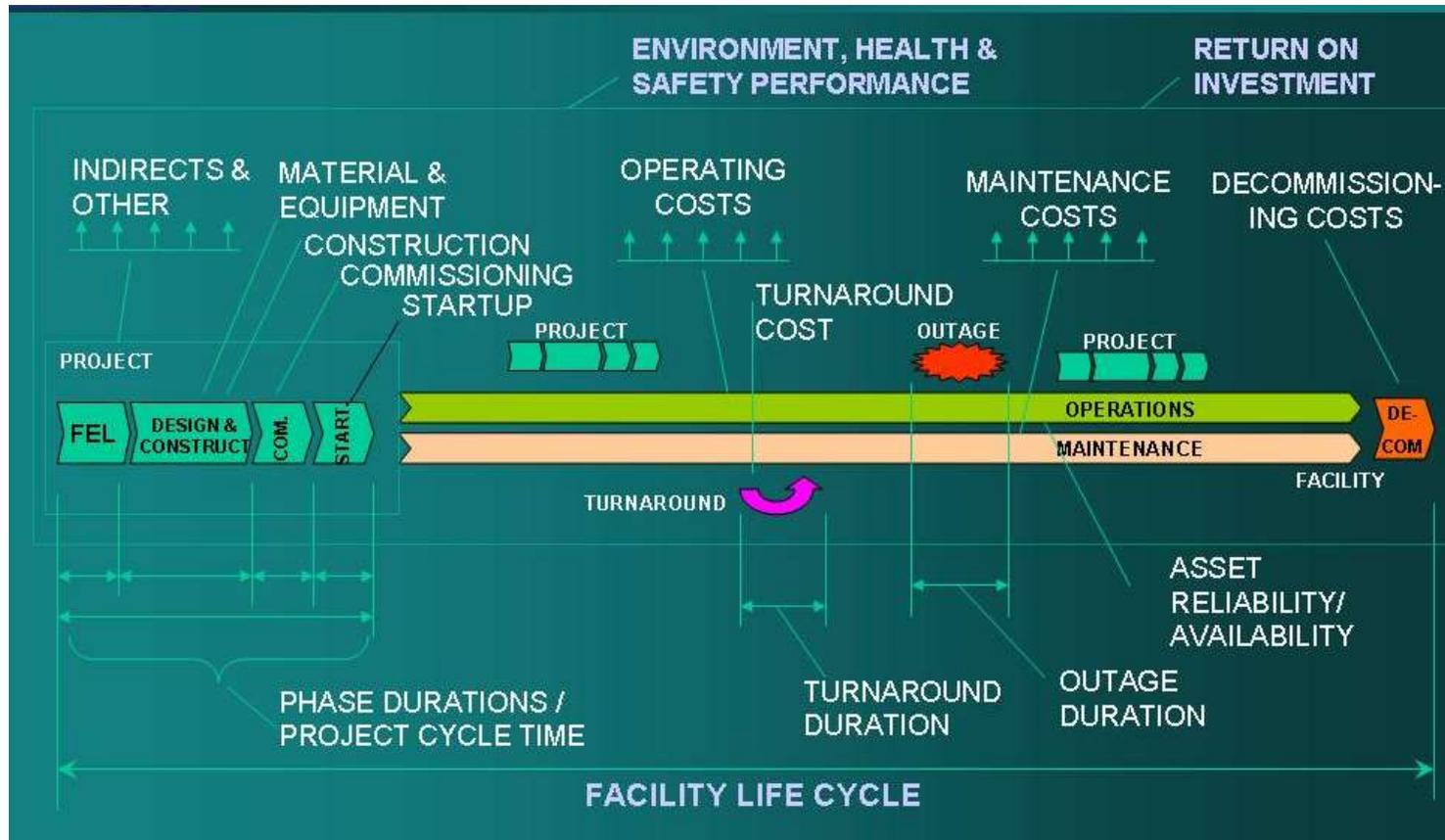
Information on Construction Projects

- Information on Construction Projects



\$10M and More General Construction Project
420 Stakeholders, 850 People, 50 Kinds of Documents, 56,000 Pages

- Information through Project Lifecycle



PMIS Example

The screenshot shows a Microsoft Internet Explorer window titled 'ProjectNet - View Meeting Minutes - Microsoft Internet Explorer'. The page content is as follows:

Webcor Builders
2755 Campus Drive Suite 175, San Mateo, California 94403-2514 Ph:650 349-2727 #119

Meeting Minutes
Number: 16

Project: Electronics for Imaging
Name: EFI TENANT IMPROVEMENTS
Purpose: OWNER - CONSTRUCTION PROGRESS
Location: EFI JOBSITE TRAILER
Meeting Chair: Mike Penney (Webcor Builders)

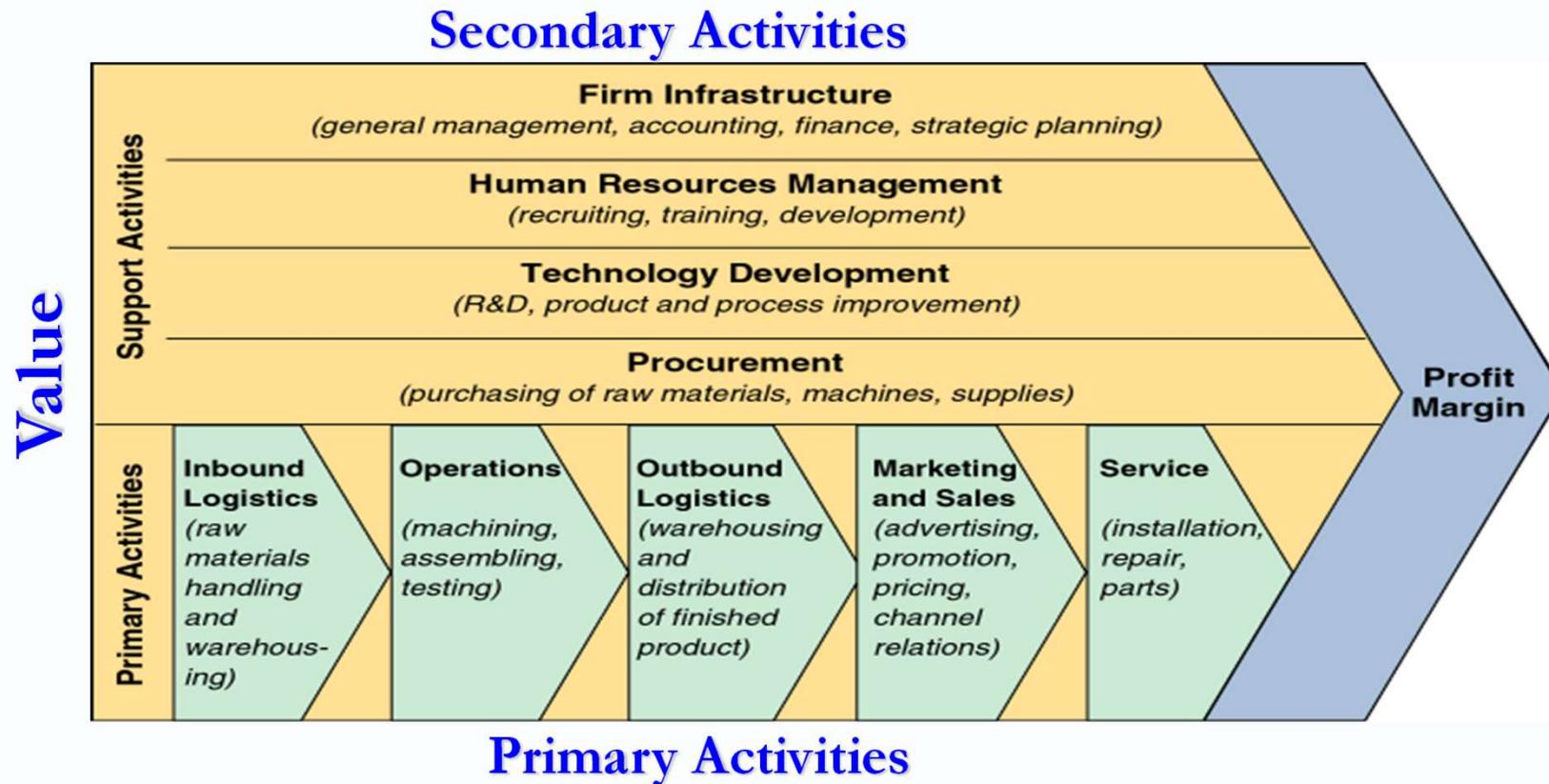
Date: 05-NOV-1998 01:00 PM
Duration: 2.5 hours

Current Date & Time: 18-JAN-1999 02:34 PM (GMT -08:00) Pacific : Pacific Time (U.S.)

Attendees: Eric Horn (Webcor Builders)
Jim Williamson (Webcor Builders)
Joe Donati (Electronics For Imaging, Inc.)
Michael Wright (Electronics For Imaging, Inc.)
Roger Wang (Electronics For Imaging, Inc.)
Gary Gellin (Critchfield Mechanical)
Carl Brosius (KC Future Planning, Inc.)
Mike Penney (Webcor Builders)
Larry Penta (Gensler)
Darren Wilford (CRI)
Joe Hansen (Webcor Builders)
Mike D'Agosta (WBE Telcom)
Steve Nicholson (Electronics For Imaging, Inc.)
Steve Rhone (Schwartz & Lindheim)
Warren Fay (Electronics For Imaging, Inc.)
Alex Petrovic (Landis & Staefa)

Copies To: Anil Panguluri (Blue-Line/On-Line, Inc.)
Chris French (Blue-Line/On-Line, Inc.)
Woolsey Mckernon (Blue-Line/On-Line, Inc.)
Lara Conte (Gensler)
Andy Schreck (Webcor Builders)
Bill Kaff (Webcor Builders)
Gary Crowe (Webcor Builders)
Laura Ballard (Webcor Builders)
Steve Gustafson (Critchfield Mechanical)
Joe Fay (Alfa Tech Consulting Engineers)
Ron Bush (Alfa Tech Consulting Engineers)
Alan Koizumi (Schwartz & Lindheim)
Paul Lunger (Schwartz & Lindheim)
Nancy Brown (CRI)
Kevin Thomas (Allied Fire Protection)
Jim Evans (Ceitronics)

Purpose of PMIS: Value Chain



Analyze the internal operations of a corporation to increase its *efficiency, effectiveness and competitiveness*.
 A company analysis by systematically evaluating a company's key processes and core competencies.
Activity support using IT to adding value to the company and finally maximize the company's profit!

Issues on the Use of PMIS

- ◆ PMIS, ERP, CALS, C3R, FMS, ...
- ◆ Systems for systems: practices vs systems
- ◆ Non-structured data
- ◆ Data security: owners vs contractors vs public
- ◆ Lessons learned?

1st Team Assignment
Due: 9/13 (Mon)

Read two relevant articles (news, reports, journals, etc.) about PMIS (one old, one recent)

**Prepare 5-minute presentation
(Brief summary + Critics)**