

Week 1

Introduction to Construction Information Management Systems

Seokho Chi

Associate Professor | Ph.D.

SNU Department of Civil and Environmental Engineering



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: pavement management, cost estimating, materials management, quality control, inventory control, payroll, among others.
- Each group must meet at least two times with me until the end of the course to discuss about the project progress. Groups should contact me to schedule these meetings.
- The database management system should be implemented using Microsoft Access or Microsoft SQL Server.

Group Project Brief

◆ DELIVERABLES

- **Deliverable 1 (10/16) – Database Initial Study (5%)**
 - Problem definition, background, need, objectives, scope, and proposed approach
- **Deliverable 2 (10/30) – Conceptual Database Design (10%)**
 - Database analysis and requirements, entity-relationship model, tables, forms, and reports
- **Deliverable 3 (12/11) – Implementation (20%)**
 - Project description, final system design, and prototype implementation

◆ PRESENTATIONS

- Phase 1 (10/30) – Deliverable 1 and 2
- Final (12/11) – Deliverable 3 (5%)

PMIS (Project Management Information Systems)

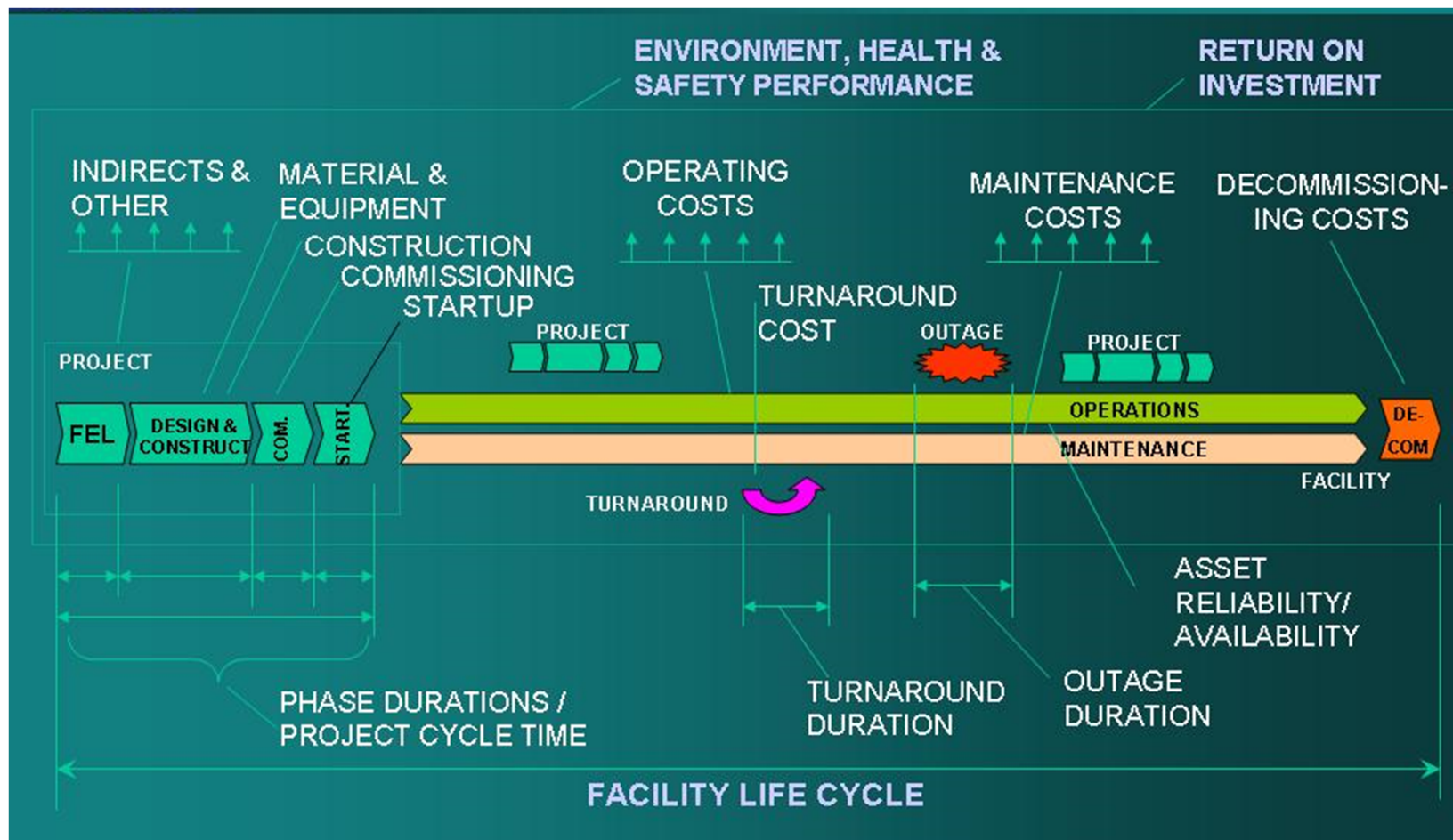


■ Information on Construction Projects



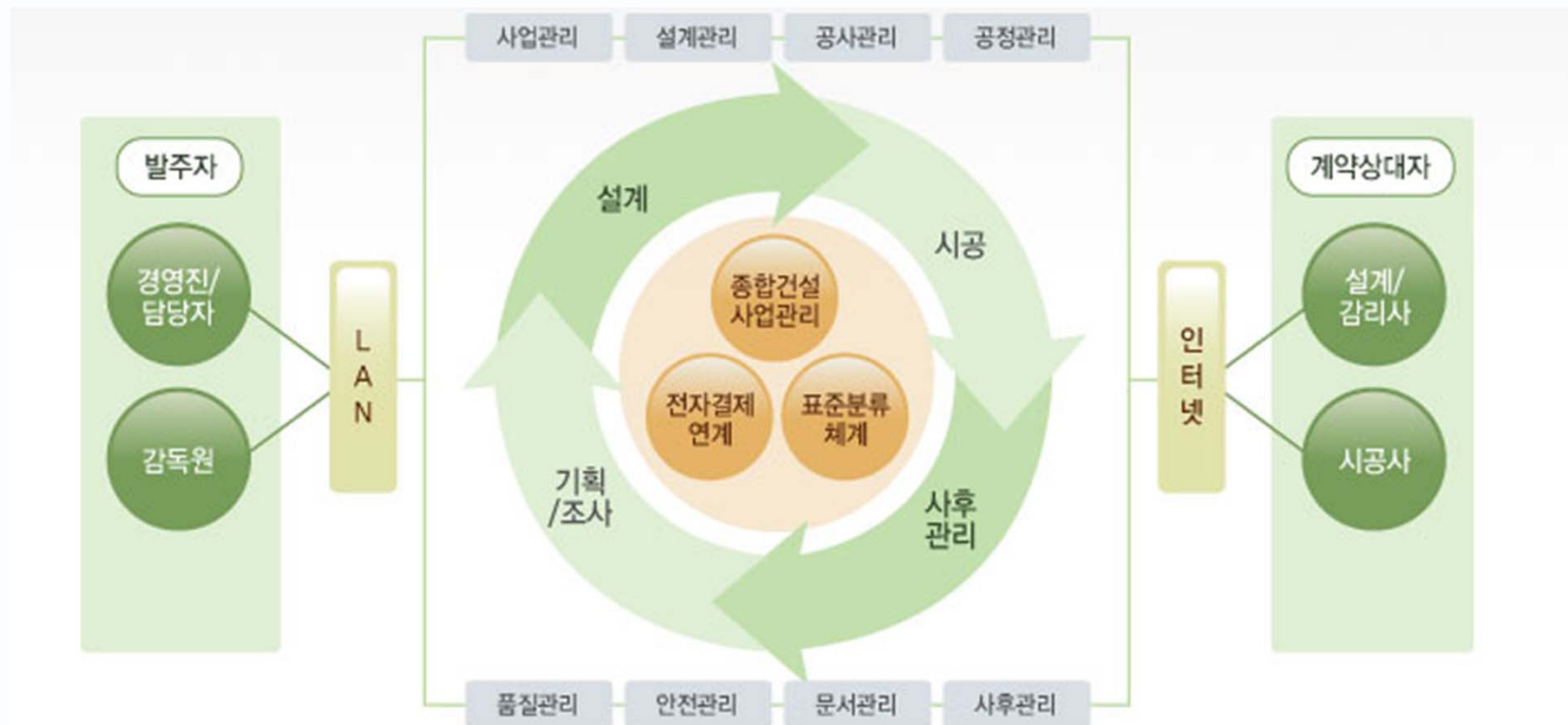
\$10M and More General Construction Project
420 Stakeholders, 850 People, 50 Kinds of Documents, 56,000 Pages

- Information through Project Lifecycle



Project Management Information Systems

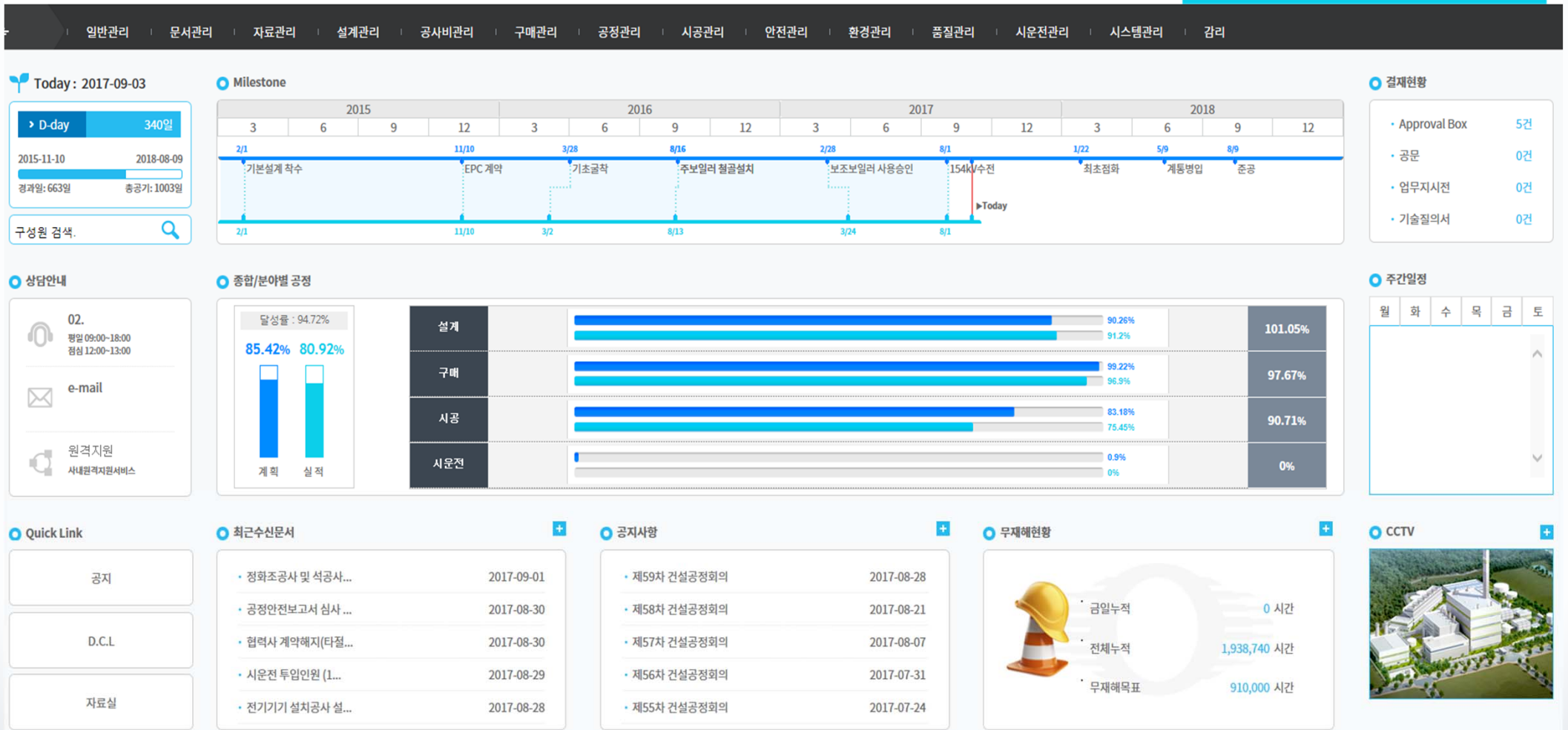
◆ Support Decision Making for Construction Projects



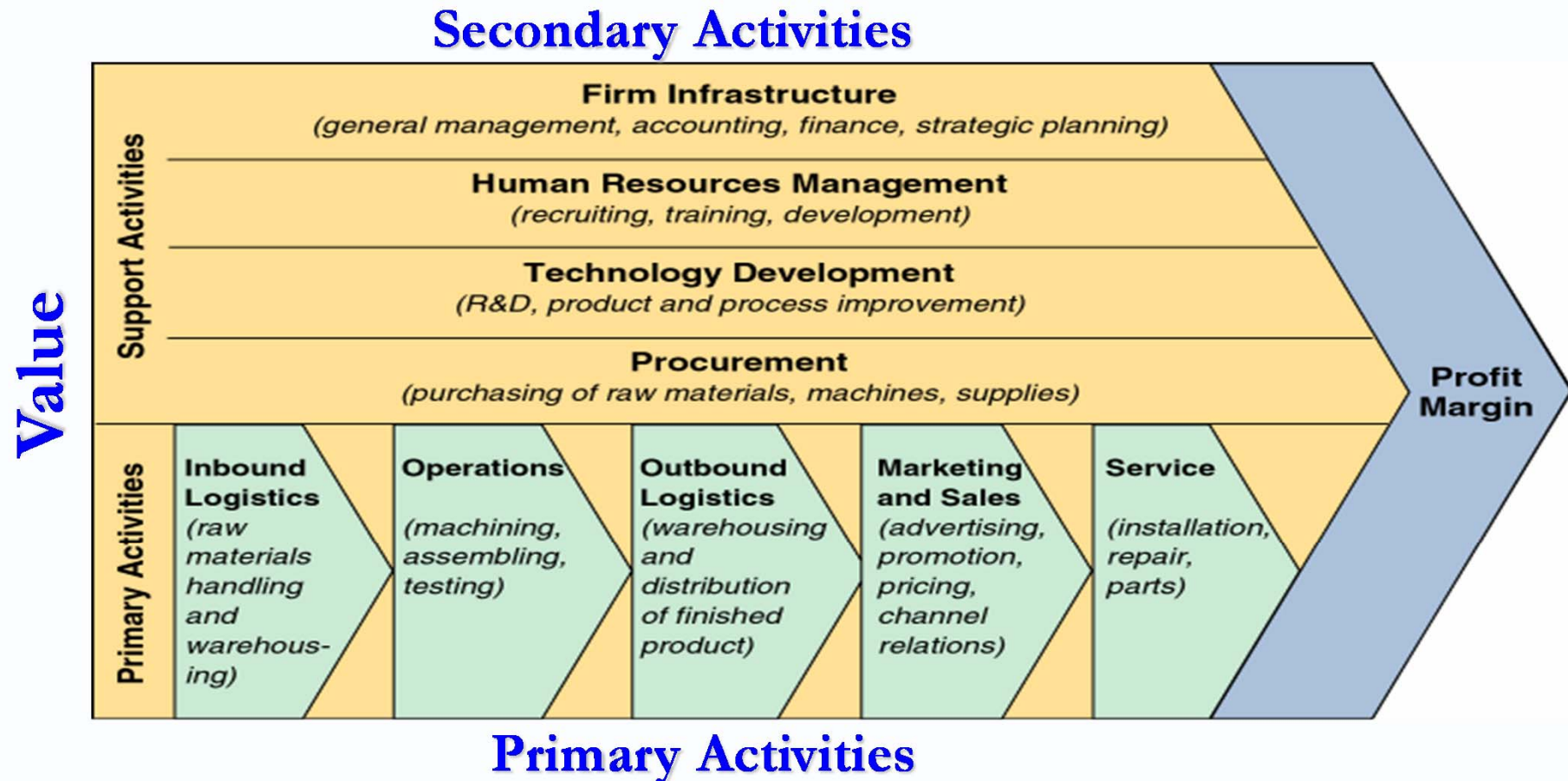
PMIS Example



PMIS Example



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 in Korea

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

1st Assignment
Due: 9/11(Mon)

**Read any PMIS journal paper and
Prepare 5-minute presentation
(Brief summary + Critics)**

Submission: Printed ppt