Project Management
Lecture: 1

Dr. Hossam Mahmoud Moftah

What Is a Project?

▶ A **project** is "a temporary endeavor undertaken to create a unique product, service, or result"

▶ Operations is work done to achieve the business

▶ Projects end when their objectives have been reached or the project has been terminated

▶ Projects can be large or small and take a short or long time to complete

Characteristics of a Project

- ▸ Have a purpose
- ▸ Have a life cycle
- ▸ Interdependencies
- ▸ Uniqueness
- ▸ Conflict

Objectives of a Project

- ‣ 3 Project Objectives:
  - ‣ Performance
  - ‣ Time
  - ‣ Cost
- ‣ Expectations of clients are not an additional target, *but an inherent part of the project specifications*

Project Attributes

▶ A project:

- ▶ Has a unique purpose
- ▶ Is temporary
- ▶ Is developed using progressive elaboration
  - ▶ Specifications of the project are initially broad and then refined and more detailed as the project progresses
- ▶ Requires resources, often from various areas
- ▶ Should have a primary customer or sponsor
  - ▶ The **project sponsor** usually provides the direction and funding for the project
- ▶ Involves uncertainty
  - ▶ Unclear objectives, difficult to estimate time to complete and cost, dependence on external factors
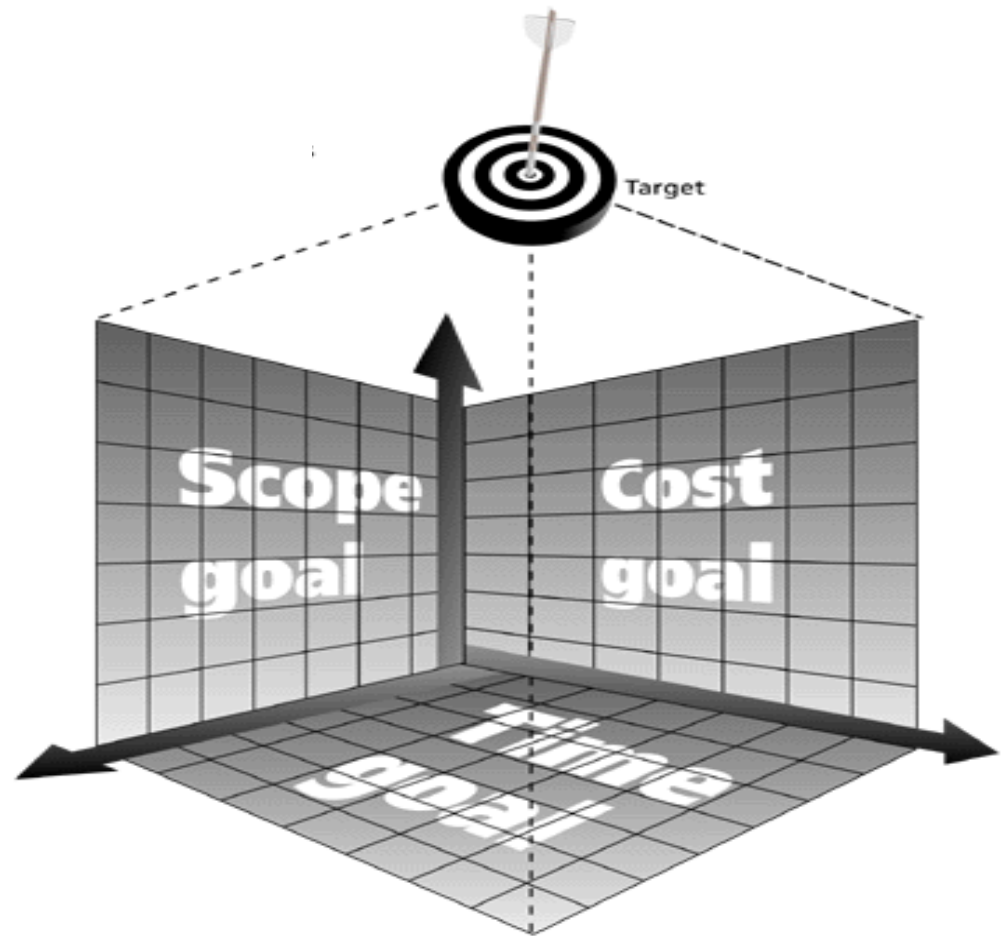
What is Project Management?

▸ **Project management** is "the application of knowledge, skills, tools and techniques to project activities to meet project requirements"

▸ **Project managers** strive to meet the **triple constraint** by balancing project scope, time, and cost goals

▸

The Triple Constraint of Project Management

Successful project
management means
meeting all three
goals (scope, time,
and cost) – and
satisfying the
project's sponsor!

However, <u>quality</u> is
the **quadruple**
constraint

Why Project Management?

- Companies have experienced:
  - Better control
  - Better customer relations
  - Shorter development times
  - Lower costs
  - Higher quality and reliability
  - Higher profit margins
  - Sharper orientation toward results
  - Better interdepartmental coordination
  - Higher worker morale

Forces Of Project Management

- **3 Paramount Forces driving Project Management:**
    - 1. The exponential expansion of **human knowledge**
    - 2. The growing demand for a broad range of complex, sophisticated, **customized goods and services**
    - 3. The evolution of worldwide **competitive markets** for the production and consumption of goods and services

The Professionalism of Project Management

- Complexity of problems facing the project manager
- Growth in number of project oriented organizations
  - The Project Management Institute (PMI) was established in 1969
  - By 1990 it had 7,500 members
  - 5 years later, over 17,000 members
  - And by 1998, it had exploded to over 44,000 members
- This exponential growth is indicative of the rapid growth in the use of projects
- Also reflects the importance of PMI as a force in the development of project management as a profession

Project Management Statistics

▸ Worldwide IT spending totaled more than $1.8 trillion in 2005, a 6 percent increase from 2004, and spending is projected to grow 8 percent in 2006 and 4 percent in 2007

▸ The number of people earning their Project Management Professional (PMP) certification increased by more than 70 percent from 2004 to 2005, with more than 200,000 PMPs worldwide by the end of August, 2006

Project Management Institute (PMI)

▶ PMI was founded in 1969 by five individuals who wanted to network, share process information and discuss common project problems. It is now the leading membership association for the project management profession with more than **260,000 members in over 171 countries.**

- ▶ PMI is actively engaged in advocacy for the profession, setting professional standards, conducting research and providing access to a wealth of information and resources.

- ▶ PMI also promotes career and professional development and offers certification, networking and community involvement opportunities.

- ▶ **PMIs Project Management Professional (PMP®)** credential is the most widely recognized and the only global certification in the profession.

Project Management Certification

- PMI provides certification as a **Project Management Professional** (**PMP**)
- A PMP has documented sufficient project experience, has agreed to follow a code of ethics, and has passed the PMP exam
- The number of people earning PMP certification is increasing quickly

Growth in PMP Certification1993 - 2006
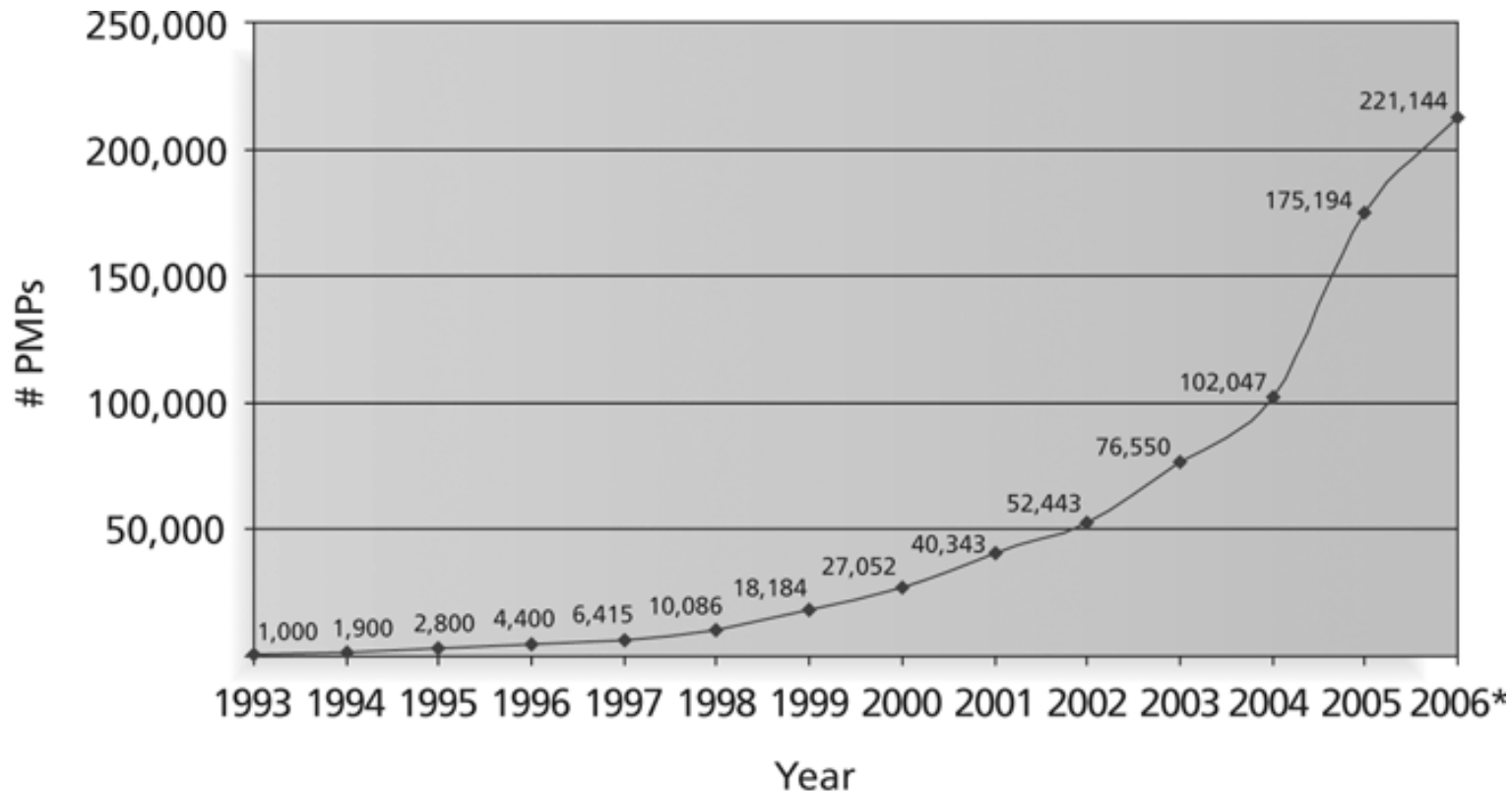
*As of December 31, 2006

Ethics in Project Management

▸ **Ethics**, loosely defined, is a set of **principles** that guide our decision making based on personal values of **what is "right" and "wrong"**

▸ Project managers often face ethical dilemmas

▸ In order to earn PMP certification, applicants must agree to PMI's Code of Ethics and Professional Conduct

▸ Several questions on the PMP exam are related to professional responsibility, including ethics

www.PMI.org

Examples of IT Projects

▸ A help desk or technical worker replaces ten laptops for a small department

▸ A small software development team adds a new feature to an internal software application for the finance department

▸ A college campus upgrades its technology infrastructure to provide wireless Internet access across the whole campus

▸ A cross-functional task force in a company decides what Voice-over-Internet-Protocol (VoIP) system to purchase and how it will be implemented

Project and Program Managers

▶ **Project managers** work with project sponsors, a project **team**, and other people involved in a project to meet project goals

▶ **Program**: group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually

▶ **Program managers** oversee programs and **often act as bosses for project managers**

Recent Changes in Managing Organizations

▸ The process of managing organizations has been impacted by three revolutionary changes

  ▸ 1. Accelerating replacement **of traditional, hierarchical management by participatory** management

  ▸ 2. Currently witnessing the adoption of the "systems approach" (sometimes called "**systems engineering**")

  ▸ 3. Organizations **establishing projects** as the preferred way to accomplish the many specific changes that must be made when the organization attempts to alter its strategy

5 steps Project Life Cycle

▸ **1. Project Initiation**

▸ **2. Project Planning**

▸ **3. Development**

▸ **4. Implementation**

▸ **5.Project Closure**
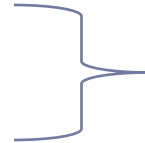
Project Execution

1. Project Initiation

▸ Project Initiation is **the opening point** in the 5 steps Projelogic's Project development Cycle, (based on the PMBOK® methodology) and in simple terms: starting up the project.