

## Introduction to the Course

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### Topics of today's Lecture

- Concepts regarding project and project management especially information system and its project and management
- Look inside reality of IT project management
- Goals for the Course and benefits for You
- Topics what I plan to cover in following lectures

## Information System Definition

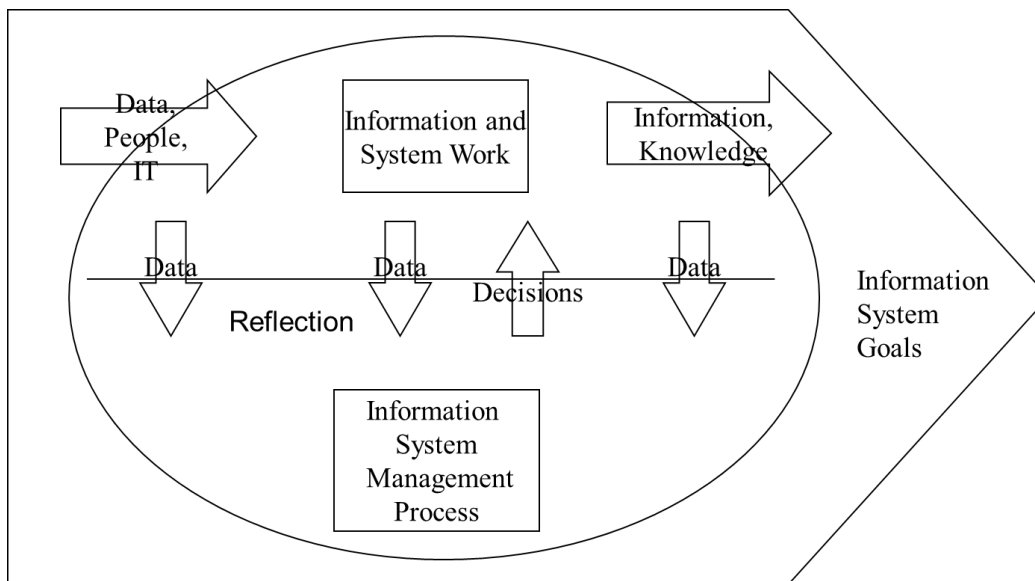
Information system is a work system what comprises of organizational information and system work with respective IT infrastructure, methods and techniques. A work system is a system in which human participants and/or machines perform work using information, technology, and other resources to produce products and services for internal or external customers.

### Information Work

Under information work we can understand processes what organization people perform daily with data and information (procurement, selling, planning etc) and information processing processes supporting IT systems in organization (user support – helpdesk, in ITIL incident, events management etc)

### System Work

We can define system work as processes what build or change information and system work processes in organization with respective IT infrastructure, methods and techniques. To these processes belong introduction of development frameworks, methodologies and arrangement of those implementation processes with corresponding resource management processes etc. These processes are bound up with organizing and managing of projects. Following picture illustrates information system consisting of information and system work:



**Figure 1 Information System Model**

Information system in an enterprise must reflect with data all aspects in that enterprise: inputs, outputs and work processes. The overall goal of the information system with its information and system work and corresponding management is to satisfy organizations and its environment needs for quality information and knowledge.

## Project

If we wish something purposefully (systematically) achieve, then main method is to use projects. This applies to any kind of problem solving, especially making changes. In the context of enterprise projects are means to implement strategic changes and organize corresponding activities. These activities are not possible to perform in frames of everyday work. In the context of organizations information system projects are means to manage changes concerning organizations information work and system work

### Project Definitions

Here are some project definitions from different sources. They are formulated differently, but the meaning is the same:

- a temporary organization to which resources are assigned to do work to bring about beneficial change. (The resources may be human, material or financial (*J. Rodney Turner*))
- a work system designed to produce a product and then go out of existence (*Steven Alter*)
- a temporary endeavor undertaken to create a unique product, service, or result (*Project Management Institute*)

### Characteristics of a Project

- a project is a temporary endeavor (has definite starting and ending point)
- that is progressively (in incremental refinements) planned, controlled, and executed by people,
- working within some constraints on resources (time, money, etc),

- that results in a unique product, service, or result
- that isn't possible for the organization to achieve through its normal operations

### Comparison of Project Work and Operational (Every Day) Work

This is illustrated in the next table:

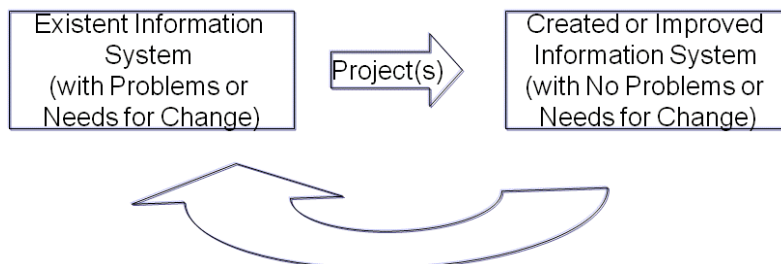
**Tabel 1. Comparison of Project and Operations**

<b>Projects</b>	<b>Operations</b>
<b>Differences</b>	
temporary	ongoing
Output: unique	Output: repetitive
Purpose: attain its (strategic) objective and then terminate	Purpose: sustain the business
Concludes when its specific objectives have been attained	Adopt new set of objectives and the work continues
<b>Similarities</b>	
Performed by people	Performed by people
Constrained by limited resources	Constrained by limited resources
Planned, executed, and controlled	Planned, executed, and controlled

## Information Systems Project

### Proposed Definition

A temporary endeavor (organization) designed to give to organization a beneficial information or system work change. Following picture illustrates project as means to manage information systems change:



**Figure 2. Project Location in Information Systems Development**

### Examples of Information Systems Development Projects

- building and introduction of new application systems (software) in organization

- modifying already existing application systems in organization
- transition to new technologies and business
- reorganizing work processes in organization
- adjusting and introduction information systems development framework

### Changing Information System with Projects when 1 or More Following Criteria are Satisfied:

- 2 or more people are needed
- undertaking needs work coordination from 2 or more departments
- must collaborate with outside partners – subcontractors
- work is beyond everyday operating scope
- requires more than 2 weeks effort or 1 month time usage
- includes essential risks
- succeed or failure has great impact
- includes introduction of new technology
- includes creation or change of information system architecture (logical and/or technical)

In other situations we can handle information systems change as routine work process

## Project Management

### Definitions

Here are some definition to project management

The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. (*PMI*)

Tools and methods by which the work of the resources assigned to the temporary organization is managed and controlled to deliver the beneficial change desired by the owner. (*Turner*)

Project requirements = beneficial change desired by the owner

Project management includes:

- planning – planning of temporary organizations work,
- organizing – defining resources needed by work,
- performance – work assigning to resources
- control – performance monitoring, making corrective actions to insure that required outcome (change) is achieved and this is capable to bring benefit to the owner

It includes among other things:

- understanding the project
- specifying clear and achievable goals
- balancing mutually competing requirements related with quality, scope, time and costs
- adapting definitions, plans and approaches to meet interests of several stakeholders . This is most difficult part
- risk management

Project management provides better possibilities to communicate (share information) and adapt to changing circumstances (concerning every aspect in project)

Project management part in information systems project expresses following picture:

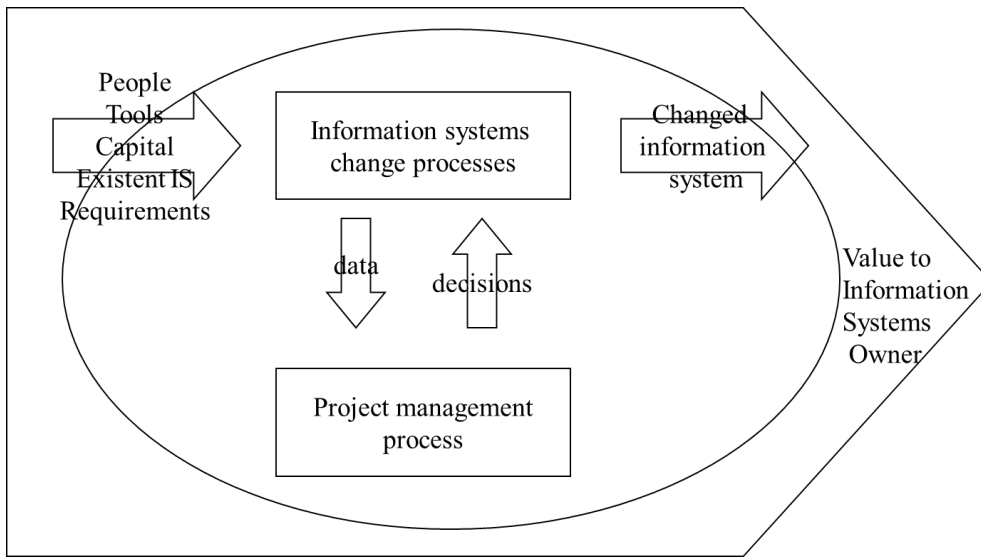


Figure 3 Location of Information Systems Project Management

We can consider project management process as one instance of general management process having special methods and techniques inherent only to project management. Following figure gives overview of general management process:

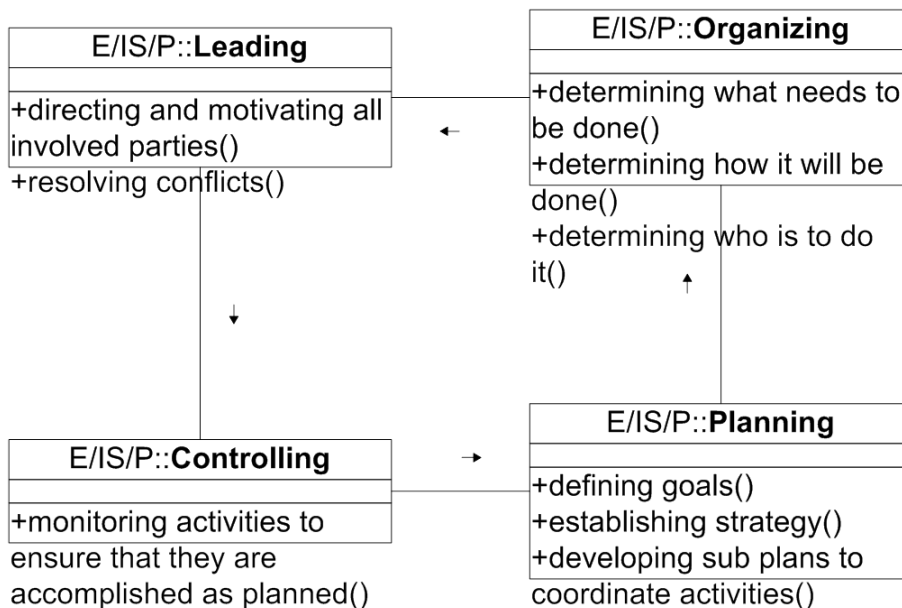


Figure 4. General Management Process

Main Roles or Parties in Project Management

These roles are presented on the following figure:



**Figure 5. Main Roles in Project Management**

The role of the customer is to give right and complete requirements of desired result to the executor (through project manager); to give appropriate preconditions to fill these requirements and to accept created result. The role of the project manager is to manage executor's work of fulfilling these requirements under customer's preconditions. The role of executor is to create the result under given preconditions.

### Project Manager

Project Manager is as manager of little (temporary) company. He is responsive of everything what is needed to be project successful. Project success lies in bringing benefit to the owner. Full success lies in bringing optimal benefit to the owner. Project manager must be capable of listening, producing administrative documents, manage meetings, acquire information, build and hold team performing, communicate and manage his time

### **Reality Statistics**

The Standish Group CHAOS Report 2010 (2008 - 2006 - 2004), USA

- Successful IT projects – 33% (32% - 35% - 29%)
- Challenged projects– 41% (44% - 46% - 53%)
- Failed projects – 26% (24% - 19% - 18%)

Successful project meets time, scope and costs requirements. In challenged projects 1 or 2 or all 3 requirements were not meet. Failed means project was terminated and no results were gained or attained change was not introduced.

### Some Failure Reasons

- lack of user input
- lack of executive support
- unclear objectives
- project management incompetence
- technology incompetence

### Some Conclusions

Individuals who participate on projects don't have mutual understanding of to where they must reach and why and how to reach to there. They don't have mutual agreements at all or they are unrealistic and therefore it is not possible to follow them. These agreements are subject to uncontrolled changes

### Proposed Solution

Introduce and follow Project management methodologies, standards and best practices

First of all have healthy mind, logical thinking and willingness and skills to work with people to insure satisfaction of all projects participants

The main goal of project management is doing right projects right!

## Information System Project Management Course

### Goals are to Give Knowledge

- about information systems development project and it management
- about initiation and starting a project and associated problems
- about project performance and closing and associated problems
- about expressing project life cycle in project management tool, especially in MS Project 2007

### The Benefit to the Student

The opportunity to increase students competency level by creating or enhancing understanding in follows:

- What are responsibilities of information systems owner in information system change project
- What are responsibilities of project manager in managing information systems change project
- What are responsibilities of executor in information system change project

### Topics in Lectures

- project management frameworks, methodologies, standards
- project success and success factors
- project initiation and justification
- project planning – nature, processes and objects
- project performance, tracking, control and project information system
- project quality, change and risk management
- people management antipatterns, principles, team work and collaboration
- project closing
- project management in multi-project environment, program and portfolio management
- project management maturity model

### Some Literature

- Jolyon E. Hallows: Information Systems Project Management, 2. Ed. 2005
- Jason Westland, Project Management Life Cycle: A Complete Step-by-step Methodology for Initiating, Planning, Executing & Closing a Project Successfully, 2006
- Albert Lester, Project Management - Planning and Control, 5th Ed, 2007
- Paul Sanghera: PMP in Depth : Project Management Professional Study Guide for PMP and CAPM Exams, 2006
- IEEE Guide--Adoption of the Project Management Institute (PMI(R)) Standard A Guide to the Project Management Body of Knowledge (PMBOK(R) Guide)--Fourth Edition
- Articles from Internet

## Used Literature in the Lecture

- J. Rodney Turner, Towards a theory of project management: The nature of the project, <http://www.sciencedirect.com/science/article/pii/S0263786305001237>
- Steven Alter, Work Systems Theory, [http://istheory.byu.edu/wiki/Work\\_systems\\_theory](http://istheory.byu.edu/wiki/Work_systems_theory)
- David F. Rico, Lean & Agile Project Management for Large Programs & Projects, <http://davidfrico.com/rico11a.pdf>
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- How Projects Really Work (version 1.5), <http://www.projectcartoon.com/pdf.php?CartoonID=2&PaperSize=A4>