

## Project Initiation

### Topics of the current lecture

- project management vs system engineering methodology
- project and project management life cycle
- project initiating in PMBOK
- IT project success and factors

Remark: in lecture notes is used concept “project” instead of “information system project” to emphasize the fact that all activities concerning project initiation is applicable to any domain project. Particularity to IT project and more specifically information systems project is in the text highlighted.

### One Approach to IS Change by Project Management

On following figure is presented one possible way to handle information system development by project management method:

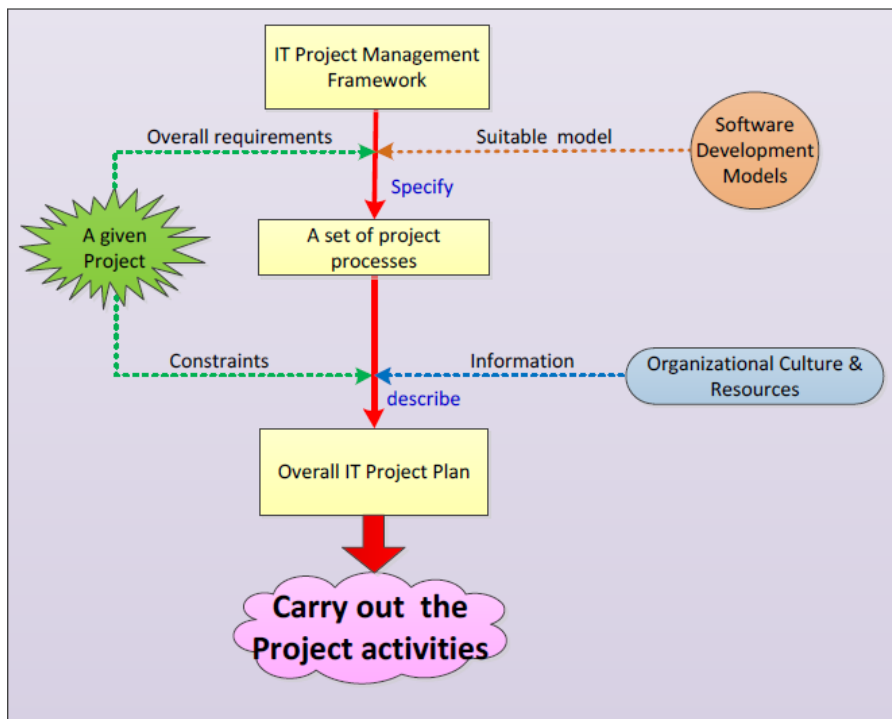


Figure 1. An Approach to Organize IS Development by Project Management

We can take presented model as one possible recipe or guideline for project manager. First step is to take project management framework that is confirmed by Project

Management Office (PMO) or Steering Committee or another group of people who is superior of project manager. This framework can dictate what stages and management processes project must consist of. Here is seen that software development model or more generally methodology is not part of project management framework. That is, PM framework or more precisely PM methodology is not the same as system development model or approach. System development model can include project management guidelines, for example Rational Unified Process (RUP).

The given project with its overall requirements to project, especially to product scope plays as a filter for choosing a suitable software development model between several of them.

This development model specifies system development processes. This is one side of the coin. Another side is to provide project processes with necessary resources taking into account constraints from the given project (complexity in technology; novelty, deadlines required from customer side) and available preconditions from organizational side.

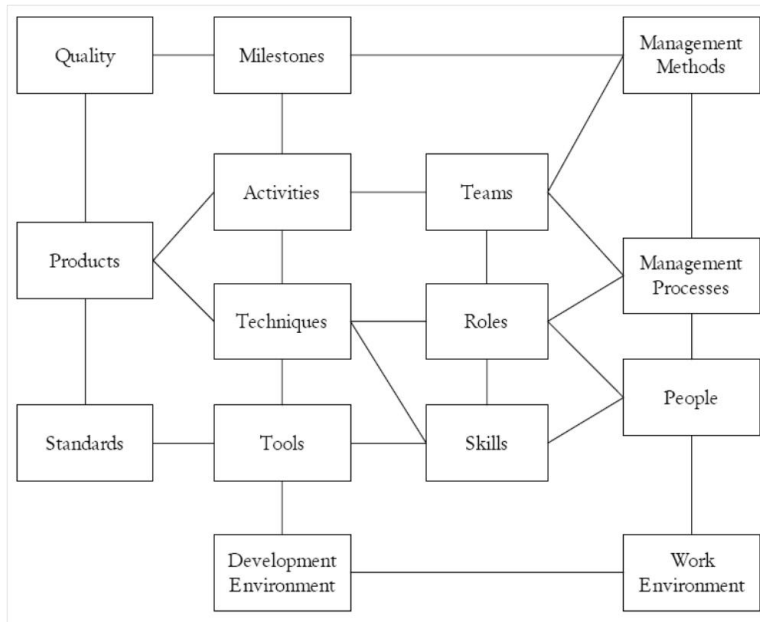
The result of this so called recipe is the agreement between all parties in project fixed in project management plan.

#### (Information) System Development Methodology

Framework is general; methodology is specific giving concrete values to framework elements. Information system development methodology can be defined as a set of recommended steps, approaches, rules, processes, documents, control procedures, methods, techniques, and tools for the developers, which covers whole life cycle of an information system. Defines **who, when, what, and why should do during the development** of the IS. Methodology covers all substantial elements of the IS:

- People
- Organization procedures
- Data
- SW / HW
- Organization influences
- Economic aspects of IS development and operation
- Documents and control procedures for particular IS development stages

Elements of the framework are effective to all team-based undertakings and are presented on the next figure:



**Figure 2. Elements of the Development Framework**

Examples of System Development Methodologies:

- Waterfall
- Spiral
- RAD
- RUP
- XP
- Scrum
- OpenUP
- Kanban

System development methodology deals with system and its creation determining principles for system development. Project management methodology deals with work to be done determining management processes for work outputs and outcomes. Project manager is responsible to ensure that project meets its objectives appropriate system development methodology will help it. Project management doesn't depend on specific system development methodology but may be restricted from it.

### [Project Management Framework \(PMF\)](#)

PMF gives bases for project management methodology determination and directions to project management activities. Using analogy from Zachman Architecture Framework, PMF is logical structure for categorizing and organizing project management important aspects enabling various parties associated with project to communicate and understand each other. PMF enables get answers to following questions: what? how? where? who? when? why?

While in context of IS project management is directed to IS change management, PMF helps define management aspects - goals, inputs, outputs and processes for system development and its monitoring and control.

Examples of Project Management Frameworks and Methodologies:

- PMI (USA) Project Management Body of Knowledge (PMBOK)
- Association for Project Management (UK) BOK
- Projects IN a Controlled Environment (UK) (Prince2)
- Unified Project Management Methodology (UPMM™)

## Project and Project Management Life Cycle

Related to project 2 different life cycles exist: project and project management life cycle.

### [Project Life Cycle](#)

Project life cycle defines project start and end and various milestones between them. Project is divided into small time periods (phases, iterations, sprints etc.) and by the end of each time period project status is checked out and decided to continue or not. By each time period an outcome (*deliverable*) is created - “tangible” and verifiable work “product”. It is input to the next time period or another project or to the custom usage. Chosen system engineering or development methodology defines project life cycle.

### [Differences in Project/Product Life Cycle](#)

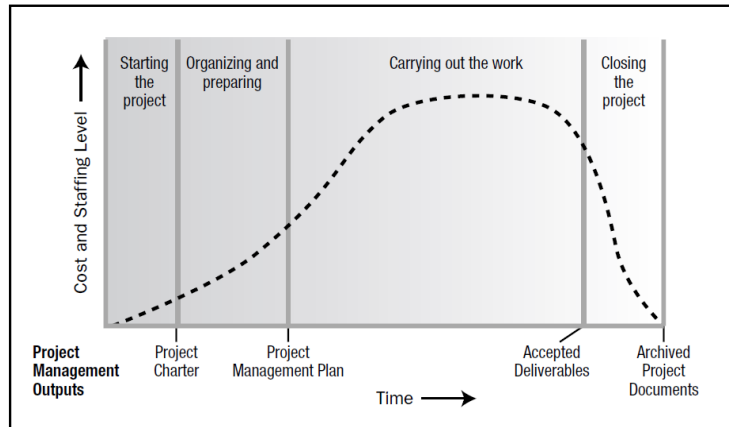
Differences are presented in the next table. As shown from the table, project is aimed to creation of product (or result) and after project end product starts its life cycle.

**Table 1. Differences in Project and Product Life Cycle**

	Project Life Cycle	Product Life Cycle	Owner/Actions
Stage 1	Project conception	Product feasibility	The client organization, assisted by specialists
Milestone 1	Project commitment	High level product requirement produced	The client <i>commits</i> to the project and <i>appoints</i> a project team
Stage 2	Project execution	Design, development or acquisition	The project team (the prime contractor assisted by subcontractors)
Milestone 2	Project closure	Product created	The project team <i>delivers</i> the created product to the client
Stage 3	N/A	Product operation	The client organization, possibly transferred to a customer/user

### Project Management Life Cycle

Project management life cycle is logical sequence of project management processes. One possible example of project management life cycle is presented on the following figure:



**Figure 3. Project Management Life Cycle**

We can divide this life cycle in 4 phases or sub processes:

- Starting with the project
- Organizing and preparing the project
- Performing project work
- Closing the project

These 4 phases can be applied to project as a whole or to every smaller time period in project. In PMBOK are these phases called as process groups consisting of processes. These process groups are:

- initiating process group
- planning process group
- executing process group
- monitoring and controlling process group
- closing process group

These process groups and mutual relationships are presented on the following figure:

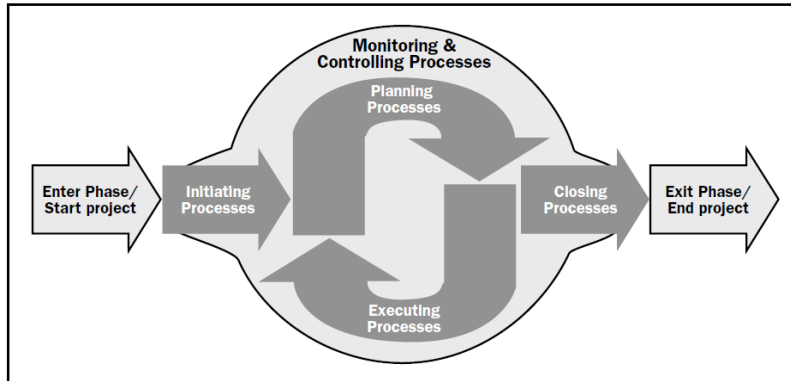


Figure 4. Project Management Process Groups in PMBOK

Every process group is in each project time period more or less repeated, pictorially expressing:

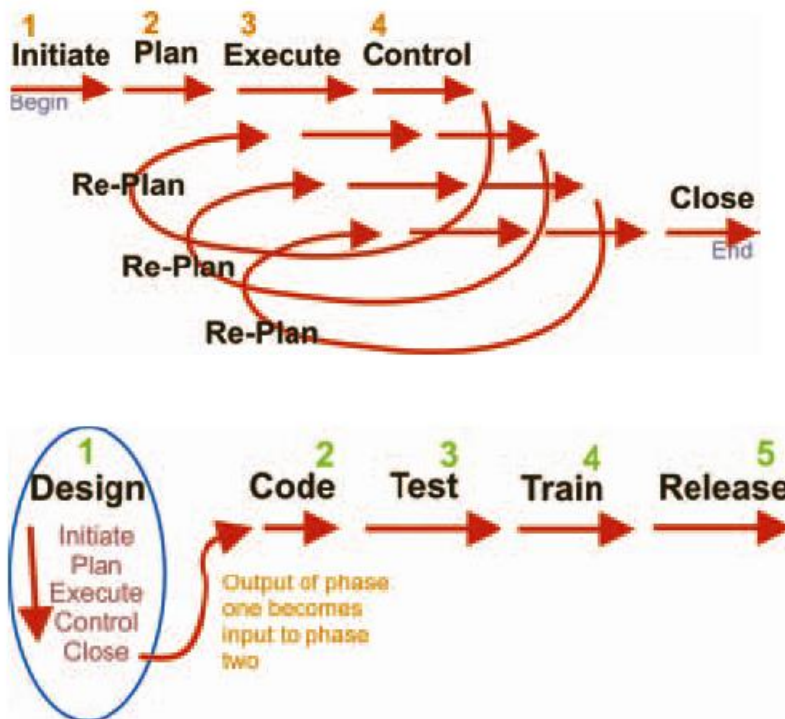


Figure 5. Iteration of PMBOK Process Groups

In the context of System development / change this principle is illustrated on the next figure:

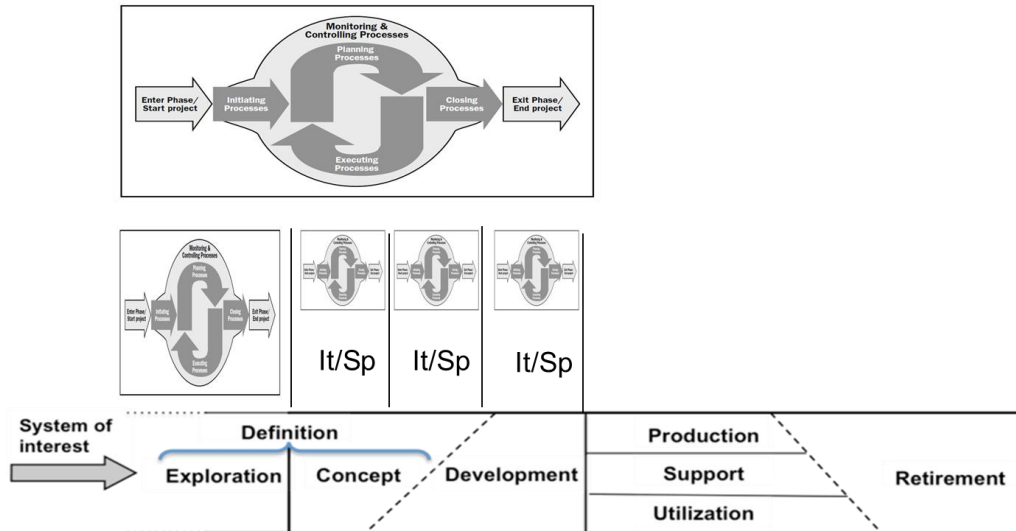


Figure 6. Iteration of PM Processes in the Context of System Development Life Cycle

One more illustration is presented on the next figure:

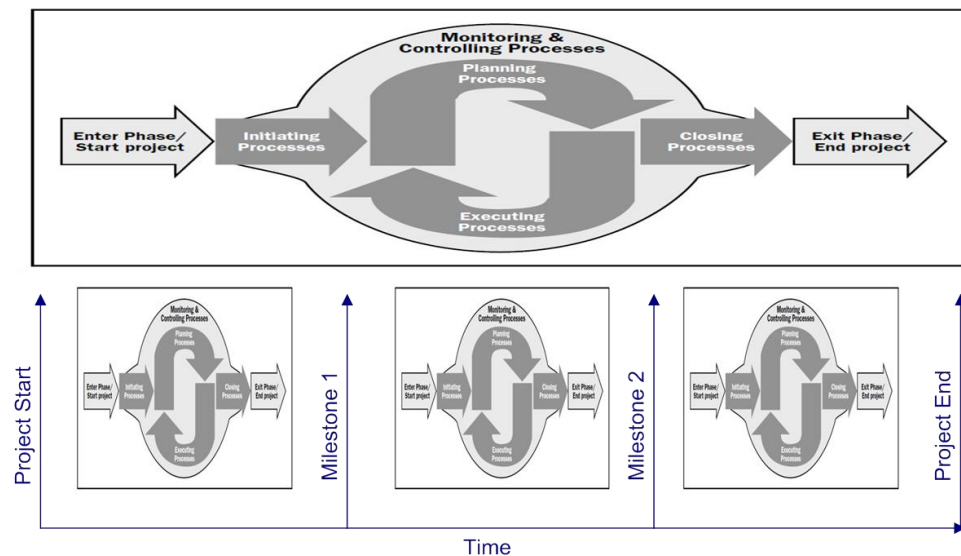


Figure 7. Iterative Nature of Project Management Processes in the Project

## Project Initiation Background

In order to explain project initiation context in the organization, I give a short overview of

- project connections with implementation of organizations strategic plans;
- their location in composition of portfolios and/or programs and
- various stakeholders related to project and its management.

Projects are often utilized as a means of achieving an organization’s strategic plan. They are originated when the need for change in organization is acknowledged.

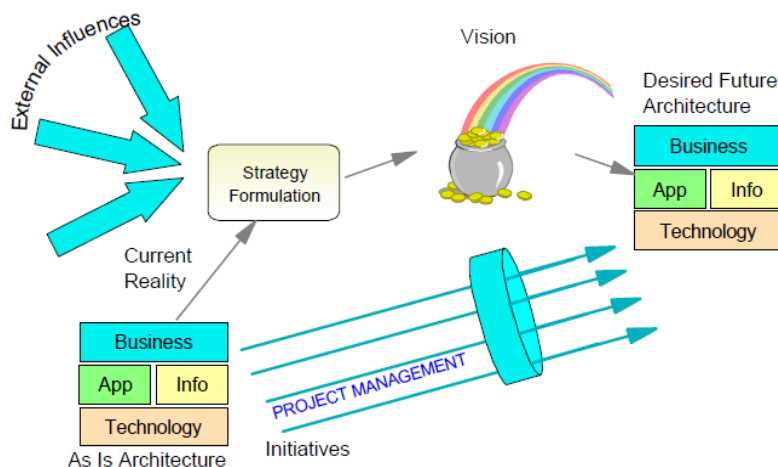
Projects are typically authorized as a result of one or more of the following strategic considerations:

- market demand
- strategic opportunity/business need
- customer request
- technological advance
- legal requirements

Projects, within programs or portfolios, are means of achieving organizational goals and objectives (often in the context of a strategic plan). Although a group of projects within a program can have discrete benefits, they can also contribute:

- to the benefits of the program
- to the objectives of the portfolio
- to the strategic plan of the organization

One possible example of relationships between enterprise strategy, architecture and project management is illustrated on the next figure:



**Figure 8. Relationships between Enterprise Strategy, Architecture and Project Management**

## Project Initiation

It is a first phase of projects management life cycle and is a process which starts with idea or proposal to change implementation (due internal business needs or external factors) and ends in positive case with approval to start formally with project. In negative case, project will be rejected and will wait better times.

The purpose of the initiation phase of a project is to identify scope and gain initial approval for a project or projects that will deliver tangible benefit to the business. Once it is approved, it is time to move on to the planning phase of the project. Initiating is committing the organization's resources to a project or project phases.



By PMBOK the objective of project initiation is to obtain authorization to start a new project or new phase. This is done by defining the project or the phase of an existing project. During the initiation following sub processes are performed:

- identifying project sponsor
- appointing the project manager if no already assigned. The project manager is given the authority to apply organizational resources to the subsequent project activities
- defining the project (developing project charter) (substantial initiation sub process) consisting of:
  - development of clear descriptions of the project objectives, including the reasons why a specific project is the best alternative to satisfy the requirements
  - definition of initial scope and committing initial financial resources
- identification of internal and external stakeholders who will interact and influence the overall outcome of the project (substantial initiation sub process)

Initiating processes may be performed by organizational, program, or portfolio processes external to the project's scope of control (by project initiator or sponsor). The information is captured in the project charter and stakeholder register. When the project charter is approved, the project becomes officially authorized.

Initiation in the middle of the project is invoking the initiating processes at the start of each project phase. It helps keep the project focused in the business need the project was undertaken to address. In the middle of the project the success criteria are verified, and the influence and objectives of the project stakeholders are reviewed. A decision is then made as to whether the project should be continued, delayed, or discontinued

### Identifying the Project Sponsor

Organizations attempt to accomplish many things at the same time with limited resources. Competing demands make it difficult for project teams to get management attention and commitment of resources needed for their projects to succeed.

The role of the project sponsor is to:

- Ensure timely decision making
- Advocate for needed resources
- Overcome organizational conflicts and barriers to project performance
- Responsible for appointing and coaching the project manager.

This requires that the sponsor be a member of the top management team of the performing organization with the ability to make key decisions and influence key stakeholder groups.

Sub steps of this process are as follows:

- Identify the member of management, in the performing organization, with the greatest stake in the project outcome
- Make sure the candidate has a track record of success sponsoring similar projects
- Check with candidate to ensure availability and commitment to the project
- Get concurrence among members of the management team
- Announce sponsorship to key project stakeholders.

Owner of this sub process is corporate governance committee or other corporate/divisional/department management and other resources as necessary.

### Appointing the Project Manager

The business partner, other corporate/divisional/department management, and project sponsor will appoint the project manager for the project as the date to start the project draws near. Key considerations in the decision include the candidates':

- technical and integration skills
- leadership ability
- project management experience
- knowledge of the organization
- ability to gain the cooperation of key stakeholders

The project manager is held accountable for ensuring project success, leading the project team to achieve its objectives, ensuring effective communications with management and other non-project organizations, and ensuring that project problems are identified and resolved in a timely manner.

Sub steps are as follows:

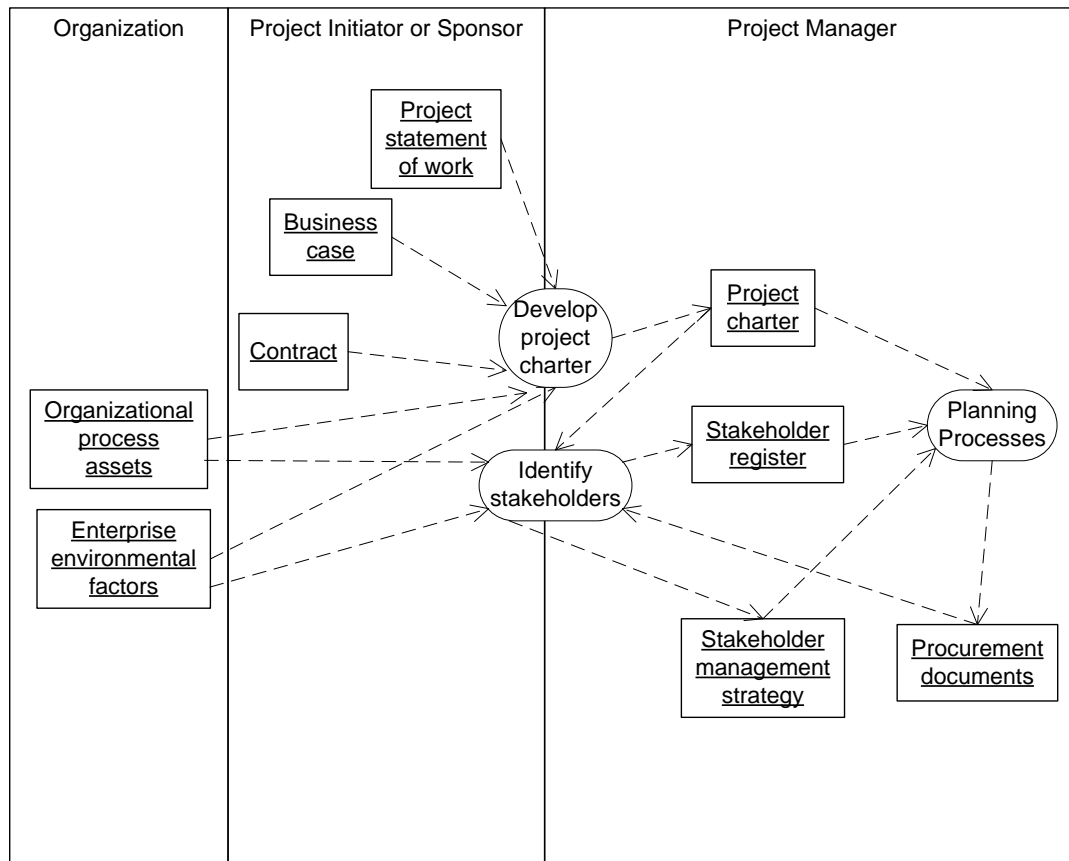
- determine the qualifications needed to manage the project
- identify potential candidates that meet the qualifications
- check for potential availability with candidates' management (if within the performing organization)
- evaluate potential candidates based on their suitability
- check for interest and commitment of the most suitable candidate
- confirm selection with the candidate's manager (if within the performing organization) announce project manager appointment to project stakeholders

In the least effective companies, project manager is assigned at random. The reverse of this is companies that determine who will be the project manager well in advance, and involve that person in the initial planning and scoping. If the project arises from a request for proposal, the project manager will be in preparing the proposal and making

any presentations to the client. The effect on project managers is that when a project actually starts, they are familiar with the background and many of the key players

### Substantial Initiation Sub Processes

Substantial sub processes of project initiation are project charter development and identification of internal and external stakeholders. These processes with according inputs and outputs are presented on the next figure:



**Figure 9. Project Initiation Processes with Inputs and Outputs**

### Developing Project Charter

This is the process of developing a document that formally authorizes a project or a phase and documenting initial requirements that satisfy the stakeholder's needs and expectations. It establishes a partnership between the performing organization and the requesting organization (or customer, in the case of external projects). The approved project charter formally initiates the project. In multiphase projects, this process is used to validate or refine the decisions made during the previous iteration of "Develop Project Charter". It is recommended that the project manager participate in the development of the project charter, as the project charter provides the project manager with the authority to apply resources to project activities.

Projects are authorized due to the internal business needs or external influences. This usually triggers the creation of a needs analysis, business case, or description of the situation the project will address. Projects are authorized by someone external to the project such as a sponsor, PMO, or portfolio steering committee. The project initiator or sponsor should be at a level that is appropriate to funding the project. They will either create the project charter or delegate that duty to the project manager. The initiator's signature on the charter authorizes the project. Chartering a project links the project to the strategy and ongoing work of the organization.

Inputs for development of project charter are:

- Project Statement of Work (SOW)
- Business Case
- Contract
- Enterprise Environmental Factors
- Organizational Process Assets

**Project statement of work** is a narrative description of products or services to be delivered by the project. For internal projects, the project initiator or sponsor provides the SOW based on business needs, product, or service requirements. For external projects, the SOW can be received from customer as part of a bid document, for example, request for proposal, request for information, request for bid, or as part of a contract

**Business case** provides the necessary information from a business standpoint to determine whether or not the project is worth the required investment. Typically contains business need and the cost-benefit analysis to justify the project. In the case of multi-phase projects, the BC may be periodically reviewed to ensure that the project is on track to deliver the business benefits. In the early stages of the project life cycle, periodic review of the BC by the sponsoring organization also helps to confirm that the project is still required.

Contract is an input if the project is being done for an external customer

Enterprise environmental factors are as follows:

- governmental or industrial standards
- organization infrastructure
- marketplace conditions etc

Organizational Process Assets are for example:

- organizational standard processes, policies, and standardized process definitions for use in the organization

- templates
- historical information and lessons learned knowledge base

The output from developing project charter is project charter what documents the business needs, current understanding of the customer's needs and the new product, service, or result that is intended to satisfy. Project charter can consist of following parts:

- project purpose or justification
- measurable project objectives and related success criteria
- high-level requirements
- high-level project description
- high-level risks
- summary milestone schedule
- summary budget
- project approval requirements (what constitutes project success, who decides the project is successful, and who signs off on the project)
- assigned project manager, responsibility, and authority level
- name and authority of the sponsor or other person(s) authorizing the project charter

### Identifying Project Stakeholders

It is the process of identifying all people or organizations impacted by the project, and documenting relevant information regarding their interests, involvement, and impact on project success. It is critical for project success to identify the stakeholders early in the project, and analyze their levels of interest, expectations, importance and influence. A strategy can then be developed for approaching each stakeholder and determining the level and timing of stakeholder's involvement to maximize positive influences and mitigate potential negative impacts. The assessment and corresponding strategy should be periodically reviewed during project execution to adjust for potential changes. These stakeholders should be classified according to their interest, influence, and involvement in the project. This enables the project manager to focus on the relationships necessary to ensure the success of the project.

Inputs for identifying project stakeholders are as follows:

- project charter
- procurement documents
- enterprise environmental factors
  - organizational or company culture and structure
  - governmental or industry standards
- organizational Process Assets
  - stakeholder register templates
  - lessons learned from previous projects

- stakeholder registers from previous projects

The outputs from identifying project stakeholders are:

- Stakeholder register consisting of following data:
  - identification information: name, org. position, role in the project, contact information
  - assessment information - major requirements, main expectations, potential influence in the project, phase in the life cycle with the most interest
  - stakeholder classification - internal/external; supporter/neutral/resistor etc
- Stakeholder Management Strategy - defines an approach to increase the support and minimize negative impacts of stakeholders throughout the entire project life cycle. Management strategy is generally presented with stakeholder analysis matrix.

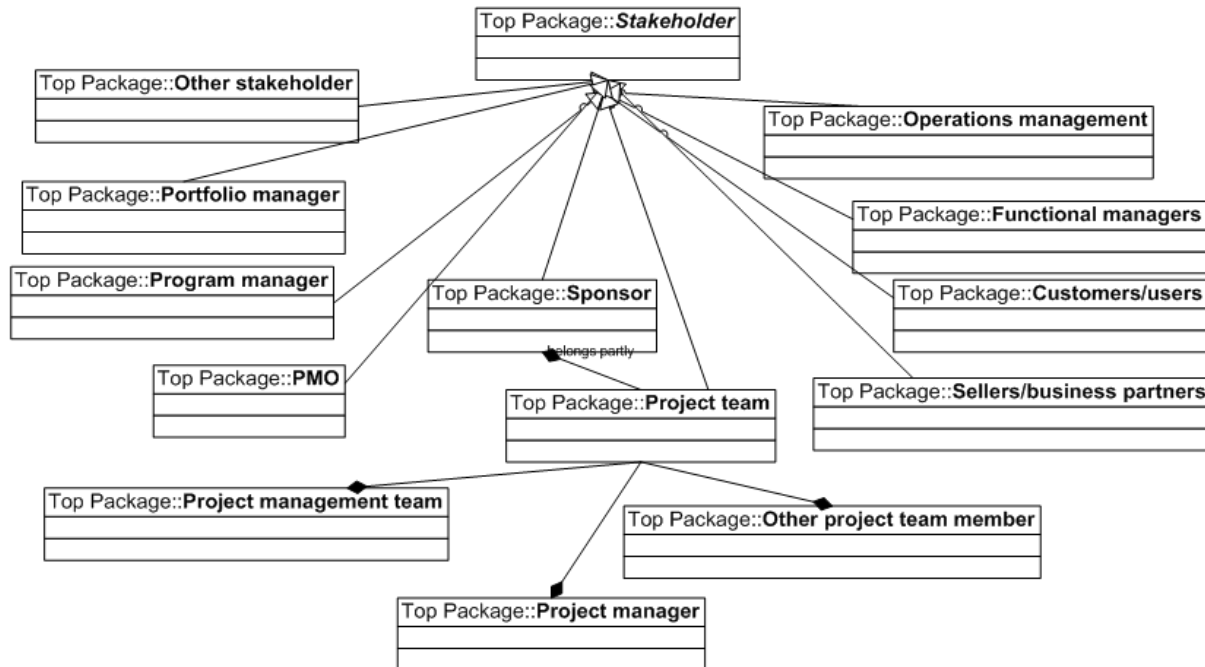
One example of the stakeholder management matrix is presented on the next figure:

		Importance of Stakeholder			
		Unknown	Little / No importance	Some importance	Significant importance
Influence of Stakeholder	Significant influence	C		A	
	Somewhat influential	C		A	
	Little / No influence	D		B	
	Unknown	D		B	

**Figure 10. Stakeholder Analysis Matrix Example**

### [Project Stakeholders](#)

Project stakeholders according PMBOK are presented on the next figure:



**Figure 11. Project Stakeholders**

Because of the belonging to constitution of portfolio(s) or program(s) are direct stakeholders correspondingly portfolio manager and program manager. If in organization exists central project management unit then the stakeholder of the project can be so called project management office (PMO).

One stakeholder related with project is operational management as beneficiary organization, who orders project outcome and will use it in everyday operations. Functional managers are those who are related with project by giving necessary resources to project work. Customers/users are those stakeholders who will directly use the outcome of the project work. In the context of information systems project these are organizations people or people connected with organization whose information work will be changed. Sellers/business partners are those stakeholders from whom some kind of resources (technology, tools) or special services (analysis, testing etc) are bought.

Project management team consists of members of the project team who are directly involved in project management activities. On some smaller projects, the project management team may include virtually all of the project team members. One of the project management team members is also the project sponsor.

All mentioned stakeholders are more closely described as follows.

**Project sponsor** is the person or group that provides the financial resources, in cash or in kind, for project. When project is first conceived, the sponsor champions the project; gathers support throughout the organization and promotes the benefits that the project

will bring. Sponsor leads the project through the engagement or selection process until formally authorized and plays significant role in the development of the initial scope and charter. He/she/it may also be involved in

- authorizing changes in scope
- phase-end reviews
- go/no-go decisions when risks are particularly high

**Portfolio managers/portfolio review board (steering committee)** is responsible for the high-level governance of a collection of projects or programs. Portfolio review boards are committees usually made up of the organization's executives who act as a project selection panel. They review each project for its ROI, the value of the project, risks associated with taking on the project.

**Program managers** are responsible for managing related projects in coordinated way to obtain benefits and control not available from managing them individually. They interact with each project manager to provide support and guidance on individual projects

**Project Management Office (PMO)** is an organizational body or entity assigned various responsibilities related to the centralized and coordinated management of those projects under its domain. It can provide project management support functions or actually be responsible for the direct management of a project:

- administrative support services such as policies, methodologies, templates
- training, mentoring, and coaching of project managers
- project support, guidance, and training on how to manage projects and the use of tools
- resource alignment of project staff
- centralized communication among project managers, project sponsors, managers, and other stakeholders

**Functional managers** are key individuals who play a management role within an administrative or functional area of the business - human resources; finance; accounting; procurement. They are assigned their own permanent staff to carry out the ongoing work. They have a clear directive to manage all tasks within their functional area of responsibility. They may provide subject matter expertise or their function may provide services to the project

**Operations management** consists of individuals who have a management role in a core business area - research and development; design; manufacturing; provisioning, testing, or maintenance. These managers deal directly with producing and maintaining the saleable products or services of the enterprise. Depending on the type of project, a formal handoff occurs upon completion to pass technical project documentation into the



hands of the appropriate operations management group. Operations management would then incorporate the handed off project into normal operations and provide long term support.

**Customers/users** are persons or organizations that will use the project's product or service or result

**Sellers/business partners. Sellers** (vendors, suppliers, or contractors) are external companies that enter into a contractual agreement to provide components or services necessary for the project. **Business partners** are also external companies that provide specialized expertise or fill a specified role - installation, customization, training, or support.

## Project manager's tasks in Initiating a New Project

In general we can divide these tasks in 2 broad categories: understand the project environment and justify it.

### Understand Project Environment

Project manager must understand the project environment, background, and people. In other words, he/she must understand the cultural and political context of project. To manage a project, project manager must understand 4 things:

1. Why is this project being done? What does the client expect to get from it?
2. What is the background to this project? How did we get to where we are?
3. Who are the players? Who has fought for this project? Who has fought against it? Who is the executive sponsor?
4. What is the client's priority for this project?

To understand the background to this project, project manager must ask the following questions:

- What were the business conditions that prompted someone to propose the project in the first place?
- How was the project presented to management, and how was it evaluated and approved?
- What were the alternatives to the project that the client considered?
- What were (and are) the arguments against the project?
- What is the visibility of the project in the client's company or department? How important is it seen to be?
- What are the attitudes toward the project? Specifically:

- Is it welcomed as desirable, accepted as necessary, or condemned as wrongheaded?
- Is it regarded as easy, difficult, or impossible?
- Is it viewed with enthusiasm, resignation, or trepidation?

With the answers to these questions, project manager is equipped to become an advocate: to sell the project to the users and to create positive expectations for it. Project manager can now build an atmosphere that will make it easier to gain cooperation, to resolve issues, and to help the client achieve the expected benefits. Until these questions are answered, project manager is a passenger, unable to influence, much less dictate, the direction of the project.

### Justification and Feasibility

Some project managers will argue that justifying projects is not their concern – that once a project has been approved, their job is simply to deliver results. But delivering results means ensuring that the client enjoys the benefits used to justify the project. It also means being able to defend the project against cutbacks and to reevaluate the numbers when the scope or costs change.

There is only one valid reason to spend money on a project: it will generate or save more money than it costs. The purpose of a project is a general statement about why the project is being carried out. A purpose statement may be: “the purpose of this project is to create a state-of-the-art, on-line, real-time inventory system that will allow us to manage our inventory more closely while continuing to meet the demands of our customers”. This purpose statement is clear: we are going to build a system that will manage inventory. What it does not tell us is whether the project is justified – that is, whether it will save or earn more than it will cost.

A justification is an analysis of the costs versus the benefits showing that the benefits are greater. If the analysis shows that the costs are greater, then it is a justification for scrapping the project, not to proceeding.

A true justification has 2 necessary characteristics: it is dollar quantified, and it is treated as a target or goal.

A project is executed because the client expects some benefit, such as reducing inventory, cutting staff, or increasing annual sales. The project may be executed perfectly: on time, on budget, and doing what is supposed to. But if the company does not actually reduce inventory, cut staff, or increase sales at least enough to cover the cost of the project, then the money the client spent is wasted. But if the client does implement the system and cuts inventory as expected, it will recover the cost of the overrun. The benefits from a system normally exceed even devastating overruns. The catch is that the system must be implemented and the benefits realized. Project manager’s role includes helping the client realize the benefits that justify the project.

Project manager must be as concerned with the delivery of benefits as he/she is concerned with the delivery of the system.

## Lecture Summary

System engineering (development) methodology defines project life cycle; project management methodology defines project management processes in project life cycle with their inputs and outputs and usable techniques

Usable system development methodology depends on system nature under development, project criticality and usable resources (people, money etc.). It is project manager task to agree with stakeholders what kind of project management and system development methodology to apply.

With project initiation decision is done, to go forward with project or it phase, delay it or not. Project manager must make clear what is the real benefit to the customer.

## Used Literature

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- Project initiation document template, <http://www.projectmanagementdocs.com/project-initiation-templates.html>
- Project Initiation Checklists:
  - <http://office.microsoft.com/en-us/templates/TC011414121033.aspx>
  - <http://dijest.com/tools/pmworkbench/pmtemplates/PICHK.html>
  - <http://www.scribd.com/doc/2218603/Project-Initiation-Checklist-for-Small-Projects>

- Business Case Templates:
  - [http://www.ogc.gov.uk/documentation\\_and\\_templates\\_business\\_case.asp](http://www.ogc.gov.uk/documentation_and_templates_business_case.asp)
  - [www.exinfm.com/project\\_files/\*\*Business Case Template\*\*.doc](http://www.exinfm.com/project_files/Business_Case_Template.doc)
- Project Charter Templates:
  - [http://www.pmhut.com/wp-content/uploads/2008/01/project\\_charter.pdf](http://www.pmhut.com/wp-content/uploads/2008/01/project_charter.pdf)
  - <http://office.microsoft.com/en-us/templates/TC011414181033.aspx>
  - [www.projectinitiation.com/process\\_assets/Project Charter Template.doc](http://www.projectinitiation.com/process_assets/Project_Charter_Template.doc)