# PROJECT MANAGEMENT

## Basic terms and definitions of project management

Currently, the concept of Project Management is interpreted differently depending on the chosen model, approach to the structure of knowledge( Body of Knowledge), the type of project, etc. Therefore, the concepts of "project Management" and "project Management" can also be understood ambiguously.

Usually in the world practice "project management" refers to social systems,

i.e. the content of this sphere is formed by market management culture and professional activity. In contrast, "project management" focuses on the direct implementation of certain project processes.

In different models and standards, the term "project" is also defined from different positions. In particular, the process model of ISO 9000, ISO 10006 considers the project as a process. On the other hand, in the organizational-activity model of ICB IPMA (International Competence Baseline International Project Management Association), the concept of ―project‖ is revealed through the terms

―enterprise‖, ―effort‖ and ―activity‖.



#### Project:

 this is an enterprise that is characterized by the fundamental uniqueness of its operating conditions-tasks, time, costs, quality and other conditions that differ in the project-specific organization and other parameters;

 it is an effort that organizes human, material, and financial resources within a unique work item, a given specification, with cost and time constraints. At the same time, the standard project life cycle is followed in order to implement successful changes defined through quantitative and qualitative goals and objectives;

 this is the only one of its kind set coordinated activity carried out by an individual or organization to solve specific tasks with a set start and end, a certain schedule, costs and performance parameters

**Project** – a unique process consisting of a set of interrelated and controlled activities with start and end dates and undertaken to achieve the goal of meeting specific requirements, including time, cost, and resource constraints.

**Project** – this is a temporary effort made to create a unique product or service.

**Project** – a unique set of interrelated actions (works) with specific start and end dates, designed to successfully achieve a common goal.

**Project** – a unique set of coordinated actions (works) with specific start and end points, undertaken by an individual or organization to achieve certain goals with set deadlines, costs and performance parameters.

Generally speaking, activities in the areas of project management and project management are regulated by a number of international (ISO) and national standards for quality management and systems management, in which the objects of regulation are glossaries, processes, methods, as well as professional qualification requirements for the activities of project managers and project management specialists (competence).

The following are known as national standards:

 Russian state standards (GOST R) identical to international standards;  American standards ANSI (American National Standards Institute – American national standards Institute of the USA) and AIEE (American Institute of Electrical Engineers – American Institute of electrical engineers of the USA);  British standards BS (British Standards Institute-British Institute of standards);

 standards of Germany and other countries.

Among the specialists of many countries, the most common document in the field of project management and management is a set of knowledge Of the Institute of project management in the USA – PMBOK Guide. The popularity of using this document by project managers in their practical work is explained by the fact that the project management model, presented in a process form, is used in it for one separate project.

The following should be mentioned as common properties of any project:  a project always has a clearly defined goal, which is expressed in getting some result. Achieving this result means successful completion and completion of the project;

 the project has a clearly defined beginning, which coincides with the beginning of the first work aimed at achieving the goal.

The start can be set by Directive or calculated as a result of drawing up a work plan for the project;

 the project has a clearly defined end, which coincides with the end of the last work aimed at obtaining the desired result. The end of the project can be set by Directive or calculated when drawing up the work plan (Fig. 15.1);

setting goals,

**Phase 1 Conception**

**Phase 2 Development**

analysis of investment opportunities,

feasibility study,

planning project

setting

structure, time planning,

**Phase 3 Realization**

documentation development,

deals with partners

marketing,

staff trainings,

**Phase 4 Finals**

building infrastructure,

integration

maintenance,

full time working,

delivering project to partners

Fig. 15.1. Project life cycle

 the project is executed by a team that includes the project Manager, managers, and performers. Third-party teams, individual performers, and entire organizations may be engaged to perform individual work on a temporary basis;  during project implementation use of material resources. Their nomenclature and quantity are determined by the nature of the project and the work included in it;

 the project has a budget. The cost of the project consists of the cost of spent material resources, the cost of paying the team implementing it, and other costs associated with the characteristics of specific types of work;

The project has three types of restrictions:

 budget restrictions-set the maximum cost of the entire project or individual types of work;

 time limits-set deadlines for the completion of the project as a whole or some work;

 resource restrictions-determined by the limited team composition and / or schedules of receipt of material resources.

**Project manager** – a person (an employee of this or another enterprise) who directly manages the work on the project and is responsible for obtaining the specified result.

**Project result** – this is some specific product or other useful effect created in the course of the project. Depending on the purpose of the project, such a result will be: a new technological process, software, information system, scientific development, certified quality system, restructured company, construction object, etc. the success of the project is judged by how much its result corresponds to its cost, revenue, innovation, quality, time, social, environmental and other characteristics of the planned level.

In order to achieve a proper result, the project must be subject to control at all stages of its life cycle. The project components and **parameters** that need to be managed will include, in particular, the following:

 volumes of works and their types;

 the costs of the project, its current and final cost;

 time characteristics of the project – the timing and duration of the project stages and individual works, as well as reserves and relationships between them;

 resources required for the project implementation and their limitations- human, financial, material and technical, etc.;

 the quality elements of the project design solutions, used resources, etc.

**Project management** – this is an area of management that covers those areas of production activity in which the creation of a product or service is implemented as a unique set of interrelated targeted activities with certain requirements for the timing, budget and characteristics of the expected result.

**Managing project** – it is the process of planning, organizing, and managing work and resources to achieve a goal, usually under time, resource, or cost constraints.

**The subjects of project management** – these are all active participants of the project, interacting in the development and adoption of management decisions:

* management staff of the project customer, including all necessary departments and organizations that represent different roles of the customer- investor, functional customer, General customer, etc.;
* management apparatus of the project executor (s), including all necessary divisions and organizations representing various roles of the executor-General contractor, General system integrator, contractor, subcontractor, supplier, etc.;
* project teams (management groups, working groups) – specialized organizational structures created during the execution of projects and including management and technical personnel allocated by the customer and performers for the implementation of projects.

#### Project management objects:

* + a project is a set of interrelated activities designed to achieve the set goals with established requirements for the quality of the result within a given time and within the allotted budget;
	+ project portfolio – a set of projects that are within the competence of one responsibility center;
	+ a program is a group of interrelated projects and various activities United by a common goal and conditions for their implementation. Managing projects that are combined in a single program usually requires coordination. Programs usually include an element of continuous activity;
	+ stages of the life cycle of programs and projects – sets of logically interrelated project activities, in the process of completion, which is achieved one of the main results of the project.