

INNOVATIVE PROJECT MANAGEMENT AND ITS STANDARDS

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This article generally outlines the postulates of innovative project management, its basics, common criteria and rules that can be used in managing the innovative projects. Along with it the article describes different standards at international and national levels of project management that can be applied in innovative PM as well.

Keywords: innovation, innovative project management, international standards of PM, project, qualification standard PM, requirements, resources, PM standards, project standards.

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УПРАВЛЕНИЕ ИННОВАЦИОННЫМ ПРОЕКТОМ И ЕГО СТАНДАРТИЗАЦИЯ

В статье рассмотрены основные принципы управления проектами, их основы, общие критерии и правила, которые могут использоваться в управлении инновационными проектами.

Наряду с этим, статья описывает различные стандарты управления проектами на международных и национальных уровнях. Знание этих стандартов поможет инновационным менеджерам в реализации международных проектов, а также проектов с иностранными участниками.

Ключевые слова: инновации, управление инновационным проектом, международные стандарты PM, проект, квалификационный стандарт PM, требования, ресурсы, стандарты проекта.

1. Introduction

The era of post-industrial development of society and creation of information-oriented society led to the change of the requirements to companies' making, to formation of structures of management, to merging or division of functions in it. According to Peter Drucker, a well-known specialist in the sphere of management, this century will principally change the foundations of companies' activity – there will be a transition from the companies, "based on the rational organization", to the companies, "based on knowledge and information". Basically in construction and functioning of the companies and their interaction there will be processes in administrative activity instead of the limited functional specialization which has proved its drawbacks in practice (increase in number of levels of management, a lot of efforts focused on coordination, etc.). Even traditional (bureaucratic) structures of management are supplemented with numerous horizontal relations at various levels of hierarchy. Not only the companies which have become the organizations "with no inner divisions" change, along with network companies, but also traditional intercompany ties that will entail the emergence of companies "without borders" and network companies as well.

The new corporate model, expansion of cooperation relations between competitors, suppliers and consumers; the progress in informatics, the automation of production has changed traditional ideas of companies' borders. The companies make up together to use specific market opportunities which don't exist for the companies being taken individually. Business globalization, creation of strategic alliances and company networks, information networks allow to create the best in every respect organization in which any function and process is realized at international standards.

2. Basic Concepts

On the one hand the problems of innovative projects management, that Russian businessmen face are connected with the Soviet standards in project management, that partially were lost during the transitional period in Russia, on another hand attracting foreign investments demands the keeping accounting records according to the international accounting standards. That's why the task to prepare highly-qualified specialists skilled in managing the innovative projects on different standards, who understand the projects' specifics and risks profoundly and can manage those risks still remains.

Along with this a modern company has to undergo constant changes to stand in business rivalry by optimizing its managerial system in general or just some of its processes and also by introducing highly effective forms and methods of management. Today the form of project can be seen as one of the most effective forms of task-oriented changes, ruled or operated by special methods and instruments.

Project (project) – a complex of interconnected measures or actions targeted at achieving of the set goals provided with the specified requirements to the result at a definite period of time and is limited in budget.

Project management (Project management) – practical using, application of your professional skills, knowledge and ways of management to a successful carrying out of the project.

Traditionally, innovative project management is referred as the field of management, that covers the international industrial activity of the company, where the process of creating a product or service, the management of problem solving is fulfilled as a unique complex of interconnected targeted events fixed by deadlines, measured in budget, having a lot of requirements to the expected result.

The existence of these restrictions puts special requirements on organizations and their ways of management, the main point of which is in a concentration of responsibilities for the project in the hands of the project manager only and a creation of the team that by any means or reason can be expropriated from a company's departments for the project fulfilling. The project becomes the object of management – the center of making profit and expenses, that allows to organize the management of human, material and financial resources accounting and make a system of motivation, based on the concrete results of project's participants. Projects' characteristics and their contents are directly connected to the business of the company, its specifics and

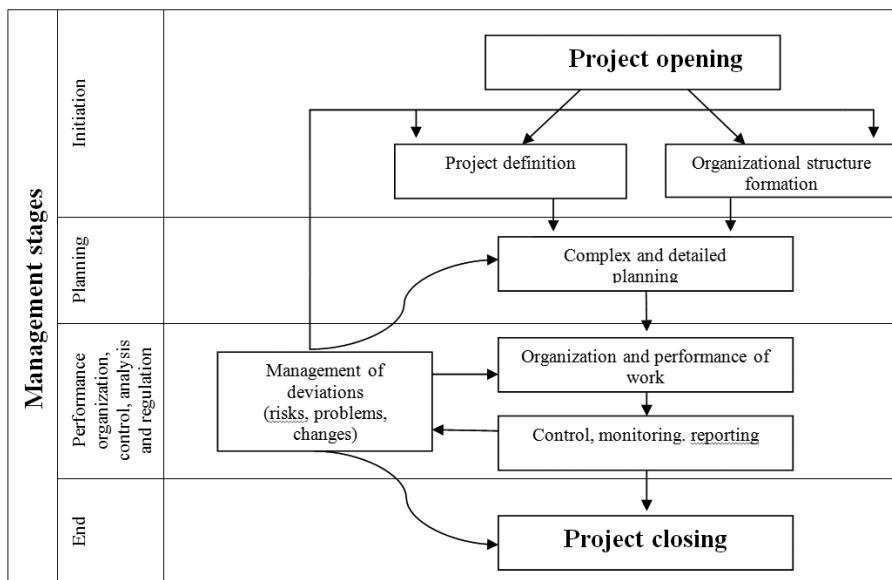


Fig. 1. Processes of management in the project

scope. At first sight the general formulas of innovative project management are simple and easy, because they are based on a structured experience and common sense. The project should be started from the task assignment and goal formulation. Then there should be worked out the ways of reaching the goal and all necessary activities for it should be done. After that the project can be successfully finished as it has been planned from the very start. Despite of everything, the difficulties on fulfilling stage of different projects have always been and happened, as in reality it's hardly ever possible to plan the unique process realistically and to carry it out as it has been planned.

General obstacles that can be faced in working on any project are:

- The bad quality and a low work effectiveness;
- The cultural gap in team work and the existing contradictions and in coordination between company's departments.
- The ineffective resources usage, conflicts of project resources.
- Absence of operational performance report system;
- Unprofessional client service – the lack of clients' feed-back monitoring;

That is the reason for the innovative project management to include and cover some more essential processes except the planning stage - the permanent controlling on project making, searching derivations in the real work on project from the way it has been planned, correcting the steps of the project up to the possible change of the main project's characteristics – the

deadline, budget and goals (the generalized scheme of the project management processes, pic.1).

So, taking into account the triple project's restriction, the innovative

project managing processes along with the organizational programming and technical solutions that can be used in order to succeed in a project and let the managers be effective on the project, we can make a following model of the project in the form of the pyramid of effectiveness (pic. 2)

3. International and national project management standards

3.1 The purpose of PM standards

For a successful and effective manager and his team's work there should be created special working conditions that can help them in successful realization of all their potentials and abilities. One of such key conditions is a corporate norm and culture of developing projects fixed in the form of standard.

Standard, in its general meaning, is a model or reference, that is taken as a base to compare other objects with it. The standard, as a complex, is a normative-technical document that sets the number of rules and requirements for the stand-

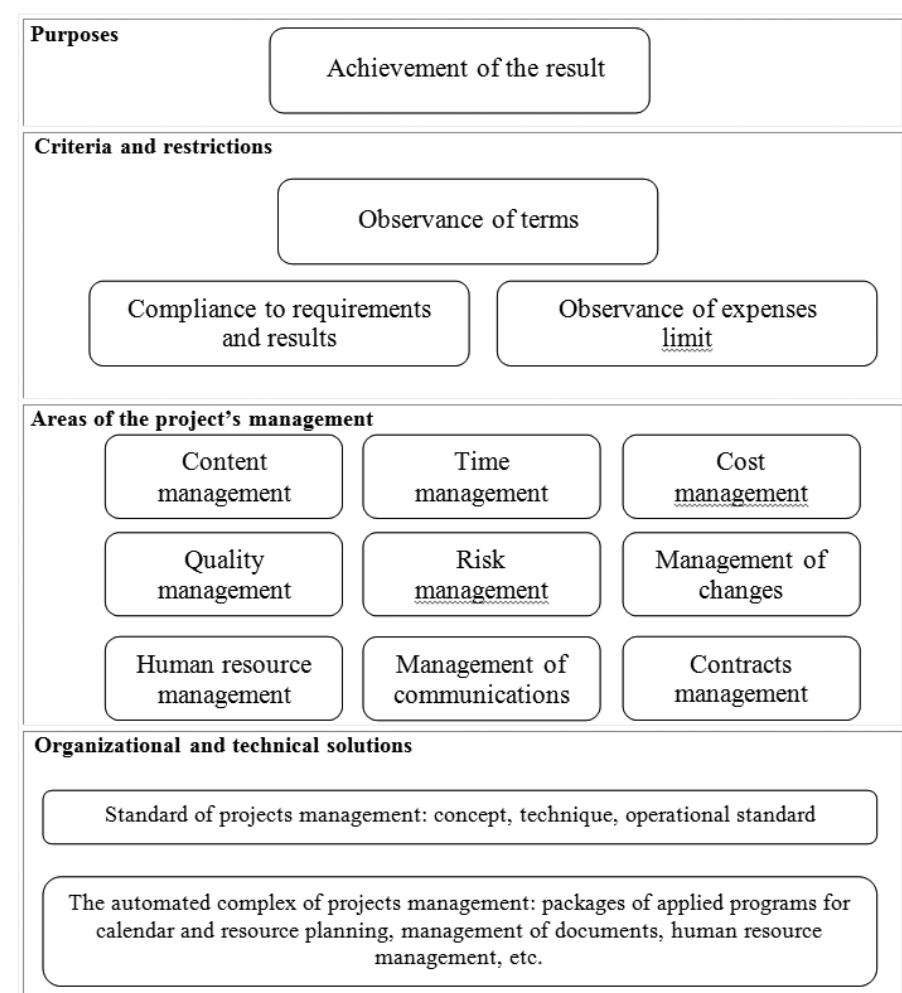


Fig. 2. "Efficiency pyramid" - methodology of projects management

ardized object and is proved or certified by a competent body.

The standard can be developed as for some production, samples of substances, etc. and for different norms and rules too.

The mains role of standard are:

- to define the subject of innovative project management, its participants' roles, the language and the terminology of the project.
- to conduce or promote the development and assessment of project management practice in innovations, to sort out and evaluate the professional growth of different groups of specialists in the project management area.

The standardization in project management may be of 2 groups of elements, that can be also applied in innovative PM:

- objects (projects and organizations) – the elements that are described in the glossary and in the form of requirements to the qualification.
- objects (people) – the elements that are described in the form of requirements to the qualification.

Modern project management standards in innovation are used at 3 levels: international, national or state and corporate.

3.2 International Standards

Among the international standards we must point out the group of ones in professional organizations of project management area and ISO quality standards.

In the first group the can be the standards that are developed by PMI. Being national standards by the status they are widely recognized around the world and have become de-facto internationally used. And in the first turn we can say this about the most recognizable document that states the basics of Project Management – *A Guide to the Project Management Body of Knowledge PMI* (PMBOK).

Starting from 1994 PMBOK Guide in a national standard of the US became the basic Glossary and abbreviations reference in project management area.

It's popularity can be proved by its simple way of delivering knowledge on project management as in the view of process and an active politics of PMI on spreading its approach abroad the US.

The simple method of PMBOK PMI was got by means of simplifying the process model which is used for a management of a separated project. Although the areas of PM that appeared to be difficult and not to be formulized, are not

mentioned in the document. For example, the strategic project management, multi-project management and other issues of contemporary project management.

The professional requirements or qualification standards of PM managers and specialists' activity can be referred to the first group. Fist of all this approach is showed in the International qualification standard of IPMA that is called International Competence Baseline IPMA (ICB), which outlines the requirements for the competence as mutually connected contextual, behavioral interactions and technical knowledge in PM area.

The same approach is suggested by 'A Framework for performance Based Competency Standards for Global Level 1 and 2 Project Managers' standard that was developed by Global Alliance for Project Performance Standards. It differs in its focus not on the theoretical knowledge but on practical accomplishments of project management specialists. The second group of international standards on quality is a framework standard of ISO type *ISO 10006:1997 (E) Quality Management. Quality Management in Project Management*, that gave the de jure status to some of PMBOK important provisions.

There can be also referred to this group some standards in such branches as building and construction, informational technologies area, for example *ISO 15288:2000 Life Cycle Management-System Life Cycle Processes* and others.

3.3 National standards

Besides, the international regulation documents and standards some countries have developed and use their own national standard systems and requirements. As a rule, they are applied due to their specialty and regulate different aspects of project management.

Standards of Great Britain in project management are one of the most respectable, representative and traditional complex of national standards. Their retrospective review can give us a good understanding of various approaches in formation and development of national system of standards in project management (pic. 3.).

First national standards on project management appeared in Great Britain in 1981 as a complex of standards for net technologies usages in project management.

“The second turn”, the British Standards on projects management was entered

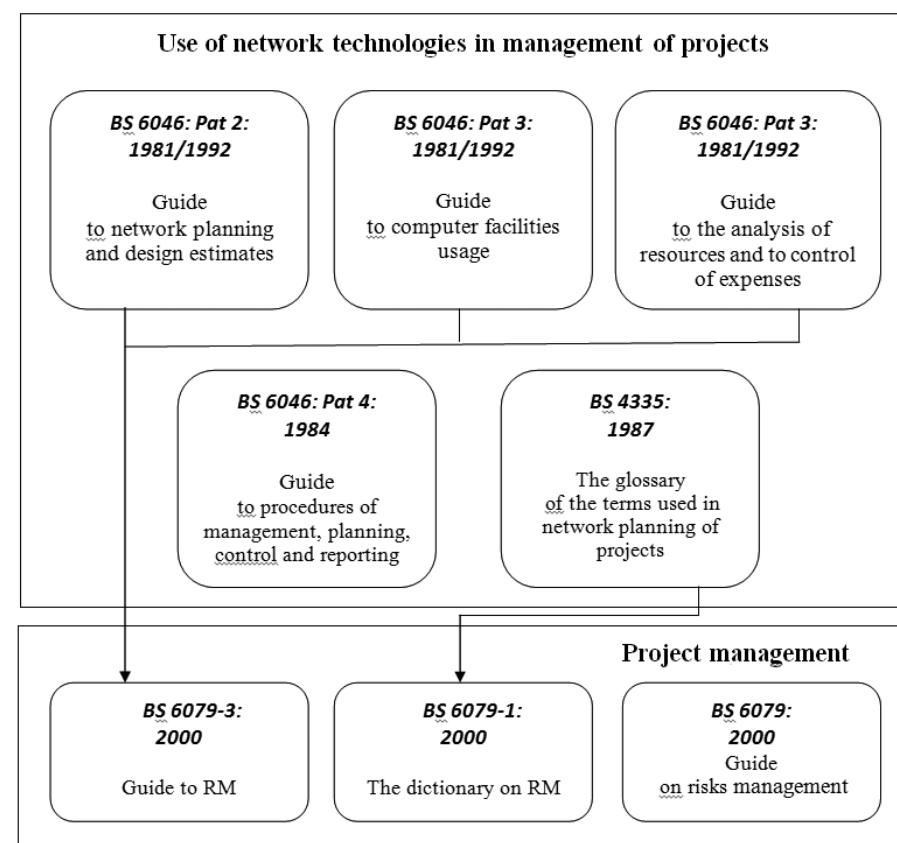


Fig. 3. Retrospective of development of the British national standards of management of projects

in 1992 and updated the first three standards of 1981. The first three standards of essentially new complex of standards were introduced in 2000. Such sequence of the British standards on projects management institution corresponds to maturity of various aspects of project management at that time in one of the most progressive countries in this area.

Standards of the American projects management institute (PMI).

Except for **PMBOK Guide** which has already been mentioned the second standard applying for the international status is the standard of maturity of the project-oriented company **Organizational Project Management Maturity Model (OPM3)**.

However, despite the wide agitation campaign, the popularity of this standard isn't very high yet. The library or number of the PMI standards includes also following standards:

- Practice Standard for Work Breakdown Structures,
- Project Manager Competency Development Framework,
- Government Extension to the PMBOK Guide,
- Practice Standard for Earned Value Management,
- Practice Standard for Program Management,
- Practice Standard for Portfolio Management,
- Practice Standard for Scheduling,
- Practice Standard for Project Configuration Management,
- Unified Project Management Lexicon,
- Practice Standard for Risk Management,
- U.S. Department of Defense Extension to A Guide to the Project Management Body of Knowledge (PMBOK Guide).

Other national standards

The national standards are accepted by many national associations using them as system of requirements to knowledge, experience and skill of project managers and specialists in managing projects. Except already mentioned national stand-

ards of the USA (PMI) and Great Britain (APM) we will note some more national standards:

Australia (AIPM): Competence Standard, Level 4/5/6, AIPM Australian Institute for Project Management, 1996.

Germany (GPM): ZERT Zertifizierungsstelle der GPM Deutsche Gesellschaft für Projektmanagement e.V. : Projektmanagement-Kanon – der Deutsche Zugang zum Project Management Body of Knowledge, Köln, FRG, 1998.

Japan (JPMA): A Guidebook of Project & Program Management for Enterprise Innovation (P2M), – PMAJ, 2008.

Russia (COBNET): Projects management. The bases of professional knowledge. National requirements to competence (NTK) of experts / the Certified commission of COBNET, – M, KUBS, 2001.

3.4 Corporative standards and norms

Elaboration and implementation of industrial and corporative standards in projects management should be based on conjunctive and balanced use of the both types considered standards above (the standards, defining processes and standards, defining the requirements to experts' qualification).

4. Conclusion

Standards in project management play an important role in making business more effective and for this reason they are relevant for Russian business that use project management especially its innovative approach in business conducting.

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