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PROJECT MANAGEMENT AT OBRUM

Abstract. The paper presents a new form of management - project management - implemented at OBRUM. The adopted PRINCE2 and PMI methodologies are discussed along with the implemented reporting lines. The benefits obtained and future development trends in project management are described, including IT support.

Keywords: project, project management , PRINCE2, PMI.

1. HISTORY OF PROJECT MANAGEMENT AT OBRUM

OBRUM in its long history has gone through a number of organizational forms – from Experimental Production Plant (1968), through the state Research and Development Centre (1986) to a commercial company (2008) that now is part of the Polish Armaments Group (PGZ) (2014).

Changing environment, and especially the political changes after 1989 and the subsequent restructuring of the defence industry, forced OBRUM to search for new organizational forms of management, including project management [1].

First attempts to introduce project management at OBRUM were made after 2000. Disposition no. 3/2002 [2] introduced in the General Manager's section a new group of positions: Project Managers, and defined rules therefor.

Despite a wide range of responsibilities, leaving the manager in the parent unit, without having consolidated his or her strong position enabling determination of financial effects of the project and without placing him in the managerial structure of OBRUM has not produced significant qualitative changes.

As a result of further organizational changes introduced at OBRUM [3] in 2005 the positions of Project Managers were liquidated in the Technical Manager's section. The functions performed by the former project managers were taken over by the Department of Marketing and Project Management within the Commercial Manager's section.

The next step towards a comprehensive implementation of project management [4] was the formation of a Project Management Department (based on the Project Management Team) within the Technical Manager's section outside of the Marketing and Project Management Department which reported to the Commercial Manager.

Another effort to reorganize the domain of project management at OBRUM [5] was made in 2009. The starting point was an audit of the management system conducted by the Faculty of Management of the Silesian Technical University in Gliwice.

However, project management at OBRUM was not based on known methodologies at that time. In that system only one basic role could be distinguished – that of the project manager.

Each of the managers had created his or her own style applied in the conducted projects. This did not always prove to be effective. This certainly does not mean that there were no successful projects. But successes depended on individual experience and skills of the project managers, who were reluctant to share these with others. Under these circumstances dissemination of good solutions was hampered.

A big step to systematize project management was made when "Project management methodology in the Bumar Group" was introduced and adopted [6] at OBRUM. The Management Board of OBRUM, responding to the directive of the Management Board of Bumar, implemented the "Project management methodology in the Bumar Group" [7] as a uniform obligatory document for all companies of the Bumar Group.

A logical consequence of this was the development, approval and implementation at OBRUM of "Project Management Rules at OBRUM", which formed an appendix to disposition no. 3/2012 [8]. This document functions at OBRUM to this day, and, based on the known Prince2 (Project IN Controlled Environment) methodology [9] and on PMI (Project Management Institute) standards [10], it has established the responsibilities and determined the procedures to be followed by project managers. A set of guidelines and document templates was the first step in introducing OBRUM into the new realities of project management that have existed in the world for many years.

2. METHODOLOGIES OF PROJECT MANAGEMENT AT OBRUM

International corporations base their Project Management systems on various methodologies. This, however, does not prove that these corporations devised the methodologies on their own. OBRUM, likewise, took advantage of existing solutions, which together with internal procedures enabled the implementation of the methodology into the projects. Methodologies and standards selected by OBRUM included Prince2 [9] and PMI [10]. These are the two most well-known project management methodologies that set the highest standards worldwide.

What criteria were applied when selecting the above methodologies and why were two selected? To answer this question another question has to be asked: what projects would these methodologies be applied to?

Most of the projects run at OBRUM are of the research and development type [11]. Such projects are very specific, as they are not only difficult to plan, but they are also highly variable and relational. What's more, these projects pose a high risk of failing completion. For this reason, the projects run by OBRUM can be broken down into two groups:

- 1) projects of consortia implemented by several institutions of equal rights, where the outcome often depends on joint actions;
- 2) projects run by OBRUM only, where only supplier-client relations occur during their implementation.

In the first group of projects the Prince2 methodology is applied, which allows for a clear definition of roles, division of responsibilities and procedures. An important element, characteristic of this methodology is the Steering Committee, which in this case consists of individual members of the consortium, and the role of the chairman of this committee is entrusted to the Consortium Leader. Apart from the project manager, which is appointed at the time of concluding the consortium agreement, each of the companies assigns its representative, usually the person responsible for project management in the company's structure.

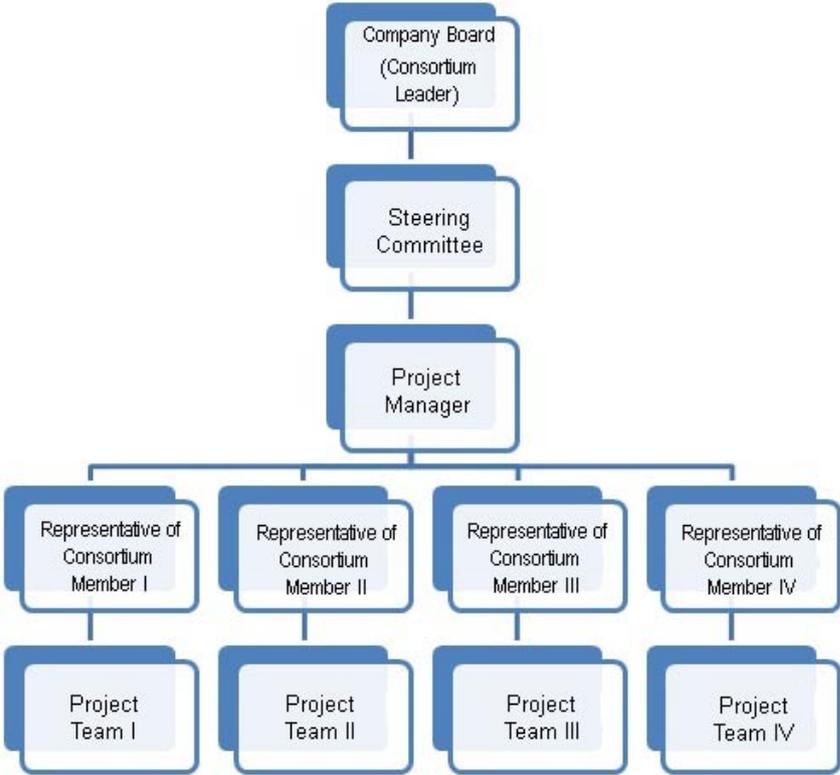


Fig. 1. Project organization diagram based on PRINCE2

Obviously there are several more roles provided for by the methodology, and these also function at OBRUM. Nevertheless, the above diagram (Fig. 1) defines the hierarchy of direct subordination in the projects being run, so a situation where there is nobody to take decisions can be avoided.

The second group of projects includes projects run exclusively by OBRUM. This group of projects, contrary to what might seem, is not easier to complete, but the functions of the project manager are not restricted by imposed procedures. As regards relativity and reporting lines in such a project, it is much easier to manage. The functions of the Steering Committee in such projects are taken over by the Board of Management, therefore the need to establish the Committee is avoided.



Fig. 2. Project relations diagram based on PMP

The presented breakdown of projects is obviously a matter of convention, and the selected methodology can be applied differently. One would ask why? The answer lies in the

definitions of methodologies, which state that project management methodology is a collection of the best project management practices (standards) that were input by organizations into PMI [2] and Prince2 [1] and described in order to facilitate the activities of project managers. Therefore, when running projects, OBRUM applies mechanisms which are often described in the above methodologies.

3. PROJECT IMPLEMENTATION AND COMPLETION BASED ON ADOPTED STANDARDS

As already mentioned, the first element aimed at standardizing project procedures after the selection of the methodologies was the "Development of Project Management Rules at OBRUM" [8], but the implementation itself, without staff training [12], had no chance of success. Training in project management methodologies, project risk analyses, project management tools (MS Project) was an activity launched immediately by the company. These activities enabled the project managers, who implemented projects in the company, to make use of the knowledge gained directly from their projects, which quickly brought the first positive results.

The first completed project based on the new adopted standards was that of a platoon version of a shooting simulator (SK-1 Pluton). The project was assigned to the author of this paper (project manager), which enabled verification of the procedures developed for OBRUM against standards established earlier. As it turned out during project implementation, both the project and the procedures were reviewed by the Supreme Chamber of Control and received a positive opinion. This allowed to realize that OBRUM was on the right path to effective project management, and the first comprehensive actions brought tangible results.

At present a dozen or more projects, and in fact all projects at OBRUM are carried out on the basis of previously implemented procedures and methodologies. Proper use of existing tools by managers of individual projects brings measurable benefits in terms of timely completion of projects.

4. EPM – A TOOL FOR SUPPORTING PROJECT MANAGEMENT

Another step taken by OBRUM in the area of project management was to start the process of deploying Enterprise Project Management (EPM) system [13], [14], which aims to enable effective project and resource management across the organization and defining their priorities. The system was implemented based on Microsoft EPM 2013 which consists of several key components, enabling it to achieve the required functionality.

The software was adapted to OBRUM procedures, which enabled the operation of the system in accordance with the adopted manner of proceeding. In addition, the software operates in a network environment that allows flow of information between the systems that function within the organization. This provides the project managers with necessary information [14] in the form of a budget, expenses, man-hours of project groups involved in the project and progress in the process of implementation. Obviously this information was also available before, but it required importing from several different OBRUM units, and now information is transmitted electronically.

5. SUMMARY

Implementation of a project management system at OBRUM was aimed at standardizing activities in projects based on the methodologies and standards used to implement projects in corporations worldwide. The entire process proceeded in stages, starting with the development of procedures to implementation of the necessary IT tools. Training of staff [12] responsible for running projects at OBRUM was also an important element of the process. Methodologies and project standards, as is the case elsewhere in the world, evolve at OBRUM as more experience is gained during the implementation of projects. With time, corrections and adjustments will be made to the system when necessary. Project management systems are in fact templates and procedures which, if applied properly by the project manager, produce a measurable effect in terms of achieving the goal, that is completing the project in accordance with the adopted objectives.

It is also important to note that the solution implemented at OBRUM, both in terms of Prince2 project management methodology, as well as of the use of tools in the form of Microsoft SharePoint platform, is used by many corporations and, importantly, also by the Polish Armaments Group (PGZ). Although OBRUM adopted this approach much earlier than PGZ, it proved to be the proper way and identical with the policy of project management now followed by PGZ and based on the latest standards.

6. REFERENCES

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