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## PROCESS AND PROJECT ORIENTATION OF THE ORGANIZATION AS A MANAGEMENT STRATEGY

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## ПРОЦЕССНО-ПРОЕКТНАЯ ОРИЕНТАЦИЯ ОРГАНИЗАЦИИ КАК СТРАТЕГИЯ УПРАВЛЕНИЯ

The paper deals with aspects of forming business architecture of the organization management. The authors use a self-acting university as an example and develop a strategic map, according to which a system of business processes and portfolio of projects aimed at the implementation of strategic goals are formed. Process and project orientation is considered as the foundation of the organizational strategy. Systematizing scheme of business processes, project portfolio and organizational structure elements represent the basic elements of the organization's business architecture.

SELF-ACTING UNIVERSITY; PROCESS MANAGEMENT; PROJECT MANAGEMENT; STRATEGIC MAP; UNIVERSITY STRATEGY MANAGEMENT; ENTERPRICE BUSINESS ARCHITECTURE.

Рассмотрены аспекты формирования бизнес-архитектуры управления организацией. Разрабатывается стратегическая карта организации на примере автономного вуза, в соответствии с которой формируется система бизнес-процессов и портфель проектов, направленных на реализацию стратегических целей. Процессно-проектная ориентация рассматривается как основа организационной стратегии. Систематизирующая схема бизнес-процессов, портфель проектов и элементы организационной структуры выступают в качестве базовых элементов бизнес-архитектуры управления организацией.

АВТОНОМНЫЙ ВУЗ; ПРОЦЕССНОЕ УПРАВЛЕНИЕ; ПРОЕКТНОЕ УПРАВЛЕНИЕ; СТРАТЕГИЧЕСКАЯ КАРТА; СТРАТЕГИЧЕСКОЕ УПРАВЛЕНИЕ ВУЗОМ; БИЗНЕС-АРХИТЕКТУРА ПРЕДПРИЯТИЯ.

**Introduction.** The effective operation of modern organizations and enterprises are inextricably connected with process management. Back in the early 1930s, the idea of re-orientation of the enterprise structure from a functional organization to a process approach appeared, which eventually led to the emergence of concepts such as business process management and business process optimization.

The more organizational units are involved in the business process, the more complex it becomes to control this process, allowing for that the process model exists only «in the heads» of its executors and supervisors. Process management involves modeling the main processes of the organization with the help of special tools and provides planning, management and control of them.

If business processes are aimed to deal with recurring tasks aimed at achieving a stable result, the unique challenges require a different management approach, which is implemented with the help of project management.

Project management is the application of methods, tools, techniques and competences to a project (ISO 21500 international standard) [11].

There are many approaches to management of projects, under which certain standards and methodologies of project management developed. Most common of them are PMBOK (The Project Management Body of Knowledge by Project Management Institute, USA), P2M (A Guidebook of Project and Program Management for Enterprise Innovation, based on Japanese experience), PRINCE2 (Projects IN Controlled Environment, Great Britain) and others. In the Russian Federation A National State Standard R 54869 – 2011 «Project Management: Project Management Requirements» was constituted in January 2012 [8].

Business processes functioning and project implementation not only provide the current activities of the company, but also act as an important component of strategic management. Identifying and developing key business processes and projects which encourage the

organization to achieve its strategic goals will improve the effectiveness of strategic management.

Some specific conditions of using a process-project approach to organization management is largely dependent on the scope of its activities, which necessitates the development of not only the general concepts, but also industry-oriented solutions. In particular, the application of a process-project approach is helpful in the management of higher education institutions (hereinafter – universities), in which business processes (such as the educational process, preparation of teaching materials; administrative and economic activities, etc.) are realized *pari passu* with business processes (such as the development of new curricula; organization of scientific conferences; construction of new buildings, etc.) and require an integrated approach to their operation and implementation. Considering processes, projects and organizational structures associated with their implementation, as interrelated elements of the enterprise business architecture allows realizing the needed integrated approach.

The applicability of this approach in Russian universities is determined by the necessity to modernize the approach to management and administrative processes, as well as their coherent functioning with educational and research projects. Focusing on the strategic planning of the university, as well as the use of a process-project approach in its management also becomes relevant in the view of the task that has been set by the President of the Russian Federation in May 2012, which is about ensuring the entry of at least five Russian universities in the top one hundred of the world's leading universities according to QS world university ranking.

**Literature review.** As a theoretical framework for the strategic development, authors use the monograph, edited by A.V. Babkin [1], in which the basic tools and techniques of strategic planning in the economy and industry are given. Also, the authors adhere to the classical theories of the strategic development of the authors D. Norton, R. Kaplan, M. Porter [5, 6]. Their works give the detailed description of tools such as strategic map, value chain, used by the authors to develop a strategy for an autonomous university.

Modeling and management of business processes is the main subject of the works of J. Becker, V. Taratoukhin, L. Vilkov and others.

In work [2] they justify the necessity of modeling business processes in different organizations, including education, the basic steps and technologies of modeling are given that formed the basis of this article.

University management issues are discussed in [3] of the authors Y.S. Vasiliev, V.V. Glukhov, M.P. Fedorov. Here the various levels of university management are described, with issues of budgeting and cash flow management, social work and propaganda work with a potential student. However, systematizing scheme of business processes and strategic map of the university are not included in their work, which has become the aim of this paper.

**Development of the organization strategic map.** An important factor in the success of modern organizations is the ability to accurately formulate strategic goals, as well as to convey their content and importance to all employees. One of the most common tools of strategic management in the organization is a strategic map that allows documenting key strategic goals set by the top management of the organization, and «cascading» them to lower levels. Strategy maps for this purpose were first suggested in the article of the balanced scorecard authors Robert Kaplan and David Norton, and are still relevant for organizations that aim to realize strategic activity in a more efficient way [5].

The authors attempt to develop a strategic map of a Russian autonomous university (Fig. 1). The choice is made in favor of an autonomous university in the view of the fact that in recent years more and more universities of Russia will receive this status. The autonomous university has a right to dispose of their property, including real estate, is entitled to the consent of the owner to be the founder of other organizations, has the discretion to provide a variety of services, not only educational [7].

It should be noted that the strategic map is not just one of the elements of the balanced scorecard, but the first and key step of its implementation. The main goals of the organization, as well as key performance indicators, as reflected on the strategic map in accordance with the so-called «perspectives» (standard perspectives proposed by the authors are: «Financial», «Customer», «Internal Business Processes», «Learning & Growth»), display the relationship of individual elements of the enterprise (organizational elements, business processes).

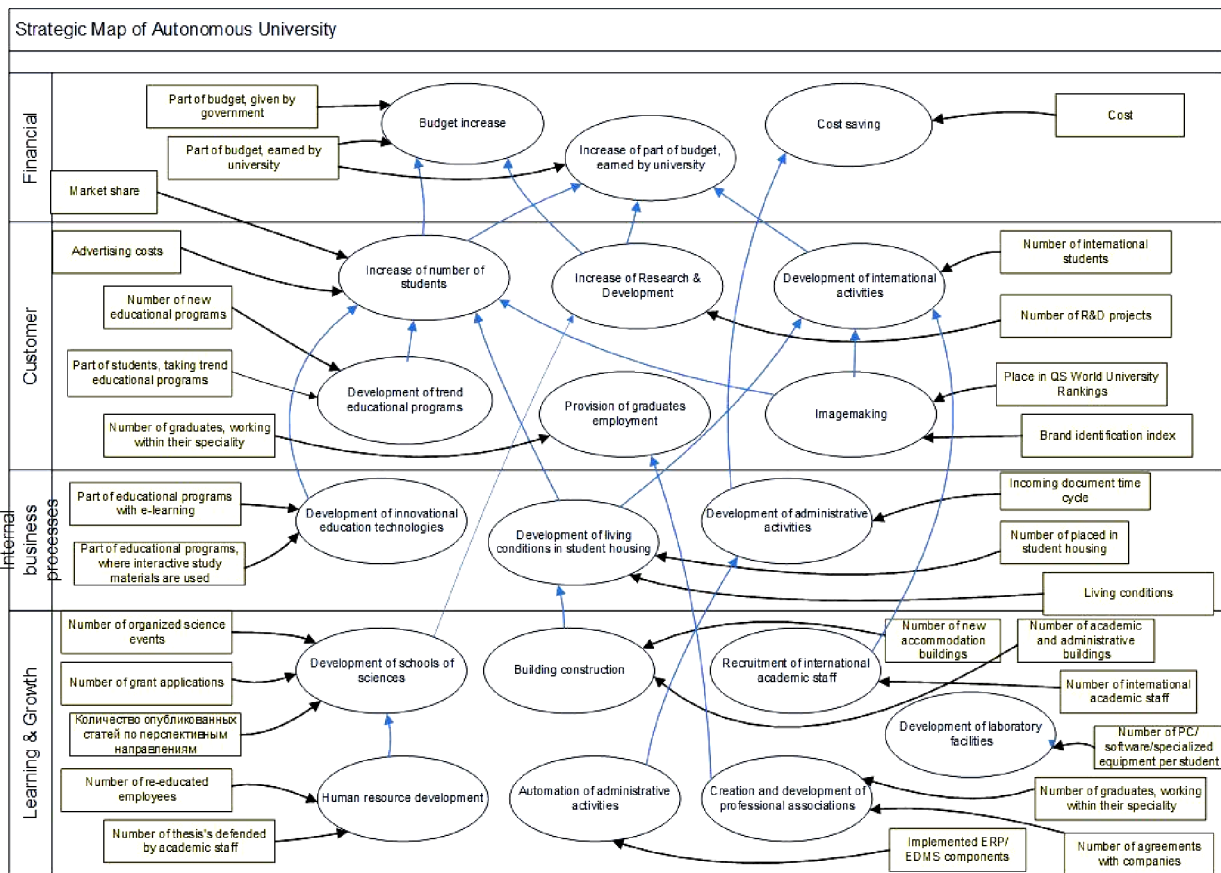


Fig. 1. Strategic map of an autonomous university

For example, the financial component of the proposed strategy map is composed of three main objectives: «Budget increase», «Increase of a partial budget, earned by the university» and «Cost saving». Thus, the purpose of the autonomous university is not only an increase in government funding (which is obtained by increasing the number of students supported by the government funding and increasing R & D funding from the federal budget), but also an increase in the overall budget a part of self-earned money (earned by students studying on a fee-paying basis, business contracts with enterprises and other activities that generate an additional income).

Achieving strategic financial goals is not possible without considering such goals as customer-oriented ones, such as «Increase of number of students», «Increase of R&D», «Development of international activities.» In its turn, the development of internal business processes of the university, presented in the form of goals «Development of innovative education

technologies», «Development of living conditions in student housing» and «Development of administrative activities» contributes to achieving the goals related to the attraction of new customers and improving the quality of services provided to existing customers.

It is crucial for the university to develop research activities. The main factor in the development of such activities is human resources – the faculty of university. In this regard, the perspective «Learning & Growth» consists of the following goals:

- «Human resource development», which is measured by the number of employees who have received advanced training programs and/or defended their PhD theses;
- «Development of schools of sciences», where performance indicators are: published scientific materials (monographs, articles in scientific journals, conference papers), organized and conducted scientific events (conferences, symposiums, seminars and schools), as well as the amount of public funding allocated for scientific work.

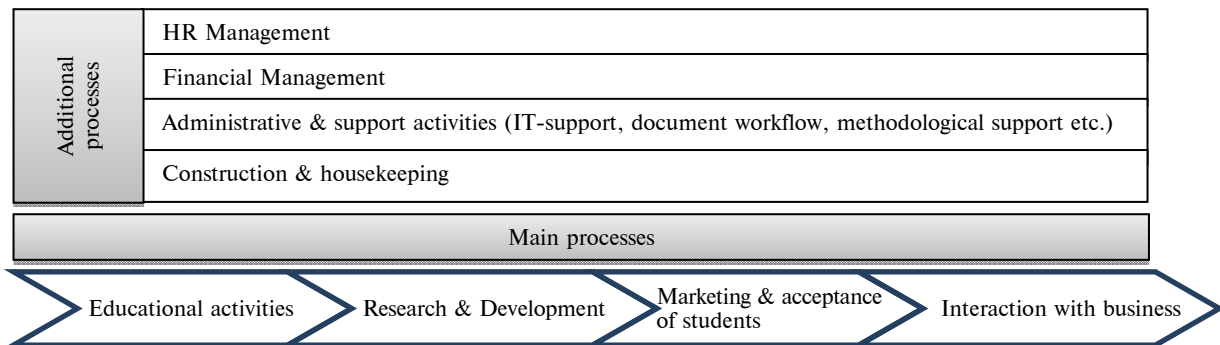


Fig. 2. University value chain

The development of scientific and human resources and the formation of scientific schools in accordance with the proposed strategic map have a direct impact on the customer goal «Increase of R&D», which, in its turn, is associated with two financial goals: «Budget increase» and «Increase of a partial budget, earned by the university».

Here appears the idea of a balanced scorecard: setting strategic goals and creating a strategic map should be done with paying special attention to those processes in the organization, which in some way create its value. Obviously, these processes for the university are scientific and educational activities, so the strategic goals and indicators of their attainability shown on the strategic map proposed by the authors are focused on them.

**Organization value chain.** Based on the model of the logic levels of the strategic layer and the business architecture of an enterprise [4], the authors propose to consider the possible models of business processes and portfolio of projects of an autonomous university. Since the university is a complex organization that brings together many separate organizational elements and carrying out various activities, it is reasonable to argue that the strategic goals are achieved both by business processes and projects. In conjunction with the organizational structure the business processes and project portfolio of an organization aggregate its business architecture [4].

The authors propose to start the identification of key business processes that contribute to the strategic goals of the university with the creation of value chain (Fig. 2) [6].

Based on the presented model of value creation, it is appropriate to highlight the main business processes of the university, the

implementation of which furthers main goals of the strategy map:

- *Educational activities*, including educational services for bachelor, master and postgraduate programs, refresher courses, short educational seminars and trainings, etc.

- *Research & Development*, including the activities of research laboratories, research activities on grants and government contracts, scientific conferences and workshops, publication activity of the academic staff, defense of theses etc.

- *Marketing & admission of students*, including the analysis of the market and consumer behavior, propaganda work, preparation and placement of advertising materials, public relations activities, organization of the selection committee work etc.

- *Interaction with business*, including the study of the needs of business professionals, target training, joint activities (public lectures and master classes, conferences, job fairs), economic-contract work etc.

It is worth noting that one of the key business processes for today's universities is the process «Interaction with business». Inefficient functioning of this process is directly reflected on self-earned funds (due to an insufficient number of commercial contracts with organizations), as well as on the reputation of the university and its position in various rankings. In addition, the Ministry of Education and Science of the Russian Federation is planning to introduce a new performance indicator for universities in 2014 – the number of graduates employed by their major, which cannot be reached without interacting with the business environment. The authors, therefore, consider to assign this process to key business processes, contributing to the achievement of strategic goals and creating the value of the university.

**Organization business processes.** As a next step in the transition to a process- and project-oriented organization the structure of business processes of the autonomous university is given.

In order to visualize key business processes, a business process framework can be used (Fig. 3). This framework allows visualizing processes at different levels of the hierarchy and showing their relationships [2].

Designing the business process framework usually begins with determining the structure of the main processes. In accordance with the value chain the main business processes of the autonomous university are:

- Educational activities;
- Research & Development;
- Marketing & admission of students;
- Interaction with business.

There was chosen a more detailed level of abstraction for the business process framework, so the given business processes are specified. Furthermore, this framework shows supporting business processes (the lower layer) and strategic business processes (the upper layer).

This framework is a tool for the university strategic management. To support the operational management it is reasonable to make the decomposition of these processes with the level of detail, which is required by each separate organizational unit, that is responsible for the process execution. In the view of the requirement to limit the scope of the papers, the detailed decomposition of the business processes of the university is not presented in this paper.

All the processes involved in the business process framework, both main and supporting, are related to implementing the goals by the university, presented on the strategic map, which once again emphasizes the idea of a balanced scorecard.

**Management of project portfolios.** As mentioned earlier, the strategic goals of the university can be achieved not only through repetitive processes, but also through time-limited unique projects. There are a lot of different projects where the university is involved, which requires project portfolio management.

The projects included in the portfolio may also be combined within programs – a set of connected projects, aimed at defining strategic goals.

Thus, the portfolio of the university may contain several projects. In accordance with the developed strategic map, the authors propose the following approximate structure of the portfolio of the autonomous university of the Russian Federation:

- Program of strategic development:
  - Projects of strategic development programs (for example, 5-100-2020),
- Program of education development:
  - Projects of new curricula development,
  - Projects of educational technologies development;
- Program of R&D development:
  - Science projects;
- Program of international development:
  - Projects of cooperation with leading international universities,
  - Projects of academic staff mobility,
  - Projects of students mobility;
- Program of marketing development:
  - Projects of corporate identity development,
  - Projects of educational project promotion,
  - Projects of R&D promotion;
- Program of developing the interaction with business:
  - Projects of interaction on the contractual basis,
  - Projects of joint educational programs development,
  - Projects of organizing joint events;
- Program of administrative & support development:
  - Projects of EDMS implementation (if unavailable),
  - Projects of enterprise information system (or its modules) implementation (if unavailable);
- Program of modeling, optimization and implementation of business processes:
  - Projects of business process modeling,
  - Projects of business process framework development,
  - Projects of modeling and analysis «how is»,
  - Projects of modeling «how should be» and developing the organization structure,
  - Projects of process implementation;
- Program of construction & housekeeping development:
  - Projects of academic building construction,
  - Projects of administrative building construction,
  - Projects of accommodation building construction.

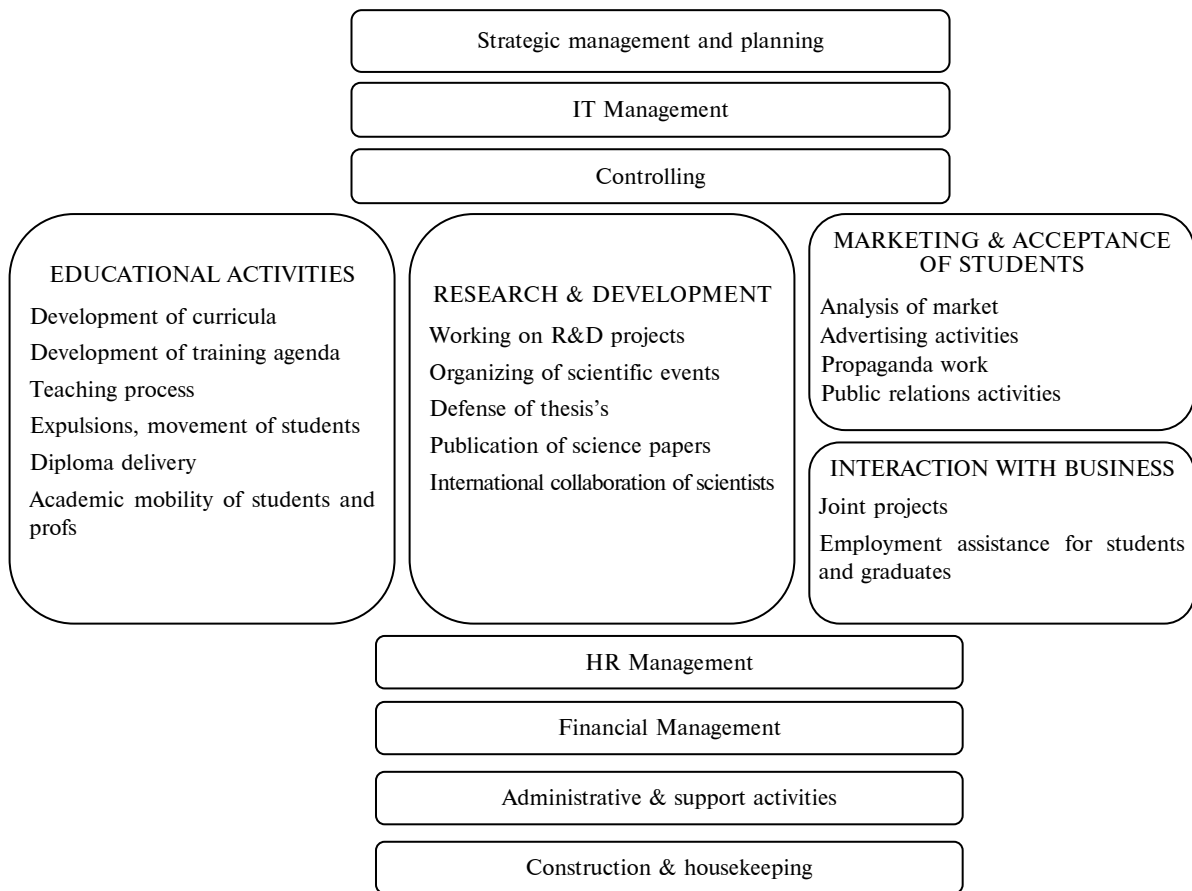


Fig. 3. University business process framework

Activities of financial management and human resource management are usually strictly regulated and include a recurring sequence of operations, which allows considering their realization only with the help of business processes.

The main problem in organizations focused both on processes and projects is the optimal allocation of resources. For the effective management of project activities and the minimum of its intersection with functioning business processes, the authors propose the use of roles and responsibilities, specified in the international standard project portfolio management MoP (Management of Portfolios) [10]:

*Portfolio direction group* – the governance body where decisions about inclusion of initiatives in the portfolio are made.

*Portfolio progress group* – the governance body responsible for monitoring portfolio progress and resolving issues that may compromise delivery and benefits realization.

*Business change director (portfolio director)* – the management board member who is responsible for the portfolio strategy and provides clear leadership and direction through its life.

*Portfolio manager* – someone, who coordinates the effective and efficient operation of the portfolio management practices and provides support to the other units and roles – including ensuring that they receive the information they require to enable them to discharge their responsibilities.

These roles and responsibilities are optional, the decision on the necessity of their presence in the university should be accepted depending on the specific conditions (availability of resources, possibility of hiring additional staff, size of the portfolio, and others).

In the management of individual projects the authors propose to adopt a more precise organizational structure in accordance with the PRINCE2 project management methodology (Fig. 4) [9]:



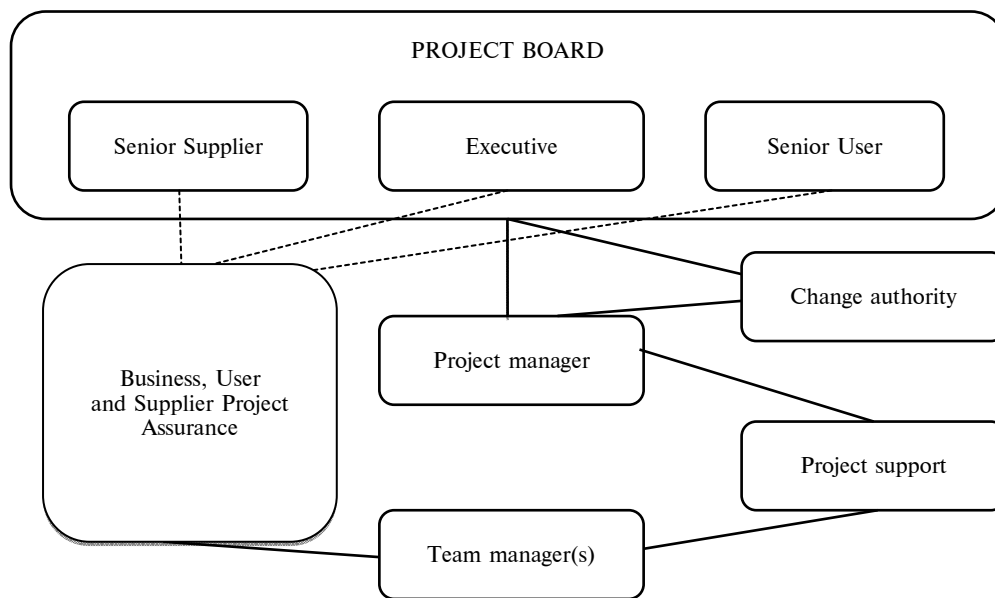


Fig. 4. PRINCE2 project organization structure

Below we give a brief description of the roles presented in this organizational structure:

*Senior Supplier* – represents the interests of those designing, developing, facilitating, procuring and implementing the projects' products.

*Senior User* – is responsible for specifying the needs of those who will use the projects' products, for user liaison with the project management team, and for monitoring that the solution will meet the needs of users.

*Executive* – a person, ultimately responsible for the project, supported by the Senior User and Senior Supplier. This role is to ensure that the project is focused throughout its life on achieving its objectives and delivering a product that will achieve the forecast benefits.

These three roles act together as a Project Board, which is accountable to corporate or program management for the success of the project, and has the authority to direct the project within the remit set by corporate or program management. The Project Board is not a democracy controlled by votes. The Executive is the ultimate decision maker and is supported in the decision making by Senior Supplier and Senior User.

*Business, User and Supplier Project Assurance* – optional roles, occurring in big projects, where Project Board members need additional support in decision making. Giving consultations to Executive, Senior User, Senior Supplier where applicable.

*Project manager* – a person, responsible for a day-to-day work on the project.

*Change authority* – an individual or group, whom the Project Board may delegate authority to respond to requests for change or off-specifications.

*Project support* – optional role, which if not delegated to a separated person, is undertaken by the project manager. Responsible for the administrative support of the project (documentation, consultation on methodologies etc.).

*Team manager* – a person, responsible for ensuring production of those goods defined by the project manager. In large projects there can be many teams, which implies many team managers.

The implementation of a special organizational structure for university project activities, as well as the action of the project team members in accordance with the specific job descriptions allows optimizing the balance of resources between the realization of standard business processes and unique projects.

In their forthcoming works the authors plan to make a more detailed analysis of the business process system and project portfolio supported by specific examples.

**Conclusions.** This paper is an attempt to define the core elements of organization's business architecture and has the following conclusions:

- a strategy map that reflects the goals of the autonomous university and key performance indicators of these goals is developed;
- a value chain of university is designed in accordance with its strategic map;

– the business process framework of the university is given;  
 – an approximate composition of the project portfolio of the autonomous university is given,

the roles and responsibilities of managing a portfolio of projects and individual projects in accordance with international standards MoP and PRINCE2 are defined.

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