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Principles of a client-centric innovative strategy for the development of business processes in the field of housing and communal services

The article discusses the features, principles and efficiency factors of improving business processes as an object of digital transformation, and addresses a methodological model of a process-oriented approach to the main business processes in the field of housing management and the implementation of engineering methods and digital transformations. It is shown that housing and communal services are a system of business processes, or a set of interrelated activities focused on the provision of services and performance of works aimed at creating a living environment for consumers. Given that the present-day government policy is focused on aligning all state services around the needs of people and digital transformation intensifies the use of more effective management models, the article explores the transition from the principles of the client focus to client centrality, which allows targeting the activities of organizations and enterprises onto a set of actions. The concepts of client centrality and a client-centric strategy based on the use of a process approach with the allocation of individual business processes and their further improvement on the basis of a balanced scorecard, project management development, and quality management are provided. The result of the study is decomposed into sub-processes and management functions using the example of the business process of apartment building management. As a result of research-based business processes, the qualitative value of services increases for the consumer, as well as the profitability of services accompanied by the improvement of the quality of housing and communal services without increasing their cost by diminishing the role of intermediaries, improving technological processes, creating the asset value for enterprises or the value of services for consumers.

Keywords: process approach, customer focus, client centrality, decomposition of processes

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INTRODUCTION

The current state of the management system of organizations and enterprises of housing and communal services poses the task of developing new approaches to the organization of their activities to ensure its competitiveness and sustainable financial and economic independence in the housing and communal services market.

The strategic goal of the development of housing and communal services at the present stage is an integrated approach to the formation of organizational and economic transformations based on the digital basis of the activities of enterprises and organizations that increase productivity and accelerate the implementation of changes aimed at creating living comfort conditions and opportunities for consumers to have a service management system for individual requirements for the level of comfort regulation in residential premises [1, 2]. The digital transformation of the economy contributes to the realization of goals and objectives and to ensuring the effectiveness of management processes, coordination and interaction of organizations in the housing and communal services, the formation of a comfortable urban environment, accelerating decision-making on the modernization of engineering networks, improving the quality of housing and communal services, improving the efficiency of business processes based on innovative technical and digital equipment and relevant professional competencies of human potential [3–5].

It should be noted that modern state policy is aimed at the transition “to building all the services of

the state around the needs of people”¹, and digital transformation activates the use of more effective management models based on customer-centricity in service and interaction with citizens.

MATERIALS AND METHODS

The need to improve the quality of public services and the comfort of living pose the task of moving from the principles of customer-centricity to customer-centricity, which allows us to form a targeted focus in the activities of organizations and enterprises on a set of actions that increase satisfaction with comfort and enhance interaction with consumers [6].

Customer focus is actions that are aimed at meeting the standard needs of homeowners, fulfilling applications and requirements for their implementation.

Client centrality is a model of building an activity (business), an organizational structure that provides services that are maximally adapted to meet the needs for high-quality housing and communal services.

The client-centric strategy is the process that needs to be rebuilt in order to ensure that management organizations and resource supplying enterprises are competitive in the long term at the intersection at three key points: these are housing repair and utility services, their provision — that is, the processes by which we satisfy residents — consumers of these services and the services on the agenda for managing individual requirements for the level of comfort regulation in residential premises.

¹ Annual Report of the Government of the Russian Federation to the State Duma of the Russian Federation. URL: <http://government.ru/news/40074>

► *What makes housing and utilities customer centric?* This is the improvement or adjustment of the housing and communal services management system and the formation of additional quality of housing and communal services without increasing their cost by reducing the role of intermediaries, improving technological processes in the production of resources, controlling, first of all, the use of financial resources to meet the requirements of full satisfaction of the needs of owners as customers of paid services, based on the use of a process approach, which consists in the allocation of individual business processes with their further improvement on the basis of a balanced scorecard, development project management, quality management [7].

Continuous improvement of business processes is a necessary client-centered strategy of activity in a competitive market, while the degree of customer satisfaction depends on the magnitude of the quality (or value for human life) of the service that is provided to him and is the result of the business process.

Business processes are designed to create the value of an enterprise asset or the value of life services for consumers. At the output of scientifically-based business processes, the qualitative value of services (services) for the consumer increases, as well as the equilibrium profitability of the cost of production of products, works or services. Along with this, the introduction of a process-oriented client-centric approach and the implementation of business processes can be aimed more at the sustainable provision of quality services under the established tariffs and on this basis obtaining greater efficiency at the same costs [8].

The purpose of improving business processes is to coordinate and coordinate the interaction of structural units to increase efficiency and more efficient use, accumulation of the potential of strategic assets of the organization, resource conservation and digitalization, sustainable provision and improvement of quality services.

The strategy of gradual change in the direction of improvements carried out within the framework of existing processes can be consistently extended to all business processes in the organization. Most often, such a strategy is aimed at increasing the stability and effectiveness of the process of improving individual operations.

The following types of organizational, managerial, economic and technological processes are attributed to the sphere of housing and communal services, including: management of apartment buildings, major repairs of common property in apartment buildings, dismantling of dilapidated and dilapidated housing, landscaping and landscaping, renovation of the urban environment, implementation of smart city solutions, waste management, production, transportation, and provision of life services.

It is important to develop requirements for business processes, determine the degree of maturity of the business processes of this organization, carry out a cause-and-effect analysis of problems and inconsistencies and develop corrective and preventive actions.

Process improvement should be based on modeling the demand for works and services, concluding contracts with contractors, and distributing them across business processes.

Determining the list of components of a business process requirement must ensure that each requirement is met. It is important to calculate the maturity levels of the business process for each component.

RESULTS

The following stages are distinguished in the life cycles of business processes: development of a process-organizational model, analysis and ranking and description of business processes and

their optimization, functional and cost analysis of processes, regulations, regulations and technological maps. Changes and improvements in business processes are directly related to the description and design of the organizational structure based on the analysis, calculation and optimization of the number of personnel, staffing, modeling and optimization of the organizational structure, regulations and job regulations, compliance of financial flows at the level of individual business processes, as well as aggregated to the level of the organization.

An integral part of the development of changes in business processes is the assessment of the organization's activities, including the development of criteria for assessing the level of responsibility and managerial skills of department managers, decision-making time, modeling the internal structure of regulatory documents. The generally accepted efficiency analysis includes the development of the financial and budgetary systems of the organization, the development of models of categories and cost drivers, the study of cash flows and the forecast of the balance of assets and liabilities, profits and losses of the organization.

To switch to the process model of the management system and its optimization, it is advisable to use functional-cost and process-cost analyses.

Determining the effectiveness of the implementation of the process approach involves carrying out a functional and cost analysis of business processes with an assessment of cost indicators and the duration of the business process, as well. the use of traditional methods of evaluating effectiveness. For this purpose, the main business processes of functioning are singled out, costs are determined for each business process, and high-cost subprocesses or functions that can lead to an increase in the cost of services or works that customers are not ready to pay for are excluded [8].

Achieving optimization of business processes involves: building clear algorithms for each process, purposeful allocation of costs to cost centers, identifying the causes of irrational costs and determining their value in the total amount of costs. Thus, the results of functional and cost analysis obtained in relation to business processes make it possible to determine the primary tasks, the solution of which will allow obtaining the required values of the cost of works and services, as well as the growth of housing and communal services assets.

In modern conditions, the tasks of modeling business processes arise during the transition of an organization to digitalization. It is obvious that the first stage should be the work on improving business processes, and at the next stage proceed to the implementation of digital transformations. When implementing such systems, a sufficient number of methods for assessing economic efficiency have been developed. Models of the formation of business processes with a certain adaptation are considered and found application in the housing and utilities sector. Ivanov E.S. focuses attention "on the need to achieve competitiveness in the housing and utilities sector on the basis of a process approach, justifying the stages of its implementation (Table)" [9].

When considering reengineering in the housing sector, A.R. Ishmuratov gives the concept of business processes "as systemically grouped, interacting functions of economic activity that create, in conditions of limited resources, a product or groups of life support products in the form of housing and communal services, which are focused on achieving a balance of economic and social interests of consumers, producers and other participants in the housing market and are aimed at innovative development of the housing sector" [10]. However, defining in his work "reengineering of business processes in the housing sector as an activity for

Stages of implementation of the process approach in housing and communal services organizations [9]

Stages	Content
Identification of business processes	Study of civil legislation and adopted federal laws, regulatory and industry documents Formation and approval of business processes Development of a conceptual model of business processes Identification of the main business processes and management business processes
Deployment of business processes	Appointment of responsible persons and business process coordinators Definition of the main characteristics of business processes Description and regulation of business processes and subprocesses
Determining the sequence and interaction of business processes	Identification of structural units responsible for the implementation of business processes Building a matrix of distribution of responsibility and authority in the implementation of business processes Building a business process interaction scheme
Qualitative improvement of business processes	Verification of the correctness and control of the achievement of the assigned tasks and/or consideration of new goals based on the results obtained Choosing a strategy and methods for improving business processes Business process analysis
Documenting business processes	Definition of business process documentation and development of documented business process procedures and process maps Regulations on divisions, job descriptions and work instructions

redesigning systematically grouped into business processes and interrelated work operations and functions" [10], the author did not pay attention to such features of the industry as the social significance of continuity of processes and the need to ensure sustainable activities of organizations and enterprises that cannot be provided when creating an almost new business system.

The analysis shows that operational engineering related to the improvement of business processes in the housing and utilities sector is not sufficiently researched and requires a comprehensive consideration of the interaction of industries with the necessary resources and the development of a methodology for modeling processes, methodologies, recommendations for integrating management processes with existing and prospective planned information and digital components and include process models, organizational and structural models, performance indicators, information models and modeling of information systems [11].

Housing and communal services, as a complex of business processes at the operational phase of the life cycle of real estate objects, provides for a set of measures, including technical, organizational, financial, economic, informational – communication, environmental and social aspects of the safety management of facilities that ensure their reliability, safety, durability and reliability due to the technical operation of building structures and engineering equipment to perform design functions during the service life or inter-repair period. First of all, these are the processes of technical operation of housing stock, which consist of a continuous management cycle and maintenance work, repair systems, cleaning, landscaping and landscaping, collection and removal of MSW, etc. To auxiliary processes we will refer dispatching of consumer increments, taking readings of household metering units and parameters of consumed resources, billing services, etc. [12].

The goals and objectives of the operation of apartment buildings include: ensuring the parameters of design quality and operational safety; diagnostics of the technical condition and planning of the system of repair and maintenance measures; regulation of operating modes and standard operating conditions, provision of utilities and energy efficiency; determination and implementation of indicators of sanitary and epidemiological safety; maintaining

a comfortable level of living; organization of service and information and communication services in a residential environment [13].

When operating the common property of apartment buildings, the main business processes are decomposed into the following subprocesses: maintenance; current repairs; sanitary maintenance; major repairs. The result of the study of the business process of managing apartment buildings with decomposition into subprocesses and functions is shown in Fig. 1, respectively, the business process of production of utility resources includes subprocesses: generation – transportation of utility resources – connection – provision – consumption of utilities.

Each business process considered can be characterized by a system of indicators included in four main groups: quantity, costs, lead time, quality. Based on this, there is a need to conduct a structural and functional survey of the main production processes in organizations, taking into account the creation of an information management model.

In the transition to digital management in a generalized form, the order of work may include:

1. A descriptive model with the identification of duplicate flows and traditional inefficient methods of information processing.
2. Justification of new business processes with increased speed of information flows and, on this basis, increased efficiency of interaction and decision-making.
3. Formation of a project for improving business processes, taking into account new software solutions to ensure a unified information system in the organization.
4. Implementation of the introduction of new (improved) business processes.
5. Evaluation of the results obtained and their economic efficiency.

It is important to develop requirements for business processes, determine the degree of maturity of the business processes of this organization, carry out a cause-and-effect analysis of problems and inconsistencies and develop corrective and preventive actions. Fig. 2 and 3 show as examples the graphic designs of the analysis of the problems that need to be solved and the assessment of the degree of maturity of business processes.

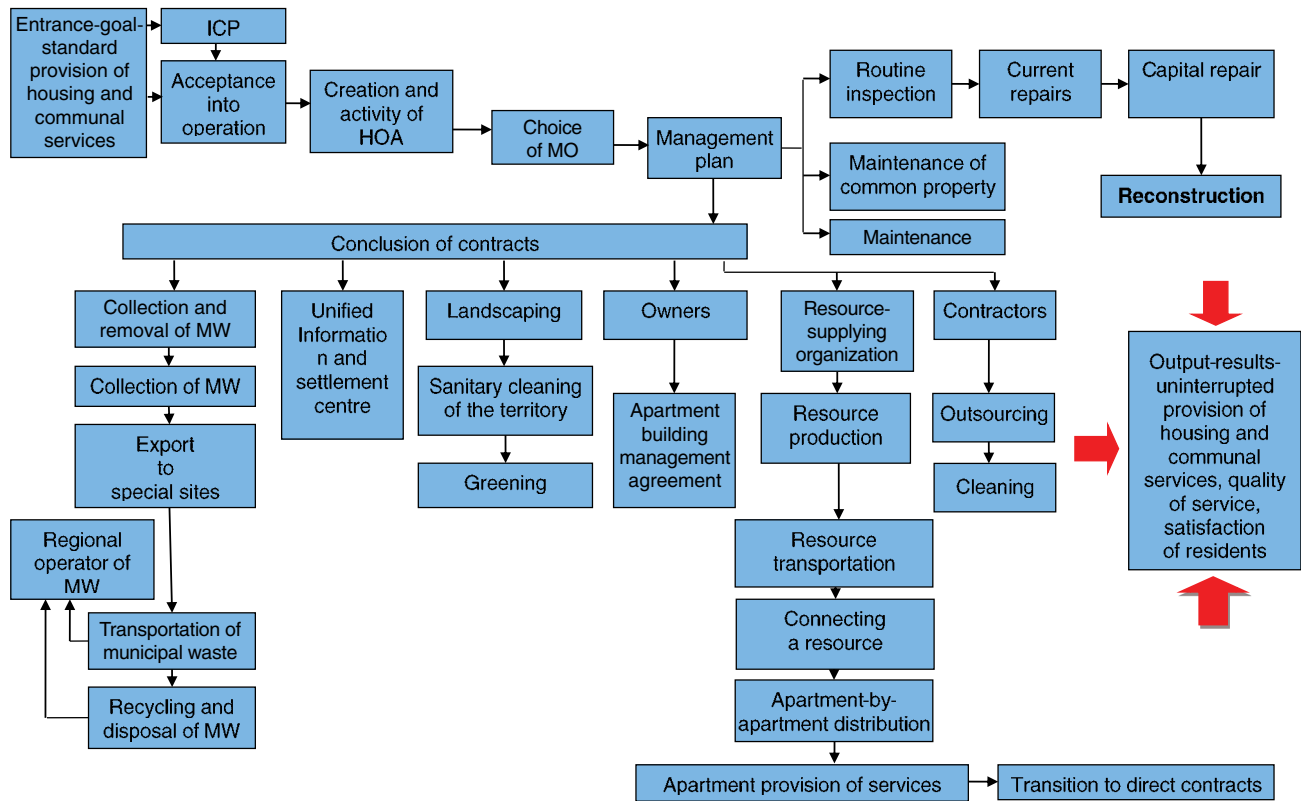


Fig. 1. Decomposition of apartment building management

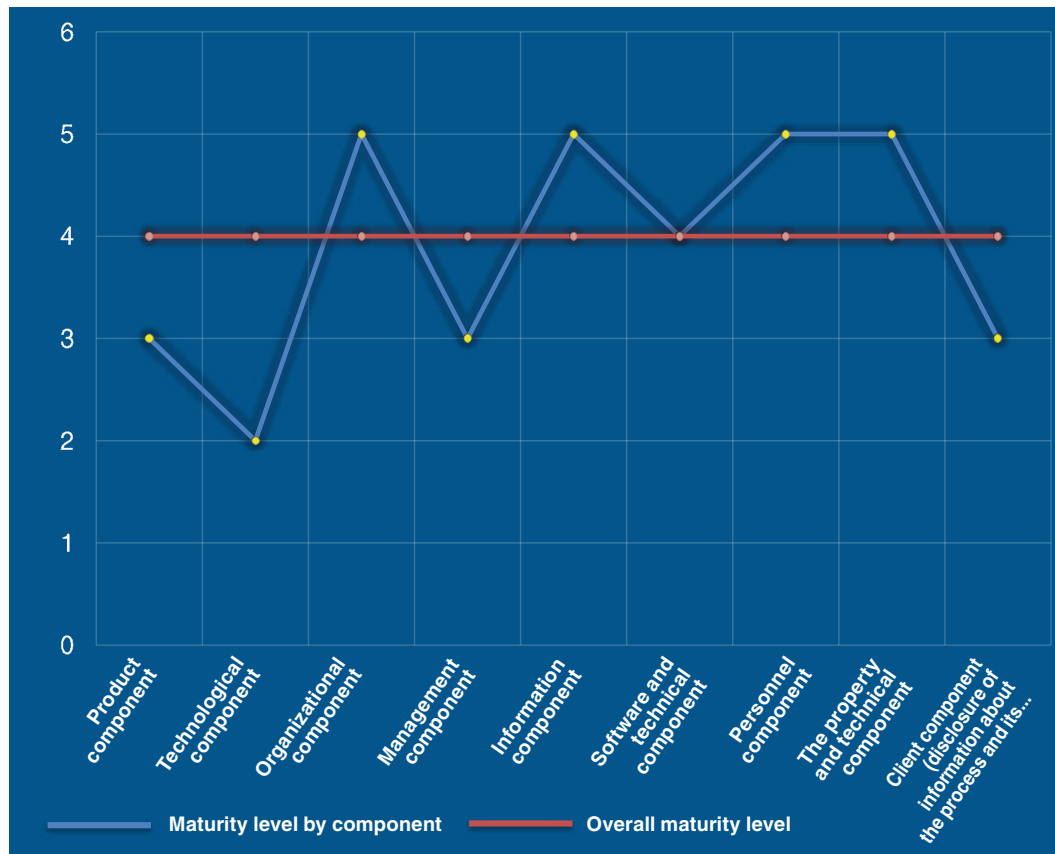


Fig. 2. Business process maturity self-assessment diagram

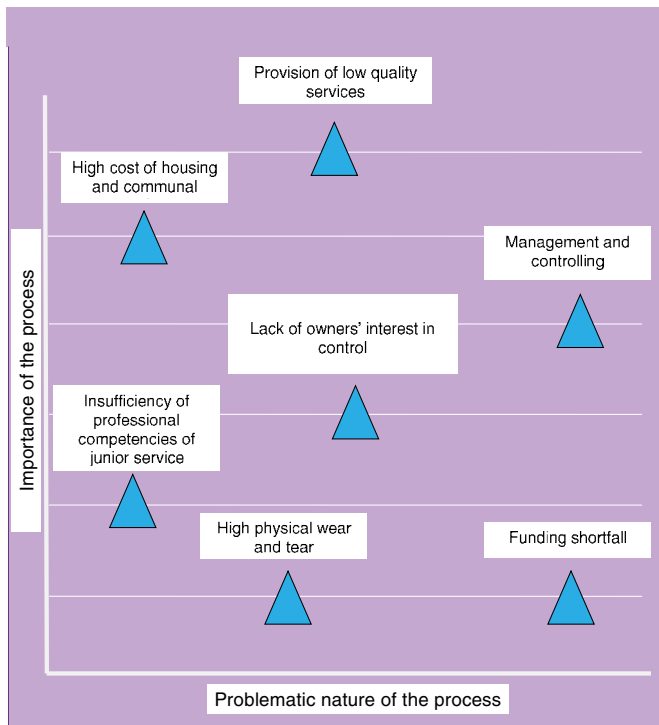


Fig. 3. Matrix of causal analysis of problems

The process change should be initiated by modeling the demand for works and services, concluding contracts with contractors, and distributing them across business processes (Fig. 4, 5).

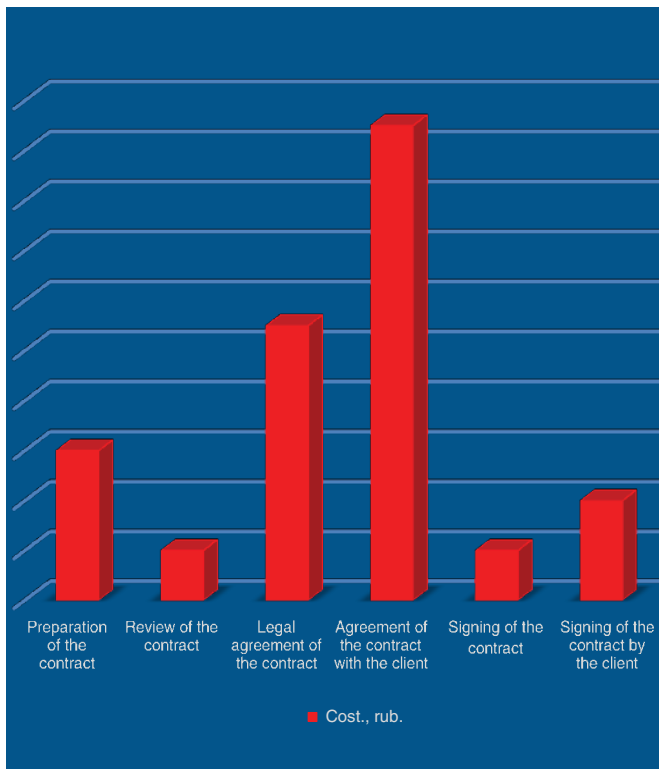


Fig. 4. The process of concluding contracts with resource providers, contractors for outsourcing and cleaning, direct contracts with homeowners, etc.

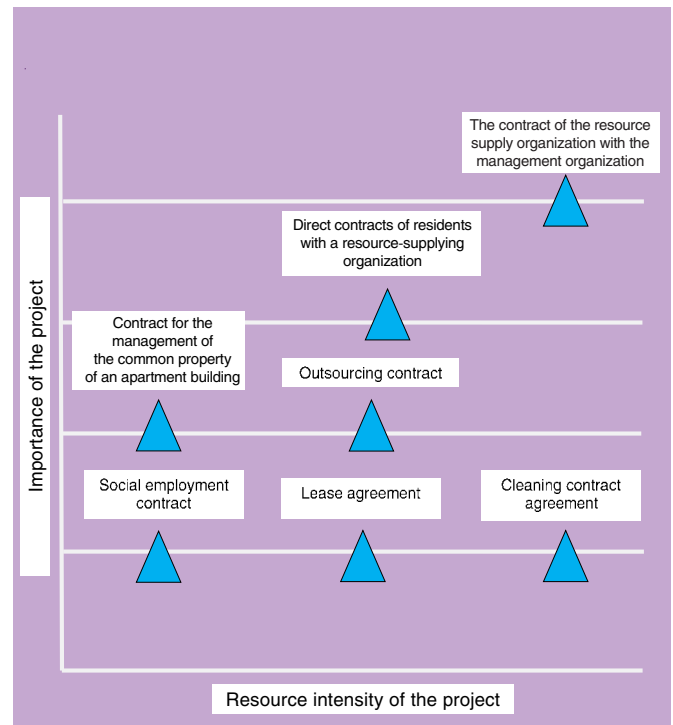


Fig. 5. Scheme of the project ranking matrix

CONCLUSIONS

Taking into account the social significance and the continuous nature of the provision of housing and communal services, ensuring the sustainable activities of management organizations and resource-supplying enterprises on the principles of client-centricity is possible on the basis of process improvement using the methodology of the process approach and innovative digital technologies.

In the process of strategic changes, many management organizations seek to improve their activities using engineering methods, as well as new management technologies of digital transformation. In our opinion, at the first stage it is necessary to implement measures to improve business processes, since attempts to integrate inefficient traditional processes into a new digital system will not achieve the desired effect. Therefore, it is necessary first to ensure the implementation of organizational and managerial transformation in the organization as a stage of preparing the system for further digital transformations, and then to form a project case of relevant technological solutions, on the basis of which the next stage should be to build the implementation of digital activities. Based on the results of the analysis, the model presented in Fig. 6 has been developed. methodological model of a process-oriented approach to the main business processes in the field of housing management with the implementation of engineering methods and digital transformations. The model allows you to visually see the map of the main business processes for housing management, the flow of work performed as a factor of creating additional value to ensure the working condition of building structures and in-house systems and the provision of utilities, to understand the sequence and interaction of engineering processes and digital transformations.

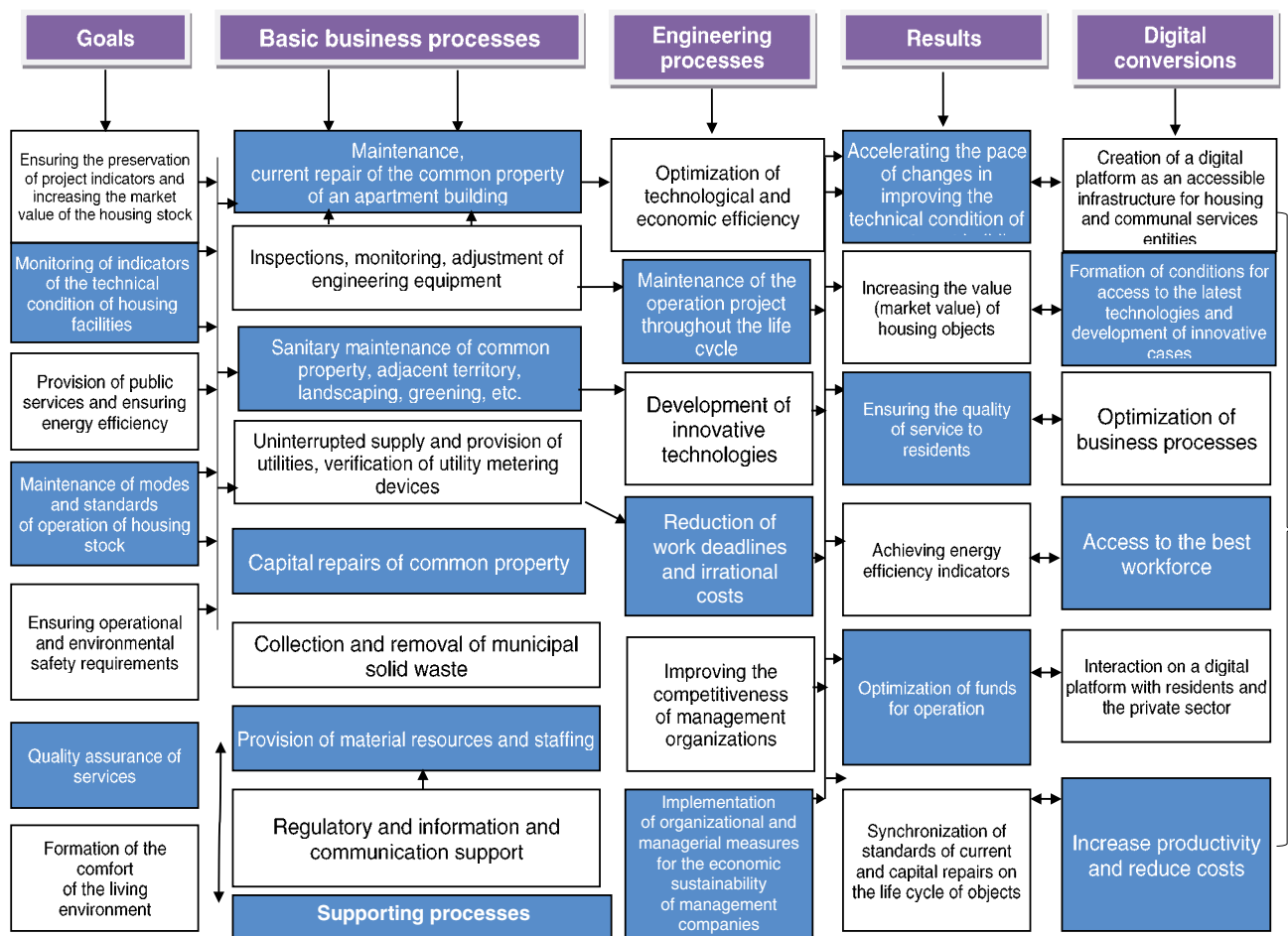


Fig. 6. Methodological model of a process-oriented approach to the main business processes

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Принципы клиентоцентричности бизнес-процессов в инновационной стратегии развития жилищно-коммунальной сферы

В статье рассматриваются особенности, принципы и факторы эффективности совершенствования бизнес-процессов, как объекта цифровых преобразований, и раскрывается методологическая модель процессно-ориентированного подхода к основным бизнес-процессам в сфере управления жилищным фондом с реализацией методов инжиниринга и цифровых преобразований. Показано, что жилищно-коммунальное хозяйство (ЖКХ) — это система бизнес-процессов как совокупности взаимосвязанных направлений по реализации услуг и производству работ, направленных на создание среды жизнедеятельности для потребителей. Учитывая, что современная государственная политика нацелена на переход к выстраиванию всех сервисов государства вокруг потребностей людей, а цифровая трансформация активизирует применение более эффективных моделей управления, в статье исследуется задача перехода от принципов клиентоориентированности к клиентоцентричности, что позволяет сформировать целевую фокусировку в деятельности организаций и предприятий на комплекс действий, обеспечивающих повышение удовлетворенности комфортностью и усиление взаимодействия с потребителями. Даны понятия клиентоцентричности и клиентоцентричной стратегии на основе использования процессного подхода с выделением отдельных бизнес-процессов и дальнейшим их совершенствованием на основе сбалансированной системы показателей, управления проектами развития, менеджмента качества. Результат исследования на примере бизнес-процесса управления многоквартирными домами представлен декомпозицией на подпроцессы и функции управления. На выходе научно-обоснованных бизнес-процессов увеличивается качественная ценность услуг (обслуживания) для потребителя, а также равновесная рентабельность себестоимости производства услуг с возможностью формирования добавочного качества жилищно-коммунальных услуг без роста их стоимости за счет снижения роли посредников, совершенствования технологических процессов в производстве ресурсов, создания стоимости актива предприятий или ценности услуг жизнедеятельности для потребителей.

Ключевые слова: процессный подход, клиентоориентированность, клиентоцентричность, декомпозиция процессов

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