Creation of favorable conditions for the economy of Irkutsk region in the housing and communal sector

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Abstract. The role of housing and communal services is crucial, and it is increasing due to the development of information technologies and a "Smart city" concept. With an increase in the number of population, the consumption of energy and other global resources increases. It is necessary to improve the housing and communal services, create and develop the concept "Smart cities" in the Russian Federation. The government aims to create a National Consortium for the development and implementation of digital technologies in the field of urban economy. At the same time, the main task is professional self-realization of university graduates. Currently, intelligent production requires specialists to design innovative products and services and solve problems of innovative production, marketing, and information technologies.

1. Introduction
Cities are the main centers of compact residence of the population. The ecological quality of the urban environment is far from ideal. [1] [2] This situation creates an ever-growing demand for comfortable living conditions and a healthy environment, environmentally sound urban development projects and green technologies created by professionals who design and manage the urban environment. Urban infrastructure is similar to the inner frame of a building: since the frame is the main structural pillar of the building, the urban infrastructure is the main structural pillar of the city. Cities have infrastructure facilities such as roads and sewerage systems; infrastructural development involves the provision of public services and the use of public spaces. The circulation of air, sunlight, trade, vehicles, water, waste, people, and even knowledge is required for the healthy functioning of a city. Since the 19th century, the development of modern infrastructure has been closely connected with technological development, industrialization and rapid growth of urban population. While the urban infrastructure can include any public services, its basic elements are new streets and boulevards, public transport, new sewerage systems, and gas, water and electricity supply systems. [3] The end result of the infrastructural development is creation of information and digital technologies for the housing and communal system.
2. Methodology
The Ministry of Housing Policy, Energy and Transport of Irkutsk Region annually establishes regional standards for the cost of housing and communal services differentiated by municipalities (hereinafter referred to as regional standards), in order to allocate subsidies for the payment of housing and communal services. The Ministry collects and analyzes the initial data used for calculating and establishing regional standards. The regional standards are established on the basis of prices, tariffs and standards used to calculate payments for communal services, maintenance and repair of residential premises located in apartment buildings and residential buildings whose design and technical parameters correspond to the average conditions in the municipality. The regional standards for 2019 are calculated taking into account changes in the established standards for the consumption of communal services, tariffs, and the method of payment for heating. In order to meet the requirements of the legislation of the Russian Federation in Irkutsk Region for 2019, the regional standards for heating and inter-heating periods were calculated. With the method of payment for heating during the heating period, the heating services are paid only during the heating period; during the inter-heating period, there are no heating charges. It is necessary to establish regional standards for the cost of housing and communal services, depending on the cost of communal services in the heating and inter-heating periods. In 2019, two decrees of the Government of Irkutsk Region were adopted due to the application of various methods of payment for heating in municipalities of Irkutsk Region. Their list is determined by the order of the Ministry of September 30, 2016 No. 117-MPR "On the choice (change) of the method of payment for heating in Irkutsk region." The Ministry established the following regional standards: 1. For municipalities using the method of payment for heating throughout the calendar year, there are two periods: from January 1, 2019 to June 30, 2019; from July 1, 2019 to December 31, 2019. 2. For municipalities using the method of payment for heating only during the heating period, there are four periods: from January 1, 2019 to the end of the heating period, from the end of the heating period 2018-2019 to June 30, 2019, from July 1 2019 to the day of the beginning of the heating period 2019-2020, from the beginning of the heating period 2019-2020 to 31 December 2019. The values of regional standards take into account the adjustment of tariffs for communal services provided by resource supplying organizations of Irkutsk region, performed by the tariff service of Irkutsk region in January (the change in the VAT) and July of 2019. When establishing the regional standards, amendments to the Housing Code of the Russian Federation were taken into account, including communal fees for handling solid municipal waste. For 2019, the regional standard was approved by the decrees of the Government of Irkutsk region of May 6, 2019 No. 361-pi "On the regional standard for the housing and communal services differentiated by municipalities of Irkutsk region when applying the method of payment for heating during the heating period", and of April 29, 2019 No. 346-pp "On the regional standard for housing and communal services differentiated by municipalities of Irkutsk region when applying the method of payment for heating throughout the calendar year".[4] [5]

The Ministry is an authorized body approving standards for the consumption of communal services in Irkutsk region. According to the requirements of federal legislation, the procedure for establishing the standards with a unified approach throughout the territory of the Russian Federation is attributed to the exclusive competence of the Government of the Russian Federation. The Ministry applies the existing rules of the federal legislation and is limited by them. The procedure for establishing standards for the consumption of communal services is determined by the Rules for establishing and determining standards for the consumption of communal services and standards for the consumption of communal services for the maintenance of common property in an apartment building, approved by Decree of the Government of the Russian Federation of May 23, 2006 No. 306 (hereinafter referred to as the Rules). The standards for heating services were approved by the order of the Ministry of August 23, 2016 No. 90-mpr "On the establishment and approval of certain standards for the consumption of communal services in Irkutsk region", but it did not come into effect. In order to prevent the growth of payments for public communal services, the Ministry made a decision on a phased transition to the uniform standards for heating services in Irkutsk region. By the order of the Ministry of July 1, 2016
No. 72-MPR "On standards for the consumption of communal services", the standards for heating are based on payments for the utility service provided during the calendar year. Thus, until January 1, 2020, the norms for the consumption of heating services established by municipalities before August, 13, 2010 were applied in Irkutsk region.

The order of the Ministry "On the establishment and approval of the standard for the consumption of heat energy used to heat cold water in Irkutsk region" of March 27, 2017 No. 48-mpr established heating standards. The date for the implementation of heating standards was January 1, 2020. The Decree of the Government of the Russian Federation "On Amendments to Certain Acts of the Government of the Russian Federation on the Provision of communal services, Establishment and Application of Standards for the Consumption of Utility Services" of December 25, 2019 No. 1822 established the term for the transition to the unified standards. It is January 1, 2021. In order to avoid violations of the provisions of Article 157.1 of the Housing Code of the Russian Federation and paragraph 2 of the Basics of Formation of Indices of Changes in Payments for communal services, the Government approved the Decree No. 400. On December 30, 2019, the Tariff Service of Irkutsk Region adopted an act No. 58-57-MPR "On Amendments to Certain Orders of the Ministry of Housing Policy, Energy and Transport of Irkutsk Region" which established a new deadline for the implementation of the standards - January 1, 2021. According to the Decree of the Government of the Russian Federation of June 29, 2016 No. 603 "On Amendments to Certain Acts of the Government of the Russian Federation on the Provision of communal services", the regional authorities are empowered to change the method of payment for heating established by the municipalities (during the heating period or throughout the calendar year). This decision is made no more than once a year before October 1 of the current year.

The order of the Ministry of September 30, 2016 No. 117-mpr "On the choice of a method of payment for heating in Irkutsk region" approved payment methods for municipalities of Irkutsk region. The decision was made taking into account the proposals of local bodies that have the right to change the method of payment for heating and submit an application letter to the ministry for approval of a new method of payment. In accordance with the application of the administration of the Ulkan urban settlement of the Kazachinsko-Lensky district of Irkutsk region dated of July 4, 2019 No. 902, the Ministry adopted an order No. 58-37-mpr aimed at changing the way consumers pay for heating on the territory of the Ulkan city municipality of the Kazachinsko-Lensky district of Irkutsk region and amended paragraph 16 of Appendix 2 to the order of the Ministry of Housing Policy, Energy and Transport of Irkutsk Region No. 117-MPR according to which "heating services are paid during the heating period" (previously - during the calendar year). In 2019, all the communal standards were approved by the federal legislation. [6][7][8][9]

According to the operational data of the local self-government bodies of Irkutsk region, in 2019 the debt of citizens for housing and communal services amounted to 1,476.5 million rubles. The collection rate was 90.8%, which is 2% higher compared to the same period in 2018.

In 2019, the amount of overdue payment for communal services in rural and urban districts of Irkutsk region was 75.3 million rubles, which is 25.4 million rubles more than in 2018.

3. Results and discussion

According to the studies, to implement the concept "smart cities", it is necessary to develop human resources. The methodological aspects of development of human resources are based on the duality of the nature of the category of the digital economy. The duality of nature is revealed in practical activities. The Smart City program is a manufacturer of high-tech products and the resident of a smart home is its consumer. Each business entity is a source of information for "smart" urban systems and a consumer of technologies and information.

Favorable and safe living conditions for residents of Irkutsk Region are created within the Decree of the President of the Russian Federation of May 7, 2012 No. 600 "On measures to provide citizens of the Russian Federation with affordable and comfortable housing and improve the quality of housing and communal services", as well as the Decree of the President of the Russian Federation of May 7,
2018 No. 204 "On national goals and strategic objectives of the development of the Russian Federation for the period up to 2024". As part of the order on measures aimed to improve the quality of housing and communal services and create a comfortable urban environment, the ministry implemented the following measures: the event “Implementation of measures aimed at creating conditions for raising awareness of the population in the housing and communal sector, the subprogram “Implementation of the state policy in the field of housing policy and energy in Irkutsk region” for 2019-2024 of the state program of Irkutsk region "Development of housing and communal services and energy efficiency of Irkutsk region for 2019-2024" of December 11, 2018, No. 915-pp approved by the Government of Irkutsk region.

On the territory of Irkutsk region, there are 123 homeowners' associations: "SODYSTVIE", "Yuzhny", "DomSibStroy", "Privat", "Comfort", "New City", "Golden Age", "Sputnik", "Kuzmikha", Zarya, HOA-66, Solnechny, LUCH, Soyuz, HC Sibirskiy, Baikal-2, Zerkalnoe, Zheleznodorozhnik, etc. There are 35 housing and construction cooperatives: "HCC 52", "HCC-71", "HCC 67", "Radio receiver", "Shveinik", "HCC-42 Aviator", "Uchitel", "Kapital", "Akademgorodok", "Polytechnic", "Soyuz", etc. There are 92 utilities management companies: Komsystems, Eastern Management of Housing and Utilities Systems, Southern Management of Housing and Utilities Systems, Western Management of Housing and Utilities Systems, Northern Management of Housing and Utilities Systems, IRKUT "', "Alternativa", "New city", "Perspektiva", "Housing systems", "Narodnaya", "Dom-Service", "Cozy House", "Energy ", "Angara", "UpavDom ", "Makskom ", "Priority", "Progress Managing Organization", "Irkut", "Holding-Raduzhny", "SER", "Dom Service", "Progress-Service", "Ostrogo", "Priority", "RegionSibir ", "Aviator Siberia ", "Oktjabrskoye ", "BORODINO ", "Raduga ", "Angara 
Plus", "KVARTAL", "Spectrum", "Primorsky", "Pribaikalskaya", "Naberezhnaya ", "PRIMER", "Vysota ", "Altair Plus", "SPECTRUM", "Tower ", etc.

The State Information System for Housing and Communal Services is a single federal centralized information system operating on the basis of software, hardware and information technologies that ensure the collection, processing, storage, provision, placement and use of information about the housing stock; costs and services for managing common property in apartment buildings; maintenance and repair works; provision of communal services and supply of resources necessary for the provision of communal services; the amount of housing and communal payments, arrears; objects of communal and engineering infrastructures; other information on housing and communal services. The Housing and Communal Services Operator is Russian Post. The Ministry of Telecom and Mass Communications and the Ministry of Construction coordinate works on creation, operation and modernization of the SIS. The coordination of works on the implementation of the SIS is carried out by the Ministry, which represents Irkutsk region in the quadripartite agreement between the Government of Irkutsk region, the Ministry of Telecom and Mass Communications of Russia, the Ministry of Construction of Russia, and Russian Post. The obligation of suppliers to enter information into the SIS arose in July 1, 2016. As of January 1, 2020, 1,347 organizations of Irkutsk region have been registered in the SIS, including: managing organizations - 312; homeowners' associations - 278; housing cooperatives - 69; resource supplying organizations - 244; local government bodies - 448; executive authorities - 10; regional overhaul operator (Irkutsk Regional Fund) - 1; regional operator for the handling of solid municipal waste - 2. Currently, in accordance with the requirements of the Order of the Ministry of Telecom and Mass Communications of Russia No. 74 and, the Ministry of Construction of Russia No. 114, all the required information is entered into the SIS. [10] [11] [12]

4. Conclusion

The problem of training and retraining of workers of the housing and communal sector is crucial for the national economy. The solution to the personnel problem determines the effectiveness of expenditures on reforms in the housing and communal sector. Personnel training is a priority area of the management company. Scientific and practical conferences discuss the issue of creating "smart cities". More and more researchers are discussing various aspects of this concept. At the same time, some of them believe that it is necessary to develop human resources in order to successfully complete
the task. The task is complicated by the fact that the consumption of an innovative product created by a highly qualified specialist requires special attention. The interaction of enterprises and educational institutions (conclusion of long-term internship contracts) allows for the development of human resources at all stages. It is necessary to pay attention to the private sector in order to find more effective solutions aimed at improving living standards. Rapid urbanization means investing in the future. Modernization of general and vocational education can be carried out through adaptive, practice-oriented and flexible (modular) educational programs. Particular attention should be paid to the digitization of all cultural and scientific documents and materials. This will simplify the access to social, educational, scientific and cultural services. People (residents, owners), processes and technologies are three sources of a successful smart city initiative. [13] [14] [15] Cities have to learn about their citizens and communities and be aware of what is happening. Housing and communal processes which are driving forces of business implement policies and set goals in accordance with social needs. [16] All information technologies can be used to meet the needs of citizens, improve living standards and create real economic opportunities. This requires a holistic, unique approach which could be applied in Russian regions. (Fig. 1).

Figure 1. Housing and communal organizations of the Irkutsk region

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