

Creation cadastre of educational institutions of Russia

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Now, in Russia two preconditions of creation of branch cadastres have appeared: 1) means for conducting a uniform territorial cadastre at local administrations do not suffice 2) departments are interested in carrying out of an investment policy in the field of management of the real estate and ground resources. The Ministry of Education of Russia has subordinated educational institutions and the organizations in territory of all Russia. In submission of the Ministry of Education about 5 thousand educational establishments, the enterprises and the organizations including 326 high schools with 370 branches. The general area of buildings and the premises subordinated to the Ministry of establishments of the maximum and average vocational training makes about 39000 thousand in sq.m. Therefore for reception of the unappropriated means necessary for the maintenance, major overhaul of existing material base, higher educational establishments are compelled to be condensed and lease premises. The last year it has been leased 649,0 tys.kv.m. Or 2,5 % from the available areas. Along with the tenancy, many educational establishments on the contrary rent the areas and under educational process, sometimes, use unadapted buildings, monuments of architecture and the subsidiary constructions demanding significant expenses not only on maintenance in working order, but also on restoration of their initial shape, including reconstruction and restoration. By higher educational establishments it is rented 1118,3 tys.kv.m. Or 4,2 % from the available areas; average professional establishments - 375,2 tys.kv.m. Or 6,1 % from the available areas. The real estate at market attitudes is one of basic clauses of the income of any state. Therefore, any country at transition to market attitudes, faces a problem rational both efficient control the ground and the real estate. It concerns also the country as a whole, and branches and the separate enterprises. Without the ground, buildings, constructions any manufacture cannot be developed, any activity, including, connected with educational process is impossible almost. Naturally, at transition to new economic attitudes, starting c 1991, in Russia the reforms concerning the ground and other real estate began to be carried out. His inventory began, cadastral shooting and other kinds of works connected to management by the real estate began to be carried out. The Ministries responsible for this work have appeared. Now in Russia legal and economic conditions for development of a cadastre of the real estate, including for separate branches are created. It is necessary for efficient control the real estate and extraction of the greatest possible unappropriated incomes. Necessary base of an effective control system of the real estate, ground resources are: a departmental cadastre, branch information system, normativno - a legal basis. Creation of such system has charged with the Ministry of Education to the Moscow state university of a geodesy and cartography (MIIGAiK). The purpose of development is creation of an effective control system by the real estate that will allow to improve economic potential of an education system. At the first stage the organizational structure of the program has been developed. She assumes the Agreement on joint activity Minobrazovanija, Goskomzema, Mingosimuschestvo and Administrations of the regions interested in work on creation of a cadastre. The scientific part of the program is headed MIIGAiK under the direction of which are already started and research works are carried out in a number of high schools. On the following slide it is possible to look structure telecommunication and a supply with information of the program.

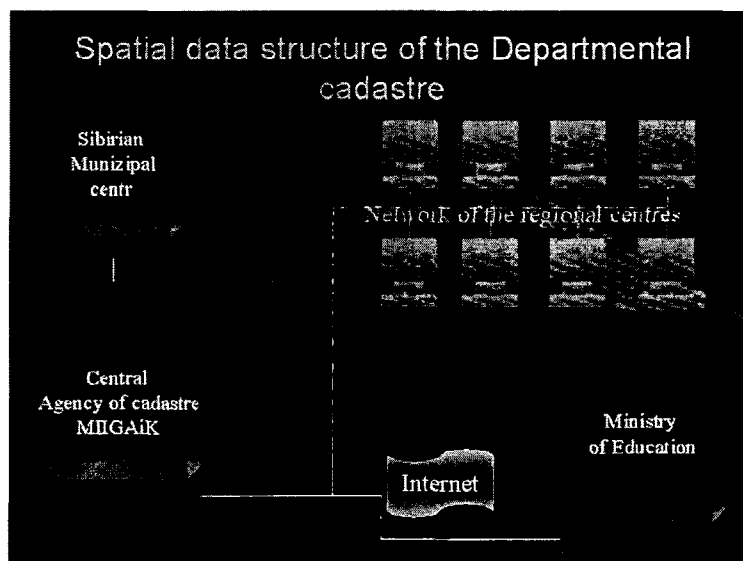


Fig. 1

The information bureau of registration and branch cadastre of real estate Minobrazovanija of Russia will be connected to two inter-regional bureaux. By the European part of Russia, on base MIIGAiK, and on Siberian, on the basis of Siberian State geodetic academy (SGGA). Besides the network of the regional centers which functions include gathering the information from educational institutions, their preliminary analysis, preparation of recommendations on acceptance of administrative decisions and transfer of the information to inter-regional bureaux which carry out the generalized analysis of a situation is created and transfer the information in the central information bureau of registration Minobrazovanija. It is supposed, that the information will be stored by the current moment time. Therefore any change concerning the real estate, will be reflected at once in the distributed database. For this purpose all educational institutions will have the information department. Their problems include reflection of the current situation and data transmission into regional bureaux. For performance of land works the organizations professionally engaged in the given kinds of works can be involved.

Experts on legal and economic a question are supposed to be used in the inter-regional centers and in part in regional. The inter-regional, regional centers and information items of educational institutions under the real estate will be connected in a uniform information network, with use of network INTERNET. of their problem there will be in many respects the general. So among problems of an educational institution it is possible to note: - data transmission about changes in use of the areas in the regional center, with the purpose of maintenance of interactivity of system; - definition of factor of congestion of the areas; - the analysis of use of the areas; - improvement of professional skill of the experts working under the given program to problems of the regional centers can be attributed: - communication with educational institutions; - updating of databases on information from an educational institution and the organization of gathering of these data; - initial processing and the analysis of materials, their ordering; - Development of recommendations of administrative decisions and data transmission in the inter-regional center.

Within a year in MIIGAiK hard works on creation of system of a branch cadastre are conducted. For this time the information base of high schools, average educational institutions and other organizations is created. While this information is stored in the central cadastral bureau. But the information system already now is quite efficient and can be used for acceptance of administrative decisions, including investment. On the following slides it is possible to see examples of various inquiries, including transition from one scale of a map to another and search of the concrete organization, an educational institution. For example, on a map of distribution of high schools on regions, color shows density of higher educational institutions.



Fig. 2

On a map it is possible to choose any region or city. For example, Moscow.

Inquiry. HIGH SCHOOLS of Moscow with number of objects more 20



Fig. 3

Further the inquiry is possible – to show, for example, all high schools of Moscow with number of objects more than 20. You can see here and MIIGAiK, having specified on which we shall receive the plan of territory MIIGAiK.

The plan of territory (MIIGAiK)

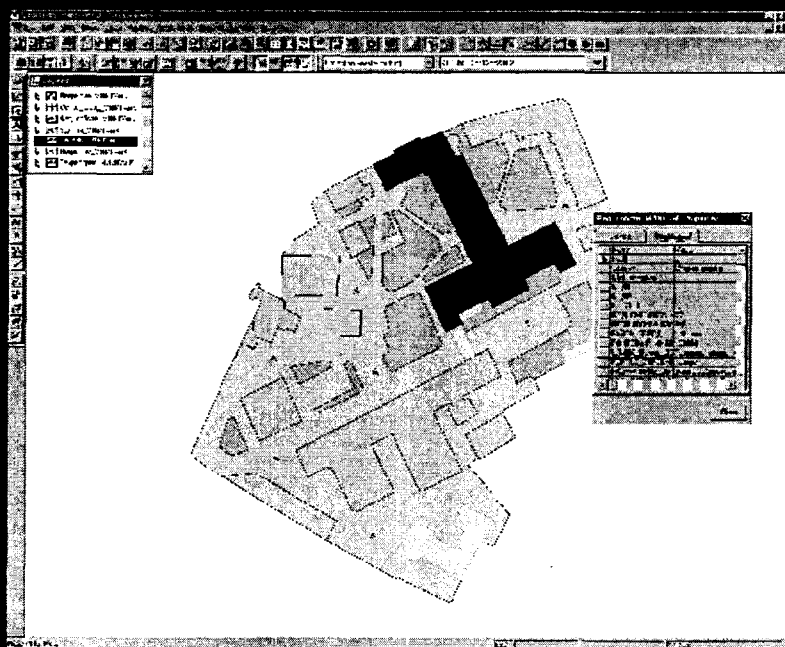


Fig. 4

And in this case, under the plan it is possible to form various inquiries. For example, to show poetazhnyj the plan, or a kind any of buildings.



адрес: Горьковский пер., 4

ректор – Савиных Виктор Петрович

количество объектов – 37

общая площадь земельных участков – 33,09 га

среднесписочная численность персонала – 985 человек

Fig. 5

To any graphic information it is adhered text. From photo MIIGAik (the Fig. 5) is given: a name of the rector, quantity of objects of the real estate, the area of the ground area, average number of workers of High school. There can be combined inquiries. For example, it is possible to generate inquiry to show buildings MIIGAik with the area more than 1000 kv.m, etazhnost which it is more 2.

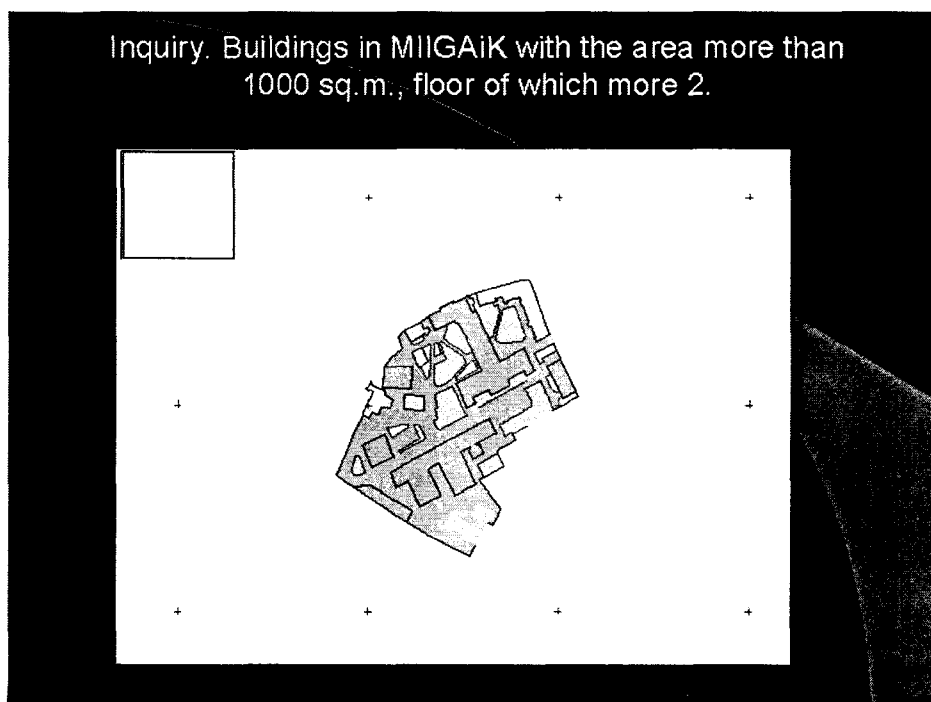


Fig. 6

The considered maps and plans represent the following scale number: the Map of Russia 1 : 8 000 000 Map of cities of Russia 1 : 100 000 Plans of territories of the organizations 1 : 2 000 thus both a scale number of maps and system of designations, codes of objects, formats of the data are selected so that the branch cadastre (In this case a cadastre of educational establishments) was under construction by a principle of a uniform cadastre of territories. I.e. any information from a branch cadastre can be imported to information databases of a uniform cadastre of Russia builded by a regional principle. T.o. The uniform information field with the distributed database is created. But the departmental cadastre of educational establishments provides not only the account and an estimation, but also management of the real estate and ground resources. For creation of such system it is necessary to solve the following problems: 1. To define a spectrum of the possible administrative decisions concerning standard situations in educational establishments, and taking into account existing normativno-legal documents. 2. To create model of management of ground resources and the real estate. 3. To develop investment policy Minobrazovanija the Russian Federation in the field of management of the real estate. 4. To develop offers on perfection of normativno-legal base for more efficient control. 5. To define reserves of use of the real estate and ground resources educational institutions, in view of existing norms. Investment programs will be realized at three levels: - the organization (educational institution) - region - all-Russian. In the first case, the educational institution itself looks for the investor and solves it questions of repair, input in build the new areas, construction of new buildings. It can be carried out and due to rent.

In the second case, in decision-making, selection of the investor, drawing up of the project the regional cadastral center takes part. The decision mentions, as a rule, a number of educational institutions and the organizations of the given region. Therefore the local administration can take part in investments with the purpose of sharing the repaired areas or put into operation buildings, the ground areas. If at first two levels the decision is not accepted, it can be accepted proceeding from the general information collected on all regions at a level of the Ministry of Education. It can represent itself as itself the investor of any project or find the investor. It is necessary to note, that through cadastral bureaux it is supposed to enter a control system with the help kondominiumov, trastovujuju a control system. In the future, at development of the ground market, for investments probably use of hypothecary systems of crediting. Now the system can already carry out some generalized inquiries, collecting under him the certain statistics. For example, on fig. 7 the total of objects of real estate of High schools on regions is shown.

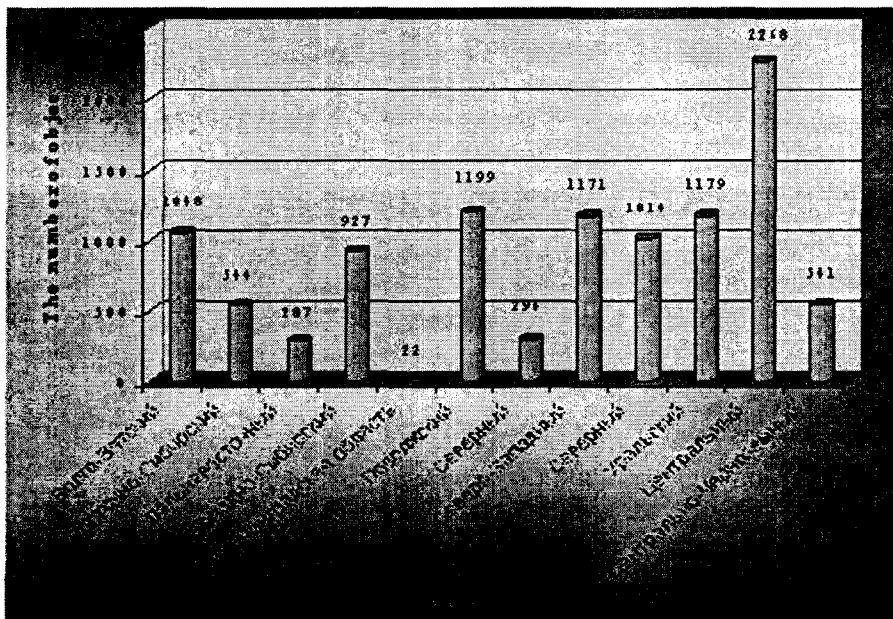


Fig. 7. Total of objects of real estate of high SCHOOLS on regions

As we see, the greatest quantity of objects is located in the central region (2268), the least in the Kaliningrad area. (22). In the following figure the statistics of actual expenses for operation of objects of High schools on regions and types is resulted.

Expenses for operation of objects of high SCHOOLS on types and regions

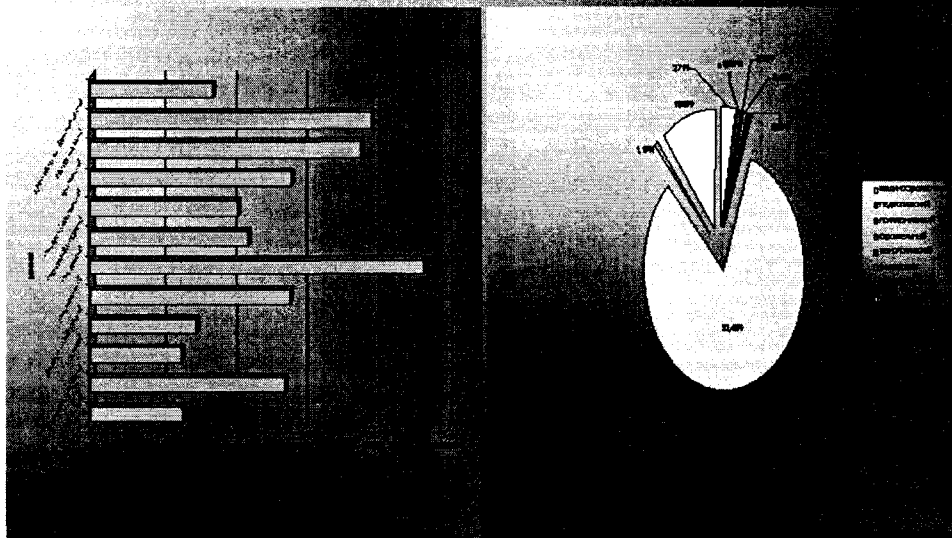


Fig. 8

Comparing these slides, it is possible to see, that the quantity of objects and actual expenses for operation not always correspond each other. It once again confirms an inefficiency of today's management. Other example of inquiries is the quantity of monuments of history and the culture, fixed for High schools which require the special attitude to them. On a slide such inquiry with reference to the Central region is realized.

Quantity of monuments of a history and culture, fixed behind HIGH SCHOOLS in the Central region

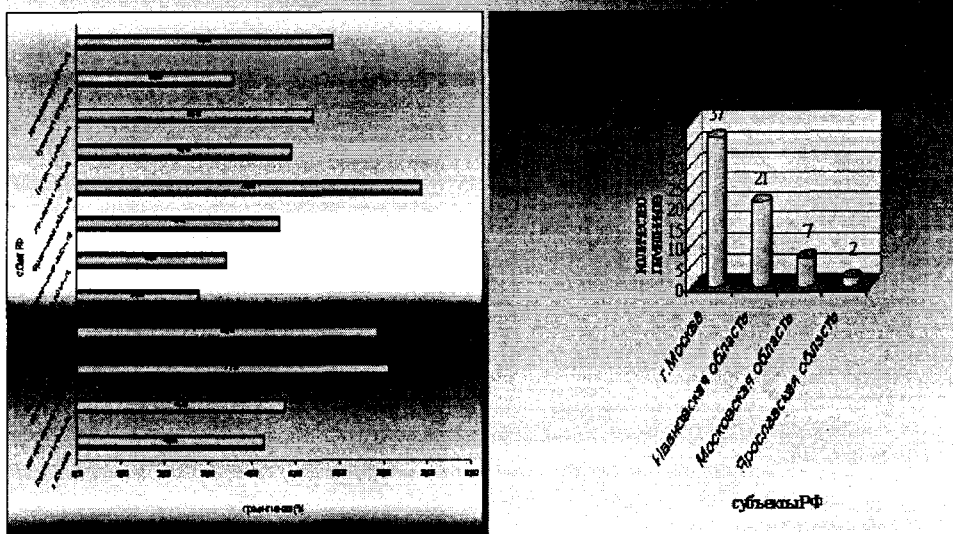


Fig. 9

On the following diagrams answers to inquiries of financial character are submitted. Total of incomes of rent and the sum of transfers from them on each region. As we see, North Caucasian region, Central Black Earth, Kaliningrad

areas at all do not make deductions in the federal budget though the income receive not less, than in other regions. On the contrary, the Northwest region, almost the income of rent transfers in Federal fund. On the following diagram it is possible to see what share of actual expenses for operation of real estate as High schools.

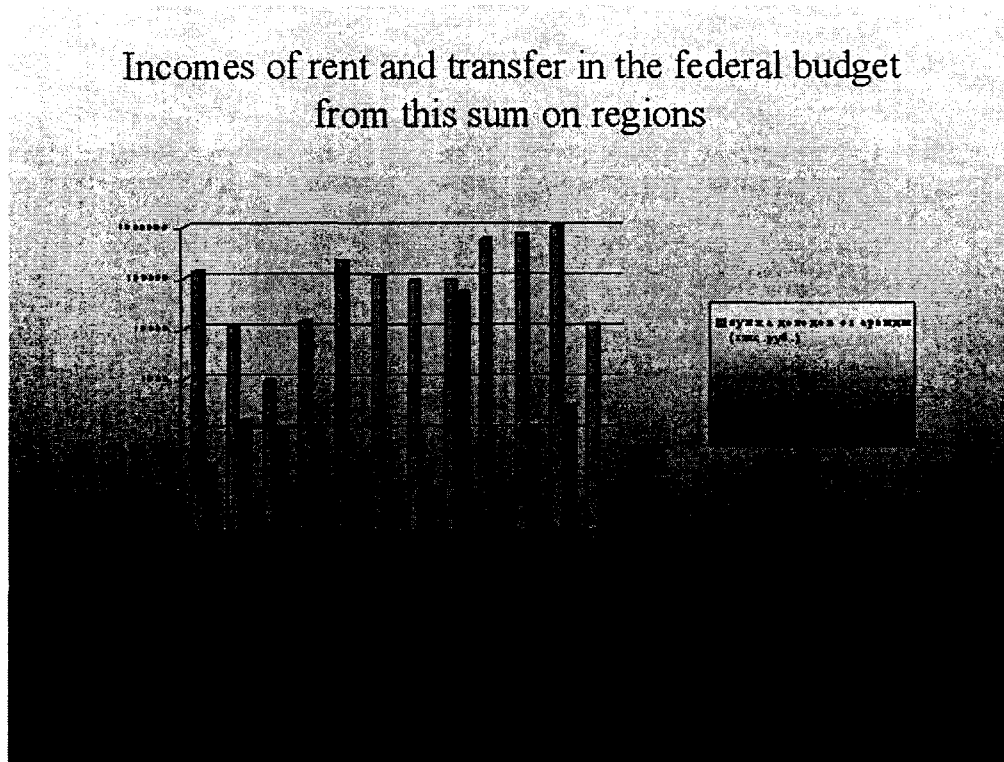


Fig. 10

As we see most of all expenses for maintenance of buildings and constructions do universities, further economic High schools, etc. On last slide the statistics at balance cost of various objects is resulted. For example, учебно-научно-исследовательские, учебные объекты, общежития, жилые здания, etc.

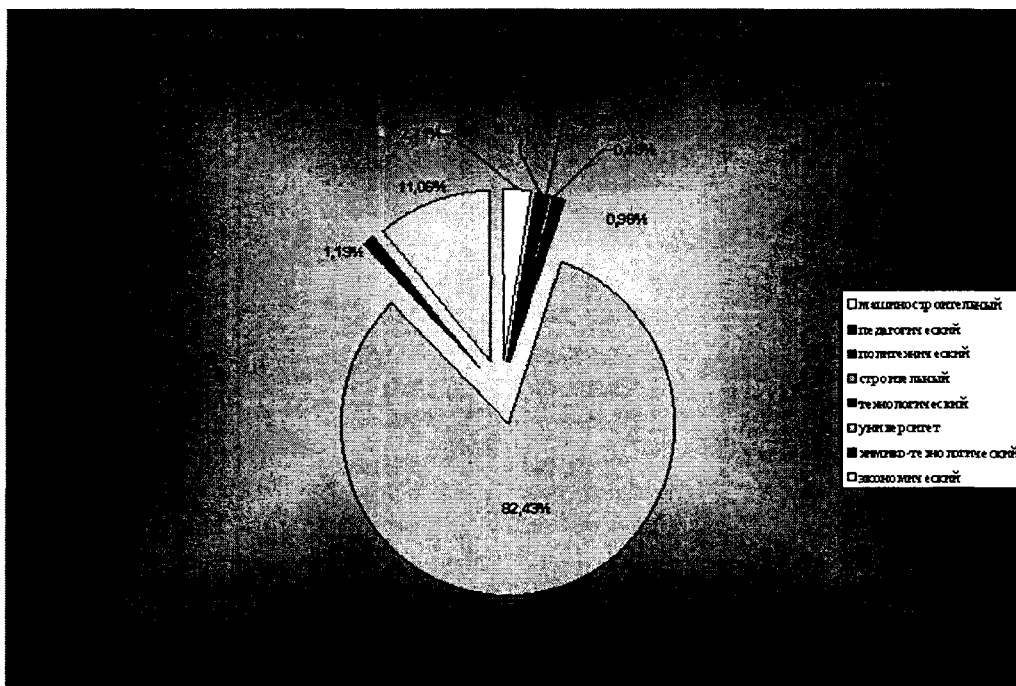


Fig. 11

Thus, the working information system including 7 regional information centres, two inter-regional centers and the central information bureau of the account of real estate and ground cadastre Minobrazovanija of Russia is developed. The information base contains some kinds of the data: • electronic cadastral maps, which scale varies from 1:8000000 (the all-Russian map) up to 1:2000 for display of a site of buildings, constructions, borders of the ground areas belonging to educational institutions. Electronic maps are connected among themselves, that allows to carry out easily transitions from the all-Russian map to regional and cadastral plans and on the contrary. • kadastrye the data connected to buildings and constructions.

The areas and borders of sites, catalogues of coordinates mezhevyh items, results poetazhnoj shootings, the areas of audiences and other premises, their functional purpose and use, the analysis of repair of separate premises (their condition, year of repair, etc.), not used or irrationally used areas, etc. Further it is supposed to add: • dannye on functioning an educational institution. Data on faculties, faculties, laboratories their structure, specialities here concern. Data on here can be resulted in what organizations graduates are used. • dannye by an economic estimation of the ground and the real estate. • dannye under decisions on investments at various levels: an educational institution; region; - the Ministries of Education.

The created system is the first experience of creation of a branch cadastre which further can be distributed and to other departments.