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Introduction

In modern conditions successful activity of medical institutions is in many respects defined by activity of economic service since the changes which have occurred in all spheres of our society, could not lay aside public health services. In the conditions of transition to the market without strengthening of an economic orientation of activity of the head it is difficult to count on stable work of establishment. So, is precipitate to sign contracts, to enter new medical services and to make other important decisions without corresponding economic examination. In this connection for medical institutions there is actual a question of the analysis and economic activities planning. Many of methods of economic (especially financial) analysis are not new in itself, but those are only in relation to public health services. Application (adaptation) of these methods to features of concrete area? A problem difficult enough, demanding the big work and qualification [12].

In the present degree work the innovative project of manufacture of iatrotechnics on the basis of treatment-and-prophylactic establishment will be considered. Offered in the given degree work to consideration the innovative project is developed for a substantiation of manufacture and realisation of the new medical device? The biotest?, intended for diagnostics and treatment of many of disease on a method to the developed R.Follem. This direction in medical branch has started to develop only in the last some years, and its further expansion is planned. Development of this direction has the big prospects in view of that R.Follja's method allows to treat many diseases, including congenital, and medical institutions engaged in diagnostics and treatment on R.Follja's method which will be the basic buyers of the device? The biotest?, can organise the activity in such a manner that technology use would make notable profit.

Medical institutions, private clinics and simply separate doctors constantly expand a field of the activity, all new and new services render, and aspire to receive from them benefit. Device "Biotest" allows to organise the whole medical office on research and treatment, helps with many branches of medicine. For example R.Follja's method is applied in stomatology to diagnostics of compatibility of the material, seals offered the patient and crowns, with its organism. The purpose of degree work is the substantiation of expediency of introduction of the innovative project on manufacture of the new device? The biotest?.

For achievement of this purpose in work following problems are solved:

1) to Describe the theoretical? Economic and legal? Bases of innovative activity.

2) to develop own model of an estimation of efficiency of the innovative project.

3) to spend the comparative description of standard and offered model of an estimation of efficiency of the innovative project.

4) For the considered innovative project? Device manufactures? The biotest?? To spend an efficiency estimation by both techniques, standard and developed in the present degree work.

5) to consider the important questions concerning innovative activity, such as questions of management of the personnel in the scientific organisations and ability to live safety issues at realisation of innovative activity. In the appendix to the present degree work the Passport of the innovative project is resulted.

1. Theoretical bases of the economic and legal substantiation of realization of innovative activity

1.1 Economic bases of innovative activity

Before to speak about the economic bases of innovative activity, we will short describe the basic terms and the concepts connected with innovative activity (in the field of public health services) [26]. According to a management of Fraskati (the document is accepted in 1993 in the Italian city of Fraskati) the innovation is defined as the end result of the innovative activity which has received an embodiment in the form of a new or advanced product (service), introduced on the market, new or advanced technological process, or in the new approach to social services. In other words the innovation (innovation) means result of the creative activity directed on working out, creation and distribution of new kinds of products, technologies, introductions of new organizational forms etc. [31]. In this connection it is necessary to consider the term an innovation as registration of result fundamental, applied or experimental researches in any field of activity, promoting development and increase of efficiency of this activity [47]. Besides opinions of authors of various editions, in terminology questions it is necessary to consider standard documents. So in the project of the Federal law? About innovative activity and the state innovative policy? Following definitions of concepts considered in the present degree work [62] are given:? An innovation - the end result of the creative activity which has received realisation in the form of new either advanced production, or the new or advanced technological process used in an economic turn;? Innovative activity? Creation of the new or advanced production, the new or advanced technological process, realised in an economic turn with use of scientific researches, workings out, developmental works, or other scientific and technical achievements;? The state innovative policy? The component of a social and economic policy directed on development and stimulation of innovative activity;? Venture innovative funds? The noncommercial organisations established legal and (or) physical persons on the basis of voluntary property payments and (or) voluntary investment in exchange for a share in the share capital, the creations focused on financing, development in manufacture of new kinds of production and (or) the technologies connected with a high risk;? An infrastructure of innovative activity? The organisations rendering subjects of innovative activity of service, necessary for realisation of innovative activity. In connection with the above-stated the central concept for the present degree research? The innovative project? It is necessary to define as follows. As the innovative project we will understand the introduction business plan (manufactures and sales) innovative working out (the new goods, service or technology). The business plan, in turn, is both a substantiation of economic feasibility of introduction of an innovation, and planning of actions for realisation of the project [46]. Following kinds of activity concern innovative activity [63]: performance of the research, developmental and technological works directed on creation of new or advanced production, the new or advanced technological process, realised in an economic turn; Carrying out of marketing researches and the organisation of commodity markets of innovative products; creation and development of an innovative infrastructure; preparation and retraining of personnel for innovative activity; protection, transfer and acquisition of the rights to objects of intellectual property both the confidential scientific and technological information; realisation of technological re-equipment and manufacture preparation; realisation of tests, certifications and standardization of new processes, products and products; the initial period of manufacture of new or advanced production, application of new or advanced technology before achievement of a standard time of recovery of outlay of the innovative project; financing of innovative activity, including realisation of investments into innovative programs and projects; other kinds of works which necessary for realisation of innovative activity and are not contradicting the legislation of the Russian Federation. Further from the conceptual device we will pass to the description of the economic bases of innovative activity. Above it was already told about necessity of steadfast consideration of the questions connected with an economic aspect of activity of treatment-and-prophylactic establishments. The first, what it is necessary to note in this connection? This increase of the importance of economic service in activity of the medical institutions, connected with increase of the importance of financial indicators. Other moment? This essential change last years character of economic work, increase of its complexity and labour input? Complexity and labour input of economic work in public health services is connected, first of all, with expansion of sources of financing, various principles of planning [40]. The Major factors influencing occurrence of new directions in economic work of medical institutions, Changes in public health services economic mechanism are following [53: 1]). 2) the Computerization of establishments of public health services. 3) changes of the status and the organizational-legal form of medical institutions, their transformation into full managing subjects with the wide rights in questions of the organisation of the work. One of the major kinds of economic work traditionally is planning. In modern conditions its relative density. However in modern conditions instead of charges of medical institutions priority value starts to get costs planning on the medical aid rendering, called to provide coordination of resources with volumes of the rendered services, instead of quantity of capacities (the areas, cots, states etc.) [20]. By consideration of new tendencies in approaches to the analysis of economic activities of medical institutions what varies not only toolkit of the economic analysis, but also a methodological basis is essentially important? The economic analysis of work of medical institution acts as the analysis of activity of the independent and full managing subject, instead of simply consumer of resources as it was earlier [39]. Rather new sphere of activity of economic service is pricing. This problem has got the practical importance in connection with introduction of a new economic mechanism and obligatory medical insurance [35]. In the conditions of market relations at an establishment of the sizes of a payment it is necessary to consider a supply and demand both on a labour market, and in the market of medical services [48].

1.2 Legal bases of innovative activity

Innovative activity is carried out according to the Constitution of the Russian Federation and the Civil code of the Russian Federation. The Project of the Federal law on innovations and innovative activity Besides, prepares. To regulate innovative activity according to this Law and laws accepted according to it and other standard legal certificates of the Russian Federation, laws and other standard legal certificates of subjects of the Russian Federation, and also the international contracts of the Russian Federation, concerning innovative activity [64]. If the Federal Law on innovative activity while exists only in the project in many regions of Russia Regional laws on innovative activity [63] operate. Regional laws on innovations and innovative activity and the Project of the Federal law are under construction approximately on the same structure, therefore for illumination of legal bases of innovative activity it will be pertinent to state the maintenance and substantive provisions of the Project of the Federal law on innovations and innovative activity, having resulted the maintenance of this Project [62]. We will consider substantive provisions of this Project. First of all, in the Project it is supposed to consider following concepts: an innovation? The end result of the creative activity which has received realisation in the form of new either advanced production, or the new or advanced technological process used in an economic turn; innovative activity? Creation of the new or advanced production, the new or advanced technological process, realised in an economic turn with use of scientific researches, workings out, developmental works, or other scientific and technical achievements; the state innovative policy? The component of a social and economic policy directed on development and stimulation of innovative activity; venture innovative funds? The noncommercial organisations established legal and (or) physical persons on the basis of voluntary property payments and (or) voluntary investment in exchange for a share in the share capital, the creations focused on financing, development in manufacture of new kinds of production and (or) the technologies connected with a high risk; an infrastructure of innovative activity? The organisations rendering subjects of innovative activity of service, necessary for realisation of innovative activity [63]. In the Project makes a reservation that innovative activity is carried out according to the Constitution of the Russian Federation, the Civil code of the Russian Federation, the present Federal law and laws accepted according to it and other standard legal certificates of the Russian Federation, laws and other standard legal certificates of subjects of the Russian Federation, and also the international contracts of the Russian Federation, concerning innovative activity. If the international contracts of the Russian Federation establish other norms, than provided by the present Federal law norms of the international contracts [63] are applied. In the Project it is noticed that following kinds of activity concern innovative activity: Performance of the research, developmental and technological works directed on creation of new or advanced production, the new or advanced technological process, realised in an economic turn; carrying out of marketing researches and the organisation of commodity markets of innovative products; creation and development of an innovative infrastructure; preparation and retraining of personnel for innovative activity; protection, transfer and acquisition of the rights to objects of intellectual property both the confidential scientific and technological information; realisation of technological re-equipment and manufacture preparation; realisation of tests, certifications and standardization of new processes, products and products; the initial period of manufacture of new or advanced production, application of new or advanced technology before achievement of a standard time of recovery of outlay of the innovative project; Financing of innovative activity, including realisation of investments into innovative programs and projects; other kinds of works which necessary for realisation of innovative activity and are not contradicting the legislation of the Russian Federation [63]. Subjects of innovative activity are legal bodies, irrespective of the organizational-legal form and a pattern of ownership, physical persons? Citizens of the Russian Federation, the foreign organisations and citizens, and also persons without citizenship. Subjects of innovative activity can carry out functions of customers and (or) executors of innovative projects and programs, investors, consumers of results of innovative activity, and also the organisations serving innovative process and promoting development and distribution of innovations [62]. The state according to the current legislation guarantees to subjects of innovative activity: The state support of innovative programs and the projects directed on realisation of the state innovative policy; the state support of creation and development of subjects of an infrastructure of innovative activity; the state support to preparation, retraining and improvement of professional skill of the shots which are carrying out innovative activity; intellectual property protection, protection against an unfair competition and monopolism; access freedom to the information on priorities of the state innovative policy; freedom of distribution and gathering of the information on innovative requirements and results of scientific and technical and innovative activity, except for the information containing state, office and the trade secret [64]. Public organisations and associations in which charter innovative activity is provided, can carry out on the competitive beginnings it at the expense of means of the federal budget, budgets of subjects of the Russian Federation and to get the state support. Public authorities of the Russian Federation, authorities of subjects of the Russian Federation by preparation of projects of standard legal certificates and programs in the field of innovative activity can involve public organisations and associations [62]. The basic form of relations between subjects of innovative activity are the contracts (contracts) concluded according to the current legislation of the Russian Federation [63].

The disputes arising at realisation of innovative activity, are considered in an order established by the legislation of the Russian Federation and the legislation of subjects of the Russian Federation [62]. Public authorities in an order established by the legislation of the Russian Federation and the legislation of subjects of the Russian Federation, can stop or suspend innovative activity in cases of spontaneous and other disasters, introductions of state of emergency in territory of the Russian Federation, and also if continuation of innovative activity can lead to infringement established by the legislation of the Russian Federation and the legislation of subjects of the Russian Federation of ecological, sanitary-and-epidemiologic and other norms and rules, the rights and interests legal and physical persons [62].

1.3 Working out and the analysis of the innovative project

By means of the innovative project the important problem on finding-out and a substantiation of technical possibility and economic feasibility of innovative activity dares. Despite a variety of projects, their analysis usually follows some general scheme which includes the special sections estimating commercial, technical, financial, economic and институциональную feasibility of the project. [49]. Essentially the essence of the analysis of the innovative project consists in the answer to two simple questions [52:

1]) whether we Can sell a product which is growing out of realisation of the project?

2) whether we from it can receive sufficient volume of the profit justifying the investment project? The analysis of efficiency of the innovative project conditionally breaks on [52]: the market analysis, the analysis of the competitive environment, working out of the marketing plan of a product, maintenance of reliability of the information used for the previous sections. As innovative projects are carried out at already existing markets, in the project their characteristic should be resulted. The marketing analysis should include the analysis of consumers and competitors also. The analysis of consumers should define consumer inquiries, potential segments of the market and character of process of purchase. For this purpose the developer of the project should carry out detailed research of the market. Besides, it is necessary to carry out the analysis of the basic competitors within the limits of market structure and restrictions, on it influencing [29]. In drawing 1.1 the general sequence of the analysis of the innovative project is presented. It is necessary to notice, what the resolution used on the scheme? The project deviates? Has conditional character. The project should be really rejected in the initial kind. At the same time the project can be altered because of, for example, its technical impracticability and the analysis of the modified project should begin from the very beginning.

Let's describe high lights of the analysis of efficiency of the innovative project [37]. The technical analysis [37] Problem of the technical analysis of the innovative project is:? Definition of the technologies most suitable from the point of view of the purposes of the project? The analysis of local conditions, including availability and cost of raw materials, energy, a labour? Stock-taking of potential possibilities of planning and project realisation. The technical analysis is usually made by group of own experts of the enterprise with possible attraction of narrow experts. Standard procedure of the technical analysis begins with the analysis of own existing technologies [51]. The rule of a choice of technology provides the complex analysis of some alternative technologies and a choice of the best variant on the basis of any aggregated criterion [56]. The financial analysis of [37] investment projects Given section is the most volume and labour-consuming. The general scheme of financial section of the innovative project follows simple sequence [37]. 1) the Analysis of a financial condition of the enterprise in preparation of the innovative project. 2) the analysis of break-even of manufacture of principal views of production. 3) the forecast of profits and monetary streams in the course of realisation of the innovative project. 4) an estimation of efficiency of the innovative project. We will stop short on key questions of financial section of the innovative project. The financial analysis of the previous work of the enterprise and its current position usually is reduced to calculation and interpretation of the basic financial factors reflecting liquidity, credit status, profitableness of the enterprise and efficiency of its management. Usually it does not cause difficulty. It is important to present also in financial section the basic financial reporting of the enterprise for a number of previous years and to compare the basic indicators on years [51]. The break-even analysis includes regular work under the analysis of structure of the cost price of manufacturing and sale of principal views of production and division of all costs into variables (which change with change of a volume of output and sales) and constants (which remain invariable at change of a volume of output). The Main objective of the analysis of break-even? To define a break-even point, i.e. a sales volume of the goods which corresponds to zero value of profit. Importance of the analysis of break-even consists in comparison of a real or planned gain in the course of realisation of the investment project with a point of break-even and the subsequent estimation of reliability of profitable activity of the enterprise [27]. The Most responsible part of financial section of the innovative project is actually its investment part which includes [37]:? Definition of investment requirements of the enterprise for the project? Establishment (and the subsequent search) sources of financing of investment requirements? Estimation of cost of the capital involved for realisation of the investment project? The forecast of profits and monetary streams at the expense of project realisation? An estimation of indicators of efficiency of the project. The most difficult is the question of an estimation of a recoupment of the project during its term of realisation [5]. The volume of monetary streams which turn out as a result of project realisation should cover size of the total investment taking into account a principle? Costs of money in time?. Each new stream of money received in a year has the smaller importance, than equal to it on size the monetary stream received year earlier. As the characteristic measuring the time importance of monetary streams, the norm of profitableness from investment received acts during realisation of the investment project of monetary streams [5]. The economic analysis [37] be integrated procedure of an estimation of economic efficiency can it is presented in the form of the following sequence [37: 1]) to Present results of the financial analysis. 2) to make new classification of expenses and incomes from the point of view of the economic analysis. 3) to translate financial values in economic (they do not coincide because of discrepancy of the prices and expenses for external and home market). 4) to Estimate cost of other possibilities for use of resources and reception of the same product. 5) to exclude all calculations on internal payments (as they do not change the general riches of the country). 6) to Compare annual economic streams of means with initial volume of the investment (it will be a final analysis). The institutsionalnyj analysis of [37] Institutsionalnyj the analysis estimates possibility of successful performance of the investment project taking into account organizational, legal, political and administrative conditions. This section of the investment project is not quantitative and not financial. Its main task? To estimate set of the internal and external factors accompanying the investment project [37]. The estimation of internal factors is usually made under the following scheme. 1) the analysis of possibilities of industrial management. Well-known that bad management in a condition to fill up any, even over the good project. Analyzing industrial management of the enterprise, it is necessary to be focused on following questions [37]:? Experience and qualification of managers of the enterprise? Their motivation within the limits of the project (for example, in the form of a share from profit)?

Compatibility of managers with the purposes of the project and the cores ethical and project cultural values. The analysis of a manpower. A manpower with which it is planned to involve for project realisation should correspond to level of technologies used in the project [42]. The analysis of organizational structure. The organizational structure accepted at the enterprise should not brake project development. It is necessary to analyse, as there is at the enterprise a decision-making process and as distribution of responsibility for their performance is carried out. It is not excluded that it is necessary to allocate management of realisation of the developed investment project in separate administrative structure, having passed from hierarchical to matrix structure of management as a whole on the enterprise [51]. The basic priorities in respect of the analysis of external factors are mainly caused by a policy of the state in whom following positions [37] are allocated for the detailed analysis:? Conditions of import and export of raw materials and the goods? Possibility for foreign investors to put means and to export the goods? Laws on work? Substantive provisions of financial and bank regulation. This points in question are most important for those projects which assume attraction of the western strategic investor [37]. The analysis of risk [37]. The essence of the analysis of risk consists in the following. Without dependence from quality of assumptions, the future always bears in itself an uncertainty element. The most part of the data necessary, for example, for the financial analysis (elements of expenses, the prices, production sales volume, etc.) Are uncertain. In the future forecast changes as to the worst (profit decrease), and in the best are possible. The risk analysis offers the account of all changes, both towards deterioration, and towards improvement [48]. In the course of project realisation following elements are subject to change: cost of raw materials and accessories, cost of capital expenses, service cost, cost of sales, the prices and so on. As a result of target parametre, for example profit, will be casual. The risk uses concept of likelihood distribution and probability. For example, the risk is equal to probability to get negative profit, that is the loss. The wider range of change of factors of the project, the большему is subject to risk the project [57]. As a rule, definitively innovative project is made out in the form of the business plan. In this business plan all questions listed above, as a rule, are reflected. The business plan of the innovative project, first of all, should meet requirements of that subject of innovative activity on which decision the further destiny of the project [36] depends. So, in chapter 1 of degree work theoretical bases of innovative activity in public health services have been considered, and, the basic terminology is entered, the economic reasons of innovations and legal maintenance of innovative activity are described. From chapter 1 it is possible to draw a conclusion, what a principal cause causing innovative activity in economy in general and in public health services in particular? The new market relations compelling each concrete enterprise to search additional sources of financing. These economic bases in turn generate the legislative base providing a legal field of innovative activity.

2. The technique of the estimation of efficiency of the innovative project

2.1 Existing technique of an estimation of the investment project

Existing (standard, classical) the technique of an estimation of efficiency of the innovative project includes [35:

1]) calculation of factor of the pure resulted cost (NPV);

2) calculation of an index of profitability of investments (PI);

3) calculation of internal rate of return or norm of profitability of the investment (IRR);

4) decision-making on project realisation. We will describe each step of this technique.

At the heart of process of acceptance of administrative decisions of investment character the estimation and comparison of volume of prospective investments and the future monetary receipts lie. As compared indicators concern the various moments of time, a key problem here is the problem of their comparability. To concern it it is possible differently depending on existing objective and subjective conditions: rate of inflation, the size of investments and generated receipts, horizon of forecasting, a skill level of analysts etc. The international practice of an estimation of efficiency of investments essentially is based on the concept of time cost of money and is based on following principles.

1) the estimation of efficiency of use of the invested capital is made by comparison of a monetary stream (cash flow) which is formed in the course of realisation of the investment project and the initial investment. The project admits effective if return of the initial sum of investments and demanded profitableness for the investors who have given the capital is provided.

2) the invested capital no less than a monetary stream is resulted by this time or by certain settlement year (which as a rule precedes the beginning of realisation of the project).

3) Process of discounting of capital investments and monetary streams is made under various rates of discount which are defined depending on features of investment projects. At definition of the rate of discount the structure of investments and cost of separate components of the capital are considered. The essence of all methods of an estimation is based on the following simple scheme: Initial investments at realisation of any project generate monetary stream CF1, CF2..., CFn. Investments admit effective if this stream is sufficient for? Return of the initial sum of capital investments and? Maintenance of demanded return on the invested capital. 1) calculation of factor of the pure resulted cost (NPV) [29] Calculation of this factor is based on comparison of size of the initial investment (IC) with a total sum of the discounted pure monetary receipts generated by it during predicted term. As inflow of money resources is distributed in time, it is discounted by means of factor r, established by the investor independently, proceeding from annual percent of return which he wants or can have on the capital invested by it. Let's admit, the forecast becomes that the investment (IC) will generate during n years, revenues at a rate of CF1, CF2, CF.... The general saved up size of the discounted incomes (PV) (Present Value) and the pure resulted cost (NPV) (Net Present Value) Pays off.

Where n? Quantity of the periods of time on which the investment, r is made? Norm of profitableness (profitableness) from an investment. It is obvious that if: NPV> 0 the project should be accepted; NPV <0 the project should be rejected; NPV = 0 the project not profitable and not the unprofitable Project with NPV = 0 has nevertheless additional argument to own advantage: though well-being of owners of the company in case of project realisation will not change, the volume of output will increase, i.e. the company will increase. At forecasting of incomes on years it is necessary to consider all kinds of receipts, both industrial character, and non-productive which can be with the given investment project.

It is necessary to notice that indicator NPV reflects a look-ahead estimation of change of economic potential of the enterprise in case of acceptance of the considered project. This indicator is additive in time, i.e. NPV various projects it is possible to summarise. This very important property allocating this criterion from others and allowing to use it as the core at the analysis of an optimality of the investment project. At comparison of two or several investment projects, obviously, it is necessary to choose that project which has higher value NPV [39]. 2) Calculation of an index of profitability of investments (PI) [39] Pays off a profitability index (Profitability Index) (PI) under the formula:

PI = ∑k [Pk / (1 + r)k] / IC,

Where IC? Sizes of the initial investment; Pk? The prospective cumulative income; r? Norm of profitableness (profitableness) from an investment; k? Quantity of the periods of time (years). It is obvious that if: PI> 1 the project should be accepted; PI <1 the project should be rejected; PI = 1, the project neither profitable, nor unprofitable. Unlike the pure resulted cost the profitability index is a relative indicator, it characterises level of incomes on a unit of cost, i.e. efficiency of investments? The more value of this indicator, the above return of each rouble invested in the given project. Thanks to it criterion PI is very convenient at a choice of one project from a number alternative, having about identical values NPV, in particular, if two projects have identical values NPV, but different volumes of demanded investments, that, it is obvious that that from projects which provides the big efficiency of investments, or at acquisition of a portfolio of investments with the maximum total value NPV [26] is more favourable. 3) Calculation of internal rate of return or norm of profitability of the investment (IRR) [31] (Internal Rate of Return) (IRR) understand value of factor of discounting As internal rate of return or norm of profitability of the investment r at which NPV the project it is equal to zero: IRR = r, at which NPV = f (r) = 0.

Where CFj - an entrance monetary stream during j th period, INV? Value of the investment. The sense of this factor at the analysis of efficiency of planned investments consists in the following: IRR shows expected profitableness of the project, and, hence, as much as possible admissible relative level of expenses which can be ассоциированы with the given project. For example, if the project is financed completely at the expense of the loan of commercial bank value IRR shows the top border of admissible level of the bank interest rate which excess does the project unprofitable. Thus, IRR is as though? A barrier indicator?: if cost of the capital above value IRR? Capacities? It is not enough project to provide necessary return and return of money and therefore the project should be rejected [32]. 4) (ARR) [12] This factor has Calculation of effectiveness ratio of the investment two characteristic features: he does not assume discounting of indicators of the income; The income is characterised by an indicator of net profit PN (balance profit minus deductions in the budget) [19]. The algorithm of calculation is exclusively simple, as predetermines wide use of this indicator in practice: the investment effectiveness ratio (named also in registration rate of return) (Accounting Rate of Return) (ARR) pays off division of mid-annual profit PN into average size of the investment (the factor undertakes in percentage). The average size of the investment is division of the initial sum of capital investments into two if it is supposed that after term of realisation of the analyzed project all capital expenses will be written off; if presence of residual or liquidating cost (RV) its estimation should be considered in calculations is supposed.

ARR = PN / [1/2 (IC + RV)],

The given indicator is compared to factor of profitability of the advanced capital counted by division of the general net profit of the enterprise for a total sum of means, advanced in its activity (a result of average balance net) more often. The method based on use of effectiveness ratio of the investment, also has a number of the essential lacks caused, basically, that it does not consider time components of monetary streams. In particular it does not do distinction between projects with the identical sum of mid-annual profit, but the varying sum of profit on years, and also between the projects having identical mid-annual profit, but generated during various quantity of years. 5) decision-making by criterion of the least cost After a statement of the general scheme of standard model of an estimation of efficiency of investment projects, we will state some conclusions. There are investment projects in which it is difficult or it is impossible to calculate the monetary income. This sort of projects arise at the enterprise when it is going to modify the technological or transport equipment which takes part in many versatile work cycles and it is impossible to estimate a monetary stream. In this case as criterion for decision-making on expediency of investments operation cost acts.

2.2 Offered model of an estimation of efficiency of the innovative project

Feature of subjects of research considered in the present degree work consists what the general model of an estimation of efficiency of the innovative project in public health services till now is not made? This problem at thesis for a doctor's degree level on economy. In frameworks of usual degree research it is possible to offer only the model focused on the concrete innovative project. In this connection? To complete the picture? Before actually statement of offered model of an estimation of efficiency of the project it is necessary to describe in brief the project, i.e. to make the short resume of the project. The innovative project considered in the present degree research consists in the organisation of manufacture and sale of the diagnostic device? The biotest? предназначеного for a finding акупунктурных points, carrying out электропунктурной the express train of diagnostics of a condition of a human body by results of measurements of parametres of biologically active points, testings of preparations and therapy according to R.Follja's technique. The Scope - the diagnostic device of the doctor of the therapist, the homeopathist, the anaesthesiologist, etc. Novelty of the project (innovation, an innovation) consists what release of the product, analogue not having to in Russia, abroad is supposed? The device very cheap and reliable.

The device device. The case is made of shock-resistant polystyrene. On the obverse panel are located: 1 - the microampermeter 2 - the switch of operating modes of the device 3 - the switch? Diagnostics/therapy? 4 - the step switch of frequencies of therapy 5 - the indicator of inclusion and the category of the power supply 6 - light indicators of a finding of biologically active points (definition of degree of falling of an arrow) On a lateral surface of the device is located a regulator of amplitude of influence of electroimpulses. The device block diagramme? The biotest? It is presented on fig. 3 and includes: - the device of search of biologically active points - the measuring amplifier - the microampermeter - the setting generator with a frequency divider - target pressure

Remote terminal units: passive round electrodes; an active electrode; a foot electrode; a plate for testing of preparations and medicines Additional devices. Under the demand of the customer the device is completed with a charger (З.У.) . The charger is intended for gymnastics of accumulators (if they are present instead of electric batteries at a food compartment). As delivery of a diagnostic office of the doctor is possible. The device enters into it for device connection? The biotest? To the COMPUTER. The device of the coordination of the device has been for this purpose specially developed? The biotest? And the COMPUTER and as the software allowing completely is written to automate work of the doctor. Assortment. 1 kind of the device will be issued? The biotest? With стрелочным the indicator, completely corresponding to the above-stated description of Advantage of the given device in comparison with analogues available in the market. Device "Biotest" was developed strictly on the basis of R.Follja's method. The device has included all most necessary qualities such as simplicity, удобность both ease in circulation and device adjustment, small weight of a product, reliability and durability of a product, small power consumption, a food from battery power supplies "finger-type" which are widely accessible, aesthetic appearance of the device and its remote terminal units. Device life cycle? The biotest? Basically it will be defined by life cycle of the most applied method of R.Follja. Development tendencies will consist in device improvement, addition in it of new functions, improvement of available characteristics, change of appearance of the device. As it is planned to develop new updating of the device? The Biotest Th? With стрелочным the indicator + the additional digital indicator of level, degree of falling of an arrow and some other parametres. The offered model of an estimation of efficiency of the innovative project will include: 1) an estimation of competitive advantages of the goods (service), offered by the considered project; 2) an estimation of a market capacity of sale on which the considered project, including as the basic indicator the sales volume forecast is focused; 3) calculation of the capacity necessary for realisation of the project, and its comparison to a predicted sales volume; 4) calculation of the project of volume of investments necessary for realisation; 5) calculation? Break-even points?, i.e. critical for a recoupment of the project of volume of output; 6) summarising calculation of the basic indicators of the project, such as profit (total and pure); profitability of production; profitability of funds; the full cost price; labour input; the predicted price for production; a critical sales volume and release; efficiency of capital investments; a time of recovery of outlay; a stock of financial durability. A core of offered model is the analysis of break-even and a project recoupment. The break-even analysis includes regular work under the analysis of structure of the cost price of manufacturing and sale of principal views of production and division of all costs into variables (which change with change of a volume of output and sales) and constants (which remain invariable at change of a volume of output). The Main objective of the analysis of break-even - to define a break-even point, i.e. a sales volume of the goods which corresponds to zero value of profit. Importance of the analysis of break-even consists in comparison of a real or planned gain in the course of realisation of the investment project with a point of break-even and the subsequent estimation of reliability of profitable activity of the enterprise. The most responsible part of financial section of the project is actually its investment part which includes? Definition of investment requirements of the enterprise for the project? Establishment (and the subsequent search) sources of financing of investment requirements? Estimation of cost of the capital involved for realisation of the investment project? The forecast of profits and monetary streams at the expense of project realisation? An estimation of indicators of efficiency of the project. In the course of an estimation of a recoupment of the project the question of the account of inflation is critical. Really, the monetary streams developed in time, it is necessary to count in connection with change of purchasing capacity of money. At the same time there is a position according to which the final conclusion about efficiency of the investment project can be made, ignoring inflationary effect. In one of heads it will be shown that inflationary change of a price level does not influence an estimation of the pure value of monetary streams led to the present moment on which base the basic indicator of efficiency of the investment project is defined.

2.3 Comparison of standard and offered models of an estimation of efficiency of the innovative project

Two models applied to an estimation of efficiency of the innovative project were above described. A problem of this point? To give their comparative description. These models in two basic directions will be compared: by results and under the maintenance. Concerning comparison by results. Certainly, both these models bring the purpose the answer to an attention to the question, whether it is necessary to put up money in the considered innovative project or not; but these two models differently answer this question. In what here similarities and distinctions? It also is a problem of the comparative description of models by results. Comparison of models under the maintenance assumes transfer qualitative and the quantitative parametres used in both models, and also a conformity establishment between these two sets of parametres. Also it will be necessary to draw the general conclusion under the analysis of two models: what are? Pluses? And? Minuses? Applications of everyone them them what of them it is necessary to prefer at the analysis of the considered project, etc. Let's remind that the standard model assumes: 1) calculation of factor of the pure resulted cost (NPV); 2) calculation of an index of profitability of investments (PI); 3) calculation of internal rate of return or norm of profitability of the investment (IRR); 4) decision-making of realisation of the project. The offered model assumes 1) an estimation of competitive advantages of the goods (service), offered by the considered project; 2) an estimation of a market capacity of sale on which the considered project, including as the basic indicator the sales volume forecast is focused; 3) calculation of the capacity necessary for realisation of the project, and its comparison to a predicted sales volume; 4) calculation of the project of volume of investments necessary for realisation; 5) calculation? Break-even points?, i.e. critical for a recoupment of the project of volume of output; 6) summarising calculation of the basic indicators of the project, such as profit (total and pure); Profitability of production; profitability of funds; the full cost price; labour input; the predicted price for production; a critical sales volume and release; efficiency of capital investments; a time of recovery of outlay; a stock of financial durability; 7) decision-making on realisation (or to a deviation) the project. As it is possible to see, in sense of the purpose of application both these models have the purpose to answer a question, to accept to realisation or to reject the considered innovative project. On a way of the answer to this main point of model differ. Distinction consists what the standard model basically uses relative factors, and offered model? The absolute. To show this difference it is possible on a simple example: the standard model will tell that it is necessary to put money, as each enclosed rouble will bring 20 copecks of the income (i.e. Let's enclose 1 rouble, we will receive 1 rouble of 20 copecks), whereas the offered model of an estimation of efficiency will tell what to put up money in the innovative project costs, as the enclosed 1000 roubles will return as 1200 roubles. It is obvious, what this distinction not essential since at use of that and their other model it is possible to add with corresponding indicators? Standard model absolute, offered? The relative. The standard model uses relative indicators owing to tradition; the offered model uses absolute indicators from convenience reasons? At application of offered model it is possible to draw a conclusion of such grade that for realisation of the innovative project it is necessary to involve 14011 c.u. that through 7 months to receive 19873 c.u. Under the maintenance of indicators two considered models basically coincide. We will prove it. The standard model does not give possibility to execute an estimation of competitive advantages of the goods (service) offered by the considered project. However the standard model should contain this indicator as intermediate result? If the project is not directed on manufacture of a competitive product the project will be unprofitable and inefficient. A similar situation with a market capacity indicator? This indicator is not necessary for application of standard model, however, it does not mean that the offered model wins at standard, having this indicator. Capacity calculation is designated as an obligatory indicator at application of offered model. This indicator is not present as a part of standard model, however for calculations of factors of standard model anyhow it is necessary to know the capacity requested by the project. For this reason for application of standard model more low we will use this factor, but counted within the limits of application of offered model. Calculation of necessary volume of investments is necessary for application of both models: in offered model it is taken out as a separate indicator, in the standard? Is present at quality of parametre (intermediate result) at calculation of all indicators of standard model. Means, at application of standard model we will address partly to results of application of offered model. The break-even point pays off at application of offered model, but anything similar is not present in standard model. It is caused by what a break-even point? An indicator absolute whereas the standard model uses relative indicators. As to such characteristics of the project, such as profit (total and pure), profitability of production, profitability of the funds, the full cost price, the labour input, the predicted price for production, a critical sales volume and release, a time of recovery of outlay, a stock of financial durability? All of them are present at offered model, and at standard model there are only relative indicators, namely: efficiency of capital investments and analogue of an indicator of profitability of production. If the purposes of application of models coincide, some indicators and intermediate results are crossed, in what a difference between them and what for it is necessary to use two models? First of all, the numerical characteristics given by models, not should differ strongly from each other as we consider their application to the same project: If the standard model gives any numerical indicator its accuracy will be difficult for improving owing to that the standard model has already proved. We will draw conclusions by results of considerations of techniques of an estimation of efficiency of innovative projects. How it was possible to notice, the standard model is less labour-consuming in the application? In it, undoubtedly, there is an advantage of standard model before offered model. However, the basic difference between standard and offered models what the offered model gives more information on the concrete project? And in it the big advantage of offered model before the standard. For example, the standard model of an estimation of efficiency of the project cannot answer on a question, in what volume it is necessary to make production that the project was profitable? The standard model uses this indicator, but does not count it whereas the offered model at first counts it, and then uses. So, both those and other models can tell that, for example, as a result of three years of realisation the project will be profitable whereas the offered technique can tell that the project will pay off in 7 months. The offered model also has one essential lack? All basic indicators pay off on the basis of the sales volume forecast. But it is the forecast, obviously, can be only approximate. Hence, all basic indicators of offered model will be approximate. In the following chapter the comparative analysis of application of standard and offered model on an example of the concrete innovative project will be given.

3. The estimation of efficiency of the innovative project in public health services

3.1 Estimation of efficiency of the innovative project by a standard technique

1) Calculation of factor of the pure resulted cost (NPV) For application of a standard technique of a case of the innovative project considered in the present degree work, all basic numerical data will undertake from point 3.2 of the present work. So the forecast, let us assume, becomes that the investment (IC) will generate within 3 years, revenues at a rate of CF1, CF2, CF.... The general saved up size of the discounted incomes (PV) (Present Value) and the pure resulted cost (NPV) (Net Present Value) Pays off.

Here n - quantity of the periods of time on which the investment is made, r - norm of profitableness (profitableness) from an investment. It is known that if: NPV> 0 the project should be accepted; NPV <0 the project should be rejected; NPV = 0, the project not profitable and not the unprofitable. For our project

Here and more low in work we will believe that 1 c.u. = 1$. We will notice also, what at the moment of 01.04.04 Central Bank rate of the Russian Federation of the American dollar made 28 rbl. 13 copeck Here in the first composed number 14011 of c.u. with a minus corresponds to the full cost price of the project, r=0,166, or, what the same, r=16,6 %? Level of profitability (profitableness) of the project. For our project the settlement size is more than zero, the project profitable means. 2) calculation of an index of profitability of investments (PI) Pays off a profitability index (Profitability Index) (PI) under the formula:

PI = ∑k [Pk / (1 + r)k] / IC,

Let's remind that if: PI> 1 the project should be accepted; PI <1 the project should be rejected; PI = 1, the project neither profitable, nor unprofitable. For our project it is had:

Here 8721 c.u.? Net profit size. In brackets three composed as we investigate the project within three years? 2005, 2006 and 2007 whereas we begin project realisation in 2004. For the considered project this size is more than unit, hence, the project profitable. 3) calculation of internal rate of return or norm of profitability of the investment (IRR) (Internal Rate of Return) (IRR) understand value of factor of discounting As internal rate of return or norm of profitability of the investment r at which NPV the project it is equal to zero: IRR = r, at which NPV = f (r) = 0.

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Where CFj - an entrance monetary stream during j th period, INV - value of the investment. Strictly speaking, this factor dismisses not so much, how many the equation, having solved which, we will find the norm of profitableness INN is minimum necessary for realisation of the project. For our project it is had a following equation:. We will notice that in the left member of equation three composed owing to that consideration is conducted for three years. A trial and error method we find that for performance of following equality it is necessary, that approximate equality was observed. It means that the norm of profitableness of 8,1 % whereas from following point it will be visible that norm of profitableness of our project of 16,6 % is necessary for a project recoupment. It means that it is necessary to recognise the project profitable. We will draw conclusions by results of calculations of the basic factors of model under the decision on acceptance or a project deviation is accepted after consideration of values resulted above factors. As we saw, all these factors have yielded that result that the project profitable and it should be accepted to realisation.

3.2 Estimation of efficiency of the innovative project by an offered technique

Industrial competitive advantages. For device manufacturing? The biotest? Components will be used inexpensive, not scarce, широкодоступные, but at the same time qualitative, basically import manufacture. In this connection the device will have high consumer properties at the low cost price. A market estimation. The market of the medical equipment in Russia is not sated enough by the equipment of the given direction [23] whereas the developed device has no strong contenders both on Russian, and in the foreign market. It promotes fast advancement of the device on the market of Russia and the near abroad. Changes in the given market can occur under the influence of following external factors: - occurring in the currency market - preference of consumers As it is necessary to pay attention of change to the internal factors influencing a condition of the given market: - a competition; - change of internal structure of participants of the market. All it leads to constant changes in the given market that and as consequence constant improvement and expansion of assortment of production, and as to expansion of a variety of the services given together with the offered goods constantly promotes qualitative improvement of structure of participants. Novosibirsk scientists carry out statistical researches, applicable for the marketing analysis of the market of medical services [24]. On the spent statistical researches the schedule of distribution by consumers of given production on categories has been constructed:

15 % - the Doctors who are engaged in individual activity of 30 % - the Medical institutions applying non-standard methods of diagnostics and treatment of 55 % - the Medical institutions rendering additional paid services of a Fig. 3.1.? Distribution of consumers on categories From the resulted data we see, what more than half (55 %) consumers of medical services address in the establishments rendering additional paid services? But these establishments just also are potential buyers of production for which the investment project [61] is developed. That fact is interesting that in the Russian market at present there are all some competitors [25]: \* Peterlink Electronics. It is the German company, she offers very high-class devices working only complete with the COMPUTER and the software. Production of this company has no such necessary property as compactness and mobility. The firm offers completely equipped offices intended only for work with this device. Completely equipped office costs approximately $20000. Such expenses are presumed only by the provided medical institution. \* Kindling. It too the company from Germany. About it there is an information small amount. Devices of this company are delivered and work both from the COMPUTER and without the COMPUTER but as have no property of compactness and mobility. The complete set of the equipment of the given company costs approximately from $5000 to $6000 depending on a complete set. \* Start-1. It is the Russian firm. Makes complexes both from the COMPUTER, and without the COMPUTER. It is known that the complex without the COMPUTER costs approximately $1400. The basic advantage of all three listed companies consists that in their devices there is a quantity of additional functions, but this advantage is not the main thing. Lacks of all three companies consist that: - Devices do not have properties of compactness, mobility, and they are difficult in circulation; - the high prices for complexes. Advantages of our device are its such properties as: mobility, compactness, possibility to work both in stationary, and in field conditions, possibility to work both complete with the COMPUTER, and without the COMPUTER, very low price at quality not conceding to competitors, but in our device are collected only the basic functions which are the most necessary. A lack of the given device is absence in it of additional functions available for competitors. A company lack is its not so wide popularity on the given segment of the market, but this lack constantly decreases. The table in which the advantages set forth above and lacks are shown is more low resulted.

Let's notice that at the moment of April, 1st, 2004 1 American dollar on a Central Bank rate of the Russian Federation made 28 rbl. 15 copeck Of the table it is visible that the considered device has big advantages in comparison with the competitive. The goods of competitors are calculated basically on a narrow circle of the consumers having their possibility to buy, and many have such possibility far not. At the same time the considered device has low enough price at the basic requirements not conceding to competitors, and in some parametres them even surpasses. Demand forecasting. For the forecast we will take advantage of mathematical modelling of demand for the developed device? The biotest?. The essence of an applied mathematical method consists in extrapolation of the statistical data about presence of similar devices in medical institutions of a city and area for 2002-2004 on volume of demand for the considered device in 2005. For extrapolation carrying out it is necessary to calculate a trend line. Calculation of a straight line of demand. The general equation of a straight line [8]

y=a0+a1t,

Where at? The predicted volume of demand, t? Time moment (year, day, month, etc. in which us the demand volume), a0 and a1 interests? Unknown factors of a straight line of demand subject to calculation. Two unknown person of factor of a straight line of demand we will find from two linear equations

na0+a1∑t=∑y,(3.5)

a0∑t+a1∑t2=∑ yt.(3.6)

Here п? Quantity of the considered moments of time (for example, as in our case, three years). At application of the described model of forecasting of demand for a developed product, we will take advantage of results of own researches which consisted in data gathering about presence of the devices realising a method of Follja in medical institutions of Novosibirsk and the Novosibirsk region. The idea of the forecast of demand consisted in that, having the information on presence similar developed in the present work of devices, to assume that on the offered device demand will develop under the same mathematical laws. For drawing up of the equations of the predicting we will take advantage of the following table in which results of telephone surveys of assistants to head physicians on economy of various medical institutions of a city of Novosibirsk and the Novosibirsk region are brought:

From the schedule it is visible that in 2005 theoretical volume of demand for the device? The biotest? In Novosibirsk and the Novosibirsk region will make 600 units of production. Working out of the organizational project of manufacture. 5 day working week and 8 hour working day necessary quantity the person Is supposed, occupied on an industrial site (the basic workers) makes 2 persons. Specificity of the given work assumes, that the employees occupied on an industrial site possess high qualification in radio electronics and installation of electronic components. The control system of all firm is under construction by a principle of linear organizational structure which allows to conduct an effective control behind firm work as a whole. More low in the table calculation of annual fund з/п heads, experts and employees is resulted.

Capacity calculation. For normal work of firm the one-replaceable operating mode with 8 hour working day is recommended. Duration of working week of 5 days. It is necessary to notice that duration of work of firm during the day makes 9 hours. Here it is necessary to include an hourly break on rest in work. The break to be put after first 4 business hours. Taking into account what the total quantity of days for holidays, target, within a year makes holidays of an order of 112 days, we receive, what quantity of the working days in a year of 365 days? 112 days off = 253 working days. From here the fund of a usage time of the equipment for 8 hour changes taking into account time for service makes 1820 hours. Knowing fund of an operating time of the equipment, we will define annual throughput. 2 persons work for us. The average norm of time for assemblage of one device makes 6 hours. Hence capacity (throughput) in a year makes: Qгод. = (1820:6) \*2=607 piece/year As it has already been noted, the predicted sales volume makes 600 pieces / year. Hence, the factor of loading of the equipment makes: Кзагр. = 600/607=0.99, i.e. 99 %. It is necessary to note risk which should be considered in offered model. As it has been told above, a core of offered model of an estimation of efficiency of innovative projects is demand forecasting. If real demand differs from predicted throughput of assembly shop can be regulated a multiplier corresponding to quantity of the personnel. So, if real demand will make, for example, 900 pieces throughput will need to be counted not under formula Qгод. = (1820:6) \*2=607 piece/year, and under formula Qгод. = (1820:6) \*3=910 sht/year that corresponds to that workers should be 3, instead of 2 persons. It means that the offered model is steady against risk of change of demand as it will be easy to be arranged by quantity of the personnel under real demand. Calculation of volume of investments. For calculation of necessary volume of financing it is necessary to define structure of expenses which are necessary for firm work. They look as follows: 1) Expenses for premise rent for the first month are defined from calculation that rent cost for 1 square metre of a premise a year makes 300 c.u., we receive rent cost: Саренды = 300 \* (24+30\*0.15)/12 = 712 u.e./mes As output makes 15 % from total amount of manufacture of all enterprise that from rent not industrial premises is taken 15 %. 2) Expenses for the equipment and stock.

In this table, as well as further, one standard unit corresponds to 1 US dollar, i.e. approximately 30 roubles. 3) expenses for initial purchases of accessories at the rate on 1 month of work. For definition of expenses we believe that every month in firm the identical number of devices equal 1/12 of part of annual release is issued. The annual volume of release is accepted 600 units. Hence in a month 50 devices will be issued. Expenses for purchase of accessories for each device approximately are equal 38 c.u. From here is received that expenses for creation of stocks of materials for work within a month are equal 38\*50=1900 c.u. 4) Initial publicity expenses undertake with such calculation that it is necessary to dispatch a direkt-mail at least all 1/3 of Moscow medical institutions fair brochures. It is supposed to spend for it about 500 c.u.

The analysis of economic indicators. For carrying out of the given analysis it is necessary to make a report of the basic economic indicators. Them concern such, as: profit (total and pure); profitability of production; profitability of funds; the full cost price; labour input; the predicted price for production; a critical sales volume and release; efficiency of capital investments; a time of recovery of outlay; a stock of financial durability. 1) the size of total profit on sales of the considered device within the first year of work will make 14011 c.u. provided that the predicted break-even sales level will be provided. For definition of size of net profit it is necessary to define the tax to property of the enterprise which reduces base of the taxation under the profit tax. Cost of property of the organisation develops from: - costs of rent of a building - 8550 c.u.; - costs of the equipment minus 7 % of deterioration 3400 \* (1-0.07 =3162 c.u.; From here property cost makes: 8550+3162=11712 the Tax to property (2 %) makes c.u.: 11712\*0.02 = 234 c.u. the Tax to the maintenance of available housing of 1.5 % from a gain 14011\*0.015=210 c.u. the Tax to general educational needs of 1 % from payment fund 14994\*0.01=150 c.u. the Base of the taxation under the profit tax is equal: 14011-234-210-150 = 13417 c.u. the Profit tax makes by the current moment 35 % and is equal: 13417\*0.35=4696 c.u. the net profit Size makes 13417-4696=8721 c.u. Profit at the disposal of the organisation (a difference between net profit and returned investments): 8721-6512=2209 2) the Size of profitability of production makes c.u.: r = П:Т = 14011/84600\*100 = 16.6 %, that is on 100 roubles of sold production are necessary 16.6 roubles of profit. 3) size of profitability of production assets: (П: (ОФ + МС) \*100) where average cost of a fixed capital (ОФ) equals: ОФ=8550+3400=11950 c.u. average cost of material circulating assets (МС) is equal: МС=22800 c.u. From here the size of profitability of production assets is equal: (14011 / (11950+22800)) \*100 % = 40.3 % 4) the Full cost price of production is equal 70554 c.u. 5) Labour input of let out production is equal to the sum of time spent for each unit of production on a separate workplace: Т=6 hours. 6) the predicted price for firm production is equal 141 c.u. 7) the Critical volume of a gain from sales makes 55695 c.u. at which the critical sales volume makes 395 devices. 8) efficiency of capital investments is defined as the relation of profit to capital investments (investments): Е = П / To = 8721/6512=1.34 9) the Time of recovery of outlay - size return efficiency of capital investments: Т = 1 / Е = 0.75 years or 9 months. 10) the stock of financial durability of the organisation is defined as follows: Wпрочн. = (Dmax-Dmin)/Dmax\*100 %, where Dmax - the maximum revenue of production sale; Dmin - the revenue at a critical break-even sales level; Wпрочн. = (84600? 55695)/84600\*100 % = 34 %. It means that there is a possibility to lower the income of sales on size of 34 % from the planned. If to speak about rate of return (20 %) it is optimum for firm, the considerable which share of sales is provided directly though all attention is concentrated to buyers with a low prosperity. Net profit, being at the command it is quite enough enterprise to pay back capital investments within the first year of work. The low norm of profitability of the sold goods will be compensated by a stable break-even sales level. Labour input of production on time allows firm to provide the demanded volume of release, not задействуя thus a considerable quantity of employees. The price for production, should draw attention of potential buyers with low level of a prosperity as it is enough low in comparison with competitive by the current moment. The critical sales volume makes 66 % from the planned. This fact allows firm to stabilise the position in the market within the first year of work even in case of struggle from outside competitors. Efficiency of capital investments is estimated in 134 %. That is after the first year of work the size of net profit, firm being at the command will make 134 % from the enclosed capital. The small time of recovery of outlay of the capital allows firm already by the end of the first year of work to get the profit going on development of the organisation, instead of return of the enclosed means. The stock of financial durability of the company makes 34 % that allows the company to work in the conditions of a competition without losses. That is there is a possibility to lower the planned income of sales on size of 34 % from the planned. On the basis of the considered indicators it is possible to draw a conclusion that the project is effective for following reasons: 1) Low profit, but stable sales; 2) the Low prices for production; 3) Low level of a critical sales volume in comparison with the planned; 4) High efficiency of capital investments; 5) the Short time of recovery of outlay of the capital; 6) the Sufficient stock of financial durability. All it will allow firm to occupy stable position in the market within the first year of work and will provide a break-even sales volume.

3.3 Comparison of estimations of efficiency of the innovative project on standard and offered models

We can spend comparison of estimations of efficiency of the innovative project on standard and offered models only having compared an end result of application of these models? I.e. the answer to a question, whether it is necessary to put up money in the project? And to compare values of the indicators calculated at application of standard model with similar indicators of offered model. 1) to factor of the pure resulted cost (NPV) from standard model there corresponds an indicator of net profit plus size of initial investments. That is in standard model an indicator

Whereas in offered model a similar indicator 2209 + 14011 = 16220 c.u., where 2209 c.u.? Profit at the disposal of the organisation (a difference between net profit and returned investments). A difference in the sum here that the offered model in calculations uses the predicted size of a sales volume. It is the forecast becomes on the basis of linear approximation which, as it is known, yields approximate results. It is necessary to notice, what the divergence of values of these factors makes all (1? 16200/17149,3) \*100 % = 5,52 %. It allows to draw a conclusion about enough split-hair accuracy of offered model in general and the sales volume forecast in particular. 2) to an index of profitability of investments (PI) from standard model there corresponds an indicator of efficiency of capital investments: the Standard model gives value of factor whereas the offered model gives Е = П / To = 8721 / 6512=1,34. A divergence? 4 %, i.e. accuracy of offered model it is high. 3) the Standard model assumes calculation of internal norm of profitableness which for the considered project is equal. The similar indicator in offered model is not present, however is told that profitability of the project 0,166. In other words, the standard technique says that that the project was profitable, value of internal norm of profitableness a minimum whereas the offered model says is necessary that the project has norm of profitableness 0,166. Here it is impossible to compare accuracy of calculations, it is possible to tell only that conclusions of these two models do not contradict each other. For more evident comparison of models we will result the comparative table of values of the basic factors of models.

So, having compared values of the basic indicators of two models, we will notice, what definitive conclusions of their application to the considered project too do not differ from each other? Both that and other model have drawn the conclusion that in the considered project it is necessary to put up money.

4. Management of the personnel of the scientific organizations

4.1 Personnel of the scientific organisations

In the present point of degree work the personnel of the scientific organisations from two points of view: from the point of view of motivation of work and from the point of view of special subculture. The question on interrelation of these points of view is interesting: on the one hand, the personnel of the scientific organisations, as well as the personnel of other spheres of activity, has usual human wants in food, habitation, etc., on the other hand, belong to closed enough social class. The given theme mentions two interconnected variables: the personnel and the organisation, in essence, the individual and group, also are brought by an attention to the question on motivation of the personnel in achievement of the purposes of the organisation, i.e. about influence on behaviour of the individual according to problems and the group purposes. There is a necessity of the analysis of motivation as systems of factors or the motive forces influencing social behaviour of the individual, and the analysis of the group affecting the individual. In details to list all? Forces?, which движут our acts, hardly probably. Therefore the author considers expedient to stop on the following approach:? Numerous evident displays of uniformity in social behaviour speak at all orientation on what? Or considered? The significant? Norm, but also not custom, and it is simple that fact, what the given type of social behaviour, in essence, most of all on the average corresponds, by an objective estimation of individuals, their natural interests, and what they focus the behaviour on these interests?. (M.Veber) [11]. Thus, the basic source of behaviour of the person is its interest. In this connection it is necessary to understand with a number of the interconnected concepts? Motivation components: requirement, interest, motive, the purpose, value. As requirement we will understand a lack something necessary for existence and development of the individual (group). Under interest? The realised requirement. Under motive? The realised actual requirement inducing the person to activity for the purpose of its satisfaction. The purpose? It something realised as means of satisfaction of requirement and acting owing to it in the form of value for the given subject. Value? It is the importance of this or that subject or the phenomenon for satisfaction of requirement [176, with. 22].

Thus, the person is not born with ready motivation, its formation is I many respects caused by a situation, factors of social and economic character.

4.2 Motivation of the personnel in the scientific organisations

As already it was told above, the motivation of the personnel of the scientific organisations in a sense does not differ from motivation of representatives of other trades. We will consider this motivation. Base of modern theories of motivation of the personnel in the scientific organisations is the theory of requirements developed by American psychologist A.Maslou (1908? 1970) [19]. A.Maslou has assumed that the person is based on satisfaction of a series of the requirements built in hierarchy or a pyramid from five groups. In an increasing order it: - physiological or base requirements (food, heat, a refuge, safety, sex etc.) ; - Requirements of safety (protection, an order); - social requirements (dialogue, an accessory to group); - requirements for respect (self-esteem and respect of others; the status, prestige, glory); - requirement for self-realisation (creative results, achievements, career) [16]. Маслоу has made the assumption that in the elementary case of requirement are satisfied one for another i.e. as soon as one requirement is satisfied, it acts as motivation for satisfaction of the following. But if at satisfaction of group of requirements, arises what? Or the new base requirement, the person will pay the attention first of all to it. From the point of view? Motivations in work? The employer considering that the person lives only bread uniform, will be nonplused, as its workers will be unfortunate and немотивированны. According to A.Maslou, the person only there lives bread uniform where in general there is no bread. It is necessary to remember three important positions of the theory of Maslou: 1) the Hierarchy of requirements reminds development of the person since the childhood till an old age: the baby requires food and heat, safety and love; in process of growth there is a gradual development of self-esteem and, at last, appears? Itself the motivated? The adult. 2) disappearance of the satisfied requirements and occurrence of others in the form of motivation is not realised process: as soon as you have got a job, you will forget at once all last hardship and will start to think of career, etc. if it does not occur, you will feel unfortunate as though and at all have no work. 3) Maslou notices that five steps are not something independent. There is a certain degree of interaction between them. The theory of Maslou is under construction on the assumption that while necessity for satisfaction of base requirements for hierarchy as is important, as, for example, requirement of a human body for the vitamins, the healthy person will be guided, basically, requirement of self-realisation of the potential. If with the person interfere in satisfaction of requirements of lower level, requirements of higher level cannot arise. A.Maslou's theory has brought the all-important contribution to understanding of that underlies aspirations of people to work. The head should understand that to motivate the person it should give the chance to it to satisfy its major requirements by means of that line of action which promotes achievement of the purposes of the organisation. It is necessary for head to investigate carefully requirements of the subordinates for the purpose of satisfaction in interests of business and group [21, with. 218].

4.3 Problem of a choice of the optimum schedule (mode) of work in the scientific organisations

The structure of workers of the innovative enterprises is not homogeneous. So, along with science officers in these organisations engineers, and also technicians and laboratorians work. Besides, and work of scientists is not homogeneous for the maintenance. It can include original and typical works, and also the works of organizational character connected with the coordination and the control over activity of experts. Certainly, as the work schedule cannot be universal for all categories of workers of scientific division and even for experts of one category. At introduction of new types of operating schedules it is necessary to pay attention not only to a kind of work of experts, but also on economic gains (expenses on heating, illumination, rent of premises, a food of workers, payment of parking places etc.) and technical possibilities (presence of phones, faxes, personal computers etc.) . Besides, new types of operating schedules can be considered and as original not monetary methods of stimulation of productivity. So, for example, according to German researchers, about 20 % of workers a flexible operating schedule consider as a primary factor of positive motivation. As a whole the work schedule is characterised by stability. Usually people work 5 days in a week, 40 hours per week, from 9 o'clock in the morning to 6 o'clock in the evening, have standard lunch time. Along with obvious advantages, such mode has also lacks: traffic jams, turns at lifts are created. Besides, people often have stresses because are late for work, they have conflicts to the chief. As new types of an operating schedule usually name: the flexible hours, the compressed working week (the summarised working day), a partial employment. The flexible operating schedule is understood as the work schedule at which the worker can choose time of arrival-leaving in certain limits which are established by a management. The compressed working week represents the work schedule in which there is an exchange between quantity of the hours fulfilled daily, and quantity of the working days within a week. So, the usual number of hours can be fulfilled not for five days, and for four (for ten hours daily) or for three days (for twelve hours daily). The Partial employment (partial hiring)? It is work with performance of the same duties, but during smaller time. The greatest distribution to the scientific organisations the flexible hours (have got flexible time, flexible working hours). It is under construction in the different ways: and #61485; the Daily choice of time of the beginning and the work termination; and #61485; Variable duration of the working day; and #61485; Allocation of the general (присутственного) time (i.e. Time established by the head when all employees should be on work). Depending on flexibility degree, it is possible to allocate various types of schedules. We will consider them in a direction from least to the most flexible. All of them are used in practice. The flexible cycle demands from workers of a choice of certain time of the beginning and the work termination, and also work under this schedule during the certain period (for example, weeks). The sliding schedule allows to change time of the beginning and the work termination, but thus it is necessary to work a full time? 8 hours. Variable day allows to change duration of the working day (for example to work one day of 10 hours, and another? 6 hours but so that as a result in a weekend it has turned out only 40 hours or for a month of 160 hours). The sliding schedule and variable day are most effective in a branch science. Abroad analogue it are laboratories of industrial firms and a private small-scale business. Very much the flexible hours demand presence of workers during the general time (for example, from 10 o'clock in the morning to 2 o'clock in the afternoon, but only on Monday and Friday). Flexible placing allows to change not only hours, but also a work arrangement? It is possible to work at home, in branches, etc. The flexible hours cannot be used in the event that the work period depends on work of any equipment, for example, for the workers performing skilled and experimental works. The great value, along with a choice of an optimum operating mode for the scientist has time effective utilisation. It is possible to allocate three reasons aggravating congestion: and #61485; Small degree of delegation of responsibility; and #61485; incorrectly selected priorities; and #61485; too big absorption in daily efforts. For optimisation of use of time principles of Pareto and Eisenhower have great value. In 1897 The Italian economist Pareto has invented the formula showing that all blessings are distributed non-uniformly. In most cases the greatest share of incomes or the blessings belongs to a small number of people. M.S.Lorentz (the American economist) has illustrated this theory with the diagramme. The doctor D. M.Dzhuran has applied the diagramme to classification of problems of quality on not numerous essentially important and numerous insignificant and named this method the analysis of Pareto. Application of a principle of Pareto is expedient and at working hours planning. In this case means that concentration of attention on the vital activity most of all influences achievement of desirable results. The rule 20/80 from here follows: concentration of 20 % of time on the most important problems can lead to reception of 80 % of results. The others of 80 % of time provide only remained 20 % of results. Eisenhower's principle is important for definition of the importance of problems. Eisenhower subdivided problems on their importance and promptness into problems And, In and С "A-problems": very important and urgent? To carry out immediately. "In? Problems": important, not urgent? To define, in their what terms it is necessary to carry out." S-problems ": less important, but urgent? To delegate. Affairs which are not neither important, nor urgent should not distract attention of the head. In connection with the aforesaid, the great value gets definition of optimum parities between workers of various qualification. Optimum it is possible to consider such parity at which science officers do not carry out functions unusual for them. There are recommendations according to which optimum parity between technicians and engineers should make 0,3 / 1 at performance of researches and 1,7 / 1 at performance of developmental works. On the average this parity should make 1 / 2. Questions of formation of target groups in scientific personnel In a general view understand as group of two and more persons who co-operate with each other in such a manner that each person influences others and simultaneously is under the influence of other persons. It is noticed that association of workers in groups allows to solve a number of problems: As much as possible to use creative potential; to involve workers in managerial process. Target groups (time creative collectives), created of engineers and science officers have the features in comparison with quality mugs as before groups more difficult purposes are put. Practice of formation of target groups of the scientists working in various research divisions of firm is extended. Creation of such groups for working out of any one important problem gives the chance to be beyond existing departments and laboratories that is the important factor of increase of an efficiency of scientific research. Target groups of experts (time creative collectives) differ from circles of quality that operate on the basis of in advance formulated problem and always carry a temporality. They can be created for different terms: from 2-3 and more years. It defines also selection of participants of groups. Groups are created as for study of separate organizational or technical questions, and for the decision of difficult cardinal problems. The overall performance of groups is influenced by following factors: the size, structure, group norms, unity, a conflictness, the status and a functional role of its members. Before formation of target group (time creative collective) it is necessary to carry out the morphological analysis which leads to splitting of the general problem into a number of subtasks and reveals possible alternatives of their decision. Each subtask breaks into stages. To generate collective of executors, it is necessary to have the list of all subtasks which should be solved in the course of work performance; characteristics of each subtask with definition of requirements to their potential executors. Besides it is necessary to have a databank on all possible executors of work. At division of a task in view into subtasks each executor should know the concept of designing of all object. The new tendency is allocation of personnel services for needs of the time organizational structures which are engaged in process of innovations. Such personnel services also carry a temporality and move on divisions according to stages of realisation of the project. The actual organizer of work on attraction and personnel development is the head of the innovative enterprise who embodies the idea and is financially interested in innovation introduction. The head of division defines quantity of executors of each subtask, recognising that one executor performs from two to three stages of work. Selection of executors is carried out proceeding from complexity of performed work. Thus the potential of executors should be a little above, than demanded. At a stage of working out and realisation of the ideas which have been put forward by target groups, sometimes there are the so-called design groups, different in the big scales of carried out works and большей number of executors. In any target group select the most prepared experts. But even at the most careful selection almost always there is a distinction between them on readiness degree to performance of a problem assigned to them. In this connection training of less skilled executors at more qualified should be provided. Short-term employment on which each expert has an opportunity better will sometimes be organised to imagine sense of a collective problem and the basic approaches to its decision. Still большее value gets preliminary training at creation of the design groups which work has more long-term and complex character. In these cases for experts special seminars can be held. The seminar program should cover acquaintance of its participants with features of the organisation of works in design group, with specificity of planning, with establishment principles приоритетности in performance of works, methods of search of optimum decisions on the basis of the analysis of real situations. The attention is given also to working off of practical skills of teamwork in group. At a seminar there is an acquaintance of experts to the future project head which should spend some employment. It allows it to come into contact and to prepare participants of design group for forthcoming activity. Upon termination of a seminar to its participants the special certificate on the right to work over the project can stand out. In the USA creation of interfirm target and design groups is observed also. Usually in their structure experts from the external research organisations are involved. As a result of such cooperation from firm innovative structures in which are occupied both members of groups, and scientific shots can separate. In this case it is possible to define the innovative enterprise as target group which is created for industrial development and adjustment of sale of production based on the new technical concept.

5. Bases of safety of ability to live

5.1 Legal bases of a labour safety

Labour safety? System of safety of a life and health of workers in the course of the labour activity, including legal, social and economic, organizational, sanitary-and-hygienic, medical-hygienic, rehabilitation and other actions. We will describe the legislation of the Russian Federation in the field of a labour safety the Legislation of the Russian Federation on a labour safety consists of corresponding norms of the Constitution of the Russian Federation, Legal bases of a labour safety [27, with. 123-127] and published according to them законодательских and other statutory acts of the Russian Federation and republics as a part of the Russian Federation. Guarantees of realisation of the rights of workers on a labour safety and standard requirements on a labour safety are established by acts of republics as a part of the Russian Federation, cannot be below guarantees and standard requirements, are provided by Legal bases of a labour safety [27, with. 125]. Actions of the present Bases extends on:? The enterprises, establishments and the organisations (further? The enterprises) all patterns of ownership irrespective of sphere of economic activities and departmental subordination;? Employers;? The workers consisting with employers in labour relations;? Workers of co-operative societies;? Students of educational institutions of the higher and average vocational training, pupils of educational institutions of average, initial vocational training and the educational institutions of the basic general education passing an industrial practice;? The military men involved for work at the enterprises;? The citizens who are serving time on a sentence of court in their work at the enterprises. On the citizens of the Russian Federation working on hiring in other states, the legislation on a labour safety of the states-employers, and on foreign citizens and persons without the citizenship, working on the enterprises which are in jurisdiction of the Russian Federation extends, the legislation on a labour safety of the Russian Federation if other is not provided international by contracts (agreements) of the Russian Federation extends. We will describe main principles of a state policy in the field of a labour safety the State policy in the field of a labour safety provides joint actions of bodies of a legislative and executive power of the Russian Federation and republics as a part of the Russian Federation, associations of employers, trade unions in the name of their corresponding bodies and other representative bodies authorised by workers on improvement of conditions and labour safeties, to the prevention of an industrial traumatism and occupational diseases. The basic directions of a state policy in the field of a labour safety are:? A recognition and maintenance of a priority of a life and health of workers in relation to results of industrial activity of the enterprise;? Coordination of activity in the field of a labour safety, other areas economic, social policy, and also in the field of protection of a surrounding environment;? An establishment of uniform standard requirements on a labour safety for the enterprises of all patterns of ownership irrespective of sphere of economic activities and departmental subordination;? The government of activity in the field of a labour safety, including the state supervision and the control of observance of legislative and other statutory acts about a labour safety;? Public control over observance of legitimate rights and interests работ6никаов in the field of a labour safety on the manufacture, carried out by workers through trade unions in the name of their corresponding bodies and others authorised by workers representative bodies;? Interactions and cooperation of state bodies, supervision and the control over employers, trade unions in the name of their corresponding bodies and other authorised workers, representative the bodies interested in working out and practical realisation of a state policy in the field of a labour safety;? Carrying out of the effective tax policy stimulating creation of healthy and safe working conditions, working out and introduction safe technicians and technologies, means collective and an individual defence of workers;? Application of economic sanctions with a view of observance by the enterprises and workers of standard requirements on a labour safety;? Maintenance of workers with the special clothes, special footwear, means collective and an individual defence, the treatment-and-prophylactic food, necessary prophylactics at the expense of means of employers;? Obligatory investigation of each accident and occupational disease on manufacture;? An establishment of indemnifications and privileges for a laborious work and works with harmful or dangerous working conditions, ineradicable at a modern technological level of manufacture and the organisation ore;? Protection of interests of the workers who suffered from unfortunate case on manufacture or have received occupational disease, and also members from families;? Preparation of experts in the field of a labour safety, including in educational institutions of the higher and average vocational training;? An establishment of the state statistical reporting about working conditions, about accidents on manufacture and occupational diseases;? Informing of workers on a condition of conditions and a labour safety at the enterprises;? Realisation of actions for propagation of an advanced experience in the field of a labour safety;? The international cooperation at the decision of problems of a labour safety. The state in the name of bodies of a legislative and executive power taking into account consultations of associations of employers. Professional the unions in the name of their corresponding bodies and other authorised workers, representative bodies develops, carries out and periodically reconsiders the co-ordinated policy in the field of a labour safety. Some words about guarantees of the worker on the rights on a labour safety. Each worker has the right to a labour safety, including:? On a workplace protected from influence of harmful or dangerous production factors which can cause an industrial trauma, occupational disease or working capacity decrease;? On compensation of the harm caused to it by a mutilation, occupational disease or other damage of the health, connected with execution of labour duties by it;? On reception of a trustworthy information a prize of the employer or the state or public bodies about a condition of conditions and labour safeties on a workplace of the worker, about existing risk of damage of health, and also about the accepted measures on its protection against influence of harmful or dangerous production factors;? On refusal without any unreasonable consequences for it from performance of works in case of occurrence of direct danger to his life and health before elimination of this danger;? On maintenance with means collective and an individual defence according to requirements of legislative and other statutory acts about a labour safety at the expense of means of the employer;? On training to safe methods and receptions of work at the expense of means of the employer;? On professional retraining at the expense of means of the employer in case of a suspension of activity or closing of the enterprise, shop, a site or liquidation of a workplace owing to unsatisfactory working conditions, and also in case of disability in connection with unfortunate a case on manufacture or occupational disease;? On carrying out of inspection by bodies of the state supervision and the control or public control of conditions and a labour safety, including on demand of the worker on its workplace;? On participation in check and consideration of the questions connected with improvement of conditions and a labour safety. The state in the name of bodies legislative, executive and judicial authority guarantees the right to a labour safety to the workers participating in labour process under the labour contract (contract) with employers. Conditions labour (contract) contract should correspond to requirements legislative and other statutory acts about a labour safety. In the labour contract (contract) authentic characteristics of working conditions, indemnifications and privileges are specified to workers for a laborious work and works with harmful or dangerous working conditions. For the period of a suspension of works at the enterprise, in shop or on a site, a workplace in a consequence of infringement of the legislation on a labour safety, standard requirements on a labour safety not because of the worker, behind it the work place, a post and average earnings remain.

5.2 Planning of actions for a labour safety

In connection with inclusion of questions of a labour safety of workers of branch in the Concept of development of public health services and a medical science in the Russian Federation, considering the numerous offers arriving from controls, establishments of public health services and the trade-union organisations, on the basis of the Recommendations confirmed by the decision of Ministry of Labor of the Russian Federation from 29.12.96? 74, Ministry of Health of Russia has prepared the project of the Program which has been considered and approved at session of Board of Ministry of Health of Russia 23.12.97. The program consists of 4 sections: 1) Legal and standard maintenance of protection works. 2) organizational and technical maintenance of a labour safety. 3) training of workers on a labour safety, a supply with information in the field of a labour safety. 4) scientific maintenance of a labour safety. The Program purpose? Working out of prime measures under the prevention of an industrial traumatism and the professional ache diseases, elimination of the negative moments in the organisation of this work. Program section 1 provides work on revision operating and working out of new rules and typical instructions on a labour safety and safe operation of branches, offices, laboratories, the equipment of establishments of public health services and Gossanepidnadzor. Financing of these works is supposed to be carried out at the expense of means of the Federal budget. Section 2 provides working out of programs of improvement of conditions and protection work at level of controls and establishments of public health services of subjects of the Russian Federation (there where such programs are not developed yet). In section 3 creation of system of improvement of professional skill concerning a labour safety for heads, experts, attendants, working out differentiated (according to volume of performed work) training programs on a labour safety is provided. Training of heads will be carried out on the basis of the Russian medical academy последипломного formations and on places, the medical institutions having the permission to the right of training concerning a labour safety. The basic actions of section 4 are researches of working conditions and preparation of scientifically well-founded offers on a work and rest mode, and also on granting of privileges and indemnification workers of the branch, working in especially harmful and dangerous working conditions. These actions it is planned to carry out forces of a branch science. It is supposed to provide financing at the expense of means of Federal fund of obligatory medical insurance. Planning of actions for a labour safety consists in working out of instructions on a labour safety, actually planning of actions, the control over carrying out of these actions and observance of instructions, and also to investigation of accidents and the illnesses connected with dangerous factors at realisation of professional work. Instructions on a labour safety can be developed for workers of separate trades, and for separate kinds of works. Instructions are developed for workers on the basis of typical instructions, safety requirements stated in operational and repair documents of the equipment, used on the given enterprise, and also in the technological documentation of this enterprise taking into account conditions of production. Instructions by trades and on separate kinds of works are developed for workers according to the list which is made by a protection service of work of the enterprise with participation of heads of divisions.

The conclusion

So, the innovative project considered in the present degree research consists in the organisation of manufacture and sale of the diagnostic device? The biotest?, for a finding points, carrying out the express train of diagnostics of a condition of a human body by results of measurements of parametres of biologically active points, testings of preparations and therapy according to R.Follja's technique. The Scope? The diagnostic device of the doctor of the therapist, the homeopathist, the anaesthesiologist, etc. Novelty of the project (innovation, an innovation) consists what release of the product, analogue not having to in Russia, abroad is supposed? The device very cheap and reliable. Besides questions theoretical (economic and legal) the bases of innovative activity, questions of management the personnel in the scientific organisations and safety issues of ability to live, the central part of the present degree work was:? Working out of own model of an estimation of efficiency of the innovative project;? The comparative description of two techniques (traditional and offered) estimations of efficiency of the innovative project;? Carrying out of an estimation of efficiency of the innovative project of manufacture of the device? The biotest? By both techniques;? Comparison of results of an estimation of efficiency of the project by both techniques. We will short formulate conclusions on these positions. Existing (standard, classical) the technique of an estimation of efficiency of the innovative project includes: 1. Calculation of factor of the pure resulted cost (NPV); 2. Calculation of an index of profitability of investments (PI); 3. Calculation of internal rate of return or norm of profitability of the investment (IRR); 4. Decision-making on project realisation. The Offered model of an estimation of efficiency of the innovative project will include: 1. An estimation of competitive advantages of the goods (service) offered by the considered project; 2. Estimation of a market capacity of sale on which the considered project, including as the basic indicator the sales volume forecast is focused; 3. Calculation of the capacity necessary for realisation of the project, and its comparison to a predicted sales volume; 4. Calculation of the project of volume of investments necessary for realisation; 5. Calculation? Break-even points?, i.e. critical for a recoupment of the project of volume of output; 6. Summarising calculation of the basic indicators of the project, such as profit (total and pure); profitability of production; profitability of funds; the full cost price; labour input; the predicted price for production; a critical sales volume and release; efficiency of capital investments; a time of recovery of outlay; a stock of financial durability; 7. Decision-making on realisation (or to a deviation) the project. How it has been noted in degree work, the standard model is less labour-consuming in the application? In it, undoubtedly, there is an advantage of standard model before offered model. However, the basic difference between standard and offered models what the offered model gives more information on the concrete project? And in it the big advantage of offered model before the standard. For example, the standard model of an estimation of efficiency of the project cannot answer on a question, in what volume it is necessary to make production that the project was profitable? The standard model uses this indicator, but does not count it whereas the offered model at first counts it, and then uses. So, both those and other models can tell that, for example, as a result of three years of realisation the project will be profitable whereas the offered technique can tell that the project will pay off in 7 months. The offered model also has one essential lack? All basic indicators pay off on the basis of the sales volume forecast. But it is the forecast, obviously, can be only approximate. Hence, all basic indicators of offered model will be approximate. We will describe results of application of these models to an estimation of efficiency of the concrete innovative project. 1. On the importance for an estimation of efficiency of the project in two considered models are comparable factor of the pure resulted cost (NPV) from standard model and an indicator of net profit plus size of initial investments. That is in standard model an indicator

Whereas in offered model a similar indicator 2209 + 14011 = 16220 c.u., where 2209 c.u.? Profit at the disposal of the organisation (a difference between net profit and returned investments). A difference in the sum here that the offered model in calculations uses the predicted size of a sales volume. It is the forecast becomes on the basis of linear approximation which, as it is known, yields approximate results. It is necessary to notice, what the divergence of values of these factors makes all .

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