



# FOR ENDLESS PROCESS OF AN ORGANISATION IN INOVATING BUSINESS COMPLETION

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## რეზიუმე

ინტელექტუალური კაპიტალის შექმნა, ყოველ-  
მხრივი განახლება და რეალიზაცია მატერიალურ  
და ინტელექტუალურ პროდუქციაში ხორციელდ-  
ება ინტელექტუალურ-ინოვაციური საქმიანობის  
პროცესში, სადაც ერთმანეთთან ორგანულადაა  
დაკავშირებული და ურთიერთგანპირობებული შე-  
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საქმიანობა წარმოადგენს თანმიმდევრულ-პარალელ-  
ურად მიმდინარე ერთგვარი ციკლების უწყვეტ  
ჯაჭვს. ყოველი ციკლი მოიცავს შემოქმედებით  
და ინოვაციურ პროცესებს და ციკლის შემო-  
ქმედებით უბანზე შექმნილი ინტელექტუალური  
საკუთრება ნაწილობრივ ანდა მთლიანად რეალ-  
იზდება ინოვაციური პროცესის ყოველ დასრულე-  
ბულ ციკლში.

**Intellectual-innovative activities of the company, as continuous process of creation and realization of intellectual capital.** Creation of intellectual capital, its comprehensive renovation and realization into material and intellectual production is provided in the process of intellectual and innovative activities, where creative and innovative processes are organically related and mutual-conditioning. Herewith, intellectual-innovative activities of a company make permanent change of specific cycles which are provided consistently. Each cycle consists of creative and innovative processes and intellectual property created at each creative area is partially or totally realized at the completed cycle of innovative process. It is desirable to discuss cycles of intellectual-innovative activities in the form of the stage of six consistent components to be realized, given in the Fig 1.

makes it possible to specify directions of scientific directions in accordance with separate fields of innovative activities of a company (Stage 2). After this field of innovative activities conforms to the completed cycle of specific technical decisions made at the second stage, which defines not only a kind future innovative product, but also its peculiarities, distinctions, innovation and new features related with it.

Technical solution in the received direction of developing products, which is processed inside the company, being basic precondition for commencement of innovative process, that is why **its planning is commenced from the third stage of the cycle.** At this stage purposefulness of new production, as well as effectiveness of production process, and its purchasing is defined at this stage, which is needed for specification of investment influence of further stages of the cycle.

**Stages of intellectual-innovative activities.** Every cycle begins with processing or specification of diversified directions of business development (Stage 1), which

**Fourth stage of the cycle** is developed in accordance with processed plans and consists of **scientific-research and experimental-construction works** for creation of new products, processing its



production technologies, bringing innovation to the market sample. In case, when there is no sufficient quantity of investments for provision of these activities, returning of the cycle to the second stage takes place – as well as searching and study new innovative ideas and technical decisions, which define creation of more perfect production, which would be more attractive for investors.

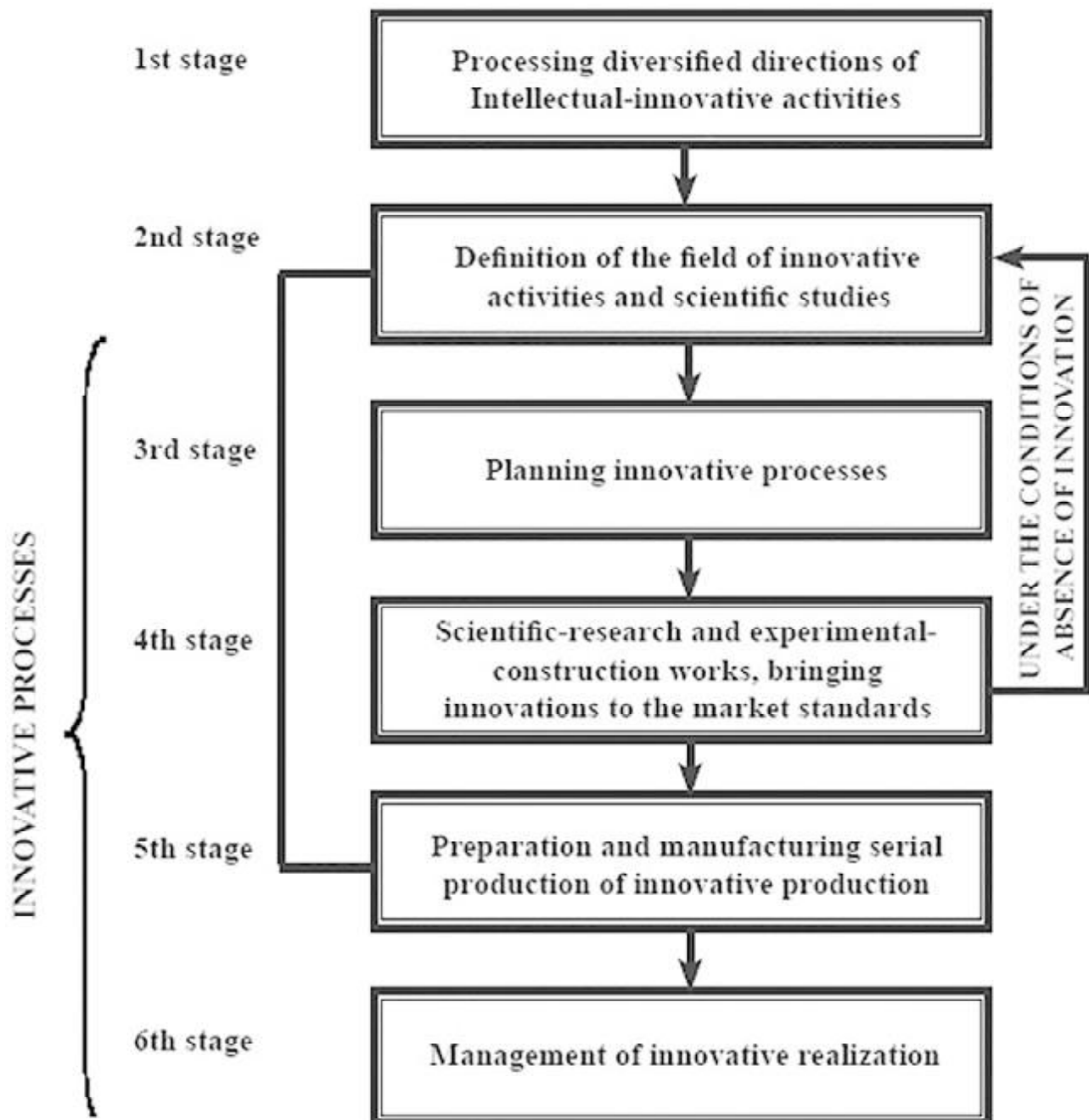
When organization has own resources of respective quantity or sources of inflow of investments of respective quantity, at the fourth stage of the cycle

production is brought to the market sample, which makes it possible to move to its serial production. Starting serial production defines commencement of own innovative process, from the point of manufacturing new products and their sale and it consists of following stages: **involvement, growth, slowdown of growth, or fall.**

All these come at the fifth and sixth stages of the cycles of intellectual-innovative activities of a company.

In various cycles every typical stage of intellectual-innovative activity is homogenous with its content, in accordance with duration and volume of provided

**FIG. 1. STAGES OF INTELLECTUAL-INNOVATIVE ACTIVITIES OF A COMPANY**





activities. This especially touches upon 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> stages, in which role of creative activities of the staff of a company is great. There is specific accidental case for existence of perspective innovative idea and its technical solution of transformation of real production.

**Sixth stage of the cycle**, during which **management of innovative realization is provided**, innovative product is created, which may be continued when essential growth of quality of new production is provided, as well as overcoming competitors in accordance with processed technologies. This process may appear to be short, if development of a production is provided in selected diversified direction rapidly and similar, but more qualified product is placed to the market, which are produced by rivals. Though as in the first, so – second case development of situations of the cycle of intellectual-innovative activities is not terminated at effectively functioned company. During long period of the 6<sup>th</sup> stage of the cycle of intellectual-innovative activities and successful realization of innovation only transfer of focus to searching of directions of following studies take place. On this time there is possibility of transferring of the company to the conglomerate diversified directions of development.

Clear evidence of permanent nature of parallel cycles of intellectual-innovative activities is given in the scheme of their realization in time, which is given in the form of tape-plan-schedule (Fig. 5.2):

Though we shall not consider it to be definition of perspectives of developing scientific-research works and studies of developing a company is terminated for specific time, with expectation of beginning new cycle. That is what we may assume cycles of developing intellectual-innovative activities in accordance with the Scheme 2. Research works are permanent with mutual-conditioning outcomes, as from stage to stage, and cycle to cycle. Experience of studies, which are accumulated in the cycle, is used in the following cycles of intellectual-innovative activities of a company; in addition, scientific management of the stages 3, 4, 5, 6 of innovative process. This is where the essence of organic union of innovative and creative processes exists in as well as the essence of parallel continuousness of intellectual-innovative activities of a company.

Dynamics of changes of important index of intellectual-innovative activities of a company define effectiveness of its progress in some cycle, as well as creation of intellectual capital, and success of growth and realization.

For illustration of the nature of changing these indexes they accepted method of approach in typical

cycle which means change explained dynamics of innovative process of indexes and which is described by V.N. Gunin and V.P. Baranov.<sup>1</sup> Fig. 3 shows changes, which took place in accordance with the indexes following cycles of intellectual-innovative activities of a company.

D<sub>n</sub> – income made from realization of innovative and intellectual products in the cycle;

o J<sub>n</sub> – Intellectual potential, created in the creative processes of a cycle;

o V<sub>n</sub> – Quantity of production and sale of innovative production defining quality of realization of total intellectual capital of a company;

o R<sub>n</sub> – Risk level characteristic to the danger of problems of financial loss and investments.

Dynamics of changing these data is characterized in the beginning of the cycle of intellectual-innovative activities of essential growth of intellectual potential, and growth of income from realization of this potential is provided due to manufacturing and number of sale of innovative production to be late of 6<sup>th</sup> stage of a cycle, for the reason of creating of which intellectual capital of a company is used.

It shall be noted that vital cycle of innovation is commenced from the moment, when innovative idea processed at the stage of scientific study, turns into technical solution. This is when innovation, which didn't exist at previous stage, is formed and developed. This moment takes place at the end of the second cycle and beginning of the third one, when risks of investors (R<sub>n</sub>) are still quite high, though there is a possibility to realize technical-economical planning. To certify effectiveness of processing new products and involvement into production, as innovation type is defined. As a rule reduction of risks and increasing trust of investors condition taking patent on processed technical solution and business plan of realizing well processed innovation together with beginning production and realization of innovative products, risk level is reduced to zero (investment of successful trade to the market is practically risk-free).

Cycles of intellectual-innovative activities of effectively functioning company are fulfilled before falling of the volume of product realization, which provides continuous renovation of intellectual capital from cycle to cycle without reduction of intellectual potential of a company.

#### **Turnover of intellectual capital in the cycles of intellectual-innovative activities**

Every cycle of intellectual-innovative activities consists of every version of transformation of intellectual capital:

o Creation of intellectual products at the 1<sup>st</sup> and 2<sup>nd</sup>

<sup>1</sup> Гунин, В.Н. Баранов В. П. и др. Управление иншвацями. Модульная програма для менеджеров. М.: ИНФА, 1999.



**FIG. 2. REALIZATION SCHEME OF THE STAGES OF INTELLECTUAL-INNOVATIVE ACTIVITIES OF A COMPANY ACCORDING TO THE TERMS**

Stage No	Naming of the stage of innovative activities of the company	Calendar time																								
		1st year				2nd year				3rd year				4th year				5th year								
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	5							
1	Processing diversified directions.				█	█	█	█				█	█	█	█											
2	Scientific studies and definition of the field of innovative activities.		█									█		█												
3	Planning innovative process.			█								█		█												
4	Scientific-research and experimental-construction works. Bringing innovations to the market sample.				█	█	█	█				█	█	█	█											
5	Preparation and operation of serial manufacturing of innovative production																									
6	Management of innovative realization.																									

stages of the cycle on the basis of structural capital of human assets and a company;

- o Using intellectual products at the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> stages of a cycle during creation of innovative products;
- o Making income from sale of intellectual and innovative products basically at the 6<sup>th</sup> stage;
- o Using part of income and increasing image of a company for growth of intellectual capital at the last stage of a cycle and for moving to the following cycle of intellectual-innovative activities.

Herewith, growth of intellectual capital is provided as by means of strengthening human capital, so increasing marketing assets. In separate cases purchasing of the objects of copyright and those of commercial property may take place.

Schematically, transformation of intellectual capital at every stage of the cycle of intellectual-innovative activities of a company is represented in the Fig. 4, on the background of current creative and innovative process.

Figure 4 shows that creation of intellectual property

(objects of copyright, objects of commercial property, know-how) is provided at the 1<sup>st</sup>, 2<sup>nd</sup> and 4<sup>th</sup> stage in creative process, which is provided during whole cycle of intellectual-innovative activities of a company. Intellectual capital in creative process is increased at the expense of structural assets of human capital: level of corporative culture is increased, mutual influence of employees is improved in solution of creative issues, organization structures of scientific-research activities and experimental-construction processing is worked, as well as searching new schemes realizing innovative activities and new business technologies.

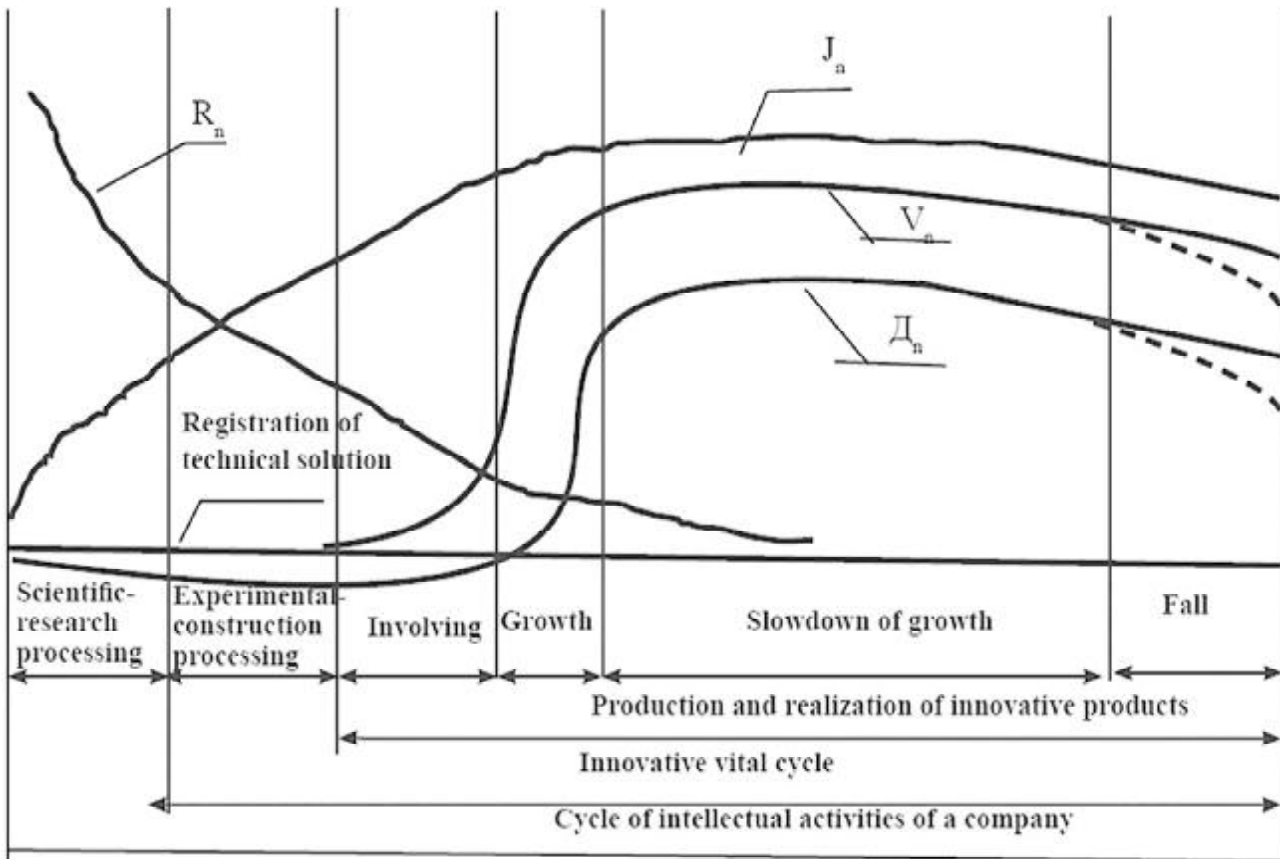
Successful realization and using of created intellectual property in the innovated process makes it possible to increase image of trade mark of a company, which will provide growth of marketing assets, which increases intellectual capital of a company.

Process of growth of intellectual capital is developed analogically at every cycle of intellectual-innovative activities of a company.

**Processing directions of developing innovative**



FIG. 3. CHANGE OF INDEXES OF INTELLECTUAL-INNOVATIVE ACTIVITIES OF A COMPANY



activities of a company. Algorithm of realizing first cycle of intellectual-innovative activities of a company is given in the Fig. 5 below. At this stage selection of directions of developing innovative activities is realized and research activities are respectively commenced at the following cycle of intellectual-innovation activities (**block 1**) of certifying directions of diversifying products of a company. Studies are based on analyzing three versions:

- o widening assortment of products at the expense of analogue samples, which shall become improved in new cycle (concentrated diversification) – **Block 2**.

- o Filling assortment of manufactured products with new kinds of hardware, which are technologically related with manufactured products (horizontal diversification) – **Block 3**.

- o Processing products of new kind, which essentially differ from traditional one produced at previous cycles. This means entering into new domain and new marks of market (conglomerate diversification), **block 4**.

Selection of diversification variation depends on many factors and in the first place is defined by success of a company and following cycles of intellectual-innovative activities, as well as by financial abilities and level of intellectual potential of a company.

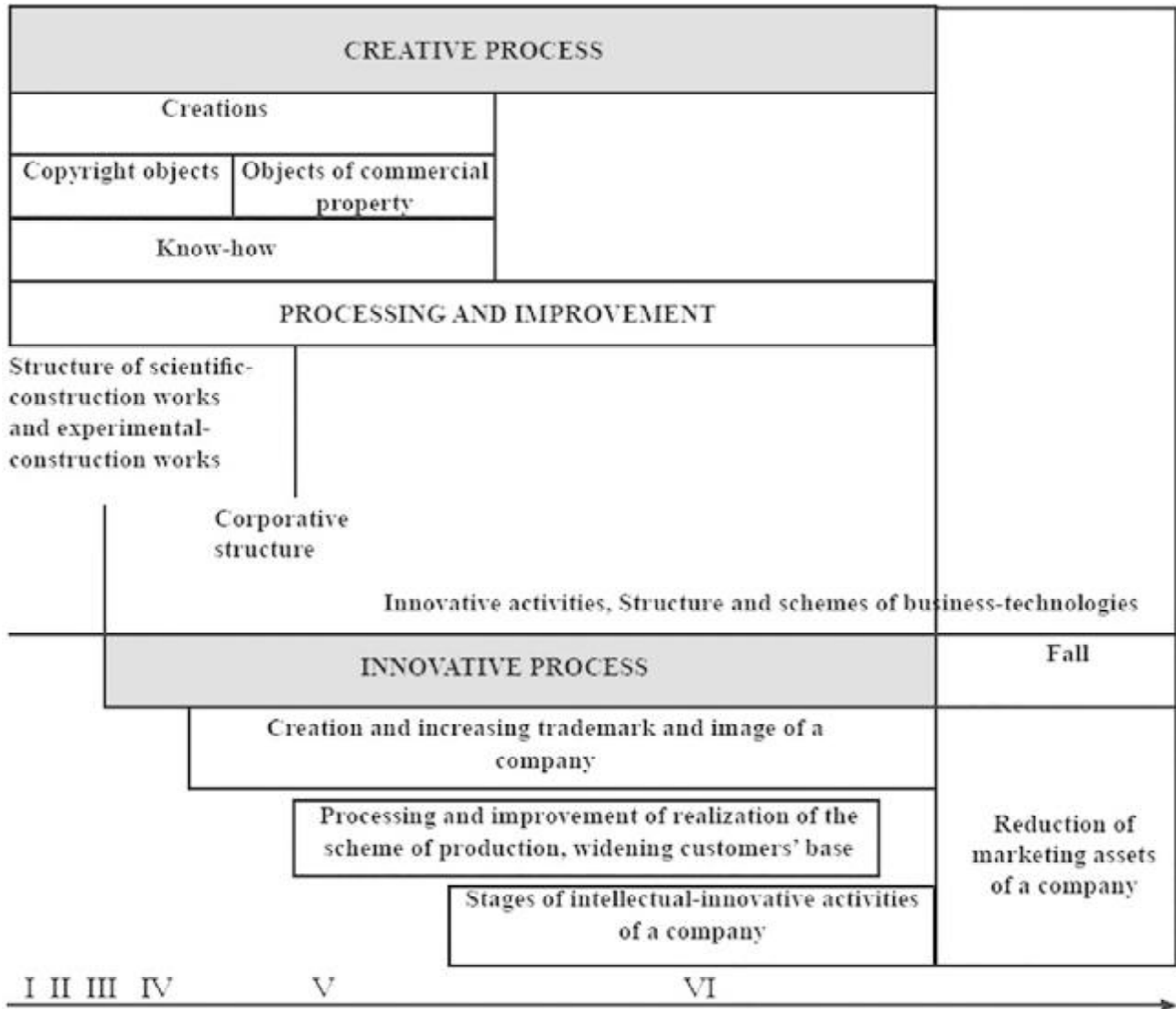
Selected version of diversified development of a company defines directions of studies under the conditions of further definition of the kind of innovative products manufactured at the given cycle of intellectual-innovative activities (**Block 5**). It is such definiteness at this stage of studies that makes it possible to provide marketing studies of social requests in selected direction of product diversification manufactured by the company (**Block 6**).

Marketing studies showed important changes of social requests (**Block 7**), which is generally expressed in consumers' desire to purchase specific kind of products of higher quality and for convenient price.

Following step in the conducted studies is development of types of production, as well as prediction of tendencies in selected diversified directions (**Block 8**) and thus to define features (**Block 9**), which satisfy social demands on increasing quality of products of given kind. It's natural that definition of such features is a result of predicting development tendencies of production. Selection of development directions of innovative activities of a company (**Block 10**) is realized on the basis of predicting development tendencies of products, as well as selection its features, which probably to be in new products or essentially to improve such features in the manufactured products, and



**FIG. 4. SCHEME OF CREATING INTELLECTUAL CAPITAL IN THE CYCLE OF INTELLECTUAL-INNOVATIVE ACTIVITIES OF A COMPANY**



to improve its quality.

Thus, selection of development directions of innovative activities of a company exists in definition of the kind of products, which shall be produced in accordance with the initial scale and expression of the list of essential features, which shall characterize these products, to provide high demand on the products and respective incomes at the last stage of the cycle.

**Scientific studies and defining the field of innovative activities.** In direction of defining the field of innovative activities of the company scientific studies conclude content of the second stage of the cycle of intellectual-innovative activities. Algorithm of sequence of works and that defining logics is given in the Figure 6.

In order to define changes in conclusion of scientific-technical progress in social demands, in the process of intellectual-innovative activities of a company, patent

searching shall be realized: gathering information, its processing and analyzing, respective signs conforming to the market and in the field of scientific studies and technical creations (**Block 11**). Qualified processing of information obtained by means of conducted studies will provide more successful searching of innovative ideas in realization of selected field of innovative activities (**Block 12**), which is significant component of creative process. At each stage of intellectual-innovative activities of any company, the process of finding and evaluation of process of successful innovative ideas are provided specifically and it is not placed within the bounds of standard algorithm. It is only on general cases when innovative creative base is accumulated information on social demands, on achievements of scientific technical progress and fundamental scientific achievements. Selection of accumulating information and forms of its



processing, as well as methodology of its usage is defined with the specifics of the activities of a company, with formed tendencies, corporative culture of the staff of specialists of a company.

For example, the corporation in Rouen; there is a “library” established, where there are catalogues of rivals and possible partners all around the world and samples of products.

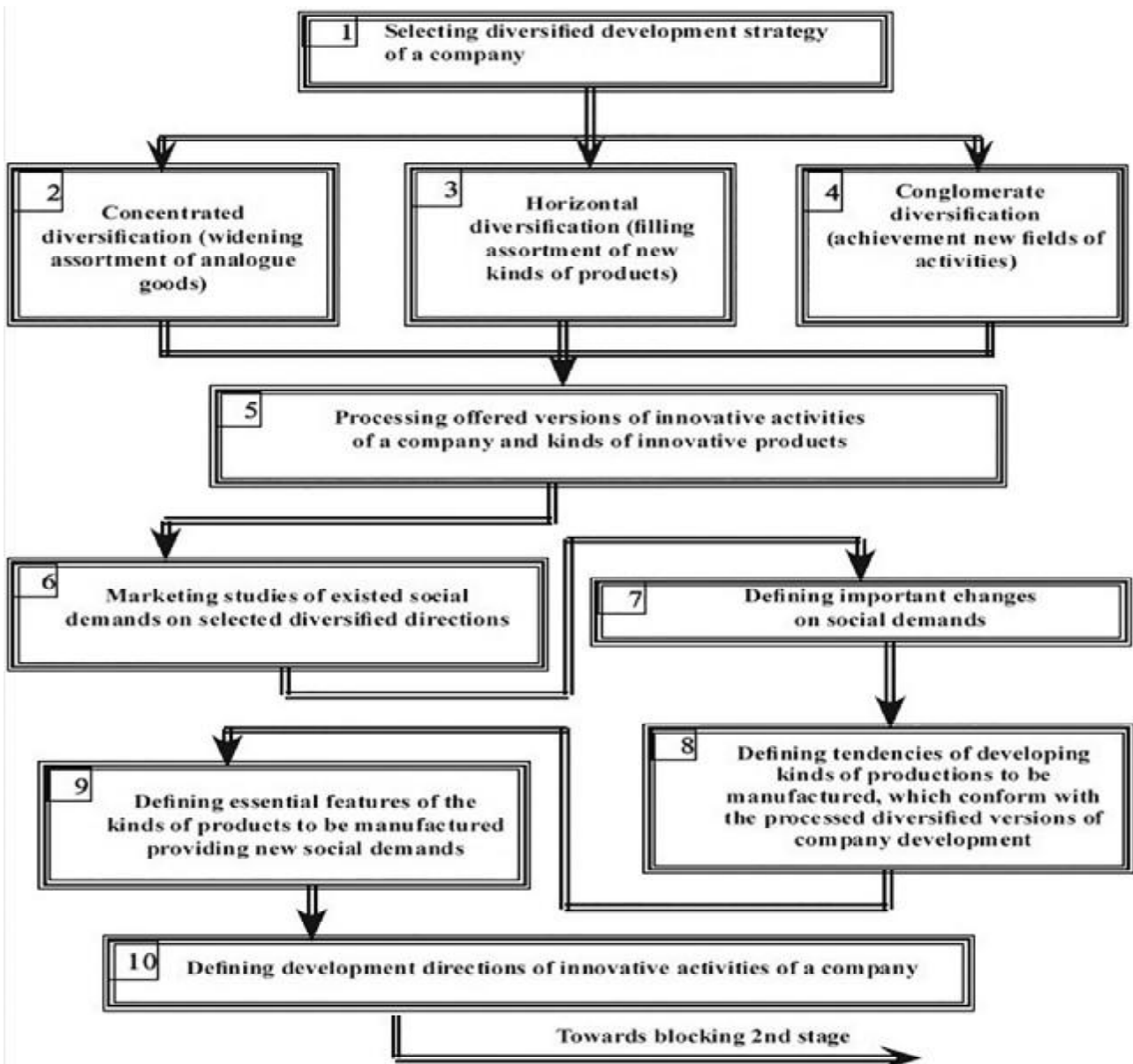
Logical block of 13 algorithms (Fig. 5.6) defines two possible ways of developing intellectual-innovative activities at this stage: 1) under the conditions of existence of productive and commercially important innovative activities searching of possibilities of using innovative activities of every activity (Block 23); 2) upon existence

of innovative ideas, set by creative personnel of the company, further processing of own innovation (Block 14-22).

At the stage on the direction of business development of organization possibilities of purchasing patents or licenses are analyzed (Block 23), basically by means of learning notices about innovative activities of rivals and basic patent literature, possibilities of purchasing patent or license is defined by financial possibilities of a company, by means of the speed of introduction of competitive products to the market.

Logically Block 24 defines that under the conditions of existence of financial possibilities it is necessary to use innovations of other companies and continue

**FIG. 5. ALGORITHM OF REALIZING 1<sup>ST</sup> STAGE OF INTELLECTUAL-INNOVATIVE ACTIVITIES OF A COMPANY**





searching own innovative ideas (**Block 11**). In case of existence of financial possibilities to purchase patent or license; further process shall be developed in two versions:

o Purchasing patent on invention or useful model, on the basis of which new technology having exclusive rights (block 25) and to realize manufacturing innovative products.

Execution of license agreement on manufacturing competitive products is already processed on technologies in the enterprises of licensors (**Block 26**). In case of purchasing patent it becomes possible to form directions of innovative activities of a company as well as their ideas (**Block 27**), as innovation becomes defining.

In case of purchasing license intellectual activities of a company in the given cycle moves to the 5<sup>th</sup> stage of the cycle, on which preparation for serial manufacturing of innovative products is provided in accordance with purchased license. If no positive decision is made at the first and second stages, activities of the company shall be realized at the given stage by means of processing own innovative idea at the given stage (**Block 12**), for which it is necessary to analyze:

1. financial possibilities of innovative ideas for scientific processing;
2. Intellectual potential of a company, till technical solution for the purpose of evaluation of possibilities (**Block 16**).

Upon existence of financial possibilities of scientific processing of innovative idea, searching investments becomes needed, development of innovative idea at this level. Investor may become venture investment fund (**Block 20**), which provides investment of sources into original ideas, and makes it possible to make high and super high profit. Herewith significant risks of investments take place (see Fig. 6).

When there are no own sources and venture funds refuse investments of further processing of innovative ideas, there is only one way to continue intellectual-innovative activities in the given cycle – to hide from rivals idea in know-how (**Block 22**) and to begin processing more attractive innovative idea for investors (Block 12).

**Investments on innovations from own and venture funds.** In case of existence of own material sources or receiving investments from venture investments, enterprise may provide scientific processing of innovative idea. If analyze of intellectual potential of a company shows that creative staff is able to set innovative idea in the given cycle on technical solution, it doesn't matter for the company to include another party tot these works.

During other version of intellectual-innovative activities of a company, at this stage of the cycle order will be placed from setting innovative idea to the technical

solution by means of taking legal document (patent on invention or useful model) to the external company (**Block 18**). Such companies may be specialized scientific-research institutions, construction bureaus, university laboratories or innovative-technical centers of successfully functioning innovative-technical centers, or otherwise at the technological clusters.

Bringing innovative ideas to technical solution (**Block 19**) means not only processing of sketches, draughts and models of new products, but also legal processing of this processing beginning with filing application on respective invention and finished with obtaining of patent on invention or useful model. Besides this, technical solution may be improvement of esthetic part of production, which will make it possible to file application and make patent on commercial sample.

Obtained technical solution like purchased patent, will make it possible to form objective and direction of innovative activity of a company in the given cycle (Block 27). This will become possible as technical solution will make respective opinion on new products; on possibilities of its production and sale, at the nature of advertisement works and so on. Upon existence of technical solution planning of business activities on creation of experimental samples of new products, as well as their bringing to the working samples and involvement of serial production.

**Planning the process of using and realization of intellectual capital.** Third stage of the stage of intellectual-innovative activities begins from the moment, when kind of innovation becomes known defining beginning of innovative process. At the first two stages of the cycle different works of the staff of the company, planning productive-thematic works and respectively, planning other activities, which provide fulfillment of purposeful creative goals and growth of intellectual capital in accordance with specified themes of scientific studies. Algorithm of these activities is given in the Fig. 7.

Ground to any planning is purposeful pre-planning. Purposeful (normative) prediction (**Block 28**), which begins from innovative process, created or purchased intellectual property is realized and including human capital of a company enters into motion, which defines ways of achievement of planned objectives, as well as achievement of planned size of the index of profit. Prediction is realized by means of using economical-mathematical models, as well as by means of imitative models of computing devises, on the basis of experiments.

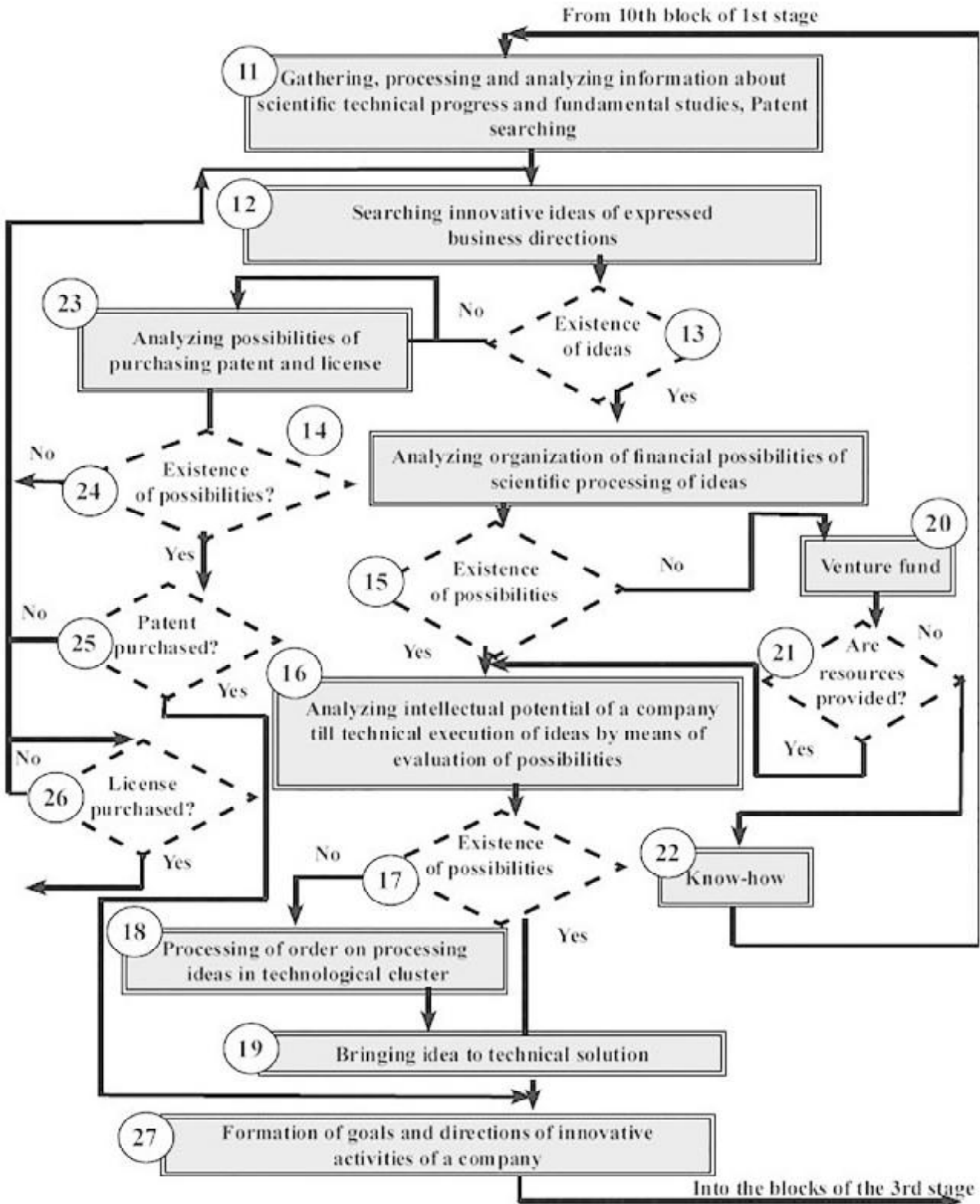
These stages make it possible to analyze main version of continuing the cycle of intellectual-innovative activities of a company.

**Planned index of innovative processes.** Setting objectives as well as realization of purposeful predictions





**FIG. 6. ALGORITHM OF REALIZING 2<sup>ND</sup> STAGE OF INTELLECTUAL-INNOVATIVE ACTIVITIES OF A COMPANY**



make it possible to define planned index of innovative processes, which are objectives of productive-thematic and technical-economical planning (**Block 29**). Upon

realization of technical-economical planning they state economical purpose of innovative process, defining time of purchasing investments, volume of production needed

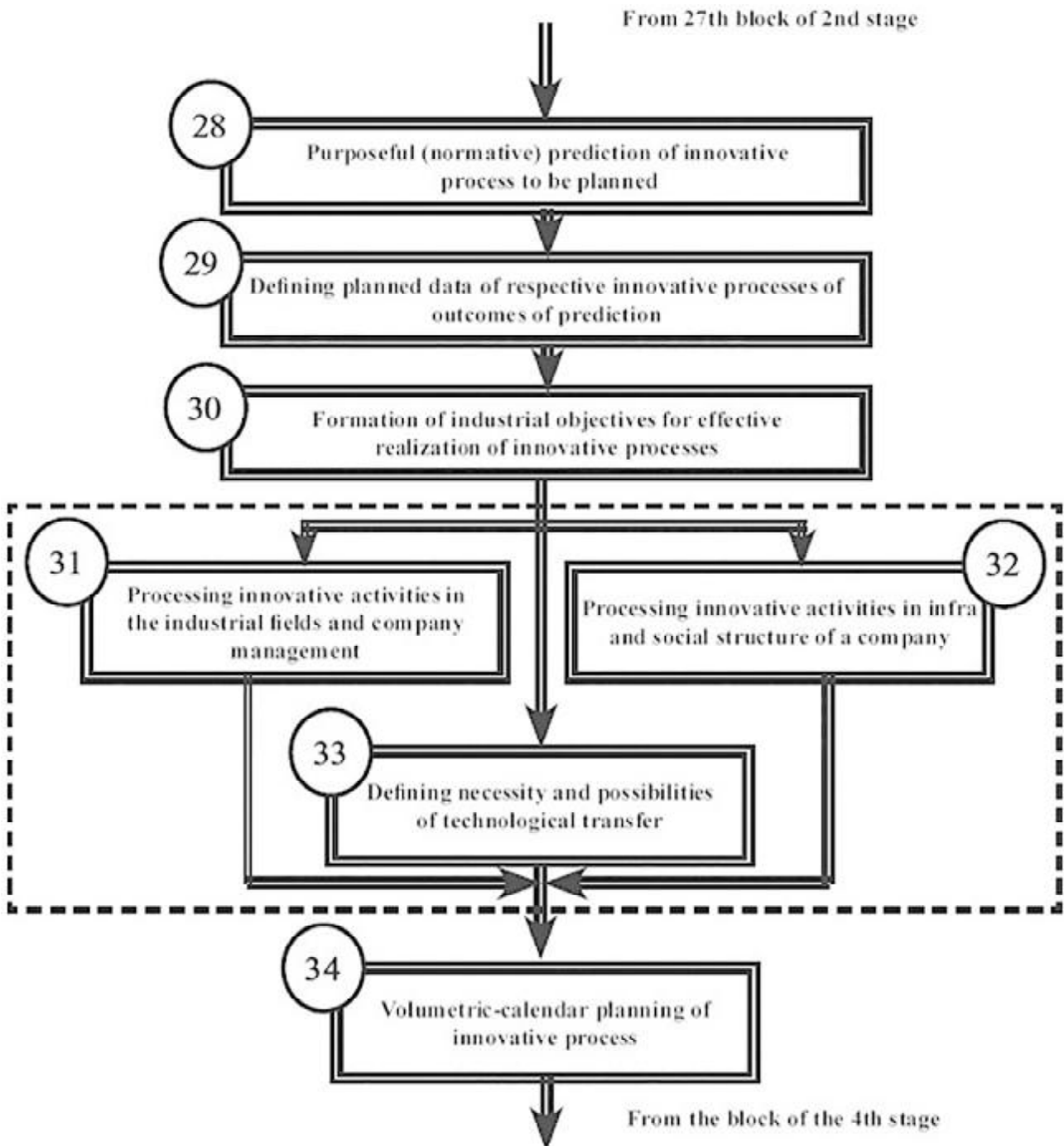


for it, specifying expenses of every kind and profitability of the project in total. These and other characteristics of innovative process define content of business-plan, which is important among documents processed in this section.

Setting goals and defining methods of their achievement upon realization of predictions and technical-economical planning make it possible to form the objectives, which stand in front of the company, for successful realization of intellectual capital in investment

process (**Block 30**); practical solution of set goals from the point of involving innovation into the production; provision of production and sale of innovative product is realized by the number of multiple activities and works, which shall be processed (**Block 31, 32, 33**), and which amounts to 4<sup>th</sup> and 5<sup>th</sup> stages of the cycle of program of its realization, rising effectiveness of production and sale of product, innovative activities in the infrastructure of a company (Block 32), in the commercial domain and

**FIG. 7. ALGORITHM OF REALIZING 3<sup>RD</sup> STAGE OF INTELLECTUAL-INNOVATIVE ACTIVITIES OF A COMPANY**





management of a company (**Block 31**).

For effective realization of innovative process it is of great importance to select co-executors of innovative project upon definition of possibilities of technical transfer (**Block 33**) within the bounds of innovative system, studies are realized for evaluation of organization-technical and technological activities, to be fulfilled within the bounds of innovative process of a company in cooperation with other enterprise. Total attempts may take place as at the stage of processing experimental and market samples of products, so, in the process of production and sale of innovative products. Such technological transfer may be provided at global innovative system.

Calendar planning of innovative process (**Block 34**) is conclusive stage (element) of planning and consists of distribution of stated sizes of works between fulfillers in accordance with technological transfer, as well as definition of ranging of every work and time intervals of their fulfillment. Herewith, respectively, fulfillment of network and calendar plan-schedule of fulfillment is processed in accordance with 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> stages of the cycles.

**Scientific-research and experimental-construction works. Creation of innovative products and bringing them to market sample.** Fourth stage of the cycle of intellectual-innovative activities of a company is realized at the previous stages of the cycle in accordance with the processed plans (Fig. 8), which begins with scientific-research and experimental-construction works. In case of using innovation of technological cluster the stage begins with the works, realized in the **Block 41** – where experimental sample of innovative products is created.

Herewith, following versions take place:

o In case of existence of financial resources for provision of scientific-research and experimental-construction works (**Block 38**), these works are provided at the expense of own resources;

o In case of existence of own resources, scientific-research and experimental-construction works are provided at the expense of the resources, which is made by means of innovative project (**Blocks: 36, 27, 42, 43**). Herewith different funds play the role of investors, which are included in national innovative system, as well as foreign investors, especially with foreign partners in case of technological transfer;

o In case of existence of investors it becomes needed to return to the second stage of intellectual-innovative activities in order to find new, more perspective innovative idea. It shall be mentioned that special place and important share in scientific-research and experimental-construction expenses are occupied by the

costs on samples and testing innovations in general, which may occupy 50 percents of total expenses made on studies and innovative construction processing.

**For conducting scientific-research and experimental-construction works they create:**

o New methods of conducting and calculation of studies and testing, or improvement of existed methods. Also provision of software for electronic data processing machine;

o Technologies of manufacturing innovative products;

o Equipment of new technologies of production for realization of studies;

o Models of innovative products, including those for conducting experiments on electronic data processing machines. Herewith, other objects of intellectual property, which increase the level of intellectual potential of a company.

Defining technical and technological abilities of a company before creation and formation of experimental sample from the point of creating experimental samples (**Block 39**) is realized at the final stage of scientific-research and experimental-construction works, when new projected products take real characteristics and all business features are known. Possibilities of a company from the point of creation of experimental sample and conducting examination is defined by industrial and experimental basis of a company, also by means of further processing and modernization of new samples, as well as – using experimental stands.

In case when a company is unable to prepare experimental samples and arrange their testing, they use technological transfer (**Block 44**). On this time the company is given every necessary technical document, as well as necessary industrial base and experimental centers.

Any of the abovementioned two versions makes it possible to prepare experimental sample (**Block 41**) and bringing it to the respective condition of testing new works (**Block 45**). Additional testing of experimental sample in the first place means achievement of trustfulness index of technical assignment indicated in the first place and working characteristics of samples and their approving by means of taking into account given diapason of external conditions of utilization (climatic conditions, natural surrounding and so on).

According to the results of testing degree of technical fulfillment is defined and faults related with absence of necessary requests in technical assignment. Elimination of defaults and bringing products to the level of market sample (**Block 47**) is realized by means of improvement and modernization of hardware taking into account continuance of testing in order to their



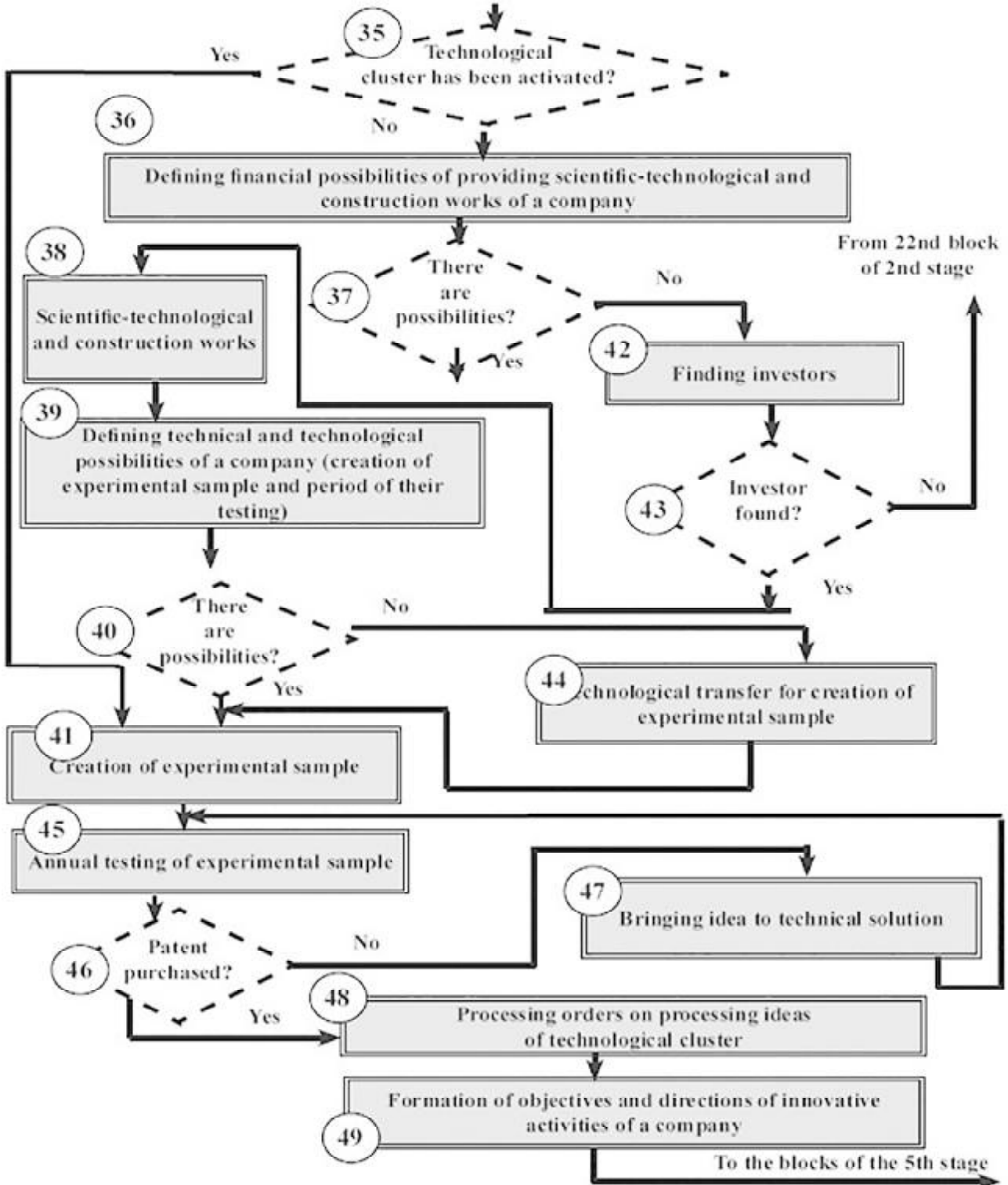
improvement (returning to the Block 45). Iterations of such type are realized until complete satisfaction of every request of technical assignment.

Processing technologies of production of innovative products (Block 48) will complete full complex of

scientific-research and experimental-construction works.

Specification of innovative activities and their detailed processing (Block 49) is necessary, as a rule, in relation with important changes of innovative products, which take place by means of modernization and their

**FIG. 8. ALGORITHM OF REALIZING 4<sup>TH</sup> STAGE OF INTELLECTUAL-INNOVATIVE ACTIVITIES OF A COMPANY**





further improved processing. Due to the same reason it is necessary prepare innovation and correction of operation plan in serial production of goods, by means of specifying necessary resources, terms of beginning and completion of works, involvement, growth, slowing growth (stabilization) at every stage of innovative process in accordance with specification of experimental terms.

**Preparation for manufacturing innovative products.** Algorithm of preparing innovative products for serial production and their going into production at the 5<sup>th</sup> stage of intellectual-innovative cycle is given in the Figure 9. This stage begins at the previous stage of completion in accordance with approved plan, when distribution of materials, raw-material and others of devises take place, which is needed for going of new products into production (**Block 50**).

First stage of innovative process – involving – is begun by means of technical renovation of industrial base of a company (**Block 51**) and professional training of staff participating in the production process (**Block 52**). Training of the staff is provided parallel to practice. Thus, entrepreneur-specialists participate in maintenance and ordering works, through which they improve theoretical knowledge received in the process of rising qualification. Stage of involvement is provided by going experimental party of product into production (**Block 55**). Herewith, possibilities of serial technical realization under the conditions of renewed devices and industrial base existed at the base of the company, is provided.

Testing of production in accordance with selected niches of a market (**Block 54**) is realized in accordance with its experimental party and it means elimination of consumer request on new products, as well as replying of buyers on the quality of goods and its attractiveness. Success of Advertisement Company, as well as operations accompanying testing of products is also verified.

In case of unsuccessful realization of experimental party of innovative products elimination and analyze of unsuccessful reasons is provided upon testing particular party (**Block 57**). This requests provision of marketing studies and further improvement of constructions, possible changes of technologies and further improvement of constructions for the purpose of improvement of provision of innovative activities and sale of products (**Block 58**). Perfect products shall be retested (**Block 54**).

Under the conditions of successful realization of experimental parties of products are specified, as well as needed size of production to be satisfied for market demands, possibilities of own industrial capacities are specified as well for satisfaction of these demands (**Block 56**). When it is impossible to satisfy increasing

consuming demand on own products with own forces, when it is purposeful to sell license on production of own brand, open additional joint enterprise for manufacturing innovative products (**Block 60**).

Upon completion of testing rapid mastering of production and sale of innovative products is provided, as well as growth of incomes from sold mastered products. This is the stage of growth in innovative process of development. After expiation of specific time production moves to the planned volume and this is when slowing of distribution rates and stabilization of income level from realization of innovative and intellectual products (**Block 61**) take place, i.e. basic and comparative long stage of innovative process is commenced and as well as completed 6<sup>th</sup> stage of intellectual innovative activities of a company.

**Manufacturing innovative products.** At the 6<sup>th</sup> final sage of intellectual-innovative company permanently increasing intellectual capital is realized at the previous stage, which is intellectual component of innovative production. Order of circumstances at this stage of the cycle and logical relation between them is given in the Fig. 10.

At this stage of innovative process, when stabilization of production and distribution is provided, control of planned data and its prediction, as all kinds of interruption in such process is provided not predictably, but operatively only by means of detection of thematic tendencies in the development of innovative process. In this regard algorithm of production process of innovative products (Fig. 10) **Block 62** and **Block 78** are the blocks, which are formed in accordance with the logics of every case of algorithm.

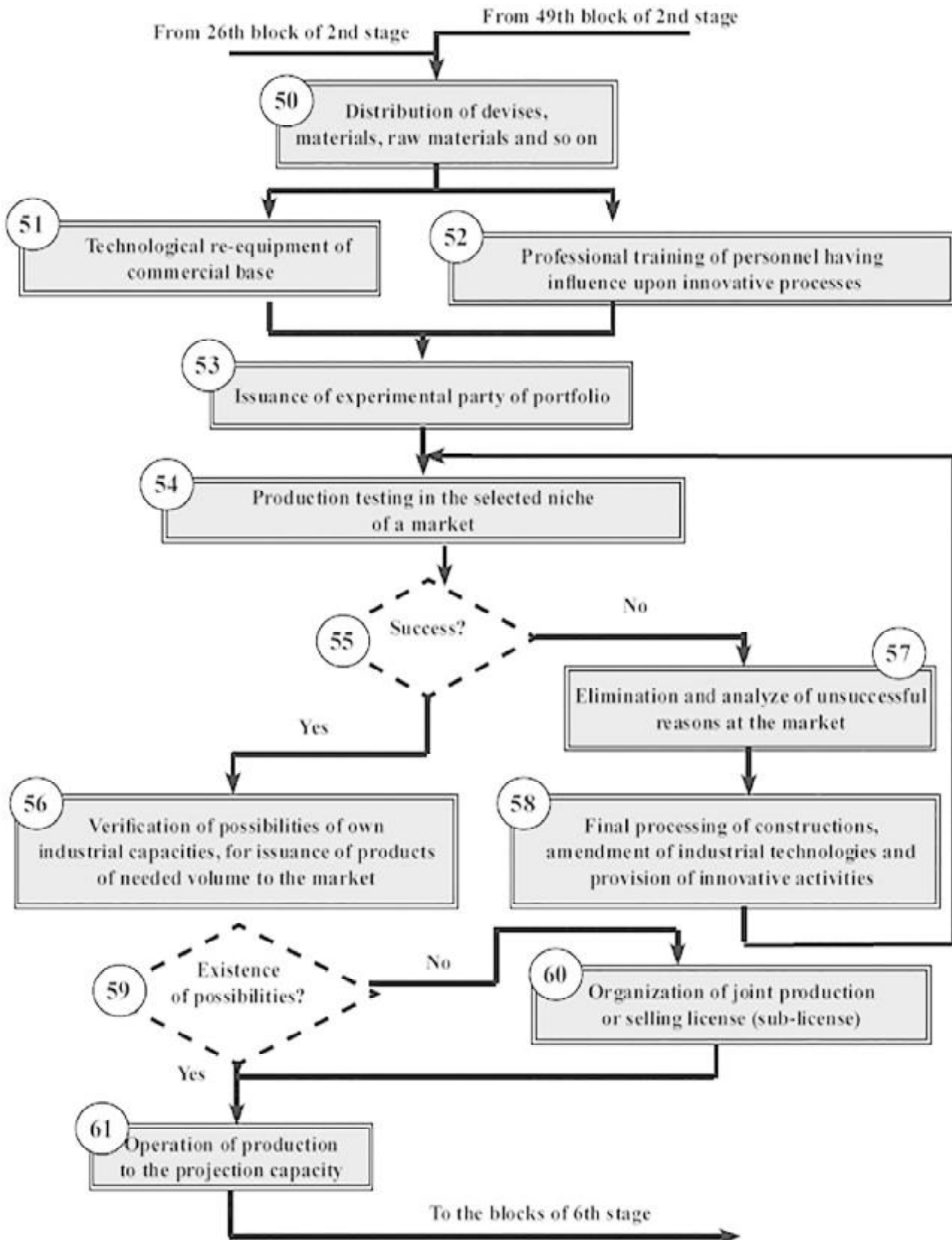
In the process of production permanent change of production volume of innovative products takes place (**Block 64**). Under the conditions of permanent reduction of this index (below stated level) they take operative decision about stabilization of innovative process. Herewith, on this time following versions may take place:

**Versions of stabilizing innovative process.** 1) compound of consumer features of products (**Block 66**) doesn't satisfy purchaser any more, which became reason of reducing demand and after this reduction of the volume of sale take place. Such situation may be provided at the stage of stabilization, as some defaults of products may be eliminated in the process of utilization according to some features. For example, insufficient trustfulness of hardware may be detected as well as those in the service of a company subject to elimination of detected defaults.

2) Forming new requests in consumers (**Block 68**) at the market related with submission of new products of rivals by means of numbers of additional abilities or,



**FIG. 9. ALGORITHM OF REALIZING 5<sup>TH</sup> STAGE OF INTELLECTUAL-INNOVATIVE ACTIVITIES OF A COMPANY**





simply, wide advertisement.

3) Reduction of consumer features of traditional consumers of the products of a company (**Block 70**), which may be influenced, for example, by inflation or inflation expectations.

These versions are consistently analyzed (respectively **Blocks 67; 69; 71**) in development and stabilization of innovative process. Further cases in relation with planned cases conform to the realization of products as well as detected reasons of reducing size. In the first and second versions possibilities of granting new features to the products in verified; rising quality according to the detected demands of traditional purchasers (**Block 72**). Herewith changing situation in direction of bettering is defined in the first place with the level of intellectual potential of a company and peculiarities of manufacturing products. In any case it is necessary to make amendment to the construction of hardware and technologies of its production by means of providing respective advertisement company (**Block 74**).

In case of the third version possibilities of recovering purchase abilities of traditional purchasers are verified, as well as detection of distribution possibilities of productions may be found in case of comprehensive reduction of costs on products under the conditions of maintaining quality.

For example, by means of lowering prices on products by the company Fiat and at the same time provision of advertisement campaign in 1998 provided rising of purchase abilities of consumers and a company moved to the planned index of production and sale of products.

Sweden Company “Electrolux” under the same conditions moved to completely untraditional distribution market (the company manufactures expensive household refrigerators). It appeared that small group of rich purchasers bought presentable Sweden refrigerators. This is what the ways of forming purchase abilities are like (**Block 77**), which significantly depend on intellectual potential of a company, especially its part, which is defined by human capital.

Prediction of negative development of innovative process is provided in accordance with the degree of the field of tendencies of reducing volume of realization of products (**Block 78**). This kind of prediction “from today to the future” is based on existed information, which is made in innovation process, in the process of control and evaluation of the data of innovative process, basically – success of production and volume of sales. According to the outcomes of prediction with defined authenticity certifies the fact of reducing number of these values (V), below critical level (V<sub>kp</sub>). (**Block 79**) and, respectively, it certifies the moment of moving of innovative process to

from the stage of stabilization to that of falling, during with it is not purposeful to increase the volume of sale of products by means of granting new features to this production or at the expense of forming purchase abilities of consumers.

Manufacturing old products terminates and thus completes the cycle of intellectual-innovative activities of a company. At the same time, as it is shown in the Fig. 2, innovative process of the cycle following intellectual-innovative activities and its following cycle becomes stronger in intellectual-innovative activities of the company.

**Risks in intellectual-innovative activities.** Innovative activities, in relation with other direction of activities of a company are mostly related with risk, and there is no guaranty of making respective outcome. This is conditioned as by dynamics of intellectual-innovative activities of a company, so conditions of market economy of environment. Herewith, high risk, as a rule, means high compensation as well: possible norm of profit from planning innovation is much higher than ordinary one, than profit made from other activities of a company (this is what existence and development of innovative field are defined by).

Content of innovative risk exists in following:

Possibility of realizing innovative project with incomplete volume;

Factor of production and realization of innovative products and negative outcomes of inclination from prediction evaluation of actual outcomes of realization. In final situation we speak about reduction of production profit and profitability.

Innovative risk R<sub>n</sub> is related with various aspects of mastering innovation, namely, with industrial, commercial, financial, economical, social and other aspects.

Dynamic of changing the value of R<sub>n</sub> and, respectively, negative outcomes of risk situation (see the Fig. 1) depends on the stage of vital cycle of intellectual-innovative activities and is elucidated more strongly at the initial stages, when scientific-research and experimental-construction works. That is why risks of various kind take place; namely:

o **Risk of information inadequacy:** inconformity of declared innovation with real outcome;

o **Risk of originality:** possibility of the forces of necessary outcome (new product); consumer’s readiness to except it;

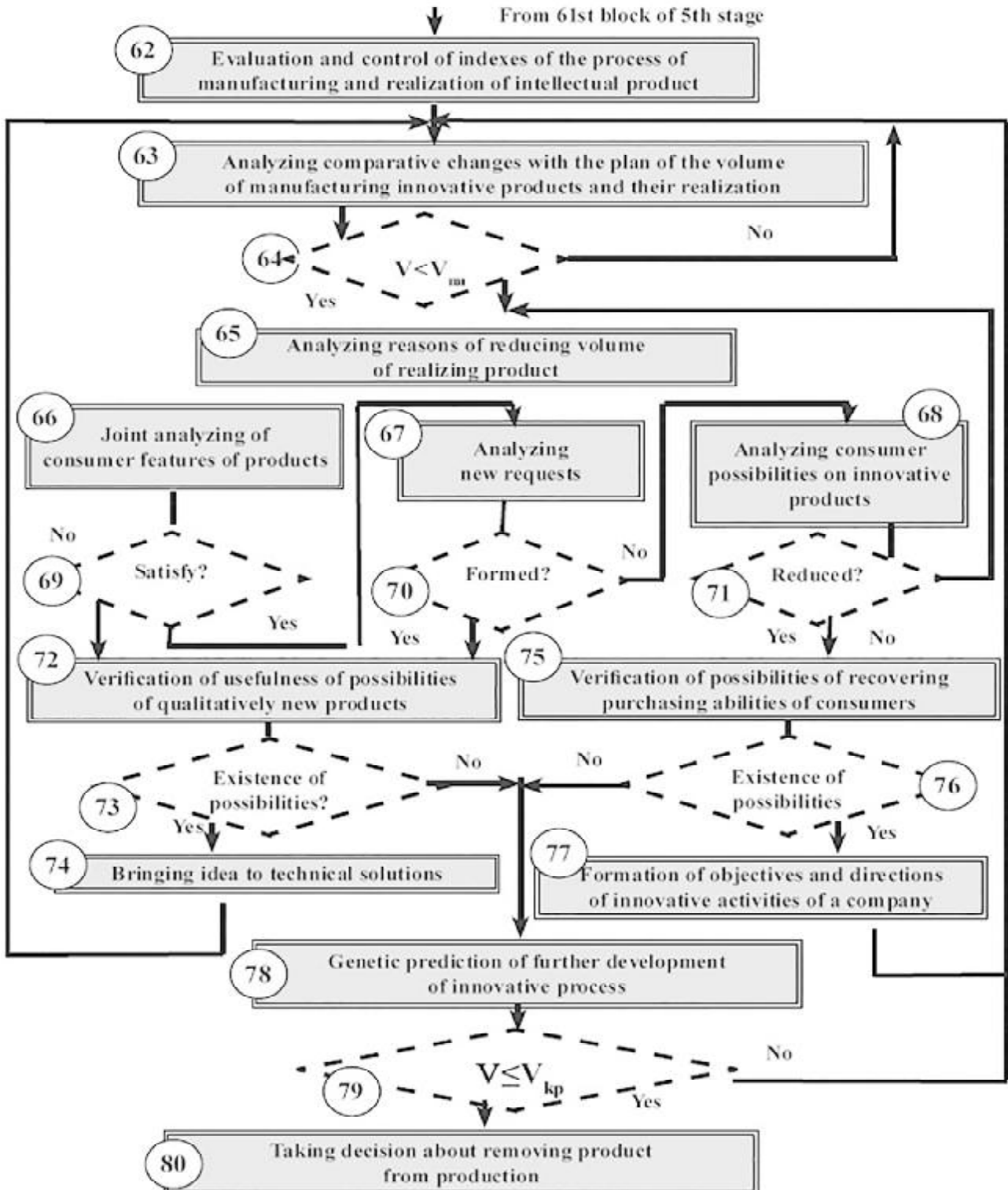
o **Risk of technical inadequacy:** possibility of industrial mastering of foreseen technologies;

o **Risk of legal inadequacy:** insufficiency of intellectual legal safety;

o **Risk of uncontrollability of project:** partnership balance in business will create possibilities of reduction



**FIG. 10. ALGORITHM OF REALIZING 6<sup>TH</sup> STAGE OF INTELLECTUAL-INNOVATIVE ACTIVITIES OF A COMPANY**



of high-profitable company.

Outcomes of mentioned risks may be mistaken selection of innovative idea and invalidity of defining direction of its realization. Experimental evaluation of

perceptiveness of innovative idea and its commercial meaning is basic instrument at the initial stage of intellectual-innovative activities. Herewith, it is necessary to take into account circumstances that compensation





of negative outcomes is quite difficult at initial stages.

At the stage of experimental-construction processing mastering of innovations and list of mentioned risks takes place, which is purposeful to be filled with following risks:

o **Risk of marketing study of market:** defects of evaluation of realized production costs and capacity of market;

o **Risk of manufacturing products and planning outcomes of realization:** high risk of insufficient trustfulness and risk of future realization;

o **Risk of selecting partners in business:** impossibility of producing complete volume of products and lost profit because of low level of indexes of financial-commercial activities of potential partners;

Insufficient number of production and realization of products are outcomes of risks of listed types, Reduction of produced profitableness.

**Instruments of risk assessment.** It is purposeful to use quantitative methods as instrument of assessment of risk outcomes, in the first place, those of marginal and financial analyze and selection of partner in business.

At the final stage of intellectual-innovative activities, where innovative process is successfully provided, stabilization of the volume of realizing innovative products

takes place.

**Industrial “Business-Risk”.** Possibility of loosing profit in case of value unsuccessfully selected policy of selling products unoptimal structure on their production.

**Financial risk** – Danger of fulfillment of company liabilities under the conditions of unsuccessful structure: conformity of own and borrowed resources.

Outcomes of mentioned risks are loosing solvency, and reduction of financial independence.

For evaluation of outcomes of risky situations and instruments of compensation influence they use following mechanisms of risk assessment: industrial, financial, engaged (joint management of financial and industrial risks).

Except above risks innovative entrepreneurship may be characteristic to other risks: **technological**, provoked by technical calculations of mistakes and insufficiency of qualified business value. **Specific**, related with production of innovative products and sectoral and regional peculiarities of materials; **force-majeure risks** (natural cataclysms, political instability and so on).

Thus, recording risks and quantitative evaluation at every stage of intellectual-innovative activity is necessary condition for successful realization of creation of innovations and its selling.

## FOR ENDLESS PROCESS OF AN ORGANISATION IN INOVATING BUSINESS COMPLETION

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### Summary

Creation of intellectual capital, its comprehensive renovation and realization into material and intellectual production is provided in the process of intellectual and innovative activities, where creative and innovative processes are organically related and mutual-conditioning. Herewith, intellectual-innovative activities of a company make permanent change of specific cycles which are provided consistently. Each cycle consists of creative

and innovative processes and intellectual property created at each creative area is partially or totally realized at the completed cycle of innovative process.

**Key words:** *innovative activities, sages, cycle, company, management, risk level, financial loss, investent, inovative process, vital cycle of innovation, innovation, algorithm.*