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Formation of Scientific and Educational Values in the System of Youth Motivation*

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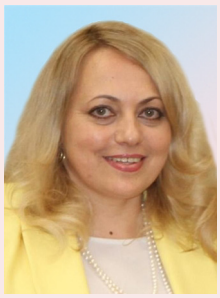

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Abstract. The system of values is the "foundation" of the attitude toward the world. In the modern information society, the motivational and target component of work with the younger generation should lead to the formation of an "integrative profile" of an individual who possesses professional competencies

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of a high level that are in demand in research and educational spheres, as well as in project activities. Motivation is largely determined not only by internal characteristics of an individual, but also by the ways in which activity is carried out; this activity in the process of its implementation should be targeted, directional, predictable and analytical, with monitoring, evaluation of efficiency and adjustment of its implementation, i.e. it should be conscious activity. Our goal is to identify new mechanisms of state stimulation of topical and priority areas of youth policy in the field of university science and identify possible routes for the development of values. We adhere to the basic idea of the need to take into account value orientations in the development of state youth policy. Desk research and sociological research were used as the main methods of the work. The desk study was conducted by analyzing the main directions of the state policy in the field of science and technology, normative legal acts of the Russian Federation, state programs and projects, and publications of international organizations. The study collected data on existing forms and measures of incentives and support for student youth. In order to test theoretical approaches to motivation and identification of the main factors contributing to youth participation in research activities, a sociological study was conducted among university students.

Key words: value system, youth motivation, internal motivation, external motivation, scientific activity, incentive mechanisms.

Introduction

The values formed by society represent the socially determined selective attitude of an individual toward the set of material and spiritual public goods. Values are ideas and goals formed by an individual and society.

Motivational values have a social meaning and are the object of activity. Considering the functions of the value, we can note their diversity: the landmark of an individual's life, the mechanism of social control. Considering motivational values of an individual, we can distinguish the following features: goals that are desirable to achieve; traces of specific situations; the evolution of an individual's behavior. Such characteristic features of values reflect, first, their cognitive elements ("knowledge", "beliefs"), and second, the activity-based foundations of their impact on the process of cognitive development. The value system of different generations may differ, especially if there is a change in socio-economic or socio-political conditions [1, 2, 3].

The youth of the 21st century is a generation that is radically different from the previous generations in history; it has access to all forms of information and high technological erudition. Representatives of this generation easily master technological innovations and can easily adjust their lives according to the requirements of the time; they actively and successfully work in various spheres, show initiative, creativity and leadership qualities. The ability to change in accordance with the imperatives of the new time allows Millennials to raise their motivational status significantly and successfully move on the path of new achievements. The current generation is the most important segment of society, designed to ensure its progress and development. The motivation of young people, including such components as aspirations, values, interests and actions, should be manifested in a gradual continuous movement toward the maximum implementation of potential [4].

Millennials or Generation Y includes those who were born between 1980 and 2000 and grew up during technological and economic turmoil. They will be the first generation to be worse off than their parents, but they are still expected to

take responsibility for the planet's problems, including aging populations, global debt and climate change. But the picture is not so bleak: young people will inherit a better world in many ways: there will be less poverty, health and education will become more accessible, there will be huge technological opportunities [5].

Millennials and Homelanders coming at their heels are the first generation of digital "natives": many of them do not remember life without the Internet. They are distinguished from previous generations by their mastery of the technologies that led us to the fourth industrial revolution [6]. Technology has not only shaped the way Millennials live and work, it has created a whole new set of beliefs, phobias, and aspirations. The values of young people, in turn, influence their approach to global challenges and opportunities. Generations Y and Z really want to make the world a better place – 84% consider it their duty, according to a Deloitte report, but they do not do it the way older generations do: they use the following three ways [7]:

– they work within existing systems; according to Deloitte research, more than 90% believe that business is a way to solve problems such as unemployment, and three-quarters believe that the problems of society should be solved by governments;

– they have effective tools at their disposal; in the world of digital communication, social media platforms allow young people to promote causes and find solutions to problems by directly holding institutions accountable;

– charity work is part of their way of life; they are also rational about the career they choose, attentive to the products they buy, and eager to spend their free time in an interesting and useful way.

However, the preferences of generations Y and Z differ. It is interesting to compare the results of a sociological survey conducted in 2009 in Russia by the Swiss Academy for Development [5a – Youth in Russia] among the representatives of Generation Y, and the results of a sociological survey we conducted among the first-year students in 2018, which was attended by 513 students from four universities in Moscow: Russian Presidential Academy of National Economy and Public Administration (RANEPA), State University of Management (SUM), MGIMO and Financial University under the Government of the Russian Federation *(Fig. 1)*.

But Homelanders are just getting ready to take jobs, and Millennials already make up 25% of the U.S. workforce and more than half of the population in India, and by 2020 they will make up 50% of the world's workforce. Millennials differ from other generations in how they behave in the workplace: they are the first generation to better understand the Internet as a business tool than their managers. But it is not just how they use technology. Today's young people want to see a different management style and a different corporate culture: they expect rapid progress, want their careers to be diverse and interesting, and believe that feedback should be constant. Today's young people also want to feel that their work has value and that their efforts are recognized; they also value this in the employer and consumer. If they feel that their expectations are not met, they quickly leave for another job.

The main values of the generation of Millennials and Homelanders [9, 10] can be combined into the following categories:

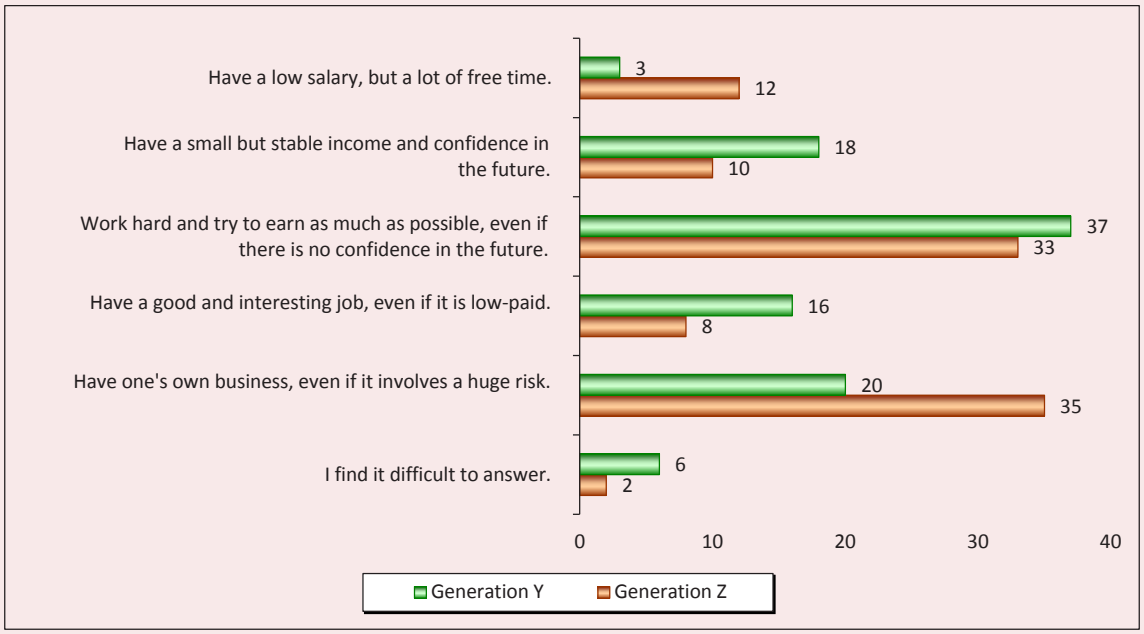
• academic success: admission to the university, successful completion of education, obtaining a diploma, career growth;

• presence of leadership qualities: responsibility, potential opportunities, ability to develop self-sufficiently;

• behavior in society: ability to work in a team, healthy lifestyle, respectful attitude;

• high living standards: diverse interests, sense of justice, integrity.

Figure 1. Key factors that determine the choice of employment for young people (data are given in %)



Source: own compilation on the basis of a sociological survey and [8, p. 22].

Our main hypothesis is as follows*:* personal values are the basis for determining the goals of training young people, as well as one of the factors in the formation of the scientific and innovative environment in the university. Values are manifested in the consciousness of the student's personality in the form of personalized and general worldview guidelines, defining strategically important life goals. There is a close relationship between value orientations and the type of motivation. Motivational development and training as a phenomenon of development of scientific and educational values is activated under the influence of external and internal incentives, while the ratio of internal and external motivation may vary.

Theoretical approaches and literature analysis

Internal motivational factors that determine the development and learning process of most students determine their participation (desire to participate), curiosity (desire to learn more in the field of interest), response to challenges (assessment of the complexity of the problem) and social interaction (creating social connections). External motivation focuses on the desire to meet established requirements or expectations; to achieve recognition (to be publicly recognized); to participate on a competitive basis. External motivation generates the need to protect oneself from unnecessary work. Students with extrinsic motivation rely solely on reward and/or achievement of desired results, such as a certain number of test scores or a desired average score [11]. Students with external motivation are at greater risk of reducing their academic performance than students with internal motivation [12].

Learning and development based on internal motivation, that is, personal interest and curiosity, is more successful and productive. The development of a person's cognitive abilities, activated by unexpected, unfamiliar, interesting stimuli, focuses on the study of the world and phenomena, rather than receiving recognition, evaluation, or under the influence of external stimulation aimed at obtaining

the desired behavioral response. Intrinsic motivation activates a person's cognitive abilities and is thus important for personal development. In particular, the desire and willingness to cope with problematic situations, to be competent and effective within their society ensure the continuity of the cognitive process and determine the degree of positive behavioral changes. Internal motivational factors greatly contribute to the expansion of competencies in a particular field or discipline. The concept of intrinsic motivation includes self-interest in the subject, intrinsic reward, and cognitive and emotional satisfaction. Intrinsic motivation encourages participation in consciously chosen research and social activities for the purpose of emotional and intellectual satisfaction. In fact, an internally motivated student can deliberately choose and study complex questions, expanding their knowledge and experience without external training [13].

It should be noted that the impact of external rewards on internal motivation continues to be a subject of debate. External rewards can be an important tool for motivating academic behavior, but some argue that such rewards have a detrimental effect on internal motivation, which directs the student toward perseverance in achieving results [14].

It should be emphasized that academic education is aimed at teaching students the skills of scientific research and is most often implemented in the format of group or collective work, which implies certain obligations of the individual to the team.

However, despite the fact that group and collective work occupy a significant time share of training, according to some authors, the principles of individualism, which are not focused on maintaining the pre-existing imperative obligations of duty fulfillment, come to the fore in the system of values of modern man. As a result, the ideas of collectivism lose their effectiveness in shaping the motivation of young people. "The logic of individualism, individualistic, pragmatic spirit leads to the renunciation of the principle of autonomy in favor of the principle of independence" [15]. Indeed, today's society provides great opportunities for the development of human individuality, but it also turns out that the "individualized" modern man ceases to identify himself with the collective forms of identity – "We-identity".

Changing motivational value orientations of young people reflects the perception of not only systematically deformed external influence, but also its strategic and tactical impact on the inner world of the individual. Building a complete hierarchy of goals makes it possible to form conceptually an individual's personality, predict the direction of their activities and define it as an organic part of the collective identity at a certain level of social development. The formation of value orientations develops the ability to make volitional efforts and the activity of the life position in achieving the goal. Conversely, the underdevelopment of value orientations allows external stimuli to dominate the internal structure of the individual, which creates inconsistency in behavior and decision-making among young people. At the state level, in recent years, a number of important legislative acts have been adopted that contribute to rethinking the problems that determine the formation of the personality of a modern young person in the context of socio-economic changes *(Fig. 2)*.

Analysis of mechanisms of motivation of young people. Encouraging the motivation to learn and participate in research is one of the main principles of effective higher education [12]. If students are motivated internally, then they take part in research to achieve their own scientific and personal goals.

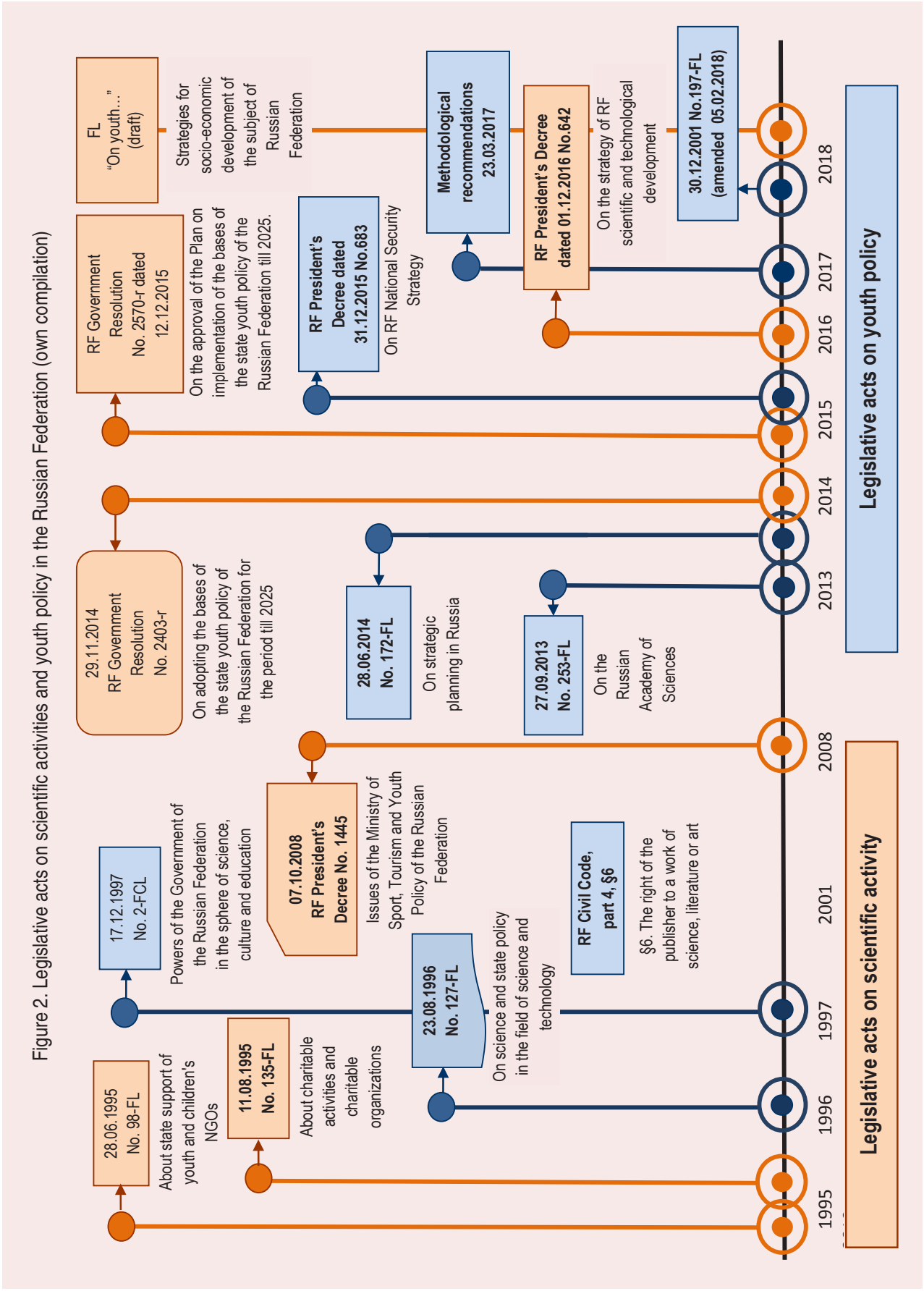


Figure 2. Legislative acts on scientific activities and youth policy in the Russian Federation (own compilation)

Internally motivated students like to use strategies that are more aggressive and that allow them to process information more intensively. It is very important for them to maintain and satisfy one of the main innate psychological needs – competence, which is associated with a sense of their effectiveness in interacting with the environment and the ability to implement their abilities [16]. Students with external motivation tend to make the least amount of effort necessary to get the most reward. Consequently, the more the social environment satisfies psychological needs, the more positive the consequences for internal motivation.

On the other hand, according to the theory of self-determination, people have a natural tendency toward psychological growth and integration [17]. This tendency is a function of the social context in which individuals develop, and the ability of this context to support and satisfy three innate psychological needs: autonomy, competence, and kinship. Autonomy refers to "the need to experience a sense of choice and, as a consequence, will" [18, 19]. Competence is related to the sense of one's effectiveness in interacting with the environment and the ability to implement one's abilities. Kinship refers to the quality of interpersonal relationships, to the "need to be close, trust, and care for others" [18]. No matter what motivational model is involved, the more the social environment meets the psychological needs, the more positive the consequences are.

Autonomous regulation occurs when people realize that their behavior and goals are the result of their own will and choice. In contrast, controlled regulation refers to actions that are aimed at seeking reward or recognition from others, or at avoiding punishment, guilt, or shame. Empirical evidence supports the argument that when psychological needs are met, people experience greater autonomous motivation and less controlled motivation. In addition, autonomous regulation is associated with positive results, while controlled motivation is associated with negative results [20]. In a study conducted to test the motivation scale for completing a PhD [21], autonomous regulation was positively associated with satisfaction (university, program, and research), positive influence, performance, and postdoctoral intentions, and negatively associated with test anxiety, negative influence, dropout intentions, and dissertation problems. Conversely, controlled regulation was positively associated with the above-mentioned negative outcomes, but negatively with most positive outcomes.

Similarly, it has been demonstrated that academic persistence in graduate students was predicted primarily by autonomous regulation [22]. Autonomous regulation was also associated with persistence in undergraduates [23] and high school students [24], while controlled regulation was negatively associated with persistence.

In addition to autonomous regulation, perceived competence is a central concept in other theories [25]. In the master's degree courses, students perceive the formation of academic competencies as a demonstration of perseverance [26], while doctoral research competencies were associated with research performance (for example, the number of articles, conferences, presentations) [22].

If we sum up the above, it becomes clear that the basis for the development of mechanisms of motivation of the youth policy is formed by the model of motivation theory X, Y, Z. The model of theory X is based on external control, the model of theory Y – on self-control, self motivation in the achievement of high results; and the model of theory Z is based on the principles of collective motivation.

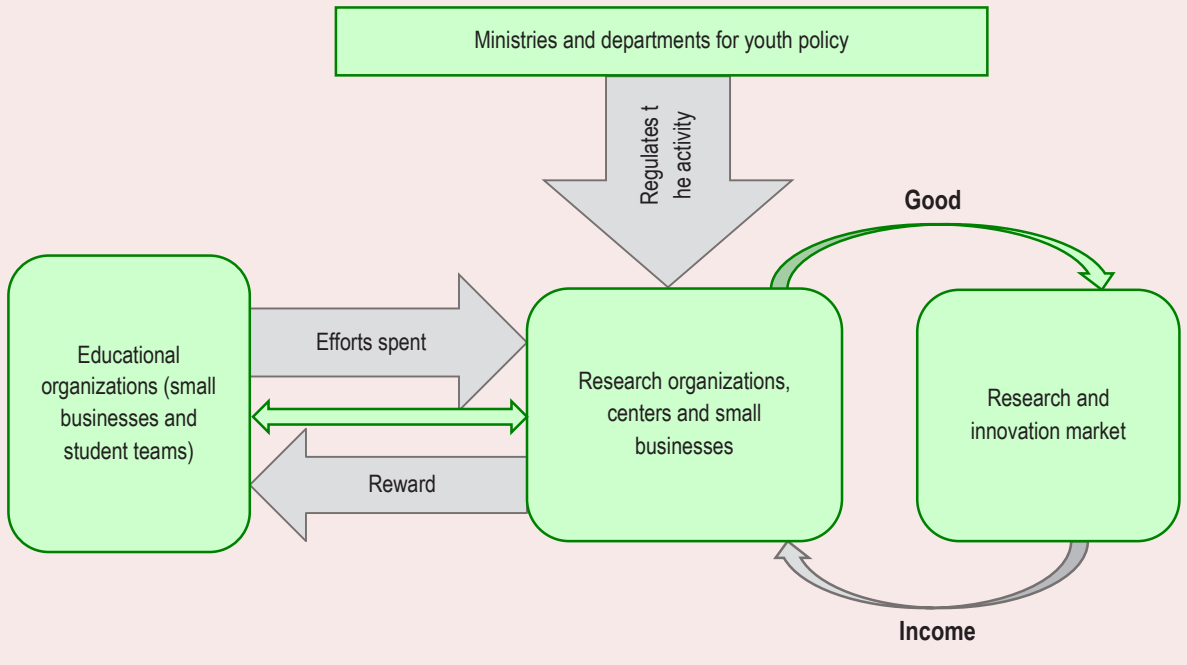
And, although all of them are devoted to the principles and settings of the use of three different management systems that take into account different behavioral types, it should be noted that the general in all theories is a certain vector: goal – expectation-motivation (reward). The results depend on several regulators of problem solving: the effort spent, the personal qualities of the individual and their awareness of their role in the implementation of the action. The degree of effort spent depends on parameters such as the value of the reward, the relationship between effort and reward, and satisfaction with the performance of the work. Satisfaction is an indicator of how well the reward is perceived by the individual in comparison with the effort expended. Let us consider the mechanisms for stimulating youth in the implementation of the state youth policy.

The macroeconomic mechanism involves stimulating the development of scientific and innovative outlook in the school–university–labor market system and the formation of a motivational and information environment in society, as well as the formation and development of the status of a teacher – researcher, scientist in society. The macroeconomic mechanism implies the implementation of research and investment activities at the state level *(Fig. 3)*.

Mechanisms for stimulating young people in priority areas are as follows:

- active use of mass media to recognize the importance of the role of state youth policy for the socio-economic development of the country;
- development and adoption of an appropriate legislative and regulatory framework for the management of youth policy through the legislative bodies of state power at all levels;
- creation of funds and activation of civil society institutions engaged in the promotion and implementation of state youth policy;
- creation of the all-Russian system of youth media and information resources in the sphere of education with the participation of young people;

Figure 3. Macroeconomic mechanism for state stimulation of youth in priority areas [27]



• development of network cooperation in the field of R&D "school-university-project", involving graduate students, students and schoolchildren in the implementation of real projects at the legislative level;

• development of programs "Affordable housing to young scientists" at the federal level through concessional lending and mortgages.

The microeconomic mechanism assumes stimulation of development of scientific and innovative outlook by means of educational process and formation of the motivational and information environment in the educational organization.

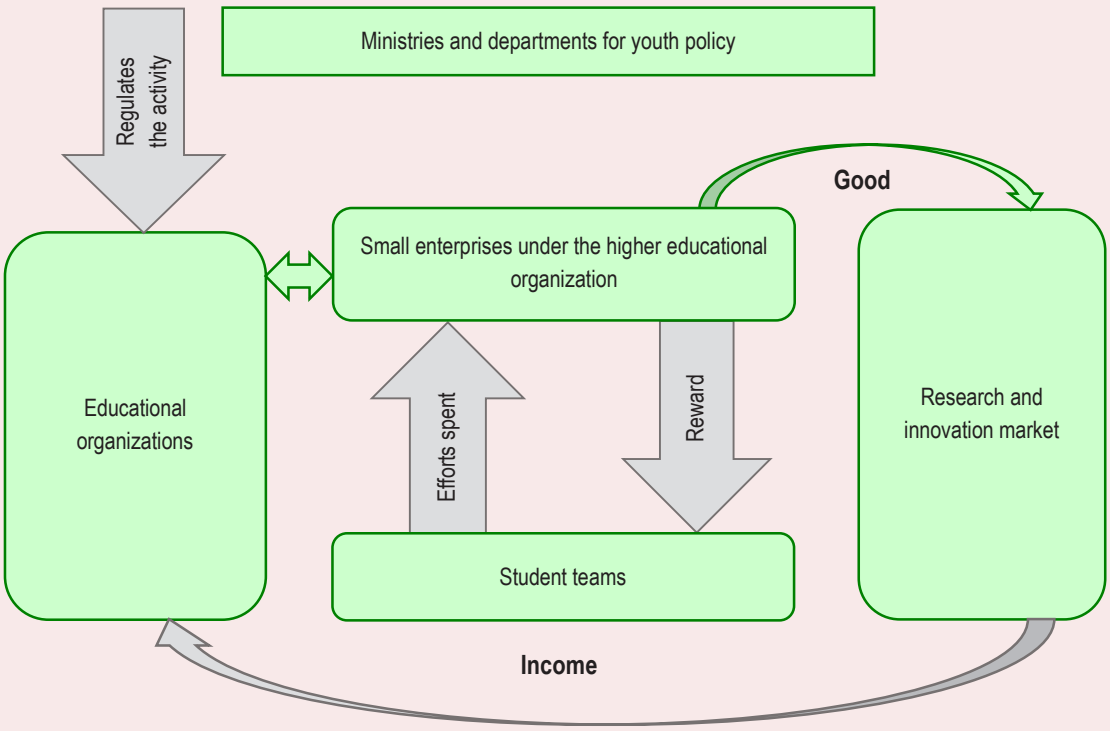
The microeconomic mechanism of state incentives for current and priority areas in youth policy is based on genuine recognition and encouragement of those participants who have conducted practical or applied research at a high scientific level and received valid results *(Fig. 4)*.

Both microeconomic and macroeconomic incentive mechanisms will function only if the rules and established procedures that are known to the participants act as regulators for solving the problems that research groups (organizations) are facing.

If we attempt a mathematical description of this mechanism, it will look like a definition of the motivation function depending on the reward and action.

The model situation can be presented in such a way that scientific organizations initially determine the forms of incentives, which can be expressed by the function $S(n_i)_i M$, which belongs to the admissible set M, which, in turn, has its own restrictive parameters that depend on legal norms and economic efficiency indicators. A participant in a scientific project has the right to choose to perform certain actions $n_i A$ that belong to the entire set of permissible actions A, from which this choice is made. Objectively

Figure 4. Microeconomic mechanism of state stimulation of youth in topical areas (own elaboration)



implementing the choice in practice to achieve the goal will require the participant to make certain efforts G(n) to fulfill the obligations assumed. Successful implementation of the project with a positive financial interpretation of the results should bring income $D(n_i)$ to the scientific organization.

Expectations from both sides can be expressed by target functions, and also the utility function $Ю(S(n_i))$ can be introduced, which acts as a criterion for the value of remuneration for the project participant:

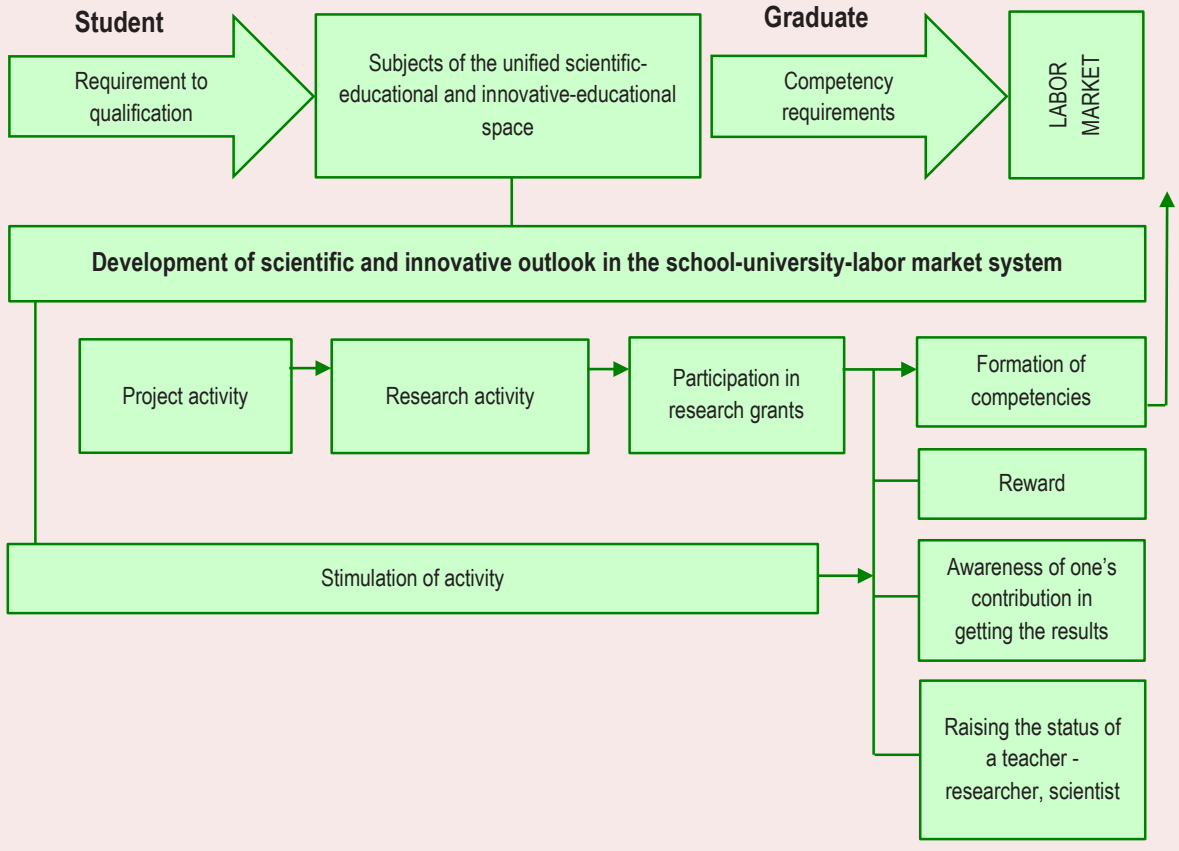
– expectations of the scientific organization $F(n_i) = D(n_i) – S(n_i)$ (1);

– expectations of the participant $f(n_i) = S(n_i) – G(n_i)$ (2);

– utility of remuneration $f(n_i) = Ю(S(n_i)) – G(n_i)$ (3)

The principle of action of the mechanism of motivation in the formation of individual values can be determined by taking as a basis the method of studying optimal strategies in game theory. If we consider the macroeconomic mechanism of state incentives for youth, the fundamental point is the treaty between the research team and educational organization; the member of the team receives maximum information about the existing criterion functions and admissible sets, and the scientific organization is self-determined in the choice of a stimulating function. When making a decision to perform the work stipulated in the contract, the project participant chooses the action that maximizes their target function. On the other hand, the procedure of the work of the scientific organization implies that it must choose the most effective way to stimulate the work of

Figure 5. Formation and stimulation of the development of scientific and innovative worldview in the school–university–labor market system (own elaboration)



scientists in order to obtain the most effective result, which can be defined as $€_6$ (S) = max $F(n_i)$; guaranteed efficiency is defined as (min) of this function, depending on the choice of actions.

Mechanisms for the formation of the system of values of youth. The problem of formation of values of modern youth needs to be solved in several aspects simultaneously.

1. Formation and stimulation of development of scientific and innovative outlook in the school-university-labor market system.

This motivational process can be implemented primarily by supporting talented young people in the field of research and innovation at all stages of the formation of an individual scientific and educational trajectory and ensuring the continuity of the specified trajectory, provided that the goal is achieved at each clearly defined stage *(Fig. 5)*.

The route for movement and the incentive mechanisms in the formation of the scientific and innovative worldview in the school-university-labor market system makes it possible to build an individual trajectory in determining goals and opportunities to achieve the desired results in scientific and educational innovation. In this process, of all the possible methods for solving problems, the most effective one is that focuses on the personal development potential of an individual, their desire to change things for the better, and significant support for the environment. The importance in the development of scientific and innovative outlook in the school-university-labor market system is to inform the scientific-minded youth in a timely manner, to consult them to obtain the maximum possible results of R&D, student R&D, and R&D and innovation work of youth. An analysis of the structural links that contribute to the motivation and promotion of young people in the field of research and development is presented in *Appendix 1.*

The procedure of actions formed by law in the scientific-educational and innovative process provides an opportunity to create routes for the formation of professional competencies in the labor market for each stage of the educational trajectory.

2. Formation of motivational and information environment in society.

Currently, the mass media have a huge impact on the formation of the worldview and perception of young people and the definition of life values of the younger generation.

Encouraging young people to participate in scientific activities is an important and real task that can be carried out with the help of the mass media. *Appendix 2* presents our own vision of the formation of scientific and innovative worldview of young people in the field of priority areas on the basis of activities carried out in the media, the Internet and social networks, indicating the incentive mechanism.

3. Formation and development of the status of a teacher-researcher, scientist (material and non-material aspects) in society.

The prestige of the profession of scientific and pedagogical worker is based on the attitude of society and the state toward higher education, and evaluation of its effectiveness. Internal assessment is formed by the educational environment of the higher educational organization, including the assessment of the teacher by students and expert assessment of the professional community of teachers. It is formed mainly by the following indicators: the level of pedagogical skill, teacher culture, creativity and erudition in the professional field, personal qualities, and communication. External assessment of the prestige of a higher school professor is formed with the participation of society and the state and depends on the strategic priorities of the country's educational policy.

Conclusions

The problem of attracting young people to science requires clarified criteria for assessing the ability of students to carry out scientific work and research. In our opinion, the main criteria at the first stage are as follows: the desire to participate in research, a high level of erudition, the general level of culture; willingness to work in a team, responsibility, communication skills, participation in the life of an educational organization.

It is also necessary to form an assessment of the degree of motivation of young people toward research and development. At the first stage, the supervisor must assess the degree of motivation of school students to project and research activities. Motivation is assessed through interviews at the first level, testing at the second level, and project implementation and defending at the third level.

The initial motivation for R&D is based on the process of interaction of students with the supervisor and from the first steps should be aimed at the formation of their value-motivational attitudes toward the profession, the development of competencies and creative abilities as young researchers. At the second stage, the process of interaction between the student and the R&D supervisor is built; here it is necessary to assess the knowledge and skills of the student to solve the tasks and scientific problems.

In order to adapt to Russian conditions, it is useful to consider the experience of foreign countries where funding is provided through the involvement of sponsors and benefactors [28]. The promotion of a culture of mentoring and charity for the development of science and technology among young people will be an important step in the reorganization of the education system in the Russian Federation.

In the context of reduced budget expenditures on education, the reallocation of expenditures on the development of science and technology in the framework of youth policy with the focus on non-profit organizations will increase the interest of the younger generation in education, and the benefactors and sponsors themselves in attracting talented representatives of educational institutions to develop innovative projects.

4. In order to develop science, technology and innovation among young people and to involve them in ongoing youth policy projects, it is necessary to ensure the openness and availability of information about the events. In the Russian Federation, a single information space that contains data on youth policy activities, including those in the field of science and technology, has not yet been formed.

5. The mechanism for the formation of motivation of students to understand and accept the values of the scientific and educational ecosystem should include the following components:

– fundamental values of the teaching staff;
– fundamental values of the students;
– fundamental values of the educational institution;
– fundamental values of the interested parties.

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Appendix 1

Structural links that contribute to the motivation and promotion of young people in the field of R&D and student R&D

Stage of the trajectory	Areas of activity	Target motivation	Structural links
Doctoral candidate	Scientific, technological and research activity	Involvement of doctoral candidates in positions in the fields of education and science, management of educational organizations	Rector – vice-rector for education – vice-rector for science
		Development of personal creative abilities	Department of post-graduate and doctoral studies – research department –teams at research institutes, research centers, business centers, small enterprises
		Individual support in research work, and organization of work according to individual training plans	Department of post-graduate and doctoral studies – research department –teams at research institutes, research centers, business centers, small enterprises – Doctoral candidate
PhD candidate	Scientific, technological and research activity	Implementation of continuity of progress	Department of post-graduate and doctoral studies
		Involvement of post-graduate students in the fields of education and science, management of educational organizations	Small innovation enterprises
		Development of personal creative abilities	Department of post-graduate and doctoral studies – research department –teams at research institutes, research centers, business centers, small enterprises
		Individual support in research work, and organization of work according to individual training plans	Department of post-graduate and doctoral studies – research department –teams at research institutes, research centers, business centers, small enterprises – Doctoral candidate
Master's degree student	Research work	Implementation of continuity of progress	Scientific-educational and innovative divisions of institutes, faculties, departments – research divisions of students and young scientists – teams at research institutes, research centers, business centers, small enterprises – department of post-graduate and doctoral studies
		Development of personal creative abilities	Scientific-educational and innovative divisions of institutes, faculties, departments – research divisions of students and young scientists – teams at research institutes, research centers, business centers, small enterprises
		Involvement in research work, individual support in research work	Research department – teams at research institutes, research centers, business centers, small enterprises – post-graduate student

End of Appendix 1

Stage of the trajectory	Areas of activity	Target motivation	Structural links
Bachelor's degree student	Research work	Selection of talented students and their involvement in research work	Departments, faculties, institutes – research department – teams at research institutes, research centers, business centers, small enterprises
		Development of personal creative abilities	Scientific-educational and innovative divisions of institutes, faculties, departments – research divisions of students and young scientists – teams at research institutes, research centers, business centers, small enterprises
		Implementation of continuity of progress	Scientific-educational and innovative divisions of institutes, faculties, departments – research divisions of students and young scientists – teams at research institutes, research centers, business centers, small enterprises – Master's degree courses
		Involvement in research work, individual support in research work	Research department – teams at research institutes, research centers, business centers, small enterprises – Master's degree student
		Defense of the graduation paper and the implementation of proposals in research activity and innovation	Higher Attestation Commission – All-Russian Attestation Commission – post-graduate and doctoral studies– – teams at research institutes, research centers, business centers, small enterprises
School student (high school graduate)		Selection of talented school students and their involvement in research work	School (project activity) – departments (career guidance through research work) – research department – teams at research institutes, research centers, business centers, small enterprises (involvement through excursions and participation in the project activity competition)
		Implementation of continuity of progress	Project activity at school – Scientific-educational and innovative divisions of institutes, faculties, departments – research divisions of students and young scientists – teams at research institutes, research centers, business centers, small enterprises – Bachelor's degree courses
Source: own elaboration.			

Appendix 2

Formation of scientific and innovative outlook of young people in the field of priority areas

Stages of transition	Events in the media, Internet and social networks	Stimulation mechanism
School student	- Use of social networks to disseminate information about the successful life (material and moral) of Russian scientists; - Conducting interactive activities on scientific topics at school with parents and children; - Dissemination of information in the media, the Internet and social networks about the state's attention to the development of science, material/moral incentives for scientists, housing issues, jobs and high international wages; - Implementation of grants for project activities for school students who show good performance results; - Individual support and consultation of scientists on the project carried out by the student through scientific websites; - Creation of scientific websites	- Formation of scientific worldview; - Formation of competencies in project and research activities through participation in projects and grants; - Formation of an image of a successful teacher\ scientist\ with high material and moral status and demand in the labor market in parents and children

End of Appendix 2

Stages of transition	Events in the media, Internet and social networks	Stimulation mechanism
University student	- Individual support and consultation of scientists on the project carried out by the student through scientific websites; - Use of social networks to disseminate information about the successful life (material and moral) of scientists and research teachers in Russia - Conducting interactive events at the university with scientific topics with the participation of world's leading scientists; - Dissemination of information in the media, the Internet and social networks about the state's attention to the development of science, material/moral incentives for scientists, housing issues and jobs, and high international wages; - Creation of scientific websites; - Creation of funds for the development of science in the youth environment.	- Formation of scientific worldview; - Formation of competencies in project and research activities through participation in projects and grants of the university; - Scholarship (presidential, gubernatorial, enhanced university-based, Academy of Sciences, etc.); - Presentation of their research findings at conferences (with reimbursement of expenses from public funds for the development of science) with the available specific results; - Publication of research results with reimbursement of expenses from public funds for the development of science) with the available specific results.
Post-graduate student Doctoral candidate	- Individual support and consultation of scientists on the project carried out by the school student through scientific websites; Use of social networks to disseminate information about the successful life (material and moral) of scientists and research teachers in Russia; - Conducting interactive events at the university on scientific topics with the participation of leading scientists of the world; - Dissemination of information. Dissemination of information in the media, the Internet and social networks about the state's attention to the development of science, material/moral incentives for scientists, housing issues and jobs, and high international wages; - Creation of scientific websites; - Creation of funds for the development of science in the youth environment.	- Formation of competencies in project and research activities through participation in projects and grants of the university; - Scholarship (presidential, gubernatorial, enhanced university-based, Academy of Sciences, etc.); - Presentation of their research findings at conferences (with reimbursement of expenses from public funds for the development of science) with the available specific results; - Publication of research results with reimbursement of expenses from public funds for the development of science) with the available specific results; - If a scientist shows good research performance results, they can be provided with corporate housing without the right of privatization.
Source: own elaboration.		

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