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## Organizational culture and organizational excellence as the basis of perfect success of enterprises of space industry

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The article is devoted to the analysis of productivity, effectiveness and success of the modern aerospace companies on the basis of the essence, the characteristic features of organizational culture of the enterprise in conjunction with organizational excellence. It is shown the importance of organizational culture in the structure of the personnel work of the enterprise in the implementation of strategic tasks of aerospace companies. Formulated qualitative characteristics of the categories of an organizational culture, the organizational excellence, presented the scheme of influence of organizational culture on effective performance indicators of the competitive enterprises of the space industry.

**Keywords:** organizational culture, organizational excellence, efficiency, competitive potential, competitiveness of enterprise, the perfect success.

Джур О.Є. ОРГАНІЗАЦІЙНА КУЛЬТУРА ТА ОРГАНІЗАЦІЙНА ДОСКОНАЛІСТЬ ЯК ОСНОВА ДОСКОНАЛОГО УСПІХУ ПІДПРИЄМСТВ КОСМІЧНОЇ ГАЛУЗІ

Стаття присвячена аналізу продуктивності, результативності та успіху сучасних аерокосмічних компаній на основі сутності, характерних ознак організаційної культури підприємства у взаємозв'язку з питанням організаційної досконалості. Показана важливість організаційної культури в складі кадрової роботи підприємства при виконанні стратегічних завдань аерокосмічних підприємств. Сформульовані якісні характеристики категорій організаційна культура підприємства, організаційна досконалість, представлена схема впливу організаційної культури на результативні показники діяльності конкурентоспроможного підприємства космічної галузі.

**Ключові слова:** організаційна культура, організаційна досконалість, ефективність, конкурентний потенціал, конкурентоспроможність підприємства, досконалий успіх.

Джур О.Е. ОРГАНИЗАЦИОННАЯ КУЛЬТУРА И ОРГАНИЗАЦИОННОЕ СОВЕРШЕНСТВО КАК ОСНОВА СОВЕРШЕННОГО УСПЕХА ПРЕДПРИЯТИЙ КОСМИЧЕСКОЙ ОТРАСЛИ

Статья посвящена анализу продуктивности, результативности и успеха современных аэрокосмических компаний на основе сущности, характерных признаков организационной культуры предприятия во взаимосвязи с вопросом организационной совершенности. Показана важность организационной культуры в составе кадровой работы предприятия при выполнении стратегических заданий аэрокосмических предприятий. Сформулированы качественные характеристики категорий организационная культура предприятия, организационное совершенство, представлена схема влияния организационной культуры на результативные показатели деятельности конкурентоспособного предприятия космической отрасли.

**Ключевые слова:** организационная культура, организационное совершенство, эффективность, конкурентный потенциал, конкурентоспособность предприятия, совершенный успех.

**Introduction.** Activities of the modern aerospace companies are constantly tested by dynamic external environment. Successful look those companies that are characterized by stability and reliability. A special role in this matter belongs to the force that brings together static and dynamic components of the enterprise, namely the enterprise culture. The most successful aerospace companies, societies demonstrate their sensitivity to social, economic and environmental needs, have a moral responsibility for the consequences of their actions.

Ukrainian enterprises of the space industry has always been ambitious participants in the

global aerospace market, focused on achieving both short and long term goals. This led them to the formation of stable values and norms, such as culture of the company. Dynamic changes of the environment, modern aerospace enterprises, the increasing complexity of organizational structures of enterprises engaged in the international aerospace market has attracted the attention to the identification and analysis of special principles of formation of organizational culture competitive enterprises in the space sector, as a basis for sustainable development, influencing organizational excellence, enterprise effectiveness, performance and leadership.

**Brief literature review.** Significant scientific contribution to the study of the formation, functioning and development of organizational culture made by such researchers as Ackoff R., Ancoff I., Argiris C., Burke M., Eldridge D., Cameron K., Capella L., Jaffee D., Kennedy A., Kotter D., Quinn R., Martin J., Meskon M., Senge P.M., Hofstede G., Vergara E., Waterman R.H. etc.

The study of the process of organization and management of enterprises with emphasis on issues of organizational culture carried out in the works of such Ukrainian scientists as Evtushenko V.A., Grishnova A.A., Kolot A.M., Kravchenko V.O., Nazarova G.V., Semykina M.V., Skuratovskiy V.I., Panchenko L.G., Paseka S.R., Hata G.L., Shvets I.B., Shegda A.V. etc. Some fundamental questions of the influence of organizational culture of enterprises of the space industry on their performance and success presented in the author's work [1].

The experience of successful enterprises in various fields of activities shows that the correct use of the principles of organizational culture not only provides effective activity of the enterprise and its competitiveness in the current time, but also forms a successful future of the enterprise.

**Unsolved aspects of the problem.** Modern domestic and foreign scientific literature fairly well described and analyzed the essence and structural content of the different types of organizational culture of modern enterprises. However, the realities of the Ukrainian economy, tendencies, and process of reforming of the enterprises of the space industry demonstrates the inefficient use of measures of organizational culture of enterprises, neglecting the positive experiences of successful international aerospace companies in the world, which ultimately limits the organizational excellence and competitiveness of Ukrainian enterprises of the space industry. Therefore, more research is needed for rules, regulations, procedures, requirements, organizational structures, and competitive potential, personal policy and organizational culture, their assessment on high-tech enterprises of the space industry to ensure the agreed work of the organizational and economic mechanism of competitiveness management of the enterprise of space industry.

**Purpose.** The aim of the article is the identification and justification of the principles of formation of organizational culture, qualitative characteristics of effective indicators of organizational excellence the company that determine its efficiency, effectiveness and success, justification for the tool assessing of the competitive potential

of the enterprises of space industry of Ukraine.

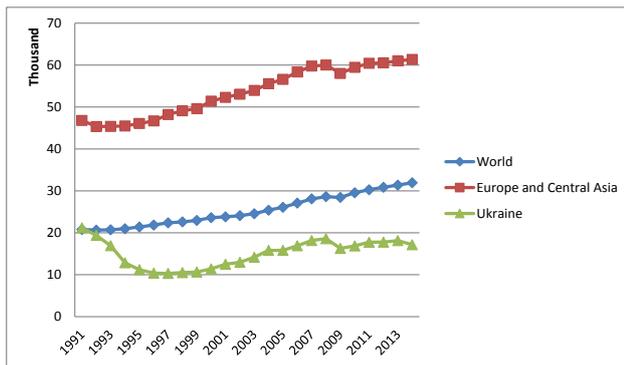
**Result.** The modern enterprise used for the production of not only material assets: production equipment, quality materials, efficient energy sources, but also the intangible assets: know-how, patents, programs, trademarks, property rights, norms and rules of behavior. The latter type of asset is reflected in such categories as the organizational culture of the enterprise. It is the organizational culture in high performing economies has become a kind of intangible asset - accelerator, without which it is impossible to achieve your goals and to achieve efficiency and success.

Ukrainian scientists, politicians, businessmen, public figures noted the problem of the ineffectiveness of the Ukrainian economy and its economic entities and allocate, there are three key factors in the base on the efficiency and productivity of every enterprise and organization. The first is technology, which we create a small number, and a lot of buying and copying. The second factor is control, which we transfer and copy other people's management practices without proper adaptation to the Ukrainian reality. The third factor is the level of remuneration. Thus, the special place for talents: without changes to the neglect of scientists, inventors, thinkers, and creators of cultural and spiritual values we will not be able to create a qualitatively new and competitive [2]. The result, analysts say «we are poor, because labor productivity in Ukraine is 10 times lower than in the EU» [3].

The analysis of the dynamics of the indicator of GDP per person employed (fig. 1) allows to determine the performance of a particular country as the system as a whole, its human resources and accordingly displays the efficiency of the use and interaction of such components of macro and microeconomics as investment, trade, technological progress or changes in work organization etc. In fact, this indicator reflects the consistency of the processes of macro and micro level of countries and/or their associations in relation to the trends of other most effective and productive countries and communities.

The data given in fig. 1 since 1991 to 2014 testify the unproductivity of the Ukrainian economy, its business entities, loss of control processes at macro and micro level, unsuccessful and incompetent use of the government instruments in comparison with the neighboring countries (Europe and Central Asia).

Modern enterprises of global aerospace business presented today as a large and experienced companies such as Lockheed Martin



**Figure 1. GDP per person employed (constant 2011 PPP\$), prepared by the author based on [4]**

(over 112000 employees in the US and around the world), Boeing (165000 employees in the US and in more than 65 countries), Airbus (European company that include 55000 employed more than 100 nationalities from every region of the world), General Electric (diversified company that include 307000 employees in the US and worldwide) and relatively young successful companies – SpaceX (a private US company, founded in 2002, and includes a staff of over 3000 people) etc. According to the UN today, 49 countries actively engaged in the use of space [5], so competition in the market of high-tech products is quite intense.

Modern scientific thought considers competition as the source of the development (evolution) of socio-economic systems. Therefore, countries in the post-industrial stage of society development is facilitated exactly those companies that are characterized by a high degree of social responsibility of enterprises and development of corporate culture, which determines the high quality products and, accordingly, the dominant type of competition can stimulate the intellectual activity of employees and eventually increases the share of innovative component of economy.

Gyadiminas Gemales, the Chairman of Avia Solutions Group, a global provider of aviation services, who for the second time entered the rating of the 40 most successful young executives in the aerospace industry according to influential international aviation publication Aviation Week & Space Technology (2014) emphasized that «all our achievements are the result of coordinated team work and the merit of each employee». In addition, in 2014 the rating of Aviation Week & Space Technology «40 Under Forty» also includes two representatives of the holding company Avia Solutions Group: Anatoly Legenzov, CEO of Helisota, and Tomas Vaišvila,

the head of group management development of infrastructure of the Avia Solutions Group [6]. Large-scale development projects of the holding (at the beginning of 2014, the company completed construction and commissioned a new modern maintenance hangar with an area of 8400 sq. m. in Kaunas (Lithuania), and since 2012 the Group has significantly expanded portfolio of services, has acquired global provider of integrated MRO services for helicopters Helisota, and has also launched its own operator VIP transportation – KlasJet) are proof of the correctly chosen strategy of development of the company in the long term and security through socio – psychological processes that reflect the needs, the propensities of employees and associated with the enterprise persons and organizations, and create new potential organizational strength.

Modern scientific literature with the aim of describing, analyzing, and determining the scientific basis for the formation of the culture of the enterprise (organization) uses the terms «organizational culture» or «corporate culture» of the enterprise, which in fact reflects only a difference in organizational and legal form of the company. Further, we assume the use of the term «organizational culture» of the enterprise more common.

Management of high-tech enterprises of the XXI century is not just activities to make rational decisions in the material sphere, but also the active process settlement impact socioemotional factors. Experts on the theory of enterprise economics F.X. Bea, E. Dichtl, M. Schweitzer [7, p. 273] emphasize that «management should set goals, coordinate, motivate, inform and represent the company».

Therefore, special attention in the management of the competitiveness of modern enterprises of the space industry of the XXI century is paid to not just the existence of the enterprise (organization) as a system, of purposeful formation process, but also involves a conscious impact on the personnel of the enterprise to achieve the goals. This means the formation of a special harmonious environment for staff, which acts as the Creator of his own «tomorrow», both within the enterprise and outside with the help of motivation in the structure of category of the enterprise culture.

A study of the concept of «culture» and its impact on individuals, groups of people and society today remains a timely research question. Therefore, it is important to identify the principles of formation of culture of competitive aerospace companies and for its assessment of the effectiveness and performance of the enterprise.

Specialists in strategic management point out that organizational culture (OC) consists of a complex of interrelated factors: past and present experience, structural and socio – psychological, national and cultural characteristics as well as views, goals, needs and values of people working in the organization. And it is in the consideration of the strategic opportunities of the enterprise culture and philosophy must be taken into account. The experience of scientists shows that a deep knowledge of the essence of any economic category, phenomena, and their evaluation is advisably to carry out both on philosophical and on a business level.

The famous German philosopher G. F. Hegel argued that any cultural phenomenon is the embodiment of the spirit in its subjective, objective or absolute quality. Hegel considers culture as the realization of a world mind or world spirit. And this world spirit reveals its essence, realizes itself in the fate of entire peoples, embodied in science, technology, religion, art, social structure and public life.

In the cultural concept of education S. I. Gesen, philosopher of the early eighteenth century, human culture is treated as a «country spirit». Objectives of education that decides the basic structural problems of culture are perceived as joining the eternal through creativity. Education, defined as the dominant feature of the development of higher values, is presented as a standard and guidance for harmonization of individual and common cultural processes [8].

Ozhegov's dictionary allocates the value of culture as «the totality of human achievements in industrial, social, and mental attitude»; «a high level of something, high development ability» [9, p. 268].

N. K. Rerich – a famous painter, archaeologist, philosopher and mystic, writer, and public figure in his work [10, p. 458] notes that «culture has two roots – the first druidic, the second – East. The cult – Ur – means the Honoring of the Light». Scientific and public work for the good of the world gives the base N.K. Roerich assert that «culture is the love to man», «culture is fragrance, a combination of life and beauty», «culture is synthesis of lofty and subtle achievements», «culture is life», «culture is the engine, culture is the heart», «the synthesis of active bliss, the altar of enlightenment and constructive beauty" [10, p. 582-583]. Developing this idea, our modern researcher Tarasova M.A. notes that «...the culture gets a new weapon – a weapon of pervasive light that represents the inner essence of any entity that «creates», «cultivated».

Cleansing by the light – this is the main conclusion of the merger of concepts «education» and «culture».

Experts in the field of corporate management [11, p. 174] note that the corporate culture today stands as a value in itself and is an important management tool, without which slow down business processes and communication at all levels and interpret the «organizational (corporate) culture» as «the most important set of assumptions accepted by the members of the company and are expressed in values which are declared by the company, specifying people reference points of their behavior and actions. These value orientations are transferred to the members of the company through symbolic means of spiritual and material environment of the company».

The culture of today's successful aerospace businesses reflects, in a special «Soul» of aerospace companies, describing the nature of relations within the organization and its relationship and interaction with the environment. This is especially individualize the company and distinguishes it from other forms of enterprise. So, A. Weissman in its work [12, p. 20] emphasizes that «effective in the future will be those firms that can create long-term competitive advantage through a culture of control».

Formula examples of key characteristics of personnel policy and organizational culture in the structure of the strategic values of the aerospace companies that are leaders significantly differ in their age, size, legal forms are presented in table. 1.

J. Harington considers organizational excellence as the foundation of organizational change and key components of organizational excellence include processes, projects, changes, knowledge, resources. To assess the excellence of the organization on the basis of modern philosophy and ideology of the business, often use the European excellence model, which includes such components as result orientation, focus on consumers, leadership and consistency with the objectives, management based on processes and facts, staff development and engagement to improve, continuous learning, innovation and improvement, partnership development. In the model base lies the logic known as RADAR, which consists of four elements: Results, Approach, Application Deployment, Assessment and Review [17].

The data in table 1 reflect the mechanism of success in the aerospace business and show that competition for customers in the aerospace

market requires not only the emergence of new types of products and services, but also providing high quality products and its continuous improvement, i.e. the increase in consumer value of products. The concept of continuous improvement through a variety of innovations, when attention and discussion come from individual suggestions of staff, motivates staff, shows the importance of participation in improving activities of the enterprise.

It helps to strengthen the culture of the enterprise and solves the following problems 1) the development of personal initiative; 2) motivation; 3) involvement of employees in the firm's activity; 4) strengthen personal responsibility. For analysis of competitiveness of the space industry suggest to use the components of competitive potential (see table 2).

The analysis of the qualitative characteristics of the categories of organizational culture and

Table 1

**Elements of personnel policy and organizational culture in the structure of the strategic values of aerospace leaders**

Company name	Strategic value
Lockheed Martin	<p><b>Mission:</b> «We solve complex challenges, advance scientific discovery and deliver innovative solutions to help our customers keep people safe».</p> <p><b>Vision:</b> «Be the global leader in supporting our customers' missions, strengthening security and advancing scientific discovery».</p> <p><b>Values:</b> «Do What's Right. Respect Others. Perform With Excellence».</p> <p><b>Carees:</b> «Diversity and inclusion are the foundation of our culture, and reflect our values of doing what's right, respecting others and performing with excellence. By leveraging our employees' unique talents and experiences, we deliver innovative, affordable solutions and unparalleled customer value».</p> <p>«Growth &amp; Development Opportunities: mentoring and coaching; internal and external educational opportunities; informal and formal career-building programs; skills and abilities enhancement; opportunities for promotion and advancement; networking opportunities with company leaders» [13].</p>
Boeing	<p><b>Vision.</b> «Over the past century, generations of talented Boeing employees helped build the world's largest aerospace company - and shaped the course of history along the way. The Boeing Vision is an expression of our company's purpose and values, designed to inspire and focus all employees on a shared future and to reaffirm that, together, we can meet the challenges that lie ahead».</p> <p><b>Purpose and Mission:</b> «Connect, Protect, Explore and Inspire the World through Aerospace Innovation».</p> <p><b>Carees:</b> «We're a company filled with inquisitive, energetic and talented people". «Boeing is a company of bold innovators and dreamers. We are continually looking for ways to build it bigger, smarter, faster, stronger and better. Join us and you can speed up airplane production. Develop innovative cybersolutions. Or shape a global supply chain» [14].</p>
SpaceX	<p><b>Goals:</b> «The company was founded in 2002 to revolutionize space technology, with the ultimate goal of enabling people to live on other planets».</p> <p><b>Carees:</b> «From automotive to software gaming to electronics, Space X seeks the top talent From automotive to software gaming to electronics, Space X seeks the top talent on the planet».</p> <p>«Find Your Future. When your goal is to enable life on other planets, you need all the help you can get. SpaceX is an equal opportunity employer offering competitive salaries, comprehensive health benefits and equity opportunities through stock awards» [15].</p>
JSC « MOTOR SICH»	<p><b>Mission:</b> JSC «MOTOR SICH» is working to be the best company in the field of aircraft engine and helicopter. Based on the successful experience of the enterprise, using our higher intellectual potential, using unique advanced technology, in close cooperation with our business partners we provide Ukraine the status of aircraft state.</p> <p><b>Work with staff:</b> «The basis of personnel policy in the year 2015 became the implementation of the principle of continuity of generations, ensuring the production of skilled workers and professionals, enhancing the skill level of a personnel reserve, optimization of the structure and numerous of the employees» [16].</p>

organizational excellence has allowed the author to present their interaction and influence on the effective indicators of activity of aerospace companies using the scheme in Fig. 1.

Therefore, the organizational culture of the enterprise of space industry can significantly influence not only the positive financial and non-financial result indicators of the enterprise, but also allows you to create a competitive potential of an enterprise that is a force to meet present and future processes of the enterprise, their successful development.

**Conclusions.** High-tech market of goods and services of aerospace companies indicates a good activity of those enterprises which effectively solve the problem of the consumer. Those producers who have succeeded continue to increase their potential and follow the motto «the Joy in success». Organizational culture of modern aerospace enterprises acts as a bridge between the traditions of the system in the past and innovation system in the future. So, question formation and evaluation of competitive potential is also relevant.

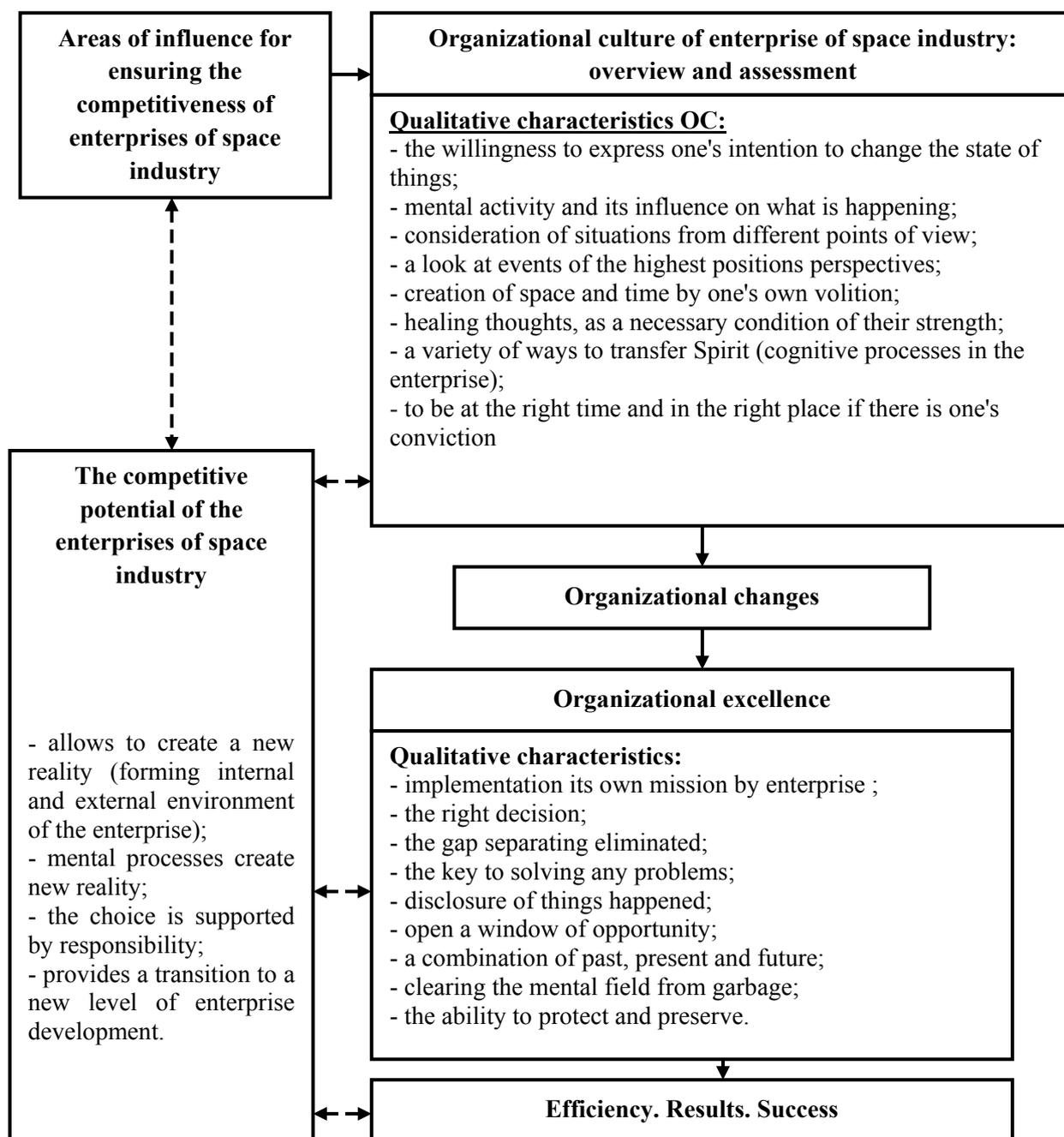


Fig. 1. Organizational culture in the structure of influence on the effective indicators of the competitive companies in the space industry

Table 2

**Assessment of the competitiveness of the enterprises of space industry based on the category of competitive potential**

Component of competitive potential	The content and objectives	Alignment with strategic intent	Coordination in time	The degree of achievement and approval, points*			Tasks are not achieved
				full	not full	partial	
Innovative and research potential							
Production and technological potential							
Personel potential							
Economic and financial potential							
Territorial potential							
Export potential							
The final rating							

\*The degree of achievement and harmonization of the individual components of the competitive potential propose to characterize these points: full – 3, part – 2, partial -1, not achieved – 0.

Organizational culture has deep roots and resistance to change. Therefore, the strong leadership of managers of enterprises, combined with the reasonable strategic intentions, a proper culture allows to synchronize various components of the activities of competitive companies in the space industry to achieve perfect success.

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