

# Intersubjective management in aerospace engineering

Mariam Arpentieva<sup>1,\*</sup>, Olga Duvalina<sup>1</sup>, and Irina Gorelova<sup>2</sup>

<sup>1</sup>Tsiolkovskiy Kaluga State University, 248023 Kaluga, Russia

<sup>2</sup>Russian Academy of National Economy and Public Administration under the President of the Russian Federation, 400131 Volgograd, Russia

**Abstract.** This article presents a nonclassical approach to create the science of management processes organization in a developing society, the focus of which is “the man of culture”, i.e. the man, not just adhering to cultural norms, but also creating new concepts and products of culture. This science is proposed to be called Evergetics. The purpose of the study is the analysis science of management processes organization in a developing aerospace engineering and other industrial areas of society. The authors describe the main aspects and procedures evergetics management in aerospace engineering. They use the comparison method, compare classical and modern approaches and technologies of management. In evergetics management model each member of society or organization is interested in augmenting his cultural heritage he is producing, which entails a raise of stability in process of engineering actions and a raise cultural potential of the society as a whole and, as a consequence, an increase in the proportion of moral and ethical managerial decisions and corresponding to them benevolent actions in organizational life. Summarize the article's main findings, authors may in some main conclusions about necessity evergetics model and intersubjective technologies in the creation and development of aerospace engineering.

## 1 Introduction

In modern science and practice of management the Central issue is to improve the management in the leading fields of development. One such area is the aerospace engineering. Aerospace engineering - the sphere of high technologies in the design and execution of aerospace engineering and in the management of these processes. Achieving sustainable, stable development in this area, therefore, is the issue of optimization of management technologies. The purpose of the study is an analysis of the prospects and difficulties of implementation of intersubjective technology in the aerospace engineering.

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\* Corresponding author: [mariam\\_rav@mail.ru](mailto:mariam_rav@mail.ru)

## 2 Materials and methods

The main method of research is theoretical analysis of the problems of government and industry (including aerospace) in the modern world. Special attention is paid to the concepts of crowd-management and evergetics, as well as intersubjective technologies, differences from monosubjective technologies.

## 3 Results

The crisis of aerospace engineering in the modern world and States as whole demonstrates that the classical and post-classical model of management obsolete. The modern model of government and communities is being developed in Evergetics. Evergetics is the modern, postnonclassical science of intersubjective management, qualitatively different from the management of bureaucratic, monosubject [1, 2, 3], which explicitly seeks globalization and mondialisation (merge countries in the universal state with a single control, the exception is «public opinion» from the Department of state) and, less explicitly, corporate (split governance within each country and throughout the world under the «power of crowds» transfer of control «public opinion»). Evergetics, in contrast to the classical and non-classical theories, guidelines that serve as corporate, suggests a number of changes.

Evergetics emphasizes cooperation. This cooperation based on the opinions of all parties concerned in a particular decision of people. The essential movable clustering of communities and systems, which traditionally controls the «monolith system» (bureaucracy), restoring relationships «horizontal», need cooperation at different levels and functions of the agencies and organizations. Evergetics form cooperation and mutual support relationship. Evergetics involves a variety of specialists and groups of specialists («stakeholders») from different agencies for the solution of specific problems of the aerospace engineering and neighboring spheres.

This concept and it's technologies stimulates the strengthening of local governance (grassroots level). It is necessary to organize the cooperation of professionals and non-professionals in aerospace engineering. It is important to organize the cooperation of the government, public and business structures as the heterogeneous actors systems. Significant efforts should be made to stimulate processes of self-development and mutual development of economic and other systems: different groups and subgroups of the specialists and non-specialists in aerospace engineering. This is a complex, heterogeneous, lowerarchy ("downstream" elements are sources of resources and power to "higher" peoples), developing system, each component which interprets itself in dialogue with others in «the kaleidoscope of situations», more or less important for them, representative government determines Executive.

## 4 Discussion

Modern technologies of aerospace engineering industry include three options: bureaucracy, hierarchy, creating monoactor / «monolithic» control systems are widely used, demonstrating the inability to solve problems related to the management of such complex systems as man, society, state. Lowerarchy creating multifactorial management system can be used to solve problems that are difficult or impossible to solve by a single actor «monolithic system».

Corporate or crowd-management supporting quasi-multi-actor system and simulates the intersubjectivity of making and implementing decisions, are used by the bureaucracy as an

attempt to «change without changing» [3, 4, 5]. The technology multi-actor / intersubjective management is radically different from the crowd-technologies (table 1).

Evergetics is not based on «artificial» order, supported Monoactor management systems, but the natural order. In traditional management, we are talking about deterministic systems: supported by artificial order, the reliance of managers on legal standards and destruction of legal norms (corruption, bureaucracy), formal hierarchy, proprietary, monologic information exchange and single-handedly solves the problem of the leader. People is a homogenous «herd» or «cattle».

The consumerism as «the ideology of the gangster» stimulates the relations of type of slavery (the involution of humanity). «Universal recipes» of the classical management consideration of situations in all cases cause the system to collapse, the reduction of energy and information. Evergetics involves the management of self-developing systems: the head does not interfere with the natural order: unstructured group with the free, outwardly chaotic, Dialogic information exchange and collective decision-making.

**Table 1.** Technology intersubjective and crowd management.

Crowd-Technology	Technology Intersubjective Management
Professionals are the members of the «smart crowd». They can participate in the isolation and resolution of problems of different levels, self-organization depending on the need and the degree of involvement and expertise in the matter under discussion. The main question – treatment discussions of crowd problems (processing of information)	Professionals and nonprofessionals as (heterogeneous) actors involved in taking the decision directly relating to their problems, the main issue is the involvement of actors in the process of discussing and implementing decisions (personal responsibility)
The decision taken by the head (quasy-multi-actor technology, simulation of multiactivity /intersubjectivity); the use of mechanisms of total public control, involvement of citizens in relationships in which they are subjects (actors) and objects	The decision implement actors (multi-actor, intersubjective technology) the involvement of citizens in the relations concerning the recognition of subjectivity and subjectivity, the ability to organize themselves
The power is fenced off from citizens with «system agents» for the processing the data of «public opinion» and other means to develop relations of control, increasingly destroying the boundaries of the individual and the organization, as well as prevent it from moral and legal imperatives of culture	The government establishes citizens of the real relations of cooperation, it is transparent, but does not require transparency from individuals and organizations, respecting their boundaries (within the marked moral and legal imperatives of culture)

People and situations are different, the mutual aid as the relationship of social service to allow humanity to evolve, there are no common recipes for all occasions, the discussion about each specific situation leads to an increase of energy and information.

The main change processes, therefore, involve:

- the growth of information and energy (the effect of polylogue), other systems optimizations;
- restoration and development of culture as a system of moral and legal standards, harmony, inclusion and responsibility, transparency and respect (social and human capitals);
- the activation of man, society, state, clustering and self-organization of society (actors and situations);
- sustainable development of human society, the state, anti-crisis effects (smoothing and removal of the crises).

Economic and other system of the aerospace engineering – changing process in which a Manager must account not only for «strong» and «weak signals», including the opinion and life of the «little» people. So instead, to achieve the ideal of «diligence» as «learned helplessness», it is important and necessary to maintain the willingness to give / sacrifice, respect people and government of the dignity of each other. Evergetics suggests that management reform and modernization of its structure includes a number of points:

- rethinking the role of the importance of human and social capital in the development of the state, society and its management in aerospace engineering and other spheres ;
- the formation and application of management technologies, taking into account the «human factor» in aerospace engineering;
- the understanding of the importance of social partnership and cooperation of the «center» and periphery, entrepreneurs and consumers, professionals and non-professionals;
- the development and application of technology cooperation /partnership, their activation in aerospace engineering;
- understanding of perspectives of relations of social service and mutual help, moral supports development;
- (trans)formation and application of technology focused on the development of the cultural capital of communities and organizations;
- de-liberalization of relations between the state, society and business in aerospace engineering and other spheres, the violation of moral norms, overcoming social anomie;
- the decision of problems of social exclusion and lack of accountability: the growth of social inequality, unemployment and precarization of professional work in aerospace engineering;
- the solution to the problems of sustainable development: crises of individual and organizational development (downshifting, professional and organizational collapse);
- the deformalization and dissimulation of state support for its citizens and businesses, to fight corruption at the local level, the periphery of the (moral and legal);
- the creation of mechanisms to support socially responsible business and to encourage the participation of individuals and groups in the management of (moral and legal);
- the introduction of alternative forms of conflict resolution/decision-making (mediation) in health care, education, policing and other fields [1, 4, 5, 6].

The basic principles of the reforms are as follows:

- 1) the ideology of the «moral fact that profitable,» ignoring the problems and opposition as the suppression of the riots are the society and the country to collapse;
- 2) the life – changing process that requires attention not only to the «strong» and «weak signals», including the opinion and life of the «little» people;
- 3) instead of «learnt helplessness», it is necessary to maintain and develop the willingness to give / sacrifice, respect people and government of the dignity of each other.

The mood on the ideals of social service:

- 1) the reconstruction problem of optimization and development of human communities and the moral foundations of their functioning, orientation to the strategic «benefits»;
- 2) the required acts of mercy and charity , as well as acts of joint activities of different organizations and people in search of moral forms of governance and of human life, the organization of the state;
- 3) restoration and development of culture (moral and legal regulator of relations of people and communities).

Modern management in aerospace engineering, however, often involves a number of completely opposite of the developmental, modernization, and phenomena:

- 1) ignoring the dissent, a lack of attention to social and human capital, giving birth to the deprofessionalization, downshifting professionals and managers in aerospace engineering, as well as the turnover rate of organizational collapse;

2) the production of disposable and/or known to be harmful to human, his mental and physical health goods and services, the crowding out of honest manufacturers and the exploitation of the baser instincts of the «crowd»;

3) the society is moving towards the ideology of consumption, increasing consumerism, more and more clearly understood neo-slavery nature of the relationship in many modern organizations, including the aerospace engineering organizations, the rejection of the innovation or failure.

## 5 Conclusions

This article presents a postnonclassical approach to create the science of management processes organization in a developing society, the focus of which is “the man of culture” [7]. The lowrarchy as the management of «bottom-up», social service and interaction based on the principles of the gift exchange complementing market, distribution relationships are hard to «restore» its position in the society, and it is organizations [5]. Modern manager in aerospace engineering develops an understanding that the economy in General and manufacturing in particular is not reduced to «business», innovation and change of technological structures puts the center of production and other forms of relationships of the people themselves, social and human capital. It is important to understand that anti-crisis measures – developmental activities: therefore, the restoration of culture, including the moral foundations of the relationship – the main condition of success. Summing up, we note that the results of research in the field of intersubjective management technologies can and should be used in the optimization of socio-political and economic relations in aerospace engineering, in the transition from repressive management to the co-creative artistic and parity relationships [6].

## References

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