

AMERICA-RUSSIA COOPERATION IN PROJECTS AND IN PROJECT MANAGEMENT: TO BE OR NOT TO BE?

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INTRODUCTION

As far as 2-3 years ago the question set in the headline of this paper would have been senseless. The environments where peoples of America and Russia worked and lived, as well as management concepts and methods, seemed to be so enormously different. However, those remarkable changes that have now occurred in the world, have put this question into the "agenda".

We shall not give a definite answer on this question, for it depends not only on specialists but many other factors. We will just make an attempt to show necessary background of the problem and to outline some ways of possible cooperation.

For these purposes we survey Project Management (PM) experiences in the former Soviet Union, present some directions and results of theoretical work, analyze the specific Russian environment and describe trends of their development. We describe investment projects and the investment market in Russia (and in other CIS countries) which is in a "start-up phase" today, and review some problems of the engagement of foreign investors. We connect these problems with problems of PM promotion and development. We shall show that the new environment of economic reforms in Russia could provide PM methods with a huge field of implementation opportunities.

We will demonstrate that America-Russia PM cooperation could serve as a bridge for joint projects, and foster contacts between our countries. As a conclusion we shall suggest specific points for such cooperation.

For the last 30 years in the Western countries, especially in the USA, a "Project Management World" was built up. This is the World of national and international professional associations; the World of congresses, seminars and conferences; the World of books and journals; the World of experts, specialized companies and departments; the World of software and other PM tools; the World where the PM methods were transformed into standards and became a routine of management.

The appearance of PM concepts and methods in the West initiated their spread in the former USSR in

the beginning of the sixties. However for many reasons the processes of PM development in the USSR and in the West took separate courses. In the Soviet Union these methods turned out to be "unemployed" - the existing social-economic system simply did not need them. PM in the USSR was not apprehended as a separate field of professional activity.

Some theoretical achievements and rare (for such a big country) successes in practice or implementation could be explained only by the enthusiastic efforts of specialists and managers.

The situation was like that until recent time. Now, when great changes have been started in the former USSR, the demand for PM will rise to a much higher level. In our opinion it will be impossible to successfully carry out many contemplated projects without PM, and especially the largest project - "Reforms of Russia's economy and social life".

The assimilation and promotion of other countries experiences, and integration into the world's economy are very important for Russia. The role of PM in this process is hard to overestimate. That is why the study of American PM knowledge and experiences and their transfer into Russia are essential for our country.

But there is another side of the coin: America-Russia cooperation could be of some use to American specialists. We see two reasons:

- to implement projects in Russia and with Russians, American managers should know the peculiarities of today's Russian environment, principles and traditions of management
- some elements of our PM methods and experiences (unknown in the West today) could become useful for American experts.

These circumstances motivated us to write this paper and encouraged us to present it to the PMI conference.

PM DEVELOPMENT IN THE FORMER USSR

Until recently in our country the term "Project" generally meant design or engineering documentation only, and the term "Project Management" was not applied at all. However a lot of projects were carried

Today we have to establish a fact: the old system has been destroyed but a new one has not yet been created. This fact is perhaps the main peculiarity of today's Russian environment. Some new factors are now added to the mentioned negative ones (that were referred as the "weight of the past"). The main new negative factors which hamper implementation of long-term investment projects are:

- Lack of economic stability
- Lack of political stability
- Lack of developed system of laws and rules which are to regulate relations of property, especially related to land and deposits
- Lack of fair guarantees and privileges for investors, especially for foreign participants.

Needless to say in such an environment the risks for investment projects seem rather high.

Environment of the Reforms in Russia. Positive factors

However some positive trends are now present. Things have changed considerably during a short period of economical transformations.

It has taken only 2-3 years for an alternative economy to appear. The alternative economy is represented by independent companies and firms with property of different kinds, including private and joint ventures, joint stock companies. In 1991 many of these enterprises went through the primary accumulation of capital, and are now ready to invest considerable amounts. The role of new alternative structures in Russia grows rapidly in spite of the fact that most property in Russia is still in the hands of the State.

Economical motivations started to play a decisive role for human behavior and for both private and state enterprises. Economical activity of individuals grows considerably.

Price liberation and privatization undermined the monopoly of producers and contractors. And although in many fields monopolists are still in control, the process of the demonopolization has started.

Some market mechanisms and structures, though far from perfect, have been instituted. A lot of "exchanges" of various kinds have been established (it looks curious but now there are more exchanges in Russia than in the rest of the world). The monopoly of the State Bank has been destroyed and a network of commercial banks has been established (some of these banks possess considerable capital and can even be trusted). Investment and insurance

companies of Western kind appear, as well as a great number of company sales representatives and advertising agencies.

The most essential result of recent transformations was the abolishment of the State monopoly on foreign economic activity and trade. The destruction of this economic barrier started the integration of our country into the world economy. In particular it stimulated inside prices to come closer to world prices.

We would not like to overlook one more positive factor: increasing interest in PM in Russia. As a result the Soviet Project Management Association (SOVNET) was founded in 1991. SOVNET established contacts with INTERNET and with many national PM organizations. We organized the Moscow Symposium "Project Management in the USSR" with about 50 foreign and 200 Soviet participants and started practical activities to transfer Western PM experiences into Russia and other CIS countries (including several joint projects). Now we can say that the period of isolation of Russian PM from the "PM World" is over.

If one looks on these positive trends, taking into account the huge potential of Russia's market, enormous richness in natural resources, as well as a rather highly educated and professionally trained population, one has reason to be optimistic about future investments in Russia.

Main features of Russia's environment are summarized in Fig. 4.

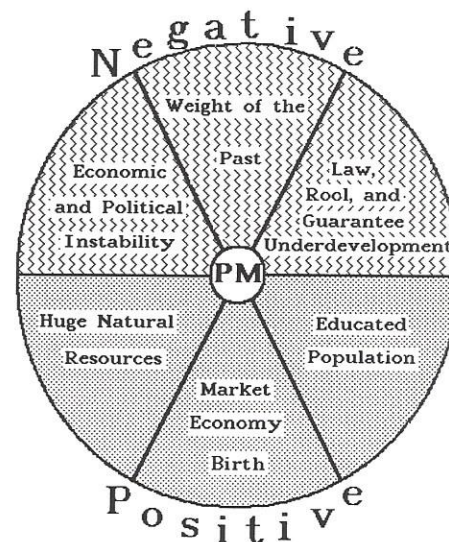


Fig. 4. Russia's environment for PM today

START-UP OF THE MARKET OF INVESTMENT PROJECTS IN RUSSIA

Until only 2-3 years ago the State itself was the main investor in Russia (the so called centralized investments). The State, based on local proposals and demands, assigned finances and material resources (often with the lack of balance between them), and then supervised expenditures (usually not very rigidly). Now the situation is radically changed.

First, enterprises should now finance their projects mainly by themselves or borrow money from commercial banks (possibly at rather high rates).

Second, the high level of inflation (for example construction prices are now 10 times higher than in 1991) have decreased the value of funds accumulated by enterprises. And though some companies still have good investment abilities, the country itself cannot maintain the former level of investments, not mentioning the level required for considerable improvement of the standard of life and technical progress.

Thus a very specific market has appeared in Russia - the market of investment projects.

Commodities, sellers and buyers

Commodities on this market are various projects which are in various phases of their life cycle.

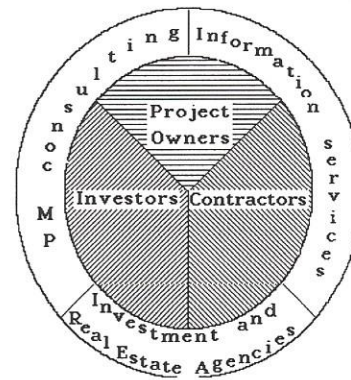
Sellers on this market are "owners" of projects. By "owners" we mean companies as well as municipal and State organizations that have an idea, concept, design documentation, uncompleted or under reconstruction building, lot of land, raw materials and stuff for future manufacture, or so on, but that have not enough money.

Buyers on this market are potential investors.

Russian Sellers today usually have no intention to desert their "commodity". They prefer to invest what they have as a share in a joint venture (with the Buyer) project. That is why numerous joint ventures and joint-stock companies are appearing now.

We cannot present here detailed analysis of this investment market, nor can we classify this market by regions or branches of industry. In Fig.5 there are just a few fields where thousands of small, medium, and large projects are already on the market or will be brought to the market in the near future.

Let us consider the last field in more details for it reflects many peculiarities of today situation.



Main fields:	
*	Conversion of Military Industry
*	Restoration of Private Farms
*	Logistic Systems
*	Infrastructure
*	Uncompleted Construction

Fig. 5. Market of investment projects in Russia

Sale of uncompleted construction projects in Russia

As mentioned above a chronic misbalance between plans and real abilities took place in the former USSR for a long time. Every year more construction projects were started than were possible to complete. As a result the value of uncompleted construction grew and grew. Now thousands and thousands of uncompleted projects which are in various stages of the project life cycle exist in all branches of industry, in agriculture, and in the social sphere. The value of uncompleted construction projects is approximately 200 bln. rubles by former state prices and at least 10 times more by today's free market prices.

In correspondence with the general policy of privatization of state property in Russia the wide-scale sale of uncompleted projects is expected very soon. This sale might be a unique phenomenon in world economic practice for the following reasons:

- scale of the sale
- the peculiarities of these projects as a subject of sale.

It is start-up only

Thus, just to complete the uncompleted construction projects our country needs more investment than our national gross income. As for the total amount of investments, it should be at least several times larger. Russia does not possess any additional internal sources of investments. So it is vitally important to involve external sources, which means to engage foreign investors.

This obvious conclusion leads to less obvious consequences which we discuss in the next section. However we must clarify that this Russian market of investment projects is now only in its start-up phase, that is:

- few projects are "for sale" yet (the main reason is unsolved property problems)
- few buyers, including foreign investors, act in this market yet (the main reasons were listed above as "new negative factors")
- infrastructure of this market is just forming
- mechanisms of pricing are not worked out yet.

However we are convinced that economic reforms and technological progress in Russia are hardly possible without the market of investment projects.

ENGAGEMENT OF FOREIGN INVESTORS AND PROJECT MANAGEMENT

Now after dealing with the general situation we can return to the PM problems. Though these problems alone are important to Russia, we think that their priority is connected today mainly with the necessity for engagement of foreign partners.

The role of PM methodology for modern Russia

First, one can not engage a serious partner in a project without working out a conceptual plan at least, and without presenting project proposals in accordance with usual requirements elsewhere in the world. Unfortunately, the way of project presentation in our country has been far from the international standards. That is often a reason for failure in attracting investors.

Second, PM is acknowledged to be a methodology of project implementation. It is hardly possible to imagine a really effective cooperation of Russian and foreign participants without their understanding each other. The language of PM could be and should be the language for mutual understanding.

Third, a lot of problems met by Russian project participants either have been solved already in other countries or can be solved by means of PM methods.

For example, to organize the sale of uncompleted construction projects in regulated way with maximal benefit for Russia, and to involve the foreign investors, it is necessary to answer such questions as the following:

- How to check and estimate the technical state of the uncompleted project?
- How to define the objects and ways of completion of the project?

- How to calculate the start price of the uncompleted project taking into account the world price level, plot of land, infrastructure, local environment and so on?

- How to arrange tenders or auctions?
- Which guarantees and privileges have to be for investors?

Fourth, creation and transformation of structures that are to act in the Russian market of investment projects as well as the development of information environment of this market will also bring PM methodology into demand.

In order to use PM for these purposes we need first of all to transfer Western PM knowledge and experiences into Russia and to promote them all over the country.

Directions of PM development

However we hardly believe that we could use Western knowledge in Russia directly as a finished product. It is necessary:

- to adapt the methods and tools of PM to the specific Russian environment
- to develop PM methods and tools taking into account the scale and the novelty of Russian projects.

Among the directions of PM development we would like to outline the following ones.

Methods and tools for projects related to the economic reforms and/or social sphere are so far of an empirical kind and fail to contribute noticeable results to practice. The investigation of approaches to management of such projects and the development of corresponding tools for each project phase should be now up to date.

Methods and tools for national programs are also underdeveloped and rarely used in practice. It would be useful to adopt the experiences accumulated for the management of large-scale projects elsewhere to the management of Russia's national programs. Besides a lot of work should be done in elaboration of PM tools for Russia's international programs, which are implemented in different environments.

Methods and tools for the concept phase are less developed than for other project phases, although the concept phase is of most importance to the project success. The improvement and practical implementation of these methods are required.

Methods and tools for the close-out phase, especially methods of evaluation of project results reached only a certain level. It is necessary to develop better methods of selection of actual data on

out and many organizations and specialists were engaged in managing projects (see [1,2] for more details).

The main stages of the PM development are shown in Fig. 1.

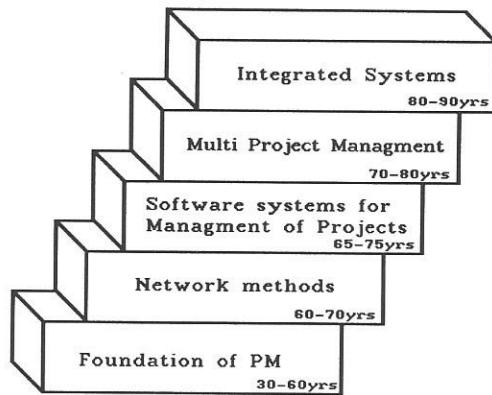


Fig. 1. Main stages of PM development in the USSR

Foundation of PM

PM in the Soviet Union was deeply rooted in the Industrialization of the thirties. The growth of the construction industry and expansion of serial production called for the development of new methods, particularly scheduling methods based on Gant Diagrams and Cyclograms [3-5]. This period which lasted until the early sixties provided a foundation for PM methods in the USSR.

Network methods

The development of modern PM methods started in the USSR after the first Network methods had been appeared in 1959 (Critical Path Method, PERT-method). The papers [6, 7] that were published in the early sixties were the first publications on network methods in USSR. A book by Zuchovitsky & Rudchik book [8] appeared then, and it has remained one of the best on the subject to this day.

Network models more general and powerful than the CPM-type or of the MPM-type have also been designed in Russia. These models, called Generalized Network Models, to our mind, are especially useful for investment projects [9, 10].

Stochastic Models which take into account stochastic nature of various elements of projects (for example activity durations, links, resources) have been developed [11-13].

By the early seventies the use of network-based PM methods had become widespread. More than 2500 papers had been published and many students

had studied these methods. Specialized departments or groups were created in many organizations. Rather wide practice applications of network methods had been started.

Software systems for Management of Projects

The first software systems for management of projects appeared in the USSR in the beginning of the seventies and they were highly advanced for their time. They included time and cost analysis and resource allocation and were based on interesting (maybe even today) ideas and algorithms.

In particular, a number of original heuristic algorithms for resource allocation were developed which facilitate a sophisticated logical analysis of situations, the capability of self-training and advanced "User-Computer" interfaces [15-19].

Multi Project Management

It was characteristic of the Soviet Union that the goals of an organization/company typically took precedence over the goals of projects. This was the reason why in the middle of seventies the PM development moved from management of separated projects towards management of an organization/company which carried out many projects simultaneously.

In this period multi project software systems emerged [14, 15, 20-22].

Integrated Systems

In the eighties computerization in the investment sphere made great progress. CAD systems were developed. Computers were used for making estimates, for calculations of required quantities of materials, for registration of work and resources, for book-keeping and salary calculation, and for many other purposes.

It became clear that many project participants worked in common information environments and information flows and computer applications were closely connected. These stimulated the current stage of PM development - the stage of Integrated Systems.

New types of PM models, Simulation Models were needed in this stage. By means of these models one can work with those project aspects where the traditional models fail [23, 24].

The growth in the development of CAD-PM interfaces was a typical feature of the Integrated Systems stage [14, 15, 20, 25].

The directions of research in the field of PM methods which were the most popular in the USSR are summarized in Fig. 2.

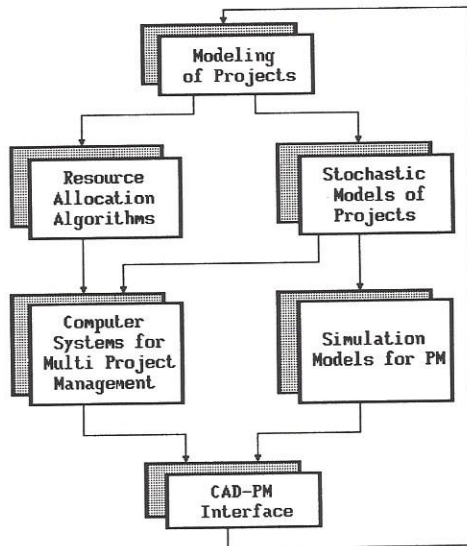


Fig. 2. Theoretical research in the USSR

We would like also to emphasize the recent works [26-30], which also uncover new prospects in PM methods.

FEATURES OF RUSSIA'S ENVIRONMENT TODAY

From the preceding it can be seen that much Project Management progress had been made in the former USSR. However for a country of the size of Russia PM methods were not spread widely enough, had little overall effect, and had little influence on management culture, or on economic development.

"Weight of the past". Negative factors in PM sphere of the USSR

To explain this situation one must take into account the specific features of the Soviet environment and of surroundings of each project that determined and hampered PM development in our country. We discussed some of these features in more details in [1,2]. Here we would like to only mention those which have influence (with various extensions) today and which will influence our country for a long time to come:

- A dominance of state property; centralized management of the economy, as if the whole country had been one huge company
- A superiority of political goals over the economic ones

- A priority of administrative compulsion over economic motivations
- A monopoly of producers/contractors; a priority of a contractor or a seller over a customer or buyer, which particularly stimulates maintaining high level costs and does not stimulate a completion of projects or orders on time or with minimum expenses
- A dominance of solid bureaucratic structures; underdevelopment of flexible project-oriented structures
- A misbalance between plans and real abilities which leads to unbelievably long project life cycles.
- Weakly developed market infrastructure (banks, exchanges, insurance companies, agencies, consulting firms, etc).
- Underdevelopment of information infrastructure, with inadequate provision for computers and communication networks.

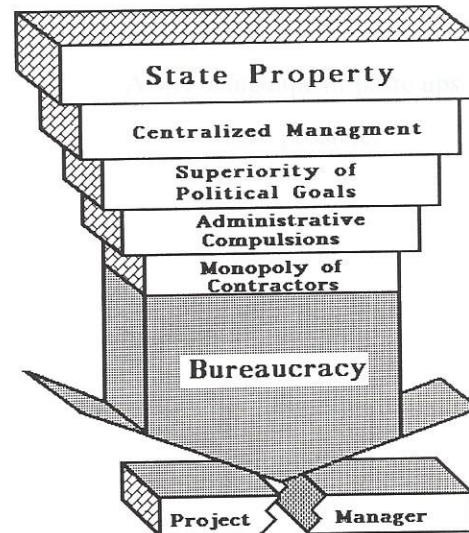


Fig. 3. Weight of the past

The most significant factor was the isolation of the Soviet economy from international experiences and world achievements.

Environment of the Reforms in Russia. New negative factors

However ineffective the economic system established in the former USSR was, it had at least one advantage: it worked. Thousands and thousands of projects (in particular, large construction projects, military and space projects) were implemented, although their completion required far too much effort and took far too long.

the project progress in order to better analyze the effectiveness of PM decisions. The summarized data could be accumulated in a special bank of knowledge to help in systematization of PM experiences and to be used on future projects.

These directions are discussed in more details in [31]. Here we would like to notice only that these methods being developed will be of some use not only for Russia but also for other countries.

AMERICA-RUSSIA COOPERATION. WHAT COULD BE DONE

The USA and Russia have a lot of common: border, nearly the same climate areas, comparable territories and population, natural resources, scales of economies, etc. Our countries have a long history of relationships and manifold cooperation. The recent events brought us hopes that much deeper and closer contacts are possible. We have tried to show above that cooperation in Projects and in Project Management could be an important part of such contacts.

The most essential areas for such a cooperation might be:

- PM education and training of professional project managers for Russia
- Adaptation of PM methodology to the Russian environment
- Co-development of modern PM methods and tools
- Joint PM within joint venture projects
- Creation of the market for PM services in Russia

In order to start-up the cooperation in these areas PMI and SOVNET could:

- Organize joint conferences and seminars in USA and in Russia
- Arrange training courses for Russian specialists, especially for "training of trainers"
- Prepare and publish English - Russian and Russian- English PM terminology (based on first version which was published by SOVNET)
- Prepare and publish PM handbook for Russia based on PMI Project Management Body of Knowledge (PMBOK) and experiences of Russian Specialists
- Develop a joint research program
- Promote, prepare and implement USA-Russia joint venture projects
- Establish a network of project-oriented and PM consulting companies in Russia, including joint venture ones.

These or other joint activities could be regulated by a General PMI-SOVNET Agreement that might be discussed and prepared.

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