

## **THE THIRD WAVE – A NEW MANAGEMENT PARADIGM FOR PROJECT AND PROGRAM MANAGEMENT**

### *HOW MODERN PROJECT MANAGEMENT CAN TRANSFORM YOUR BUSINESS, ORGANIZATION & PEOPLE*

VLADIMIR MIKHEEV (PROJECT MANAGERS CLUB, MOSCOW, RUSSIA)

DAVID L. PELLIS (iWORLD PROJECTS & SYSTEMS, INC., DALLAS, TEXAS, USA)

#### **1. INTRODUCTION**

Modern project management is a powerful transformational management technology that has now been undeniably shown to help individuals and organizations successfully plan and accomplish many difficult programs and projects around the world. The Third Wave of professional Project and Program Management (P&PM) is a new Management Paradigm which, on the one hand, reflects the needs of a modern advanced economy, and on the other – meets the requirements for professional ethics and universal values of the authors.

Following the widespread advance and usage of modern P&PM across all industries and geographic regions, it is time for organizations to realize the maximum potential of this powerful technology. A view of this new paradigm can allow executives to understand how modern project management can provide a strategic resource through which almost anything can be accomplished. The authors call this new paradigm "**The Third Wave of professional Project and Program Management**".

The Third Wave of Modern professional P&PM is examined in the context of organizations, the importance and selection of projects, the strategic importance of P&PM expertise and ethical behavior, and the potential for organizations to be more successful with great positive impact on the world. In order to appreciate that potential, however, some basic knowledge and understanding of the history, trends and current status of modern P&PM is necessary.

#### **2. THE WORLD OF MODERN PROJECT AND PROGRAM MANAGEMENT**

Project management (PM) has grown, matured and spread around the world to now include a robust set of theories, principles, methodologies, practices, activities, people and organizations. Modern PM now includes PM research and theory development, PM education and training; project, programs and PM experience and practice in industry and society; PM professional standards, qualifications and activities; PM publications and information; and commercial PM products, software tools, and services. The PM profession itself has grown to include local, regional, national and global professional organizations such as the Project Management Institute (PMI), the International Project Management Association (IPMA), Association for Project Management (APM, UK), Australian Institute for Project Management (AIPM, Australia), Russian Project Management Association SOVNET, etc.

Most importantly, the world of modern PM includes a broad set of PM applications, experiences and best practices, embodied in the management of projects, programs, organizations and industries. Figure 1 displays a framework for discussing this World of PM, as we call it.

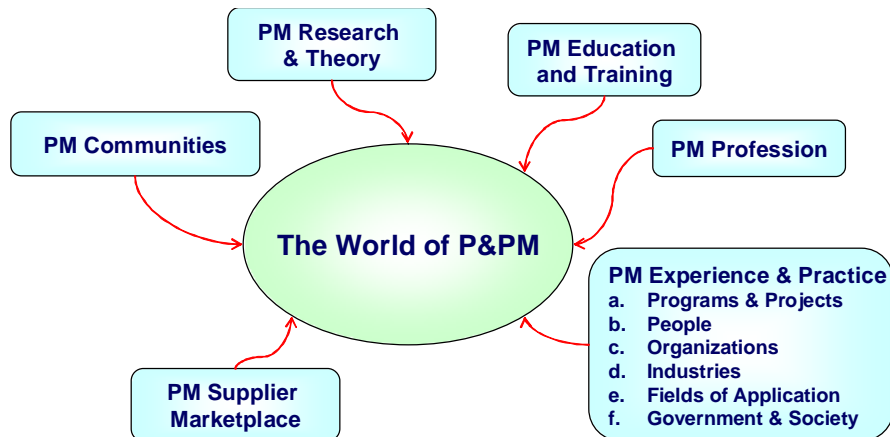


Figure 1. Framework for modern World of P&PM

## **The Third Wave of Modern Project Management** **Vladimir Mikheev – David L. Pells**

### **PM Research & Theory**

Today there are individuals and organizations engaged in research related to project management practices, methodologies and technology. Some research is sponsored by academic institutions, professional associations, large industrial organizations or commercial enterprises. PMI now sponsors research conferences each year. Most research today, however, is undertaken by individuals in support of academic projects, publication or personal objectives. In summary, new developments related to project management continue to emerge from this set of activities. It is a healthy and necessary aspect of any profession.

### **PM Education**

In addition, there are now a growing number of universities and schools around the world that offer PM educational programs, ranging from individual courses to full bachelors, masters and doctoral degree programs. In the United States, dozens of colleges and universities are offering PM classes and programs, including local universities, national top-tier institutions, and on-line schools. Some universities such as George Washington University, University of Management & Technology (UMT), University of Technology – Sydney, Western Carolina University, University of Manchester Institute of Science & Technology (UMIST), University of Vienna, and many others worldwide offer robust graduate programs, both on campus and on-line. PM courses and programs are offered at universities in Kiev, Moscow, St. Petersburg and other major cities in Russia, Ukraine and Eastern European countries.

### **PM Experience & Practice**

The world of PM experience is the real world of actual projects, programs and portfolios of projects; project and program managers, project teams and project stakeholders; organizations implementing PM; project-oriented industries; fields of PM application; and PM in government and social programs. Management by projects and enterprise PM are widespread, with many examples of programs and projects throughout most industries around the world. Each project, of course, generally has a project manager, as do most programs. Today there are millions of project managers and thousands of program and portfolio managers around the world. Thousands of organizations are managing programs and projects, and in most industries. The rapid rise of PM in information technologies, telecoms, software product development and other technology-related industries has been astounding in recent years. There are many examples now of organizations evaluating their PM maturity. The world of PM experience represents the users of PM, the people, projects, organizations and industries that need and apply modern PM, purchase PM products and services, and benefit most from the other elements of the World of PM (research, education, profession, market, communities).

### **PM Profession**

The PM profession has also grown and matured in the last two decades. During the globalization of economies over the last 15 years, PM has become one of the most popular means for individuals and organizations to become more efficient, productive and competitive. As a result, PM professional associations have seen their memberships skyrocket at annual growth rates exceeding 30% per year. Now the PM profession includes PMI, which has over 150,000 members worldwide and chapters in 40+ countries, IPMA with 38 member national PM associations from the countries of Europe, Asia, America and Africa (including the Russian Association of management of projects (SOVNET) and the Ukrainian PM association (UPMA)), the Australian Institute for PM, the Japan PM Forum and PM associations or PMI chapters in over 50 nations. The PM profession itself now includes professional standards, PM qualifications and certifications, various PM concepts and models, various PM applications and methods, various professional activities and events (congresses, conferences, seminars, symposiums), PM research and knowledge development, publications (books, newsletters, magazines), and on-line products, services and information. Although the question remains as to whether PM can be defined as a profession, per se, there is now a very robust set of organizations, standards, qualifications and activities that support professional PM. Most importantly, there is now a growing set of ethics for personal PM behavior, which is needed for any profession. PM ethics is important to the Third Wave concept, since complete honesty and ethical behavior is required to maximize the potential benefits of modern PM.

## **PM Supplier Marketplace**

The fifth element of the World of PM is what we call the PM Supplier Marketplace. These are commercial products and services related to PM that are offered for sale by individuals and organizations. Figure 2 displays a list of general categories of PM products and services currently available. The PM supplier marketplace can also be described as an industry and represents annual revenues of close to \$10 billion. These include products and services that are used by individuals and organizations for the planning and management of projects, programs and portfolios of projects, including training and consulting services. While a majority of the individuals and organizations that offer these products and services are small companies, several industries are characterized by large industrial companies or divisions of large companies that also offer PM services.

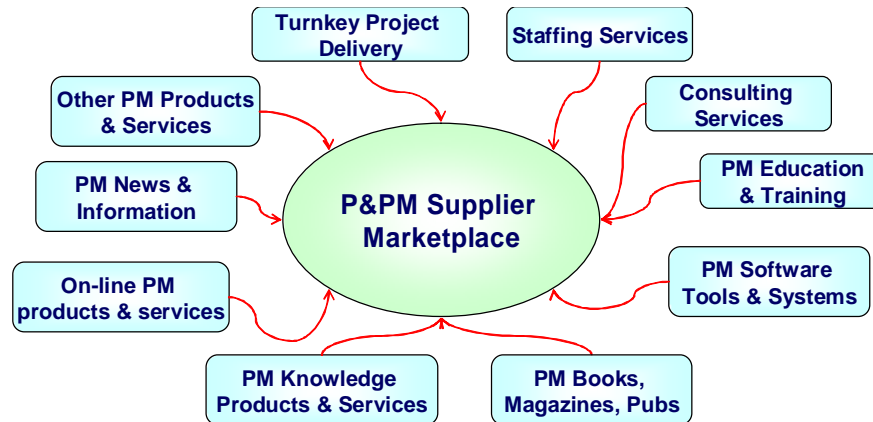


Figure 2. General categories of P&PM products and services currently available.

For example, in the aerospace and defense industry, many large organizations provide significant PM services to governmental customers on contracts worth hundreds of millions of dollars. In the construction industry, turnkey design/build contracts are awarded which are essentially contracts to deliver completed projects. These approaches are entering other industries, where organizations can benefit from outsourcing entire programs and projects to experienced companies with the necessary PM expertise.

## **PM Communities**

PM communities represent the most personal aspect of the World of PM and include the following:

- q Professional communities of interest, for example, PMI chapters and specific interest groups;
- q International alliances among PM professionals;
- q PM communities within global organizations (i.e. Lockheed's PM council)
- q PM products communities of interest (Artemis users group, Primavera Users Group, Microsoft Project Users Group, Open Plan Users Group, Trakker Users Group, etc.)
- q Personal networks;
- q Web-based communities of interest, web logs (blogs), forums and web-hosted groups;
- q Other virtual communities

PM communities are now global and cross all applications, industries and geographic regions of the world. These personal networks are sources of experience, knowledge, education, career opportunities, news and real business. These networks are also a concrete and major element of the broader World of PM and represent major resources for organizations that need more or better PM.

### **3. MODERN PROJECT MANAGEMENT – SOME MAJOR ELEMENTS**

Modern PM might be described as the way programs and projects are managed in the world today. In order to maximize the potential of PM, knowledge of the following major elements is necessary (Figure 3).

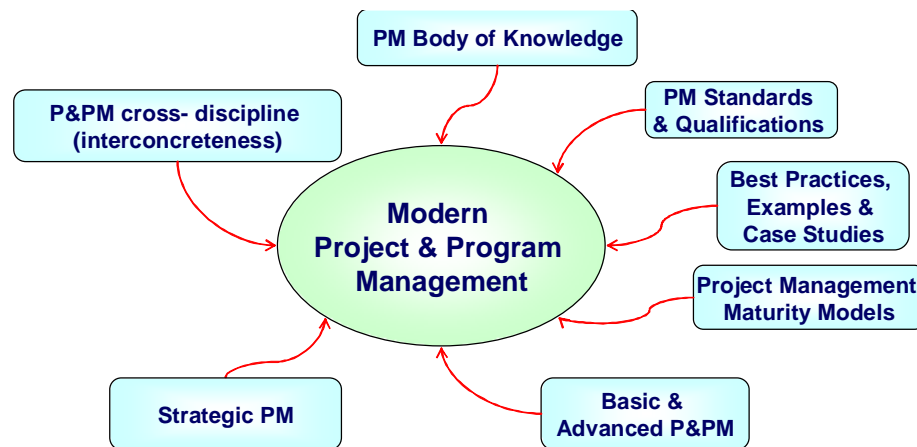


Fig. 3. Some Major Elements Modern P&PM

#### **PM Body of Knowledge**

In general, the PM Body of Knowledge (PMBoK) is the set of PM concepts, methods, techniques, theories, principles and terminology that has been developed over the last 40 years and now refined into a framework for implementing modern PM. PMI's Guide to the PMBOK, third edition published in 2004 [1], presents a thorough discussion of various aspects of program and project management, organized into the following nine PM knowledge areas: integration, scope, time, cost, quality, human resources, communications, risk and procurement. PMI's GPMBOK has been established as a national standard in the USA and is widely known throughout the world. A PMBoK has also been developed and published in the UK by the Association for Project Management (APM) [2], and a Guidebook of Project and Program Management for Enterprise Innovation – P2M has been published by the Engineering Advancement Association of Japan (ENAA) [3]. Variations on these PMBoKs have also been developed in Australia and South Africa as bases for national PM standards. PM BoK on P&PM is included in ICB IPMA [4] and is a basis for the PM BoK used in at least 38 countries of the world included in IPMA. Now within the framework of an international working group under aegis of IPMA, large-scale work on development of Global Performance Based Competency Standards for Project Personnel [5,6] and where some development of a PM BoK for Project Managers is also being conducted. A grasp of one or more PMBoKs is needed to understand the broad potential of modern PM.

#### **PM Standards & Qualifications**

“Definition of a body of knowledge and development of guides and standards for practice as a basis for education, training and certification or qualification programs are activities generally associated with the formation of a profession.” [5]. The world of PM now includes a family of project management standards. PMI's Guide to the PMBOK has been established as a national standard in the United States by the American National Standards Institute (ANSI) and is widely recognized as a “de facto” standard in many parts of the world, especially among IT and telecoms companies. PMI now has an active standards development program and has issued standards for Work Breakdown Structures [7], Earned Value Management and Project Management Maturity (OPM3) [8]. Also within the USA, national standards for earned value based performance management (PPMMSA), quality and risk management have been established. National standards for PM have also been established in Australia, Germany, Japan, South Africa and the UK and several other countries. The PRINCE (PProjects IN a Controlled Environment) standard was originally developed as a UK government standard for IT project management; PRINCE 2 [9] has now emerged as commercial PM standard with a growing international following and recognition.

## **The Third Wave of Modern Project Management**

### **Vladimir Mikheev – David L. Pells**

For the last six years, there has also been a global effort underway to establish a set of global standards for PM, with that effort coordinated by the Global PM Standards Working Group (now called the Global Performance Based Standards for Project Management Personnel) which meets several times each year in various locations, involves representatives of the world's leading PM professional associations, and includes the participation of major global industrial and governmental organizations, including NASA from the USA. That group last met in St. Petersburg, Russia, during May 2005. (see [www.pmforum.org/prof/standard.htm](http://www.pmforum.org/prof/standard.htm)) There are undoubtedly standards not mentioned here, but the point is that there are now various standards for PM around the world that individuals and organizations should know about.

In addition, a family of PM certifications now also exists in the World of P&PM. The most widely known and most successful is PMI's project management professional (PMP) certification, of which more than 100,000 have been awarded since the program began in the 1980s. IPMA has a strong four-level project manager certification program that has been embraced by all IPMA member associations (38 countries), including the American Society for the Advancement of PM (asapm). Those countries with national PM standards also have national certification programs, including Australia, Japan & South Africa. Information about these certification programs is widely available from those organizations and via the web.

### **Best Practices, Examples & Case Studies**

As modern PM has matured and spread throughout the world, and across various industries, a growing set of experiences, examples, case studies and best practices has emerged. Some of these case studies have been documented by PMI and other PM associations, and by individuals, and are presented at conferences and published in proceedings, books and training materials. A good set of case studies and best practices are presented by Harold Kerzner in his latest book, *Advanced Project Management: Best Practices on Implementation* [10]. Another example is the 1998 *Casebook* by David Cleland et. al. [11]. Many other examples, case studies and best practices are available now throughout the world, offering a rich set of resources for individuals and organizations.

### **Project Management Maturity Models**

Following the success of the Capability Maturity Model that was developed by the Software Engineering Institute in the USA as a measure of software development capabilities, a number of project management maturity models have emerged in recent years for both individuals and organizations [12, 13]. There are now several commercial PM maturity models available, as well as the Organizational Project Management Maturity Model (OPM3) [8] issued in 2004 by PMI. While individual models have generated both controversy and debate, they now represent an important opportunity for organizations to benchmark PM maturity against both professional standards as well as other organizations in specific industries. Several surveys of PM maturity are conducted on an annual basis, such as that published by Price Waterhouse Coopers in 2004 [14].

### **Basic & Advanced PM**

Basic project management includes the understanding of the quantitative and behavioral tools of PM, those methods, principles and tools that have been developed over the last 35 years around the World of PM. Many of those methods and tools were considered "strategic" 30 years ago, but are now quite basic to any fundamental PM approach or implementation. These methods and tools have been promoted and adopted widely with mixed results, and receive a majority of the emphasis by those new to PM, both individuals and organizations. In the last five years, attention has shifted to excellence during implementation among more mature PM organizations and environments. Kerzner describes the new emphasis as "advanced" PM [10].

### **Strategic PM**

Strategic PM [15] is widely understood to include the implementation of modern PM in organizations who are relatively mature, in mature PM-oriented industries, or at the top level of organizations where Portfolio Program and Project Management is implemented. It includes such trends and programs as Enterprise PM (EPM), Project Management Offices (PMO), portfolio project management (PPM), project management maturity, benchmarking and the new organizational approach, the Chief Projects Officer (CPO). Strategic PM is often associated with the linkage of PM with strategic planning, organizational change, PM as competitive strategy, and other issues associated with the future of the firm. Strategic PM is now a hot topic in the World of PM.

**Cross- discipline P&PM**

P&PM has now crossed so many areas of knowledge, and is now used in so many different areas of human activity, that tools and techniques currently available are now insufficient. There is a growing need for new tools for achieving many modern projects and programs. These conditions are leading to consideration of theories, methodologies, tools and approaches used in adjacent professional fields. For example, methods, technologies and techniques from anthropology, biology, philosophy, psychology and other fields are being incorporated into PM applications and methodologies.

This inter-disciplinary approach is increasing for modern professionals. It also demands a greater breadth of knowledge, erudition and orientation in other professional areas. When P&PM models are restricted to single "narrow" or familiar models of only one type (for example, only PMI approach or only the Japanese approach) experts will be less competitive in the global market. Such inter-disciplined thinking is fundamental to the Third Wave of modern professional P&PM.

**4. TRENDS IN MODERN PROJECT MANAGEMENT**

**Industry Trends**

In general, we believe there is now widespread awareness and usage of "basic" PM in most industries, and increasing usage of advanced and strategic PM in some cases. Some organizations and industries are now approaching PM "maturity". For example, the aerospace, defense and construction industries should be considered mature, although there is still room for higher quality, better performance, new technologies and process improvements. PM is maturing in energy, oil & gas, petrochemicals, pharmaceuticals, automotive and various heavy industries. Basic PM is maturing rapidly in IT, telecoms, manufacturing, software and product development organizations, although in many cases only newly introduced in many organizations during the last ten years or so.

**Geographic Trends**

Due to the globalization of economies and trade during the last 20 years, most industries have a consistent level of PM maturity worldwide. In general, however, PM maturity parallels economic development. Therefore, PM is generally more mature in Australia/New Zealand, Japan, Korea, North America, South Africa and Western Europe. The PM profession and the usage of modern PM is growing and maturing rapidly in Brazil, China, Eastern Europe, India, Russia, Ukraine and in the Middle East. Modern PM is recently introduced in much of Africa and Latin America, where there are pockets of established practices associated with World Bank programs or industries dominated by global organizations where technology transfer is common.

Each country experiences this general maturing process, which we believe follows general laws and trends as shown in Figure 4. At each level of "maturity" a "critical" weight can be achieved, often simply based on quantity of PM-related activity. As the quantity of saved up PM knowledge, experience, people and organizations increase, "suddenly" a new quality occurs. This law of transition (quantity leads to quality) is ultimately the basis for most models of PM maturity around the world. These are general statements that we believe generally reflect the status of modern PM and the PM profession.

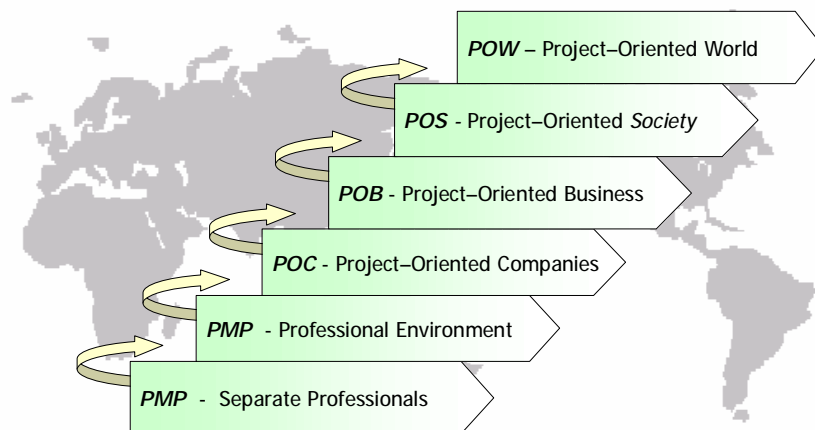


Fig.4. Common Trend in process of the "mature" Professional Community

**5. PM DEVELOPMENT MODELS**

Over the last 50 years, a number of PM models have emerged that parallel the history of modern PM. Here we refer to papers by Tanaka [16] in which the evolution of PM models is presented. A review of system models is submitted by M. Wideman [17]. A Classical PM model, based on developments at NASA and the US DoD (Department of Defense) in the 1950s and 1960s and further developed in aerospace, defense, engineering and construction industries, was based on the triumvirate of cost, schedule and quality (technical performance) management. This featured project-oriented planning and control techniques for application on large complex programs and projects. A series of Modern PM Models have evolved as the classical model was expanded in conjunction with the growth of the PM profession to incorporate more PM functions and issues identified in various PMBOKs. These models occurred during the globalization of the world’s economies, deregulation created new competitive forces, and as PM was embraced by IT organizations.

During the 1980s and 1990s then, PM spread to more industries and application areas, including manufacturing. Also during the 1980s, a “Neo-classical Model” emerged in the oil & gas and petrochemical industries, as they adapted engineering/construction and NASA/DoD models for large complex projects on large multinational construction projects. Special features included design/build contracts, global contracting and logistics systems, heavy resource and time management requirements, and international consortia and teaming arrangements. Now in the late 1990s and early Twenty First century, a new Strategic PM Model has emerged based on linking organizational change and strategy with projects, programs and PM. PPM is the most visible reflection of these new model. Tanaka goes on to predict a future “Versatile PM Model”, based on new more “user friendly” technologies and tools. In summary, he predicts that all of these models will, in fact, be operating in the global marketplace in parallel [16]. We agree with this scenario, with the Third Wave caveat that this future more flexible model will incorporate concepts and methodologies from other professional and scientific fields of application.

**6. HISTORY OF MODERN PM – THE WAVES**

Some time ago Tom Steward [18] used a poetic designation to capture the essence of P&PM as “Project Management is the wave of the future”. Based on the above discussion of the World of P&PM, some major elements of modern PM, significant trends, and PM models, we now want to suggest a broad history of modern PM in terms of three waves of development (Figure 5).

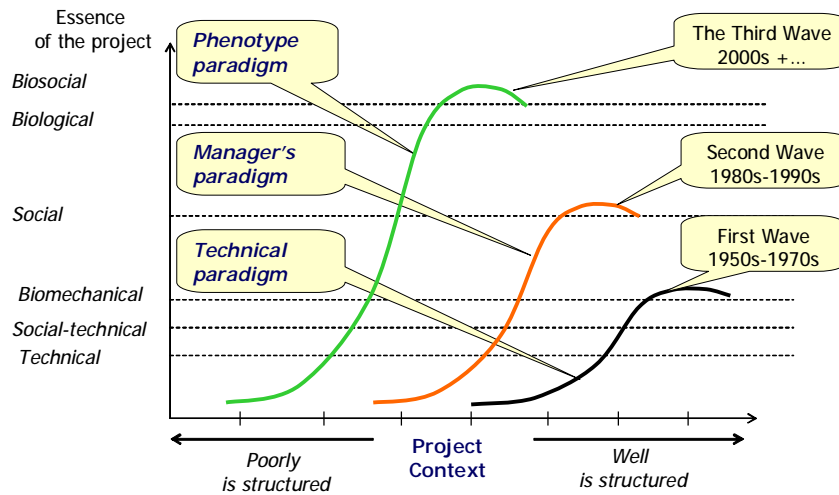


Fig. 5. The Third Wave of P&PM – Change of Paradigms

**First Wave: 1950s – 1970s**

The first wave of modern PM occurred from approximately 1950 – 1980, when early PM methodologies and techniques were developed, based on linear programming developments during World War II and the start of the computer age. This was the period of “management science”, when critical path methodology (CPM), program evaluation and review technique (PERT) and earned value management systems (EVMS) were invented. CPM

## **The Third Wave of Modern Project Management** **Vladimir Mikheev – David L. Pells**

and PERT gained wide recognition in Western Europe, the USA and Russia. EVMS was used as the basis for the cost/schedule control systems criteria (C/SCSC) in the Department of Defense (DoD) in the USA, then spread to other government agencies in the USA, Europe and elsewhere. During this same period, the PM profession was founded in Europe and the USA, professional project management began to develop as a professional discipline, and various PM software tools and systems emerged as computing technology evolved. PMBoKs began to be developed and PM qualifications were considered.

### **Second Wave: 1980s – 1990s**

We suggest a second wave in the development of modern PM during the 1980s and 1990s. In the early 80s, a debate arose related to whether PM was more “science” or “art” This led to the broad recognition that human factors plays an equally important role in the management of programs and projects, and that the leadership of teams is critical to project success.

In 1987 in the USA, PMI published the Project Management Body of Knowledge (PMBOK) [19] and launched the Project Management Professional (PMP) certification program. In 1991 The Association of Project Management (APM) in the UK issued the APM PM BoK (now in its 4-th edition [2]) and since 1992 has implemented a PM certification program. On the basis of the APM’s PM BoK, four countries – Great Britain, Germany, Switzerland and France – established a competency baseline in 1999 as a qualifying standard for IPMA [4]. On basis of this IPMA Competency Baseline (ICB) various national associations within IPMA have created the PM BoKs and systems of certification, monitoring of which is provided by IPMA [20].

The PM profession began to grow and expand rapidly, with the formation of PMI chapters across Canada and the USA, and the formation of national PM associations in various countries around the world. SOVNET was formed in Russia, UPMA in Ukraine, and the PM profession was launched in various Eastern European and former Soviet republics. When the various PMBoKs were expanded to include a broader and more robust framework, including human factors and risk management, and when organizations engaged in high technology (IT, Telecoms, electronics, manufacturing) began to embrace modern PM, the PM profession began to grow and expand more rapidly. By the end of the Twentieth Century, modern PM could be found on every continent, in most countries and in most industries around the world. Basic PM was broadly accepted, strategic PM models introduced, and the PM profession had gained acceptance by industry and government leaders worldwide

### **Third Wave: 2000 +**

We believe a “Third Wave” of professional P&PM has now begun, in which advanced and strategic PM will grow as senior level executives begin to understand and embrace the value of modern PM. With the broad and solid basis for widespread acceptance of basic PM, this third wave will be characterized by more global organizations embracing enterprise PM and Portfolio PM as the competitive advantages and return on investment of PM is demonstrated. The culmination will be the recognition of PM as a strategic resource, at which point executives and organizations can begin to harness the transformational power of modern PM. The Third Wave will arrive.

### **Change of Management Paradigm**

Historically the process of accumulating the experience of both successful and unsuccessful projects leads to a need to change the dominant Management Paradigm for P&PM. It is possible to track the chronology of such changes by both analyzing the applicability of various approaches and models, and trends in the subjects of research and publications. However it should be noted that most PM publications, standards and research are based on experience and past practices, instead of the present or, especially, the future of PM.

P&PM professionals “work in tomorrow today”. That is, all projects involve planning and managing future work. It is therefore essentially important to understand and use those real management approaches, tools, techniques and decisions useful on the future project, not the previous or past ones. Since some of those tools or methods have not yet been experienced, it becomes clear that future methods and approaches must be both flexible and dynamic, based on past experience, useful in present time and applicable for future actions.

Of course, cumulative experience is required for revision of insights, understanding of “the big picture”, changes in thinking, etc. When the quantity of knowledge, experience, practices and knowledge reaches a “critical weight”, then there can be a transition in the quality of understanding of “the big picture” of the World of P&PM. Such transition can be viewed as a new level of PM knowledge, skills, experience and practices. But for this “new base level” of understanding, some conceptual changes are needed, first of all – in management

## The Third Wave of Modern Project Management

Vladimir Mikheev – David L. Pells

thinking. We believe a new P&PM Paradigm has surfaced and has already been partially defined in practice, which we call a "Phenotype Paradigm". Choice of the term "Phenotype" (from Greek *phaino* I show + *type*) means that projects arise, begin and develop in environments under the same laws as "living" organisms, with the genotype set originally.

Since the end of the 1950s it is possible to allocate three basic stages in the development of P&PM (fig. 6). Each of these stages differs not so much a set in breadth and usage of known tools and techniques, as in the system of management thinking dominating the professional community and the professional ethics predominant at each stage.

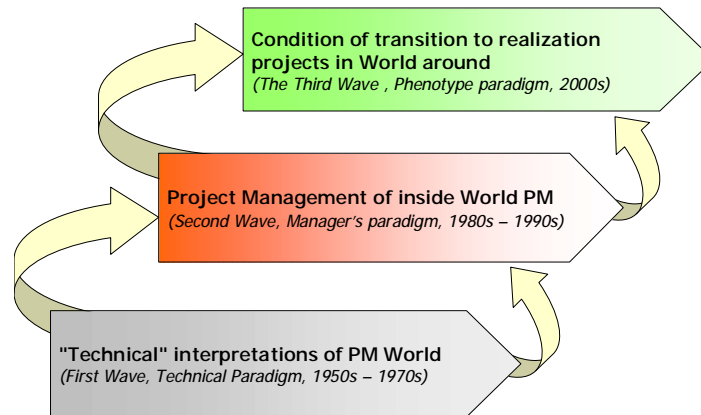


Fig.6. Way of the Projects & Programs Management

Features of each wave have been briefly described above. But the essence of changes in Management Paradigms in a historical context can be presented as follows.

At the initial stage the approach to P&PM was characterized by "technical" interpretation of projects and "technocratic" approaches to project management. In the early 1980s there was a qualitative transition: P&PM passed from a technical basis for actions, with elements of management, to a set of management actions with various tools and techniques, including technical elements.

To the beginning of 2000 there was a transition of P&PM from primarily management actions to the broader realization of projects, where actual projects embodied real plans, ideals, and dreams in the real positive future. It means another qualitative transition: PM is passing from only professional management actions to actions aimed at the realization of future change (improvements), through the use of both technical and management tools and techniques. Present day advanced PM develops in a direction more and more focused on satisfying the needs of people, and on the realization of their dreams in the real world.

## 7. BEYOND MATURITY – THE THIRD WAVE OF P&PM

### Basis for Third Wave

The World of PM now includes a broad set of concepts, processes, organizations, models and experiences. When more elements of the World PM are considered, the greater power and potential of modern PM can be seen. If more elements and resources from the entire World of PM can be harnessed, then the transformational power and potential of PM increase. An understanding of trends and developments in various part of the broad World of PM can provide important perspective for executives and professionals. If the broad power of the World of PM can be harnessed, then the real potential of the Third Wave can be realized.

### PM as Transformational Technology

In other words, modern PM is a powerful transformational technology that can allow individuals and organizations to achieve much more, with fewer resources and in less time, than other approaches. The World of PM is now mature enough, especially related to basic PM, to contain best practices, advanced tools and technologies, expert consultants and professionals, PM standards, certifications and professional ethics. If the best methods, experience, expertise and tools can be harnessed, then more of the transformational power of

## **The Third Wave of Modern Project Management** **Vladimir Mikheev – David L. Pells**

modern PM can be captured and released to achieve significant “projects” for individual, organizational or social objectives. Those objectives can be high level strategic objectives or whatever can be planned as projects.

### **“Third Wave” Management Paradigm**

We believe that modern PM can enable the achievement of far greater accomplishments by both individuals and organizations. Not only is PM a transformational technology but also an enabling technology, of the highest order. The new paradigm is based on a belief that anything can be accomplished using modern PM. Therefore, strategic PM must be considered during the strategic planning process, and incorporated into the selection of strategies, not just for the alignment of projects with strategies. If PM is a strategic resource, then both individual and organizational strategies and objectives can be larger and more significant, and they can lead individuals and organizations in new directions (for example, pursuit of new business, new technologies, new products, new markets, new solutions).

### **Third Wave – Beyond Maturity**

The Third Wave paradigm leads to PM as strategy, not just strategic PM. Modern PM can now be incorporated into corporate strategic planning, and can provide a basis for setting corporate direction. The goal should not be just PM maturity, not just doing more of the same PM in better ways, but in harnessing the power of PM to achieve greater things.

### **Philosophy and Mission of The Third Wave**

A philosophy of modern P&PM suggests that PM is professional human activities that reflect the individual in society and in the world by means of the creation of new positive values and elements. That is, both projects and project management reflect the people involved in their creation. Such philosophy reflects outlook, that all “is artificial” the constructed world around of the individual is not realized display of his(her) biological essence. But it is applied to any display of the individual in world around and basic difference P&PM is a positive creating display of the individual.

The mission of modern P&PM in the Third Wave, therefore, consists of the creation of a positive future, by means of positive professional PM practices and values. Project management professionals should be seen as producing clear benefits for society, for example, like such professionals as engineers, doctors, builders, pilots or financiers.

### **Values of Third Wave Professionals**

Such an understanding of the mission of modern P&PM results in a reconsideration of actions and responsibilities of those people who professionally carry out projects and programs. If the mission of modern PM professionals consists of realizing projects for the creation of positive changes in society (positive future value), then professional tools and techniques must reflect universal values and morals.

This philosophy leads to a natural moral “maturity” of the PM profession. PM professionals must then consider positive social-cultural values (including professional ethics) regarding both projects and project management. That is, there must be some consideration of the “nobleness” of the project itself and of the PM toolkit. I.e. is this a good project? Should I work on this project? Should these actions be taken? Such judgments or “morals” of actions can now be reflected in modern P&PM. We consider these aspects within the framework of The Third Wave as moral attributes of the new management paradigm.

From this position the professional Project Managers must as a moral question: whether he (she) can personally participate in management of certain “amoral” projects, for example, development of biological or chemical weapons, to inflict harm on the environment, or cause harm to people in any (obvious) way.

## **8. HOW TO TRANSFORM YOUR ORGANIZATION**

### **Educate Executives**

In order for an organization to harness the broader potential of modern P&PM, executives need to see and understand the big picture. They need to understand just how big and powerful the broad “World of PM” really is. They should understand something of the history, trends and global models of PM, how modern PM is now being harnessed by some of the largest and most successful companies in the world, how government agencies

## **The Third Wave of Modern Project Management** **Vladimir Mikheev – David L. Pells**

are now embracing PM, and how professional PM can lead to significant returns on investment. There are now many case studies, examples and surveys to demonstrate those facts.

### **Measure PM Maturity & Benchmark**

There must be some measure of where the organization stands in terms of PM maturity, as compared to professional standards and models as well as to other organizations in the same industry. Simple solution: hire a consultant to conduct a PM maturity assessment, or use internal resources to conduct such an assessment. This should help identify what resources already exist within the organization, where improvements are needed, and the overall status of both the organization and the industry related to modern PM.

### **Determine Objectives & Develop a Plan**

Assuming a desire to maximize the potential of modern PM, determine what can be accomplished with the power of modern PM. Establish a set of PM strategies and objectives for the organization. Determine what changes, improvements or additions are needed, including processes, systems, tools, technologies and people. Prepare the plan and obtain executive approval and support. Include calculations of cost and return on investment, and a schedule.

### **Mobilize Resources from World of PM**

Resources from the World of PM can be mobilized in various ways. Professional PM standards, qualifications, models and information can be obtained from professional associations. PM consultants and software vendors can provide tools, technologies and services. Best practices, examples and experiences are available in books, publications, on-line and from experts and consultants. Government agencies can also now provide information and access to resources. Most importantly, the World of PM now includes many widely known and recognized PM experts and professional leaders who can provide advice and assistance, often at low cost.

## **9. ALTERNATIVE FUTURES OF MODERN PM**

While many predictions of the future of PM choose one model or the other, it seems apparent to us that there are alternative futures for modern PM and the PM profession. We see some of the options as follows:

- ✓ Continuation of current trends, with PM as core competency as a requirement to compete in a global economy;
- ✓ Modern PM may be incorporated into general management theory and practice, as more enterprises conduct business as programs and projects;
- ✓ PM may become widely recognized as a strategic advantage and differentiator;
- ✓ Different models may exist in parallel, depending on the organization, industry and geographic location; (the Tanaka model) and
- ✓ Other more extreme scenarios where PM may disappear or merge with other emerging approaches.
- ✓ Third Wave PM approaches, including cross-discipline PM

In general, we believe the Tanaka model will be most likely, but think a Third Wave opportunity exists for brave and far sighted individuals and organizations.

## **10. CONCLUSION – PM AS DREAM MAKING**

Anything that can be defined as a project can be better planned and managed using modern PM. In that context, nearly anything that is possible, and many things previously considered impossible, can be accomplished better, faster and with fewer resources if modern PM is applied. We believe that modern PM is a transformational technology that can facilitate the accomplishment of anything, if it can be defined as a project. Major social and economic problems might be solved in this way. Organizational strategies, goals and objectives can be better achieved using modern PM principles. Individual goals can also be accomplished this way. In a sense, dreams can be made to come true – we can therefore consider PM as a sort of “dream making”. For what are dreams but manifestation of needs and imagination? And dreams come in all shapes and sizes. For example, the dream of flying in space was once thought impossible, but was accomplished first by a Russian cosmonaut, then by Americans who flew to the moon. In many parts of the world, new schools, hospitals and homes are dreams for those who do not have them. Entering a new market, developing revolutionary new products, achieving industry or market leadership are dreams of corporate leaders today. A broad understanding of the World of PM, and the

**The Third Wave of Modern Project Management**  
**Vladimir Mikheev – David L. Pells**

resources and power available now from that world, can help individuals and organizations reach the Third Wave of Professional P&PM.

**REFERENCES**

1. ANSI/PMI 99-001-2004. *A Guide to the Project Management Body of Knowledge, Third Edition*, 2004, Project Management Institute, USA.
2. *Body of Knowledge. Fourth Edition* – UK: APM - Association for Project Management. – Edited by Miles Dixon – Cambridge Publishing Management, England, 2000.
3. ENAA (2001) *P2M: A Guidebook of Project & Program Management for Enterprise Innovation: Interim Translation of Selected Chapters*, Japan: Engineering Advancement Association of Japan, Project Management Professionals Certification Center (PMCC). Revision 1. August 2002.
4. ICB IPMA *Competence Baseline*. Version 3.0. IPMA, 2006
5. Crawford, Lynn, Ph.D., *Performance Based Competency Standards for Project Management: Background Paper*, University of Technology Sydney, August 2002.
6. *Performance Based Competency Standards for Project Managers: Informal Review*. May, 2005.
7. *Project Management Institute Practice Standard for Work Breakdown Structures*. Project Management Institute, USA, 2001.
8. *Organizational Project Management Maturity Model (OPM3)*. Project Management Institute, USA, 2004.
9. PRINCE2 (Project IN Controlled Environments), UK.
10. Kerzner, Harold, Ph.D., *Advanced Project Management – Best Practices on Implementation*, Second Edition, Wiley, USA, 2004.
11. Cleland, David I., PhD; Karen Bursic, PhD; Richard Puerzer, PhD; and A Yaraslav Vlasak, Editors, editors, *Project Management Casebook*, Project Management Institute, USA, 626 pages, 1998.
12. Kerzner Harold. *Strategic Planning for Project Management Using a Project Management Maturity Model*. – New York: Wiley, 2001.
13. Kendall Gerald I., Rollins Steven C. *Advanced Project Portfolio Management and the PMO. Multiplying ROI at Wrap Speed*. J. Ross Publishing, Inc., 2003.
14. PriceWaterhouseCoopers; *Boosting Business Performance through Programme & Project Management*, a first global survey on the current state of project management maturity in organizations across the world, 2004, report presented to PMI's Corporate Council, contact: Daniel Evrard ([daniel.evrard@pwc.be](mailto:daniel.evrard@pwc.be)) or Antonio Nieto-Rodriguez ([Antonio.nieto-rodriquez@pwc.be](mailto:Antonio.nieto-rodriquez@pwc.be))
15. Cleland David I., Ireland Lewis R. *Project Management: Strategic Design and Implementation*, 4<sup>th</sup> ed. – New York, NY: McGraw-Hill, 2002. – 656 p.
16. Tanaka, Hiroshi, *The Changing Landscape of Project Management*, Project Management World Today, March 2005 (available at [www.pmforum.org/featindex.htm](http://www.pmforum.org/featindex.htm))
17. Wideman, Max R., *Modeling Project Management* ([www.maxwideman.com](http://www.maxwideman.com)).
18. Steward Tom. "The Corporate Jungle Spawns a New Species: The Project Manager". Fortune, July 10, 1995, pp.179-180.
19. *Project Management Body of Knowledge*, Project Management Institute, USA, 1987.
20. *IPMA Certification Yearbook 2004*. IPMA, 2005 ([www.ipma.ch](http://www.ipma.ch))