IPA

Independent Project Analysis Newsletter

Independent Project Analysis, Inc. is the preeminent organization for quantitative analysis of capital project effectiveness worldwide. At IPA, we provide practices you can use to ensure your success.

Volume 1, Issue 3 **September 2009**

Research Spotlight:
Contracting and Risk in Today's Economic Environment

Kelly Sonnhalter

The second quarter of 2009 saw an end to the longest era of capital spending in recent process industry history. During this time capital projects experienced hyperinflation, which translated to losses in productivity as escalation outpaced general inflation. Projects were continuously executed in labor-short environments, which further exacerbated lagging project control practices. The consolidated contractor market was taxed beyond its capabilities and is still recovering. As we begin to emerge from the "boom" and enter a downturn in the global market there are several contracting challenges that will remain despite a lull in capital project spending.

Recognizing the impact of contracting on project performance, IPA began researching the relationship between varying contracting strategies, environments and project outcomes over fifteen years ago. Our more recent research seeks to understand the relationship of contracting approaches and project performance in varying economic markets. We further attempt to iden-

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IPA Seminar

Best Practices for Contracting Effectiveness & Risk Management

Contracting strategy is an important element of any project execution plan. It is often a contentious area with strongly held beliefs about how contract plans can influence project outcomes. However, no one contracting strategy is right for all projects or project systems. As more and more work is outsourced by owners to contractors, contracting arrangements have become increasingly important elements of the capital project process. IPA began its research into contracting issues over fifteen years ago when we first recognized the trend toward outsourcing engineering activities. Research has continued to identify the circumstances under which various contracting approaches are effective. IPA research has also found that misalignment of contracting strategy with project specifics adds 20 percent to cost and 18 percent to schedules relative to those projects that make more effective use of contract types.

Best Practices for Contracting Effectiveness & Risk Management is a one-day seminar to share knowledge on owner's responsiveness to risk and risk pricing. During the hot market, the perception is that contractor abilities to assess potential project risks have grown and they have effectively increased the premiums associated with these risks. This seminar will present mechanisms available that can assist owners in effectively identifying risk, that can contribute to setting an appropriate premium for that risk, or that can identify ways to further mitigate the effects of that risk for the contractor.

This program will aid those involved in selecting and implementing contracting strategies and will benefit managers of individual projects who establish the contracting approach for their projects. It will also provide insight to contracting approaches for those who manage the whole project system and look to establish system wide approaches to risk pricing in contracting. Participants will receive presentation slides and appropriate reference and supporting material.

Inside this issue:

Editor: ***Kelli L. Ratliff***
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tify the impact of those strategies on risk assessment and risk pricing. This article will identify the use of varying contracting strategies prior to the economic boom, during the economic boom, and now following the downturn in the market. Furthermore, as we see a correlation in contracting strategy and economic markets, we will highlight what that means in terms of contract risk pricing for owners, as both owners and contractors begin to recalibrate to a new market. The three forms of contracting strategies we look at are engineering, procurement, and construction lump-sum (EPC LS), reimbursable, and mixed.

EPC LS	**Detailed engineering, procurement, and construction are performed on a fixed-price basis by the same firm or consortium. Occasionally, the contract includes startup and guarantee runs. Sometimes schedule incentives are included.**
Reimbursable	**Essentially all work is performed on a cost-plus fee or cost-plus incentive fee basis.**
Mixed	**Engineering and procurement are performed on a reimbursable basis with predominantly fixed-price construction.**

To explore the relationship between contracting strategy and the economic market, we have divided our dataset into three distinct time periods by the project's date of authorization: pre-boom (1998-2001), boom (2002-2007) and post-boom (2008 to present). As shown in *Figure 1*, for large projects the reimbursable contracting strategy consistently dominates the contracting type. More interesting, however, is the decline in EPC LS projects during the economic boom and an increase in the use of the mixed strategy. It is evident in periods of large capital spend contractors can be more selective in their risk tolerance. As a result, contractors will either reflect their adversity to risk through increased risk premiums, driving down the lump-sum market, or leveraging risk while maximizing profit, through reimbursable engineering with fixed-price construction.

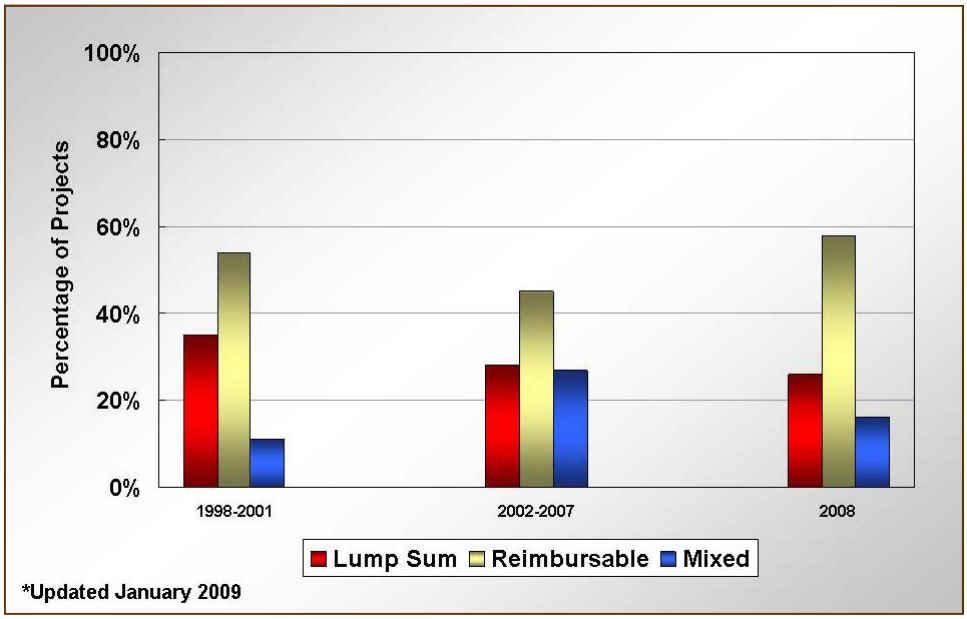

Figure 1. **Contract Types Over Time**

Not surprisingly, the trend is quite different for smaller projects, where we consistently see mixed contracting strategies outpacing the lump-sum contracting market. This makes sense as owners are more capable of assuming risk on smaller projects.

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Figure 2, depicts the trend described for lump-sum contracting strategies on large projects. As shown, there is a definite decline in the use of lump-sum contracting strategies beginning in the late 1990s for both North America and Europe, with a more recent trend upward as the percentage of projects using the lump-sum strategy increases. IPA has observed that owners equate using a lump-sum strategy with predictability. It gives them a sense of assurance that the project will meet the cost and/or schedule targets, even if the targets are conservative. The reality is that a lump-sum figure is a minimum, not a maximum. However, the ability of the contractor to carry such risks can depend on several factors, including the project size, the behavioral culture of the owner, the quality of owner control personnel and the contract language and adherence. Risk transfer can also be present in the terms and conditions of the contract (for all contract types), which include the definitions of negligence, payment schedules that create negative cash flows, liability indemnification provisions, and contract indemnification of the owner's designs. These defined risks to the contractor have consequences to the owner either in the form of pricing penalties or, in the most severe cases, a refusal of the contractors to bid.

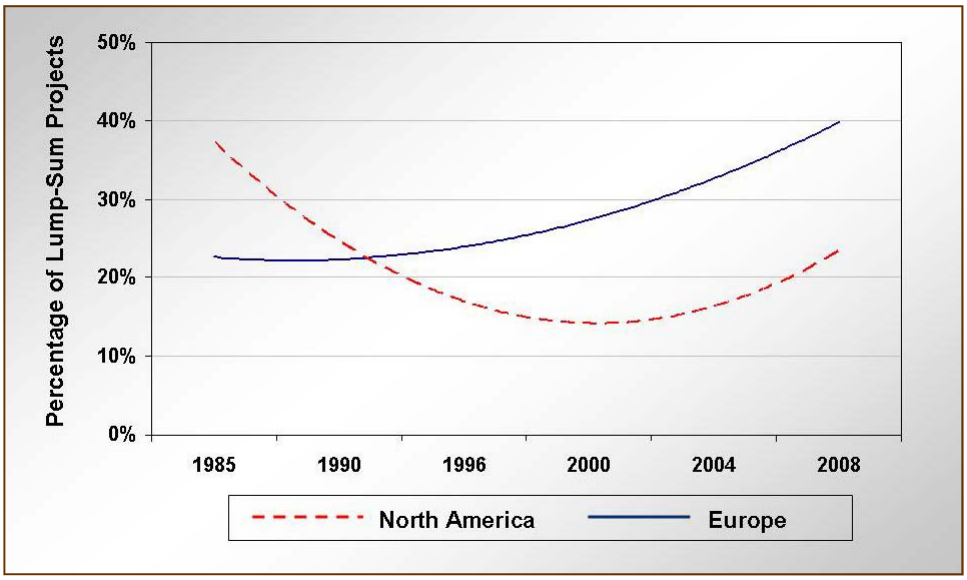

Figure 2. **Lump-Sums Declined as U.S. Market Accelerated and Now Are Re-emerging**

In 2006, IPA conducted research to explore the role of risk in contract pricing. In his study, *Cost, Profit and Risk: Understanding the New Contracting Marketplace*[1], Edward Merrow highlighted the impact of risk pricing on various contract types by project size. As shown in *Figure 3*, risk pricing on lump-sum contracts can range from close to zero percent for small projects to nearly 15 percent for large international projects. This is a distinct difference from reimbursable and mixed contracting strategies, which had no risk premiums assessed for terms and conditions that transferred risk to the contractors.

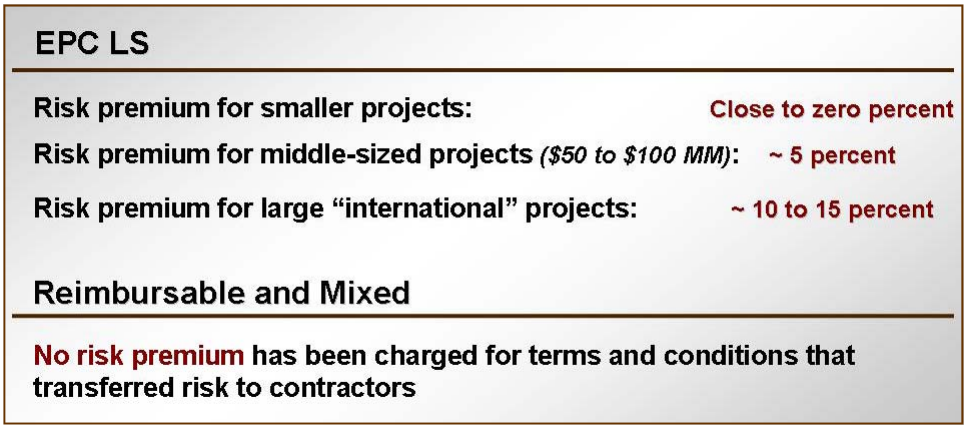

Figure 3. **The Role of Risk**

Risk pricing is defined as attaching a monetary value to accepting responsibility for an item that is subject to probabilistic negative outcomes. The lump-sum contracting strategy pushes more of the risk onto the contractor, thus the pricing of the contract will reflect

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[1] Edward Merrow and Kelli Ratliff, *Cost, Profit, and Risk: Understanding the New Contracting Marketplace*, IPA, IBC 2006

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that risk. From the contractor's perspective, this also leads to the potential for large monetary gains, assuming the risk is priced appropriately. Risk averseness results when the price of risk exceeds the expected negative value of the risk. The value of the risk and the probability can change with the change in economic markets as commodity prices fluctuate and resources are more or less available.

IPA is currently undertaking new research that will update the previous risk studies to understand the impact of risk pricing in the new economic environment. Furthermore, the research will seek to identify practices that can further mitigate risk premiums and the ways owners can effectively respond to risk pricing in the contracting market. Given the shrinking contractor pool, a tendency to move toward lump-sum contracting in slower markets, and an increase in large international projects, owners need to be prepared in the upcoming years to pay more in risk premiums, or seek to employ new methods to further mitigate the risk.

Professional Profile: *Kelly Sonnhalter, Senior Analyst*

Kelly joined IPA in 2001, and currently serves as a Client Coordinator for a major international oil company's downstream business (refining and marketing) and as backup for the client's upstream business area. She has evaluated projects from many industries, including the refining, chemicals, mining and minerals and pharmaceutical industries. In addition to conducting prospective, pacesetter, and closeout evaluations, she has led several special studies in the areas of Megaproject Execution and Contracting Strategies. Kelly has also been involved in several research studies focusing on Best Practices for Project Execution and Labor Productivity in High and Low Wage Countries. Previously, Kelly worked for the Illinois Institute of Technology, evaluating the execution of emergency first-responder projects in a hostile environment, for the Department of Defense. Kelly obtained a M.S. in Biotechnology from Johns Hopkins University and a B.S. in Integrated Science and Technology from James Madison University.

Major Components of Process Facility Costs

Andy Ratliff and Robert Brown

IPA's Historical Escalation Trends are curves for a number of equipment and bulk materials scopes as well as world open market engineering and local construction labor. These trends are developed using client-provided data, collected during project interviews and cost data surveys, in conjunction with data from different statistical groups around the world such as EuroStat and the U.S. Bureau of Labor Statistics (BLS). These historical trends are an integral part of our Cost Normalization process. The historical escalation trends are provided in this newsletter so that our clients may use the historical information to help determine future escalation factors to use in developing estimates as well as in choosing an execution site from a portfolio of possible locations. The historical trends are made available because we recognize that you are unable to determine where to go without knowing where you have been. As more data are collected, these indices are revisited so that the most up-to-date and accurate cost normalization can take place.

The costs and price trends associated with a capital project are aggregated from a series of major cost categories: engineering services, bulk materials, major equipment, and construction labor and field services. We present the major cost categories for a capital project in Figures 1-4 and present the aggregated process plants escalation index in Figure 5.

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Engineering Services

IPA measures engineering escalation *(Figure 1)* based on changes in the "all-in" wage rate. This rate includes the engineer's compensation, overhead, fringe benefits, bonuses, profit, etc. It is the average hourly price charged by the engineering contractor(s) along with any detailed engineering services provided by the owner. During project team interviews the average engineering wage is discussed and consistently collected. For example, the engineering rate is converted to a common currency (U.S. dollars) in order to make comparisons across projects.

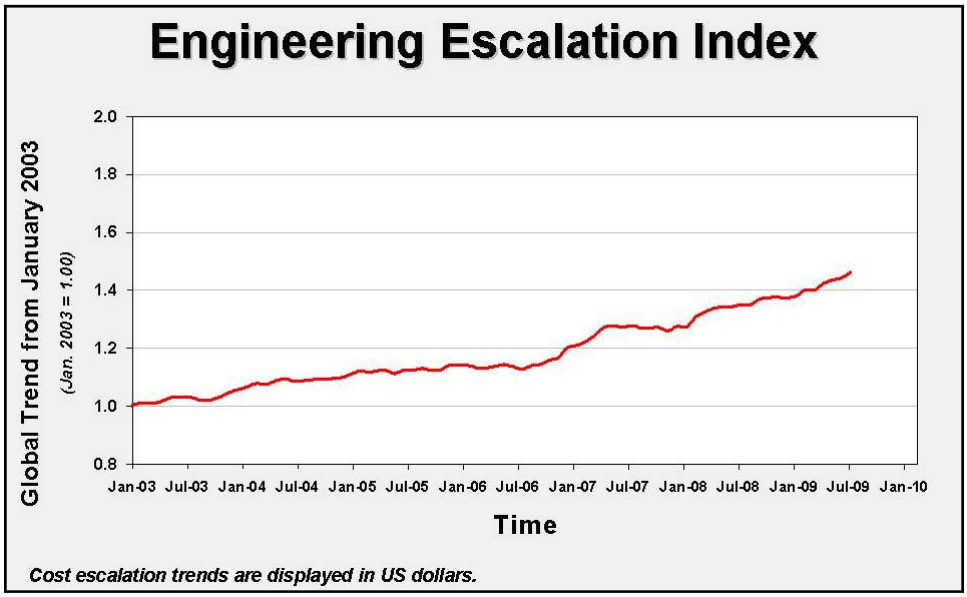

Figure 1. **Engineering Price Index**

As discussed in previous issues of the IPA Newsletter, engineering prices appeared to be leveling off and allowing for more stable pricing for 2009. However, more recent data indicate that engineering prices appear to be increasing at a modest rate of about 5 percent. Megaproject activity remains fairly robust and provides a foundation for the engineering services market segment.

Bulk Materials

The bulk materials graph *(Figure 2)* depicts the escalation of a typical mix of bulk materials for a process plant. For example this would include piping, steel, measurement instruments, metal valves, wiring devices, concrete, and insulation materials. The prices for most bulk materials have begun to stabilize and recover from the declines that we saw from 2008.

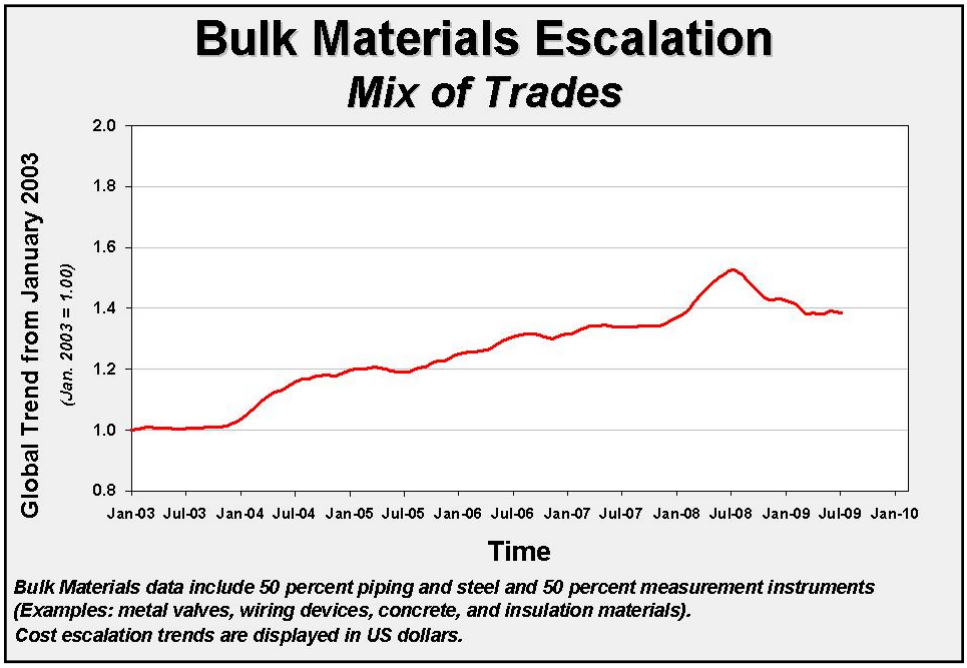

Figure 2. **Bulk Materials Escalation**

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Major Equipment

The major equipment index *(Figure 3)* is a composite of mechanical, fabricated, and electrical and instrumentation equipment. The major equipment escalation index for a diverse mix of fabricated and mechanical equipment remains high, likely due to the price of major fabricated equipment prices staying high. Overall, the trend is relatively stable.

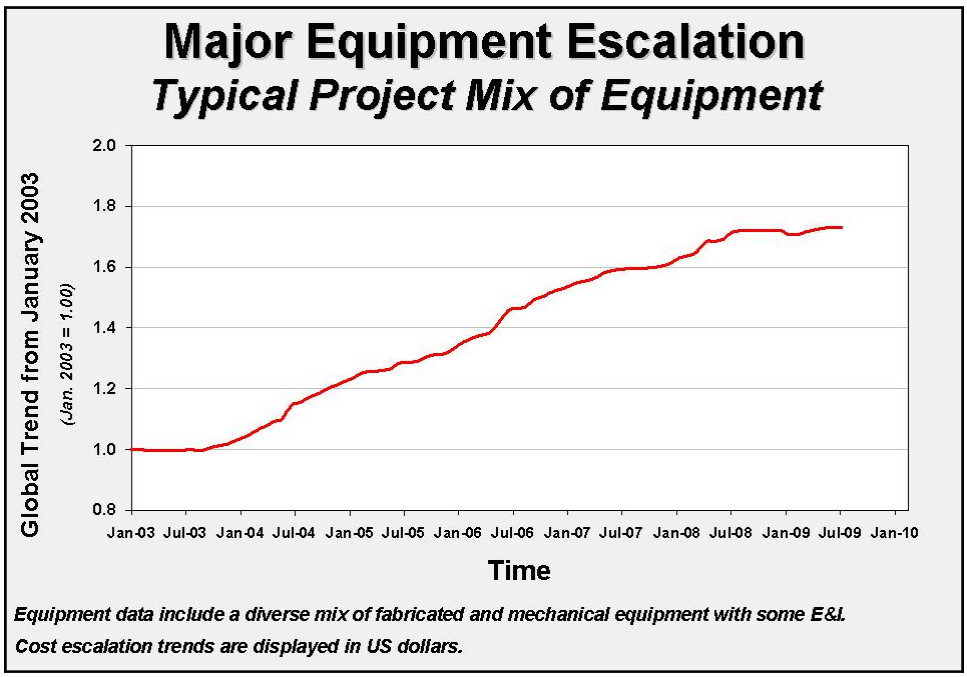

Figure 3. **Major Equipment Escalation**

Construction Labor

Since our last publication of the IPA Newsletter, we have doubled the locations for the Labor Escalation comparisons. For some of the locations there may be multiple countries combined together for location factors. For example, the Middle East is made up of Saudi Arabia, United Arab Emirates, Kuwait, Qatar, Bahrain, and Oman. As shown in *Figure 4*, wages continue to flatten out as we move through calendar year 2009.

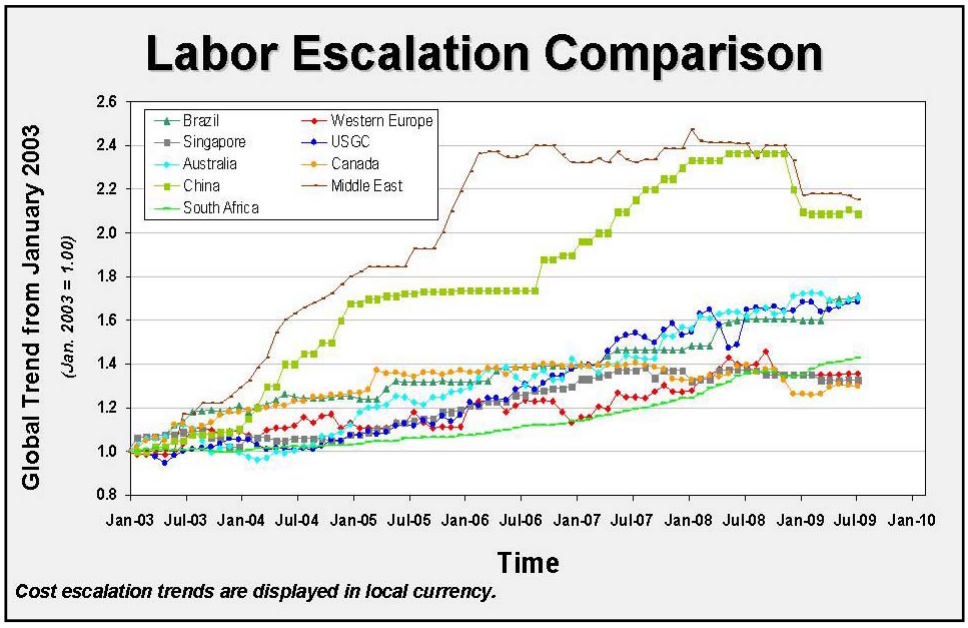

Figure 4. **Labor Escalation Comparison**

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Summary

Figure 5 shows the historical composite trends for a typical refinery project, onshore gas plant, and an electrical distribution project. To summarize, the worst of the recession has likely passed, resulting in capital project prices beginning to level off. We expect to be entering a relatively stable market.

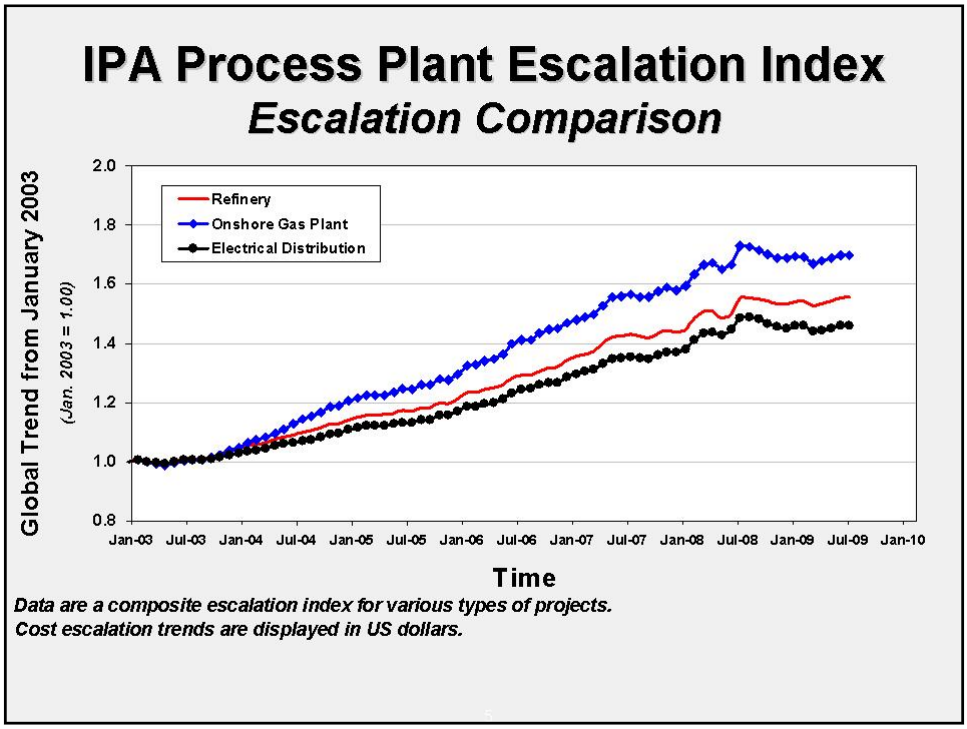


Figure 5. **IPA Process Plant Escalation Index**

As part of our Estimating, Planning, and Control products, IPA now offers the *EPC Market Forecast Newsletter,* which is available to existing IPA clients on an annual subscription basis. The newsletter uses our historical escalation trends to predict future escalation. Specifically the *EPC Market Forecast Newsletter* forecasts capital project price trends five years into the future for nine regions of the world. The goal is to inform clients of market price trends so that:

- ✔ Savings may be achieved through the timing of project authorizations/expenditures
- ✔ Estimates of future escalation will be more accurate.

In addition to providing forecasted engineering, procurement, and construction escalation trends for several global regions, the *EPC Market Forecast Newsletter* provides detailed explanations and discussions on the capital project market, IPA's methodology for forecasting, and other topics about today's economic activity.

For more information regarding the *EPC Market Forecast Newsletter*, please contact **Dean Findley**, Director, Product Development Group at **dfindley@ipaglobal.com** or **Robert Brown**, Manager, Cost Engineering and Cost Services at **rbrown@ipaglobal.com**.

Author: *Andrew Ratliff*

Andrew Ratliff has been a Research Analyst within IPA's Product Development Group since 2007. He is currently a member of IPA's Cost Engineering Group, leading the group's cost analysis of equipment and bulk materials. In addition, Andrew has developed tools for cost analysis of projects within the petrochemical and specialty chemicals industries. Previously, Andy worked at PBS&J, an environmental consulting firm, as a Senior Scientist. Andrew has a B.S. in Integrated Science and Technology from James Madison University.

Contributor: *Robert Brown*

Robert Brown manages IPA's cost engineering group and is responsible for IPA's Cost Engineering Committee. He has been at IPA for over 8 years and worked as a project analyst for 6 years. He has analyzed and benchmarked hundreds of projects for the process industries. Prior to joining IPA, Robert worked at the Pacific Northwest National Laboratories focusing on integrated assessment for energy policy and global change. Robert has a M.S. from Duke University and an A.B. from Davidson College.

New Course!

Performance and Practices for Government Projects

Mary Ellen Yarossi

Government agencies spend a great deal on projects. IPA's database of several hundred government-agency run projects reveals these projects are expensive, slow, and unpredictable.

On average government-agency projects cost 11 percent more than similar projects done by private industry. Also of concern for those authorizing public funds is that the costs are unpredictable. The growth of final costs from the cost estimated at authorization ranges from an underrun of 23 percent to an overrun of 40 percent, indicating it is hard to know with any certainty what the final cost performance for these projects might be. Schedule performance also lags with the average time for engineering and construction being an astounding 90 percent longer than similar projects in the private industry. While it is true that government sponsored projects have a longer and more difficult authorization process, the execution schedule metric measures only the time for engineering and construction, and excludes that authorization process. Further evidence that this set of projects takes a very long time comes when we look at just the construction duration, which is 30 percent longer than similar projects executed by other industry sectors.

Driving this performance is the fact that most government projects do not use the best practices employed by the private sector. Over 80 percent of government projects analyzed experience major changes after they are funded. These changes are often driven by lack of alignment on project objectives. These projects did not have well developed teams to fully define the scope needed to meet the project's intended objective. A significant driver of project outcomes is the quality or project definition at the time funds are authorized, or Front-End Loading. Most of the government projects we evaluate are authorized with very little engineering and site definition and undeveloped project execution plans. As a result it is difficult to manage the cost and schedule as the project proceeds into execution, leading to cost and schedule growth. Risks are often not fully evaluated, leading to quality problems in execution. This lack of the use of best practices then leads to the poor results.

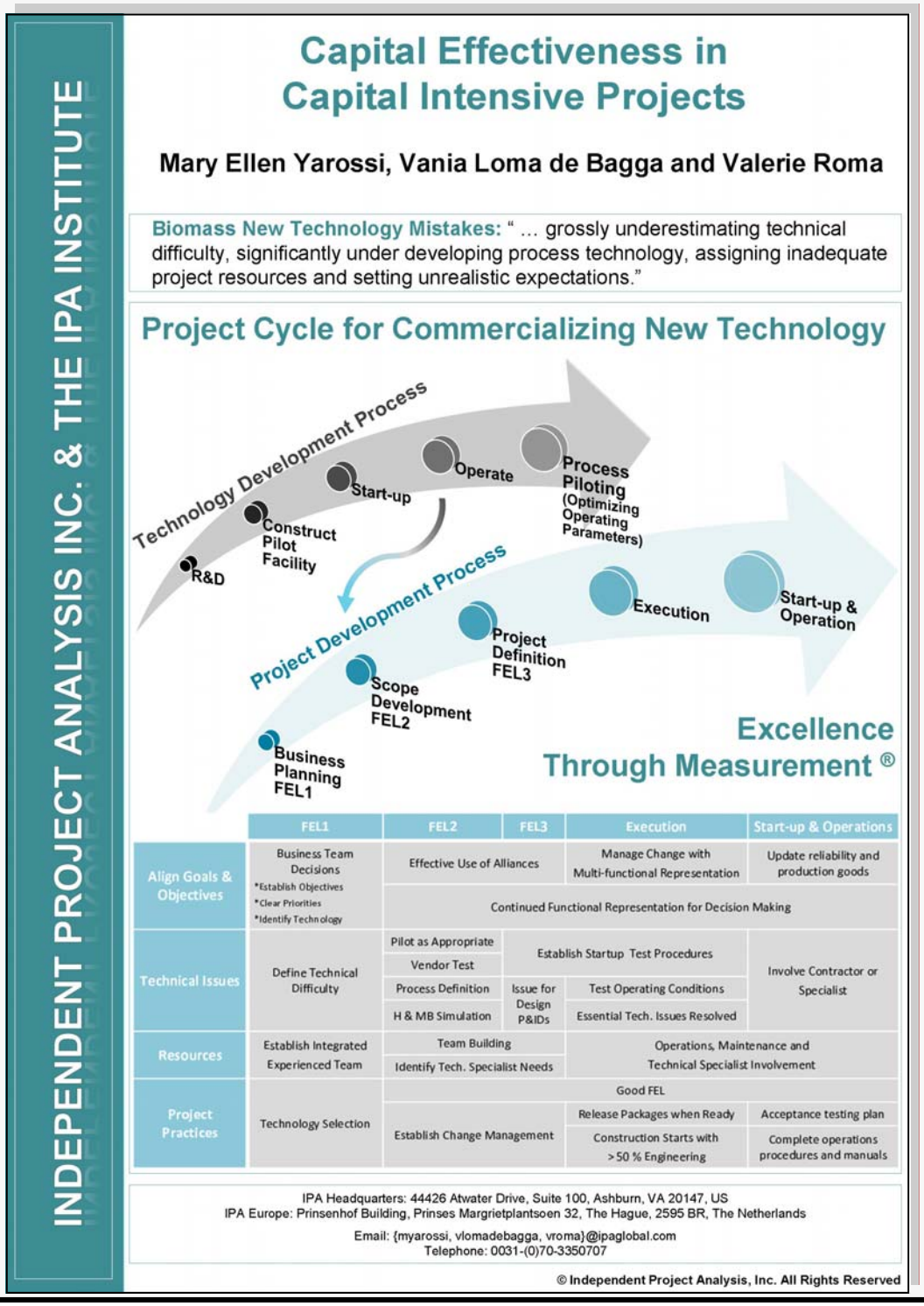
The IPA Institute has established a course, A Course for Government Project Professionals - Practices for Projects on Time and on Budget, to share best practices to those who are responsible for the definition and execution of government run projects. This course presents a disciplined approach to managing projects within the confines of government agencies. The program focuses on the project practices areas of definition, cost, time, quality, and resource management that IPA has quantitatively shown to produce more effective and predictable project outcomes. For more information about the course, please visit our website at **www.IPAInstitute.com**.

Author: *Mary Ellen Yarossi*

Mary Ellen Yarossi is currently the Director of the IPA Institute, the company's research and education division. In this role, she conducts project management training sessions, leads research into drivers of project performance, and conducts numerous analyses of projects and project systems for major corporations around the world. She is widely published in the area of Best Practices for process industry ventures. Mary Ellen joined IPA in 1989 and has served as Manager for the Chemicals business area and Chief Operating Officer, and has also been a member of the IPA Board of Directors since 1998. Mary Ellen joined IPA after 10 years of varied industrial experience, including manufacturing management, R&D, planning and inventory control, quality assurance, and process engineering. She holds an MBA from New York University and received a BS in Chemical Engineering from Columbia University.

IPA & The IPA Institute Receive Award at 4th International Bioenergy 2009 Conference

IPA and the IPA Institute received the ***Best Poster Award - Category Business Class*** at the 4th International Bioenergy 2009 Conference - Sustainable Bioenergy Business held in Helsinki, Finland. IPA participated in the conference highlighting its quantitative research on effectively commercializing new technology in capital projects.



INDEPENDENT PROJECT ANALYSIS INC. & THE IPA INSTITUTE

Capital Effectiveness in Capital Intensive Projects

Mary Ellen Yarossi, Vania Loma de Bagga and Valerie Roma

Biomass New Technology Mistakes: " ... grossly underestimating technical difficulty, significantly under developing process technology, assigning inadequate project resources and setting unrealistic expectations."

Project Cycle for Commercializing New Technology

	FEL1	FEL2	FEL3	Execution	Start-up & Operations
Align Goals & Objectives	Business Team Decisions *Establish Objectives *Clear Priorities *Identify Technology	Effective Use of Alliances		Manage Change with Multi-functional Representation	Update reliability and production goods
		Continued Functional Representation for Decision Making			
Technical Issues	Define Technical Difficulty	Pilot as Appropriate	Establish Startup Test Procedures		Involve Contractor or Specialist
		Vendor Test			
		Process Definition	Issue for Design P&IDs	Test Operating Conditions	
		H & MB Simulation		Essential Tech. Issues Resolved	
Resources	Establish Integrated Experienced Team	Team Building		Operations, Maintenance and Technical Specialist Involvement	
		Identify Tech. Specialist Needs			
Project Practices	Technology Selection	Good FEL			
		Establish Change Management		Release Packages when Ready	Acceptance testing plan
				Construction Starts with >50 % Engineering	Complete operations procedures and manuals

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2009 UIBC

Upstream Industry Benchmarking Consortium (UIBC)

2009 Theme: *Capital Efficiency Without the Volatility*

The Upstream Industry Benchmarking Consortium (UIBC) provides an independent forum for each participating company to view its performance against the performance of other companies. The consortium highlights Best Practices, reinforcing their importance in driving improvements in asset development and capital effectiveness. Consortium attendees learn ways to improve specific elements of capital project execution through presentations and other more interactive discussions.

DETAILS: Annual meeting of the UIBC 2009 will be held ***November 9 - 11, 2009*** at the ***Hilton McLean in Tysons Corner, Virginia***.

2009 AGENDA:

- ***Performance Metrics***

  The centerpiece of the UIBC conference is the sharing of asset development outcomes and practices of the participating companies that occurs during the three metrics sessions.

- ***The E&P Changes Study***

  This study explores how much late changes (after authorization) really cost us in terms of money, time, and production. In addition, we will explore the circumstances that make changes more likely.

- ***Team Member Turnover***

  Lack of team member continuity is common in E&P projects, with about 60 percent of all projects experiencing turnover in any lead position. This research study will review turnover frequencies for key team members, quantify the effect of such turnover on project performance, and investigate mitigating factors.

- ***Enhancing Performance for Revamp Projects***

  Aging infrastructure and capital constraints are contributing to larger and more frequent revamp or "brownfield" projects executed on offshore facilities. This IPA study will examine recently completed offshore revamps to revalidate the Best Practices associated with successful projects.

- ***Effects of Wells Program Slip on Asset Outcomes***

  In a continuing effort to quantify the interrelationship of the reservoir, facilities, and wells functions, IPA will focus on the effect of well program duration slip on asset outcomes. This research will examine and quantify delays that affect the start of a drilling program, answer why well program durations often take longer than originally estimated, and discuss other interactions wells slip has on asset outcomes, specifically on production attainment.

- ***E&P Cost Trends***

  Over the past few years IPA has been reporting escalation trends and regional cost differences in the development of offshore assets. This presentation will extend this research along with a discussion of the drivers of the cost trends.

For more information on the Upstream Industry Benchmarking Consortium (UIBC), please contact the UIBC Coordinator, **Rolando Gächter,** Manager Exploration and Production Business Area at (703) 726-5324 or at **rgachter@ipaglobal.com.**

Asset Optimization Workshop (AOW)

As part of IPA's suite of E&P products, we offer an early evaluation of Concept Selection to assist companies in balancing appraisal, trade-offs, and design and functionality aspects of asset development. IPA's new Asset Optimization Workshop (AOW) is conducted at the beginning of the Concept Selection (FEL 2) phase to help companies make critical concept decisions, using IPA research and metrics and our proprietary *Pathway to Success Asset Development Model*.

The aim of the workshop is to steer development projects through FEL 2 so that they emerge with a concept chosen in an unbiased manner, that is free of unknown functional trade-offs, and incorporates design and functionality that consider the quality and amount of subsurface and well construction data.

The AOW imparts essential knowledge and provides the data required to organize, plan, and execute successful Concept Selection and provide the foundation for making optimal, unbiased decisions. The AOW is a customized, in-person, highly interactive workshop that applies IPA research to the development of your targeted asset, and delivers an illustrative roadmap to guide you through early decision making for the asset.

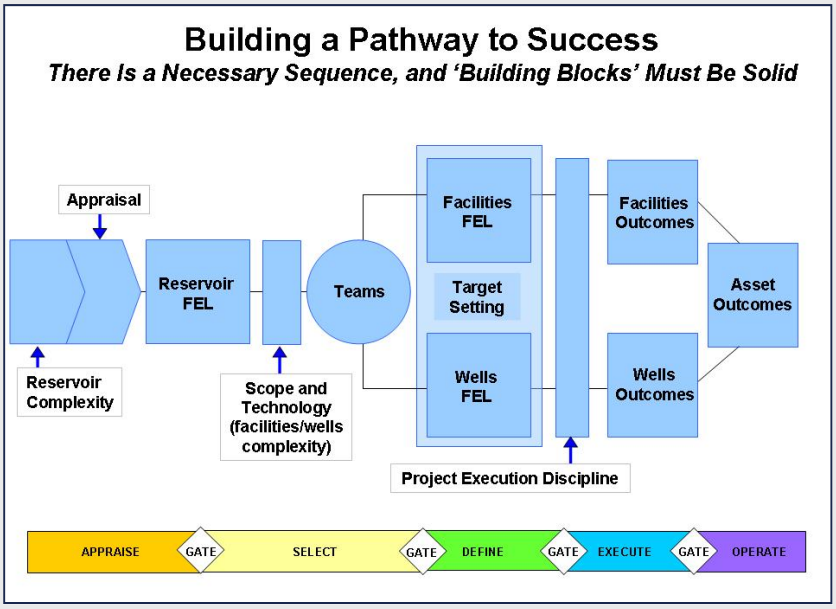
Exploring the E&P Pathway to Asset Success

IPA has conducted extensive research and root cause analyses on more than 300 recent E&P projects. These studies highlight/quantify the criticality of the Concept Selection phase (FEL 2) and the lasting effect of FEL 2 decisions on the asset. The AOW uses quantitative data based on actual projects from Industry.

IPA research shows that even with good front-end engineering, projects still have poor asset outcomes when they lack basic data and make suboptimal decisions, carrying forward unrecognized functional trade-offs. Do you lack basic and adequate data, for example, in subsurface appraisal and seismic? How do you then assess critical trade-offs, for example, between facilities and wells?

The AOW reviews a number of functional elements that have been empirically shown to correlate with cost, schedule and production/ resource recovery outcomes. These factors include:

- The "Book-End Effect": The Importance and Impact of Appraisal
- Quality of Reservoir Front-End Loading
- Concept Selection, Trade-Offs, and Scope Optimization
- Team Integration and Alignment
- Getting Ready for FEED



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The AOW explores questions such as:

How much appraisal is enough?

If we stop appraisal now, what is the probability of a downgrade in estimated recoverable resources, production loss, or well program changes?

Given the amount of appraisal complete, what would be the quantitative impact on my facility or well program, and how will it alter my facility concept choice?

If we select this facility concept, what are the possible trade-offs vis-à-vis other functions?

Would the chosen location of the subsea manifold template affect well geometries?

How long should we spend in the FEL/FEED phases?

Workshop Services and Deliverables

The AOW is intended to be interactive and extensively uses breakout sessions. A meeting between IPA and the project manager is first arranged to customize the workshop to the project's needs and emphasize the areas critical to the project. As part of this meeting, the team shares with IPA available project information. After each factor is discussed, we use a breakout session to cover metrics and analysis results for your project, and to understand how those results may or may not alter scope and execution decisions. The workshop also provides tools to guide the project team through the process. The workshop produces a precedence diagram or roadmap of the work to be completed; we also provide tools for examining the effectiveness of the appraisal, evaluating team alignment and communication, and planning an appropriate FEED duration.

The precedence diagram provides the team with a roadmap for proceeding through Concept Selection into FEED. The major activities are placed in relative order in the schedule; effective order is empirically shown to drive successful outcomes. The roadmap is customized to the team's and project's needs using the metrics and information inform both the workshop and the breakout discussions. The roadmap can be used to identify key individuals, key decisions, key deliverables and when and where their presence is required, and to clarify functional and stakeholder interfaces.

For more information regarding IPA's AOW product, please contact **Neeraj Nandurdikar**, Manager Exploration and Production Business Area at (703) 726-5361 or at **nnandurdikar@ipaglobal.com**

To subscribe to IPA's Newsletter, please visit our website at www.ipaglobal.com.

To be kept informed regarding upcoming IPA Institute programs and courses being developed for capital project improvement, join our mailing list at www.IPAInstitute.com

IPA to Lead Discussion Group on Offshore Turnaround Analysis at UIBC

IPA will host a session at UIBC to demonstrate its offshore turnaround evaluation capabilities and to explore topics of interest to our clients. Currently we have analyzed offshore turnarounds performed by five companies in five different geographical areas. These data combined with data from onshore turnarounds help us identify practices that drive success and/or failure of offshore turnarounds.

In terms of specific characteristics, data indicate that the major factors affecting offshore turnarounds are:

- For most offshore turnarounds, schedule duration is considered the single most important factor, rather than trade-offs between schedule and maintenance costs.
- On average, offshore turnarounds are shorter but are taken more frequently than onshore turnarounds.
- The constraint of People On Board (POB) limitations reduces flexibility in the use of labor resources.
- Replacement of equipment, rather than repair of that equipment, is more frequent in offshore turnarounds.
- Logistics are significantly more important and require more detailed planning for off shore turnarounds.
- The interrelationship and interdependence between platforms limits alternatives for individual turnaround timing.
- Coordination with other functions (i.e., subsea systems, wells, etc,) increases the level of complexity for planning.

Furthermore our data indicate that the success of offshore turnarounds is dependent on alignment and clarity of business objectives, Turnaround Front-End Loading (TFEL), and team integration. During the execution phase, strict adherence to those plans, strong controls, and safety awareness help shape the ultimate results of offshore turnarounds. Finally, our research shows that retaining ultimate responsibility within the operator or owner organization is what separates well executed turnarounds from failure turnarounds.

To address current industry needs in addition to offshore turnaround system benchmarking and individual turnaround analysis, IPA offers a two-day workshop which focuses on setting the basis for achieving offshore turnaround excellence. These products help clients identify strong points in their organizations and strengthen weak factors that may be preventing them from performing successful turnarounds.

At our upcoming session at UIBC, IPA will:

- ✔ Provide a summary of drivers of success for offshore turnarounds
- ✔ Introduce IPA products and services for offshore turnarounds
- ✔ Ask its offshore clients to assist in defining the research agenda for offshore turnarounds

For more information, contact **Lynn Dickey**, Senior Project Analyst at **ldickey@ipaglobal.com**, or **Patricia Griffith**, Regional Director, Europe at **pgriffith@ipaglobal.com**.

Upcoming IPA Events and Presentations for 2009

September 17

IPA to Present at the 43rd IPLOCA Convention

Leslie Link, Manager, Refining, Pipelines and Terminals, will present at the 43rd IPLOCA (International Pipeline and Offshore Contractors) Convention on September 17th in San Francisco, CA. Leslie's technical presentation is titled "In Search of Excellence in Pipeline Projects."

October 12 - 15

IPA to Present at the Petrochem Arabia Conference

Patricia Velazquez Griffith, Managing Director for IPA's two European offices, will present at the Petrochem Arabia Conference. This technical presentation will provide insights into the timing of projects for the commodities industry. The conference will be held October 12 to 15, 2009 in Abu Dhabi.

October 29 - 30

IPA Paper Selected for PMI Congress in Peru

IPA is pleased to announce that its paper, *Success vs. Failure - What Is the Difference Between the Best and Worst Projects?*, has been selected for inclusion in the Project Management Institute (PMI) Lima, Peru Chapter's Project Management International Congress to be held on October 29 and 30, 2009, in Lima, Peru.

The paper, authored by IPA Project Analysts Andre Choma and Stephen Bransfield and IPA Research Analyst Swati Bhat, discusses the findings of research carried out by IPA over the last few years on the main differences between successful projects and those that fail in some way or do not reach their objectives. The paper presents four case studies to illustrate the effects that good and bad practices have on projects.

The Congress aims to collect and share Best Practices used by different companies, businesses, and product and service organizations to improve project results. The event will be sponsored by IPA. For more information on the Congress, please see **www.pmi.org.pe/congresso/en.**

November 9 - 11

Upstream Industry Benchmarking Consortium (UIBC) 2009

The **Upstream Industry Benchmarking Consortium (UIBC)** will be held in Tysons Corner, VA, USA. The UIBC provides an independent forum for each participating company to view its performance against the performance of other companies. The consortium highlights Best Practices, reinforcing their importance in driving improvements in asset development and capital effectiveness. For more information on the UIBC, please contact **Rolando Gachter** at **rgachter@ipaglobal.com**.

November 11 - 13

IPA Paper Selected for PMI Congress in Brazil

IPA is pleased to announce that its paper, *Integrated Project Team - The First Step For Success*, written by IPA Project Analysts Andre Choma and Carlos Flesch, was selected for inclusion in the Project Management Institute's (PMI's) Fourth Brazilian National Project Management Congress to be held from November 11 to 13, 2009, in Belo Horizonte, Brazil.

The paper presents research findings on several completed projects executed worldwide to demonstrate the effects of three factors on project results: (1) turnover of a key team member, (2) team composition, and (3) the team's experience level. In addition, the paper discusses the risks related to these factors and the practices that can be used by teams to mitigate these risks.

The Brazilian National Project Management Congress will offer presentations on portfolio, program, and project management; leadership, negotiation, and conflict management; facilitated workshops; cases; and basic courses. The event will be sponsored by IPA. For more information on the Congress, please see **www.pmimg.org.br/geral/CongressoNacional/evento.htm**.

December 2 - 4

IPA to Present at Mundo PM Conference

IPA Regional Director Carlos Tapia will present at the IPEMAC 2009 Conference, which is part of Brazilian project management journal *Mundo PM*'s "Special Day - Mundo PM" series, to be held from December 2 to 4, 2009, in Sao Paulo, Brazil. During the conference, there will be discussions of project management processes, methodologies, and Best Practices.

Carlos' presentation will focus on the importance of Front-End Loading (FEL) in achieving successful projects and the benefits of using Best Practices for capital projects. For more information on the event, please see **http://www.mundopm.com.br/eventos.jsp**.

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2009 IPA Institute Course Offerings

To view full course descriptions, pricing, registration details, and special discounts please visit our website at www.IPAInstitute.com

Best Practices for Effective Contracting and Risk Management

September 22 - 23: São Paulo, Brazil
December 9 - 10: Singapore, Singapore

Practices for Shorter, More Cost Effective Turnarounds New Course!

September 23 - 24: The Hague, The Netherlands

Successful Megaprojects - A Seminar for Those Involved with Large and Complex Projects

September 29 - October 1: Houston, TX, USA

Project Management Best Practices (21 Professional Development Units)

October 6 - 8: Newark, New Jersey, USA
October 13 - 15: Singapore, Singapore
November 3 - 5: Rotterdam, The Netherlands
November 3 - 5: Johannesburg, South Africa
December 1 - 3: Bogotá, Colombia

Gatekeeping for Capital Project Governance

October 6 - 7: Rio de Janeiro, Brazil

Best Practices for Small and Plant Projects (21 Professional Development Units)

October 20 - 22: Houston, TX, USA
November 3 - 5: Dusseldorf, Germany

Best Practices for Mining Projects

November 3 - 4: Santiago, Chile

Exploration and Production Project Best Practices (21 Professional Development Units)

November 4 - 6: Rio de Janeiro, Brazil

Project Management for National Companies

November 17 - 19: Beijing, China

Establishing Effective Capital Cost and Schedule Targets

November 17 - 18: Johannesburg, South Africa
December 1 - 2: Santiago, Chile
December 7 - 8: Singapore, Singapore

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IPA Improves the competitiveness of our customers through enabling more effective use of capital in their businesses. It is our mission and unique competence to conduct research into the functioning of capital projects and project systems and to apply the results of that research to help our customers create and use capital assets more efficiently.

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The IPA Institute's mission is aligned with the overall IPA mission to improve the capital productivity of its clients. The programs offered provide a forum for in-depth understanding of key elements of the capital project process and how to apply these learnings to effect positive changes and improvements, resulting in the more effective use of capital.

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