

# IPANewsletter

## Strengthening Project Organizations for Local Governments

Article and Research by Lucas Milrod, IPA Deputy Director of Research, Organizations & Teams, and Catherine Petrick, IPA Advanced Associate Research Analyst

For private-sector owner companies looking to improve capital project performance outcomes, strong project organizations that are appropriately designed and staffed to achieve their goals serve as a foundation for improving. The same is true for government and quasi-government agencies in charge of delivering and maintaining publicly funded assets. Granted, stakeholders' goals and expectations differ with respect to private and public-sector capital projects. Whereas sponsors of private sector projects are motivated to use capital effectively to increase shareholder value, sponsors of public sector projects are focused on ensuring the capital allocated to deliver a project provides value to constituents. However, project sponsor demands to achieve cost and schedule performance expectations are common to both sectors.

Recognized worldwide for its capital projects evaluations and research in the chemicals, refining, energy industries, and other capital-intensive processing sectors, IPA is now also helping a growing number of public-sector entities improve their capital project performance. One way public-sector entities engage IPA is to conduct an in-depth evaluation of the client's project organization. One recent example of how IPA helped a client in the public sector make capital work harder for its internal and external stakeholders—public service personnel and local taxpayers—was by performing an organizational assessment of Sarasota County's Capital Projects Department (CPD).

Located along Florida's Gulf Coast, Sarasota County serves a population of more than 400,000, providing local public safety services; public works and utilities; a system of libraries and historical sites; public beaches, parks, and recreation centers; a local transit authority; and other general public services.

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County leaders asked IPA to determine whether the CPD's organizational design and staffing were sufficient to support the county's projects portfolio demands. In 2019, the county had a portfolio of over 160 projects under the control of different departments, with a combined value of more than \$170 million.

Lucas Milrod, IPA Deputy Director of Research, Organizations and Teams, explained that county administrators recognized the advantages of having a single organization, the CPD, set up to handle the county's expansive projects portfolio. The idea was that this would enable them to leverage a single pool of resources and establish consistency in the way project work was done. The county's leaders wanted to understand how the department could leverage project delivery efficiencies across the county's entire portfolio to increase the overall success rate, Milrod explained. They had been successful in delivering some larger and more expensive assets, a new library among them. However, they had also experienced challenges in delivering projects, with some taking longer than expected to complete and costing more than initially anticipated.

**IPA's Analysis and Findings.** IPA's organizational assessment collected detailed information about the CPD from many angles. Data were collected via an organizational questionnaire sent to personnel in various agencies. In-depth interviews with Sarasota administrators were conducted to glean insights into their understanding of the CPD's purpose, organizational structure, internal processes, and project practices. IPA also administered a survey to collect information and perspectives from the county's capital project professionals and other functions responsible for effectively delivering projects.

IPA then set out to assess strengths and opportunities for improvement across key areas of organizational design: resourcing, organizational structure, work process, gatekeeping and governance, and, critically, commitment to improvement. IPA leveraged its proprietary databases to compare features of Sarasota's CPD to organizations with similar portfolio characteristics. IPA's project system database consists of observations from over 100 project systems responsible for executing global and domestic capital portfolios across a number of industry sectors.

High-level findings resulting from IPA's assessment included:

- County stakeholders genuinely recognize the advantages of having a dedicated group of project professionals to strengthen project performance
- Though intended as a centralized project support group, project management inconsistencies from one department

to the next are a likely cause of the variable project performance outcomes the county had seen

- While some core project functions are adequately staffed (i.e., project and construction management), the county has opportunities to support existing personnel in other project functions

**Targeted Recommendations Based on Shared Practices of Top Performers.** As a product of our assessments, IPA provides clients with tailored, actionable recommendations from which to drive performance improvements.

For Sarasota County, this means contextualizing the findings into actions that can be implemented within the county and CPD to improve overall performance. Within CPD's former setup, operations managers were assigned to each of the county's owner department portfolios. As a result, project practices and performance expectations and outcomes varied. By implementing a truly centralized support system, the CPD is now able to identify and provide resources when needed, standardize practices, and establish key performance measures. More centralized organizations tend to have more consistent performance because they have better systems in place, IPA's organizations and teams research has shown.

Additional recommendations for Sarasota's CPD included:

- Continue to build capability and influence of the CPD in executing Sarasota County's capital projects
- Ensure the units within CPD are approaching county capital projects consistently through a common work process and defined gatekeeping system; establish systems to routinely evaluate the effectiveness of these practices to facilitate organizational learning and support continuous improvement
- Amidst future portfolio demands, supplement existing staff with additional owner and agency resources in key functions

**Optimize the Staffing, Competence, and Structure of Project Organizations and Teams.** With IPA's databases and research, it is possible to determine whether staffing levels are sufficient across an organization for the performance of critical functions, including project management, lead engineering, and construction management. Organizational assessments provide decision makers in the public and private sectors with key insights into the foundational issues that need to be corrected to improve their organization's project performance.

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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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## Movers Recognized for Project System Performance Improvement at UIBC 2019

By Geoff Emeigh, IPA Staff Writer

Three Upstream Industry Benchmarking Consortium (UIBC) member companies have joined two other UIBC companies in standing apart from their industry peers by adhering to Best Practices to improve their asset delivery systems and build cost-competitive capital projects. The success that these UIBC member companies have had at strengthening the performance of their oil and gas projects was a highlight at the mid-November UIBC meeting in Leesburg, Virginia.

As noted above, the three companies, recognized as *movers* at UIBC 2019, are not the first to be lauded by their industry peers for deploying Best Practices to deliver low cost projects. Two other UIBC member companies have established their own long track records for delivering cost competitive capital projects. However, some believed their success was unique across industry. The three companies joining the top tier of UIBC project performance have demonstrated that Best Practices for keeping project costs down are not elusive. Instead, companies have to be willing to adopt and implement them well.

These five top performing companies are realizing project cost efficiencies of 30 percent or more compared to industry average, IPA Energy Practice Director Neeraj Nandurdikar said. “For these five companies, being members of the UIBC community is paying off big time,” he said, adding they have taken the UIBC low-cost framework and deployed the set of practices from the framework effectively, and are now reaping the benefits.

With lower oil and gas prices and significant changes unfolding across the energy landscape at the dawn of a new decade, energy firms are being pressed to deliver lower cost assets with predictable cost and schedule



outcomes. Unfortunately, too many companies are just beginning to show signs of implementing more disciplined systems. Some companies are continuing to struggle with improving the readiness of projects at the end of the FEL 2 Select gate, and others are still not showing much progress in putting together properly structured and functionally integrated project teams.

Many in the industry, including companies and consultants, have questioned whether the Best Practices that IPA has identified with its quantitative capital project research work, Nandurdikar said. “This proves that they do—when large global integrated oil companies with difficult and diverse portfolios can demonstrate 30 percent sustained improvement over a period of time—then the ones who cannot aren’t applying the right practices consistently.”

During the UIBC meeting keynote presentation, IPA President and Founder Edward Merrow said energy companies that are not improving the cost competitiveness of their capital projects need to generate a sense of urgency to change. The good news is that time remains to drive system performance change. The bad news: “The existential crisis is not far in the future and will happen faster than anyone imagines as markets lose interest in funding high-cost producers.”

There should be no expectation that oil prices seen during the 2011-2014 oil price boom will ever return, Merrow told UIBC member companies. Some companies have made commendable capital expenditure improvements by maintaining a “single-minded focus” on reducing project costs in response to lower oil prices. These companies adhere to a mandate from top management that project organizations are expected to drive project costs down across their entire project portfolios. Referring to the small group of UIBC owner companies that have broken away from the pack in delivering cost competitive projects, Merrow said those owners have shown no tolerance for high-cost projects. If their project team is unable to produce competitive cost targets for a project, “the project does not move forward.”

**Sessions on Decarbonization and Digitalization.** UIBC 2019 highlighted two two-part breakout sessions focusing on two critical industry topics, one examining project decarbonization considerations during development and the second on the use of digitalization to transform and improve business.

*Decarbonization of Projects: Practices and Readiness*—With decarbonization being a key strategic consideration for companies in selecting new projects, IPA engaged with member companies to first understand the state of the

industry’s decarbonization efforts. IPA then studied the potential for developing data-driven tools and metrics to help in emission-related benchmarking of projects. At this year’s UIBC, research led by IPA Energy Practice Director Neeraj Nandurdikar and E&P Associate Project Research Analyst Adi Akheramka brought together insights into the specific practices companies are following to reduce greenhouse gases and carbon emissions. They continued their research to explore how these practices influence capital projects selection and decision making.

Not all project teams are incorporating greenhouse gases and carbon reduction issues in projects. For those that are, project practices appear to be “underdeveloped to support corporate ambitions,” Nandurdikar and Akheramka found in conducting their research. “There is a clear opportunity to identify a sequenced set of tasks and deliverables that would support a project team” to incorporate carbon reduction considerations in project decision making, according to their research. The researchers shared a wide range of research findings and led a discussion with UIBC member company representatives about a project decarbonization readiness framework and carbon intensity benchmarking.

*Digitalization: The Transparency and Control We Never Thought Possible*—Digitalization has been one of the hottest topics in the E&P industry in recent years. Much of the excitement has come from advances in data analytics, which are being leveraged to optimize everything from facility and well designs to maintenance activities. This session, led by IPA Senior Research Analyst Luke Wallace, explored the critical challenges companies have experienced and are currently working through for digitalization to increase the volume, accuracy, and speed of information project teams need for decision making.

Having surveyed and interviewed representatives of more than 27 companies, Wallace spoke about diagnosing opportunities where digitalization can improve projects, such as in the areas of cost estimation and validation. Also presented was a framework, based on lessons learned from organizations that have recently implemented digital solutions, of the essential steps companies should consider to get project functions and business executives to buy into the need for digitalization.

The UIBC is a chartered voluntary association of owner oil and gas companies facilitated by IPA. Member companies—super majors and national owner companies (including those with partial state ownership), as well as majors and independents—agree to project benchmarking to measure capital project performance outcomes. All members must be committed to continual capital effectiveness improvement.

# IPA **SNAPSHOT**

## IPA Unveils Subsea Tieback Appraisal Software

By Geoff Emeigh, IPA Staff Writer

Fast-paced subsea tieback projects are just that: fast-paced. Their project teams and business executives require immediate answers as to the competitiveness of the cost and schedule estimates so as not to delay progress. IPA has responded by developing a new software tool, Snapshot: Subsea Tieback, for this growing segment of the upstream industry.

Rolled out at the Upstream Industry Benchmarking Consortium (UIBC) 2019 meeting in mid-November, Snapshot: Subsea Tieback eliminates points of friction that impede fast-paced subsea tieback project evaluations. With Snapshot, project data entry and evaluation coordination is at users' fingertips. *The result is an 80 percent reduction in cycle time for IPA evaluations of subsea tieback projects.*

"Snapshot: Subsea Tieback retains IPA's partner-first approach to measuring the performance of capital projects," IPA Energy Research Leader Jon Walker told UIBC member company representatives. IPA resources remain available to assist project teams using Snapshot. However, Snapshot integrates digital workbooks that project team members complete to streamline the data entry process, making it easier for project teams to collaborate in the collection of cost estimate data. After the digital workbooks are completed, the software produces a draft project

evaluation report on demand. The close IPA-client partnership continues as an experienced IPA analyst validates the inputs and results contained in the draft report. Validated reports are turned around in just a few days.

Snapshot also features data visualization tools built into the software. Project evaluation dashboards reduce the burden of preparing graphics for executives. The dashboard graphics illustrate how a project stacks up against similar projects in Industry and against similar projects in the client company's own portfolio.

Snapshot also is secure. The software is built on the Industry-leading AWS enterprise platform Atlassian, uses two-factor authentication and modern security protocols, and delivers fine-grained user control and tier permissions.

Snapshot: Subsea Tieback is a single platform that offers project team leaders timely, vital, and reliable subsea tieback project metrics to support project development decision making.

For more information, contact Jon Walker at [jewalker@ipaglobal.com](mailto:jewalker@ipaglobal.com).

# The Link Between Owner's Costs and Mining Project Performance

By Geoff Emeigh, IPA Staff Writer

Research by Jose Miguel Bolivar, IPA Senior Analyst, and Baqun Ding, IPA Mining, Minerals, and Metals Business Area Manager

Like other capital-intensive industrial sectors, mining companies have struggled to control rapid owner's cost growth on capital projects. IPA data indicate that owner's indirect costs have increased by more than 75 percent in two decades. Project management organizations in the mining industry have drawn heat for not keeping these seemingly value eroding expenditures at bay.

The list of factors responsible for driving owner's costs higher, and lower, is long. Mine type (open pit or underground) and size, the existence of major infrastructure in the region and other infrastructure near the project, the owner organization structure, and project team size itself are just a few known drivers. But controlling owner indirects and other non-traditional owner's costs entails more than just recognizing correlated project factors. What project organizations really need to understand is the extent to which owner indirects and engineering spending can impact capital project outcomes.

IPA Senior Consultant Jose Miguel Bolivar and Research Analyst Arkadi Lebedinskii have completed a multi-client owner's cost study involving more than 110 mining and minerals projects of varying scopes and characteristics. Companies that participated in the study contributed data for five of their recently or nearly completed projects. The study participants' more recent project data were combined with other recent mining and minerals projects data in IPA's proprietary capital projects database.

A key finding from the multi-client study is that owner's cost spending—high or low—affects the quality of project execution planning as well as project execution effectiveness. Notably, IPA found that there is an optimal owner's indirect and engineering cost range for projects in which quality and effectiveness improvements are possible. When owner's costs fall within this optimal cost range, improved cost effectiveness performance can be achieved. What's more, while the owner's cost range varies with different categories of projects, IPA concluded that the optimal range can also be used to improve cost

and schedule predictability and overall project schedule outcomes. **Figure 1** is an example of the study's findings regarding owner's cost ranges and a project's effectiveness performance.

The study also produced owner's cost spending trends for the mining and minerals industry (and also the spending trends for the individual companies participating in the study). Spending trends for typical owner indirects were created for activities such as project definition, engineering, project management, construction management, and construction services. Ten-year spending trend lines were also generated for less typical owner's costs, including sustainability costs, community support, and operational readiness. As **Figure 2** shows, owner indirect and

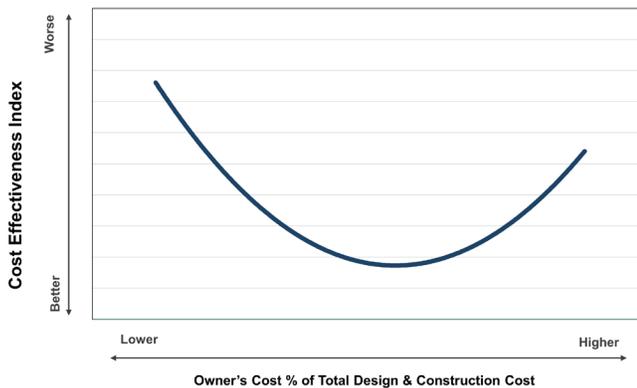


engineering costs doubled in 10 years, and then declined some starting around 2015.

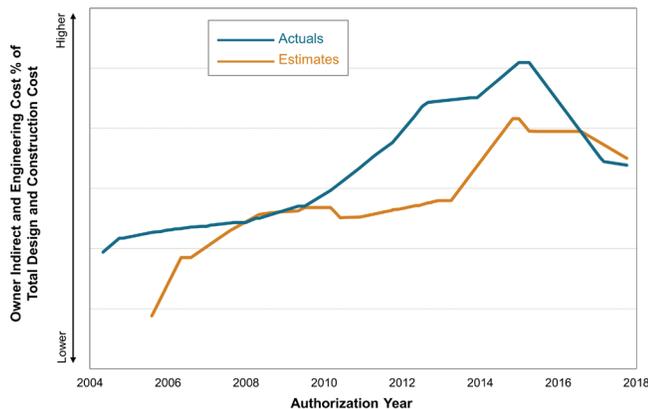
Leveraging industry learnings for capital project developments can be beneficial to all mining companies. A mining company can use this study to diagnose its current owner's cost allocation and spending strategy, identify factors responsible for driving such spending, and assess whether it should re-evaluate its project development and execution practices. The study is well suited for mining companies with project portfolios that include greenfield projects, brownfield projects, projects in remote areas with complex community issues, and first-to-region projects. Participating client companies simply need to contribute data for five of their recently or nearly completed projects.

For more information about this study, contact IPA Baqun Ding, IPA Mining, Minerals, and Metals Business Area Manager at: [bding@ipaglobal.com](mailto:bding@ipaglobal.com).

**Figure 1:** There Is an Optimal Owner's I&E Cost Range for Improved Cost Effectiveness Performance



**Figure 2:** Percent Owner Indirect and Engineering Costs\* Doubled in 10 Years, Then Corrected



\* Costs normalized for inflation/escalation and controlled for project size and location

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# Sustainability Insights from the Field of Complex Capital Projects

By Félix J. Parodi, Ph.D., IPA Senior Consultant

Why do many leaders talk about the importance of sustainability? Can a real competitive advantage be gained when sustainability practices are part of a complex project delivery process? Rather than focusing on the pitfalls of ignoring sustainability initiatives, this article provides insights about how a sustainability strategy can be integrated into complex project development and execution plans to drive superior capital project performance while truly contributing to sustainable development.

## What Have We Learned From Successful Complex Capital Projects?

A key success factor for complex projects is the integration of the business opportunity shaping and the Front-End Loading (FEL) processes of the project delivery system.<sup>1</sup> An often overlooked reason why complex capital projects fall short of business expectations is the failure on the part of project owners to implement a business-led sustainability strategy that incorporates a shared value creation mentality;<sup>2</sup> the implementation of sustainability practices at the right time provides reliable information to strengthen the decision making process during the project development. When this is accomplished, an organization can transform project complexity and risks into a comparative advantage.

### Sustainability Practices Strengthen Project Planning.

A project's definition, a key driver of capital project performance measured by IPA's FEL Index, improves as more sustainability practices are used. An IPA research study that focused on eight sustainability practices employed on more than 170 complex global capital projects reveals that top company performers use more sustainability practices than industry average during the project development phases.

The first four practices—stakeholder analysis, baseline studies, stakeholder engagement, and communication mechanisms—are core practices that are applicable to any industry sector, location, or project size and cost. These practices allow the project team to develop a detailed understanding of the local players, resources, and political environment during the initial project development stages.

Stakeholder mapping, for instance, can show interdependencies among stakeholders and illustrate

Timely integration of these 8 sustainability practices into the FEL process drives project performance.

#### Core Sustainability Practices

- Stakeholder analysis
- Baseline studies
- Stakeholder engagement
- Communication mechanisms

#### Other Sustainability Practices

- Procurement and workforce development
- Livelihood and economic capacity building
- Displacement and resettlement
- Social investments and infrastructure

how the project can influence changes as it progresses (e.g., government regulatory or policy changes, incentives, infrastructure). The aim is to achieve a stable collaboration that enhances the overall value for the sponsoring company and the project stakeholders. External stakeholders—such as governments, local communities, landowners, non-governmental organizations (NGOs), finance banks, and environmental or regulatory entities—are in many cases “difficult to control” because their missions and objectives are often at odds with the project's expected value. For example, government policies that defend the country's industrial development, set high taxes on importation of equipment and materials, or have onerous local labor content requirements can delay the start of construction.

Stakeholder collaboration requires transparency and alignment to make shared value decisions; it is usually accomplished by frequent communication and dialog among all stakeholders to build trust, establish a common agenda and measurement system, and set realistic expectations.

The next four sustainability practices—procurement and workforce development, livelihood and economic capacity building, displacement and resettlement, and social investments and infrastructure—are non-core practices. Depending on the scope of the project, the effect of their use can range from not economically feasible to providing a major supply chain advantage. These additional practices require an increased level of stakeholder engagement and should be used selectively based on cost-benefit-risk analysis.

High-performing companies dedicated to driving improved capital project performance take supply chain practices seriously.<sup>3</sup> From the corporate or business unit level down to project teams, attention should be paid to the integration of supply chain management strategies that include these non-core sustainability practices early in the FEL process. The focus here should be on assessing how sustainable development initiatives can drive competitive advantage, which is especially the case with phased investments in frontier regions designed to work within the local context.

Understanding the needs of communities and fostering a productive dialog not only reduces uncertainty and risk but also reveals opportunities in areas such as water management, hazardous material management, waste management, air quality, biodiversity, land acquisition and resettlement, human rights, energy and climate change, and local employment.<sup>4</sup> The opportunity is to achieve synergies, especially in mutually beneficial investments such as shared local infrastructure, training of local workers, and operations logistics support.

**Timely Implementation of Sustainability Strategy Drives Project Stability.** Complex capital projects are often managed in the context of severe constraints, such as inadequate infrastructure, logistical limitations, and severe climates. Political instability, regulatory issues, and corruption are potential issues that can arise in countries with weak rule of law and lack of transparency.<sup>5</sup> Such projects require practices that are implemented at the right time with a structured process. The strategy needs to be planned, documented, and monitored through the project life cycle;<sup>6</sup> timing is very important because closure of stakeholder agreements facilitates stability of the project's scope, cost, and schedule during its execution. Unfortunately, we find many examples of projects that encounter major roadblocks during execution due to valid stakeholder claims after significant investments are deployed; this is a lose-lose situation that can be avoided.

**Project Sponsor and Engineering Function Work Together to Implement the Sustainability Strategy.** Effective leadership from the project sponsor is essential.<sup>7</sup> Early assignment of sustainability experts (e.g., environmental or social and community experts) is a Best Practice to implement sustainability practices at the right time, but it is not enough to understand the project context and complexity and to implement a sustainability strategy. The project sponsor's influence is essential and can be particularly difficult in organizations that are more likely to foster a non-cooperating mentality, operate with weak matrices, or have strong

functional cultures,<sup>8</sup> especially if there are potential conflicts due to incentives that are at odds with cross-functional project requirements.

The project sponsor can work side-by-side with the engineering function to improve the effectiveness of the sustainability strategy. The engineering function can rapidly define the scope and develop cost and schedule estimates (e.g., sustainability investments) in collaboration with external stakeholders to avoid scope creep or roadblock issues during execution. Engineering might also work to improve the productivity of operations and livelihood of nearby communities. For example, water purification capacity can be added to ensure the health of construction workers and future operators and reduce local population illness. Synergies are the key to mutually beneficial solutions such as increasing the substation capacity to provide electricity to the closest town where a maintenance shop can be established, widening roads to facilitate transportation of produce from neighboring communities, and providing shorter routes for process equipment and materials.

**How Does Investment in Sustainability Offer a Path to Competitive Advantage?** An effective sustainability strategy will not only help owner companies acquire the "social license" to operate and reduce risks (e.g., delayed or shelved projects, construction delays, cost growth). An effective sustainability strategy will also improve capital project performance. IPA research into sustainability practices reveals the benefits: capital cost improvement of 10 percent and project schedules that experience fewer delays and are 5 percent faster than industry average. Data show these strategies contribute to a sustainable supply chain advantage.

**Lowering Capital Costs Through Sustainability Efforts.** Despite higher than average owner's indirect costs, complex projects that have optimal investment in indirect costs, including sustainability, achieve lower overall capital costs, and achieve more predictable cost and schedules than industry average.<sup>9</sup> Previous IPA research of 112 complex global mining, minerals, and metals (MMM) projects revealed that key factors that influence owner's indirect and engineering costs include whether the project is the first for a company in the country (i.e., first or second generation projects), experiences community issues (e.g., relocation, compensation, regional content), or has existing infrastructure (e.g., housing, hospitals, roads).

**Lowering Capital Costs Through Investment in Sustainability Requires a Share Value Focus.** Shared value must be earned through investing time and presence during project development; this is not the first time

we see similar requirements—upfront planning and owner presence affect construction safety too. In addition, project’s solar and wind energy, and other capital investments (e.g., green investments) that contribute with climate change initiatives and environmental conservation can be used to establish mutually beneficial synergies with local communities.

Investments in sustainability cannot be justified as compliance requirements, risk avoidance, philanthropy, or good corporate citizenship alone; they must be an integral part of the business case and treated as strategic investment with clear profit goals. Business leadership is essential to ensure management integration and early deployment of organizational capabilities necessary to support governance and a sustainability strategy. Adding value to social progress can provide shared prosperity and competitive advantage.<sup>10</sup>

### Supports Shared Value

Sustainability scope planned early

Owner’s leadership in resource planning (local labor and training)

Early engagement and continuous dialog with stakeholders

Early sanitation projects to reduce disease

Support development of small business, agricultural, and economic activities

Educate and support health and environment

Vulnerable groups specifically included

Regional strategy with suppliers and vendors

### Hinders Shared Value

Consider not difficult or not important

Delegate responsibility for training to contractors or government

Insist on importation of “cheap” labor

Absence of grievance mechanism

Late dialog about water for agriculture and livestock

Lack of senior management involvement in sustainability issues

No studies for local community health

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## Deb McNeil Joins IPA as Capital Solutions Director

IPA is pleased to announce that Deb McNeil has joined IPA as Director, IPA Capital Solutions. McNeil brings over 40



years of successful industry experience in capital project execution, work process improvement, and digital technology implementation. In her role, Deb will be working closely with clients to understand their current performance, clarify the challenges they face, and help develop and implement plans to drive improved capital project results.

Deb started her career as a Process Engineer with Union Carbide Corporation (UCC) before expanding into people leadership and work process design and implementation. She helped design and led the global implementation of a new UCC capital work process, and led the implementation of a corporate-wide document management system, as well as Systems, Applications, and Products (SAP) configuration.

In 2001, Deb assumed responsibility for the Dow Chemical global capital work process and drove work process improvements utilizing Six Sigma and a unique talent development curriculum. In 2015, Deb led the definition and design and initiated the implementation of Dow’s Digital Project Execution Initiatives. During her time there, Deb was also an integral part of Dow becoming a leader in Advanced Work Packaging implementation.

Deb earned a BS in Chemistry, BS in Chemical Engineering, and MS in Chemical Engineering from Clarkson University.

# Focusing on European Airport Capital Project Effectiveness

By Maria Pinilla, IPA Advanced Associate Project Analyst

Global airport executives are finding that IPA can assist them at better understanding practices that drive capital project effectiveness and system improvements.

At the European Airports Project Benchmarking and Research Consortium held in September 2019 in London, representatives of large and mid-size airports in the U.K. and Ireland indicated that they recognize the benefits of collecting project data and conducting research specific to airport projects. Airport industry participants expressed particular interest in governance practices, construction labor productivity, and cost performance outcomes for projects both large and small, including runways, parking areas, and baggage handling systems. During the day, one of the attending airports shared its own capital improvement journey with the participants.

The European airports capital projects consortium builds on the success of the consortium that gathered in Northern Virginia a year earlier. Most of the airport executives at last year's gathering represented airport authorities in North America. European airport leaders at the London meeting "agreed that enlarging the consortium to include a wider representation of European airports is important to establish a robust understanding of the sector," IPA Airport Capital Project Improvement Leader Maria Pinilla said.

IPA delivered several presentations during the European airports project consortium. The following topics were discussed:

**State of Capital Projects in the Airport Industry in Europe.** More than 300 known projects above US\$5 million

are ongoing, with investment mostly focused on expanding existing airports. With all this capital at stake, airports should aim for more efficient planning and delivery.

**Project Governance.** IPA's capital projects research finds the average expected net present value (NPV) of a project degrades by 22 percent. Many things are outside of executives' control, but one thing they can control is the quality of the work behind key decisions through a stage-gated process.

**Role of the Project Sponsor.** The project sponsor is the primary proponent for the project and owns the business case. Ultimately, project sponsors are accountable for the value of the project while balancing risk and reward. Project sponsors must make sure that the capital project has value to begin with and that the value is maximized and maintained over the project delivery cycle.

**Drivers of Revamp Projects.** Owners perceive these projects to be more difficult to execute than their non-revamp counterparts because of constraints in design, as well as work being done in a congested operating environment. Because many of the airports in Europe have existed for almost 80 years, much capital investment is required to address smaller maintenance projects to keep these airports running smoothly and to address the needs of growing passenger volumes.

**Key Principles in Contracting.** Hiring firms to execute major capital projects is possibly the most difficult single aspect of project management. As a result, few owner organizations



are consistently effective in their contracting strategies.

Moving ahead, IPA will collect airport data from consortium members starting with a series of brief surveys targeting specific subject areas, including project sponsorship, construction labor productivity, and governance. IPA will facilitate the data gathering and summarize research findings for participating airports. In the long term, we will continue to collect data that will be used to further understand what drives effectiveness in airport projects as well as begin to establish a benchmarking methodology for projects in this sector.

Additionally, consortium members had opportunities to network and share practices during the event. Therefore, we plan to continue with the consortium, and will be working to enlarge the group and regions represented.

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# IPA Events and Presentations

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## 24th RPTM

January 20, 2020  
Bengaluru, India

IPA Project Analyst Manoj Prabhakar, Ph.D., will present IPA research in a paper, titled “Sustainable Future: Improving the Competitiveness of the Assets,” at the 24th Refining and Petrochemicals Meet (RPTM). During his presentation, Prabhakar will discuss IPA’s view that many Indian refiners do not have adequate owner project management capability in place. Indian refiners must take proper steps to develop the needed capability to ensure asset investments will deliver as planned.

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## Upstream Industry Benchmarking Consortium (UIBC) Rio

February 6, 2020  
Rio de Janeiro, Brazil

Upstream Industry Benchmarking Consortium (UIBC) member companies operating in Latin America will attend an exclusive meeting to compare key performance and practice metrics against other peer organizations. Additionally, IPA will share new research addressing key topics of interest within the industry. For more information, contact Andrew Griffith, Director of Consortia Membership and the IPA Institute, at [agriffith@ipaglobal.com](mailto:agriffith@ipaglobal.com).

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## ECC Sponsor’s Only Session

March 4, 2020  
Houston, Texas

IPA Chief Operations Officer Elizabeth Sanborn will share IPA’s perspectives into how owners and contractors can improve working relationships during the delivery of capital projects at the Engineering and Construction Contracting (ECC) Association’s Sponsor’s Only Session (SOS). The ECC SOS is a “forum to engage in productive dialogue between owners, contractors, and suppliers on ways to advance our industry.” Visit ECC’s website for more information (<http://www.ecc-conference.org/>).

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## Industry Benchmarking Consortium (IBC)

March 16-19, 2020  
Leesburg, Virginia

Established in 1992, the IBC is a premiere group of the world’s leading industrial companies in the processing, refining, infrastructure, and mining and minerals sectors. Through benchmarkings of both large and site-based systems conducted by IPA, IBC member companies receive exclusive insights into how their capital project systems and outcomes stack up against their industry peers with respect to safety, cost, schedule, and operational performance. IBC member companies actively discuss the latest capital project industry trends and performance hurdles at the annual meeting, as well as through competency-focused subcommittees, communities of practice, and periodic webinars.

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## ABA 2020 Forum on Construction Law Annual Meeting

April 23, 2020  
Seattle, Washington

IPA Founder and President Edward Merrow will be the opening keynote speaker at the American Bar Association (ABA) Forum on Construction Law’s Annual Conference. Merrow’s presentation, titled “Why Megaprojects Fail So Often and Why You Should Care No Matter the Size of the Project,” will review typical construction lawyer roles on behalf of the owner, designer, and contractor; how lawyers can contribute to project success; and how contributing to project success can be reconciled with obligations to the client.

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## IBC EMEA

May 13-14, 2020  
The Hague, The Netherlands

IBC member companies operating in Europe, the Middle East, and Africa will attend an exclusive meeting to learn how their capital project systems and outcomes compare against other peer organizations. Additionally, IPA will share new research addressing key topics of interest within the industry. For more information, contact Andrew Griffith, Director of Consortia Membership and the IPA Institute, at [agriffith@ipaglobal.com](mailto:agriffith@ipaglobal.com).

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