ACTIONS TO ADDRESS CAPITAL PROJECT NEEDS:

INDUSTRY / SOCIETY COLLABORATION

PALM SPRINGS, CALIFORNIA
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Agenda

• Industry Perspective
• Society Collaboration Initiative
• Discussion Topics
  – Resource Availability
  – Global Impacts
  – Owner and Contractor Relationship
• Game Plan Moving Forward
• Closing Comments
INDUSTRY PERSPECTIVE
Industry Perspective

• For many years, the potential human resource problem in the engineering & construction industry had been discussed – it is now upon us.

• Engineering and construction resources, as well as project management and project control resources, are in high demand with limited availability.

• Projects tend to be more global in nature, highly complex and often include multiple international stakeholders.

• Capital project activity has increased since the world economic crisis with limited backfill of engineering and construction resources.

• Owners today outsource more of the overall project development and execution steps and rely heavily on outside contracted support.
Industry Perspective

- Today’s project engineer is asked to move into more leadership roles faster and with less years of experience than the traditional maturation process would allow.
- Environmental, pricing and geopolitical issues are generating a shift in regional project activity.
- Less experienced owners overseeing less experienced contractors on more complex and challenging projects, lends itself to project results that do not meet defined goals.
- Seems to be a very splintered approach to addressing the issues rather than a collaborative effort across all industries and disciplines.
- How do you see it?

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SOCIETY COLLABORATION INITIATIVE
Society Collaboration Initiative

Issue

• There are many societies/associations that touch upon capital project planning and execution.
  – Many focus strictly on their discipline.
  – Others focus on a particular industry.

• All address project issues separately, but typically as a minor subset of their main focus.

• There is a need to bring these efforts together to address common issues that challenge us all:
  – Engineering/construction resource availability
  – Attracting people to the project environment
  – Environmental/regulatory issues
  – Governmental interface
  – Etc.

• There seems to be no one group leading the charge.
Society Collaboration Initiative

ECC has taken on this Role

• Communicating with a number of Industry Disciplines/ Societies.
• Engaging several societies in a mid-year Collaboration Workshop (April 2013, Baltimore).
• Collected feedback from past year’s ECC Conference and 2013 mid-year Society Collaboration Workshop.
• Feedback today / gain direction for 2014.
Society Collaboration Initiative

Benefits

• Bringing together various industry sectors.
• Address project issues collaboratively.
• Entice other discipline sectors to join the Initiative.
• Diversification across industries.
• Drive change in the Engineering / Construction Industry where needed.
DISCUSSION TOPICS
DISCUSSION #1
RESOURCE AVAILABILITY
Discussion #1 – Resource Availability

Background
• Attracting and retaining project resources in the engineering and construction industry continues to be an issue.
• The industry is retiring more people than we are attracting, which causes the “brain drain” that has impacted our respective industries.
• Overall unemployment remains high -- yet resources are in demand in our respective disciplines and industries.
• More project activity evolving in North America.
• Plant-based resources are asked to plan and execute large scale capital project expansions while applying traditional small project tools and techniques.
• Can we connect the dots?
Discussion #1 – Resource Availability

Issue

- Discipline societies focus more with college graduates than trade issues.
- Many indicated that they had not seen the societies come to their office to talk about their industry/to show career path & build awareness of the industry.
- O&G and pharmaceutical industries are on cutting edge of new technology, but not viewed as such. Competing against the digital/animated industry (Gamers).
- Older generation is typically recruiting with boring PowerPoint presentations.
- Small projects transitioning to big capital projects – Project Management and Procedures.
- There is a rapid acceleration in career development.
- Functional societies are not articulating PM role needs and industry growth/needs.
- What is the role for the Societies in this Issue?
Discussion #1 – Resource Availability

**Initiatives**

- Better marketing and communication with the younger generation
- Represent the industry opportunities, not brands.
- Several companies have set examples starting at a HS level.
- Give HS students exposure to industry – Summer Internships initiated by societies through corporate sponsorships.
- Showcase the new edge technology within our industries.
- Work with functional societies to inform/educate new generation of growth/development opportunities in Industry (i.e. project environment, technical, business, management, etc.).
- Make Engineering/Construction industry more attractive. Needs to be generic, not specific.
- Develop educational video/commercial - appealing to the younger generation.
How do you see the Societies assisting in this Issue?
DISCUSSION #2
GLOBAL IMPACTS
Discussion #2 – Global Impacts

**Background**

- Most projects over the past decade had some form of international participation.
- Many projects are being executed overseas, many contractors are from offshore locations, materials and supplies are sourced from multinational companies.
- Many projects are Joint Ventures with local governments.
- Local regulatory issues are ill-defined, fluid and often divergent from project objectives.
- Language and cultural differences continue to constrain effectiveness.
- Domestic US activity showing signs of recovery and, in fact, major projects being considered that will encourage international participation.
Discussion #2 – Global Impacts

**Issues**

- Most industry major projects have been overseas in past 15 years (especially O&G).
- Recent years have seen industry growth in the US and Americas.
- Not all Global Education Institutions provide high quality education.  
  - Training needs to address cultural and language issues.
- Project technical scope is the same – Execution changes when working with international partners.
- Potential for more international companies and Labor coming to US.  
  - Adjustments of project procedures need to respect cultural aspects of resource pool.
- Can societies take a role in this issue?
Discussion #2 – Global Impacts

**Initiatives**

- Societies can provide better understanding of cultural differences but details will be addressed on a project-by-project basis.
- Societies should provide a cultural awareness track or training to address these issues.
- Societies can take a role in dispersing Lessons Learned that address international alignment issues as well as cultural diversity.
- Societies can take a role in teaching incoming international players how to work within the US culture.
- Societies can take a more proactive role in the early understanding of international Government Requirements and Regulations.
- Smaller players need help for multi-cultural adjustments programs and lessons learned from the big players. Knowledge can be transferred through industry societies.
How do you see the Societies assisting in this Issue?
DISCUSSION #3
OWNER AND CONTRACTOR RELATIONSHIP
Discussion #3 – Owner and Contractor Relationship

**Background**

- As industry activity accelerates and owners develop more robust capital project programs, more contracted support will be required.
- This is a direct result of the previously discussed resource limitations within the owner project engineering groups.
- Outside resources are not an option anymore, they are mandatory. The question now is – How do we effectively engage them?
- For many years, we have argued about what constitutes the best contracting strategy and compensation approach.
- The traditional Lump Sum or Reimbursable Cost approaches will not attract and retain contractors’ best resources in today's active project environment.
- As contractors get busy – What will attract and retain the resources required to execute these large scale complex projects?
Discussion #3 – Owner and Contractor Relationship

**Issues**

- Minimal respect for the influence different contracting strategies have on project outcomes.
- Contracting for services has been pushed to procurement in many organizations.
- Terms and Conditions of a contract are often not understood by both parties doing the work.
- Poor perception of risk ownership - Contractor or Owner?
- Are there Societies supporting Contract Development and Certifications?
- What are the societies’ role in this Issue?
Discussion #3 – Owner and Contractor Relationship

**Initiatives**

- Awareness should be reinforced through societies to what the various contracting options are and when they are typically used (this can not be a sales pitch for any contracting alternative).
- Discipline societies need to address the split of responsibility between owner, vendors and contractors and how the work differs.
- Societies may need to have a separate Engineering/Contractor Division.
- Societies can reinforce the power of the contracting process – makes or breaks the deal.
- Society could do a service by educating owners and contractors on:
  - Contracting policies, processes.
  - Contractor/Owner relationship balance and benefits.
  - Simulated session - switch contractor and owner roles.
  - Building empathy and awareness.
  - Regional topics to include: Contracting & projects from Contractor’s perspective.
- Courses with accreditation in Contracting, Contractors roles, Construction. Not just owner’s.
How do you see the Societies assisting in this Issue?
Game plan moving forward
Game Plan Moving Forward

• Greater participation from Industry Disciplines / Societies.
• Participation in next ECC Society Collaboration Workshop in Spring 2014.
• Provide your thoughts on Industry Topics to address in 2014 (Feedback Cards).
• Provide progress update on Collaboration activities at 2014 ECC Conference - September 3-6, 2014 - JW Marriott Grande Lakes, Orlando, FL.
Closing Comments
Thank You

See You Next Year!

Mid Year Society Collaboration Workshop and

ECC Annual Conference

September 3 - 6, 2014
JW Marriott Grande Lakes, Orlando, FL

www.ecc-conference.org