



ACTIONS TO ADDRESS CAPITAL PROJECT NEEDS:

INDUSTRY / SOCIETY COLLABORATION

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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



engineering and construction contracting association

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



engineering and construction contracting association



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.





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.





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?

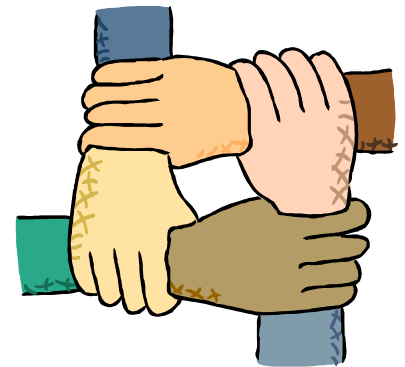


Discussion #2 – Global Impacts



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 is 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

