

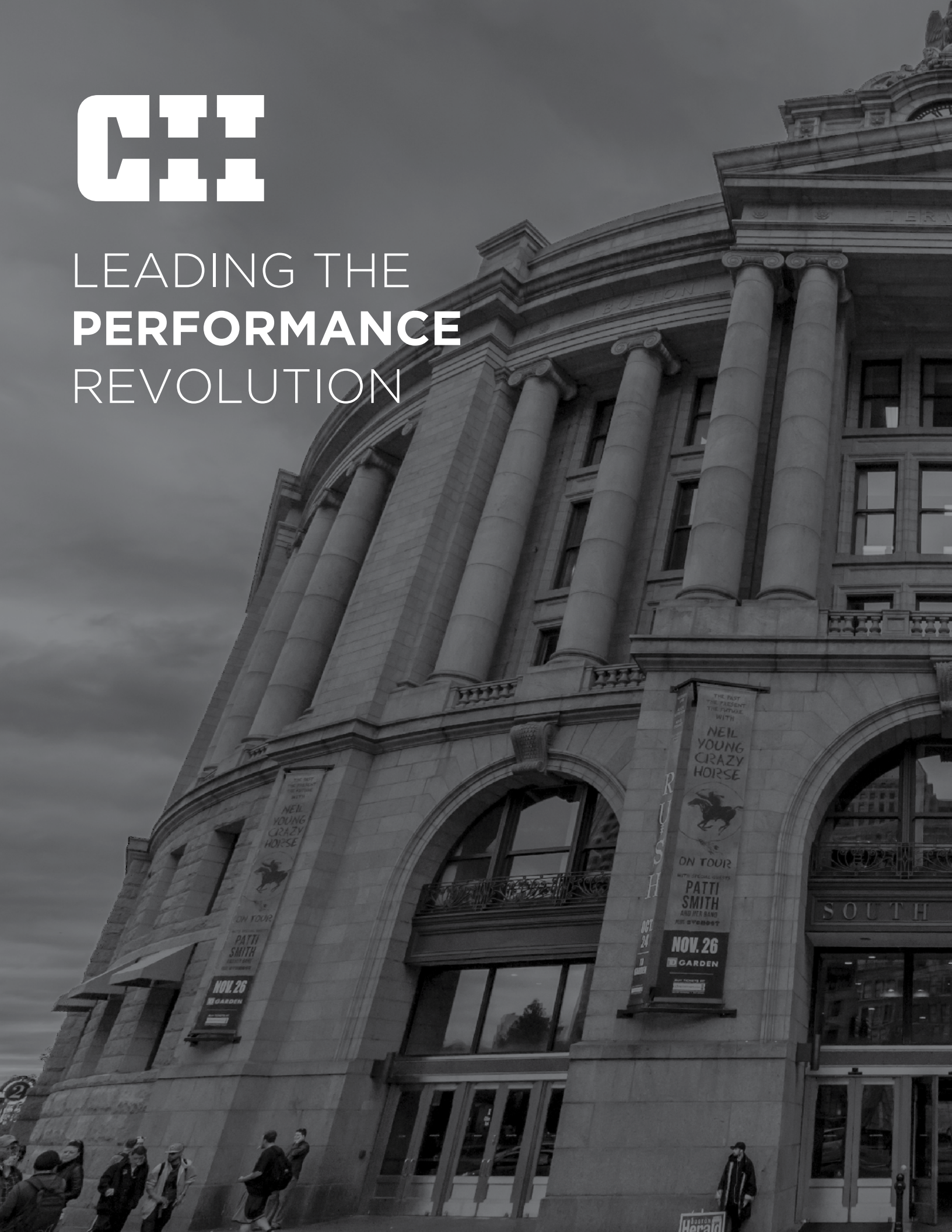
# 2015 ANNUAL REPORT

LEADING THE **PERFORMANCE**  
REVOLUTION





LEADING THE  
**PERFORMANCE**  
REVOLUTION





# THE CONSTRUCTION INDUSTRY INSTITUTE

The Construction Industry Institute, based at The University of Texas at Austin, is a consortium of more than 130 leading owner, engineering-contractor, and supplier organizations from both the public and private arenas. These organizations work together to enhance the business effectiveness and sustainability of the capital facility life cycle through CII research, educational initiatives, and industry alliances. A research organization creating a wealth of expert knowledge and practical information, CII provides vital leadership to the engineering and construction industry.

## VISION

CII envisions a construction industry that builds predictable value for society and stakeholders.

## MISSION

The mission of CII is to inspire owners, contractors/suppliers, and academia to collaborate through research to produce best practices and implementation resources, creating innovative solutions that tangibly improve safety and capital efficiency.

## FOUR CORE **KNOWLEDGE** PROCESSES

Having begun in 1983 with 28 charter members who shared the CII vision, the Institute is now recognized in the engineering and construction industry as the knowledge leader for project success. CII has four core knowledge processes: creation, dissemination, assessment, and management.

**Knowledge Creation:** CII research teams—groups that include academic investigators and employees of both owner and contractor organizations—generate best practices and breakthroughs for the construction industry. CII Performance Assessment processes create additional knowledge, producing ongoing applied research that establishes industry norms for construction performance.

**Knowledge Dissemination:** Knowledge created by CII is disseminated to Institute members and to other organizations and individuals in the engineering and construction industry. CII distributes this knowledge through research publications, implementation guides, educational materials, workshops, and conferences.

**Knowledge Assessment:** CII Performance Assessment collects, analyzes, and assesses the impact of CII knowledge as it is initially implemented and integrated into member organizations' work processes. Once proven through member benchmarking, this knowledge is incorporated into the capital project work processes of the industry at large.

**Knowledge Management:** Since 1983, CII has produced nearly 700 research documents and hundreds of other presentations and publications. Knowledge management adds value to CII by organizing and facilitating access to CII's extensive body of knowledge. By establishing communities of practice—virtual interest groups that dynamically share and learn knowledge—CII Knowledge Management further advances the Institute's mission.

Through these knowledge processes, CII advances human knowledge and fulfills its mission to create innovative solutions that tangibly improve safety and capital efficiency.



# REMARKS FROM THE CHAIR



It was my privilege to serve as your chair during such a pivotal year for the Construction Industry Institute. A record number of research teams reported out at our annual conference in Boston, and two additional teams were granted extensions to continue their promising work in seeking the next breakthroughs in project quality and safety performance.

Member volunteers are nearing completion of the comprehensive restructuring, integration and tagging of the CII Knowledge Base. Their work will be loaded into a new content management system which is set for rollout at the annual conference in 2016. This new knowledge base will give the industry, especially our members, the ability to retrieve any CII resources relevant to their particular situation whenever they need it.

With the signing of the contract with the Economic Development Authority in Singapore this year, our research base and global influence made a huge step forward. This three-year project will provide us with important productivity data and best practices from the Asia-Pacific region, and we hope the partnership will engender a long-term collaborative relationship to benefit members planning and building there. In 2015, CII also supported organizations in Africa, Saudi Arabia and Korea that are spearheading similar efforts in those regions. In Canada and Norway, our partners continued to work with us to advance a mutual understanding and practice of delivering maximum value for money spent.

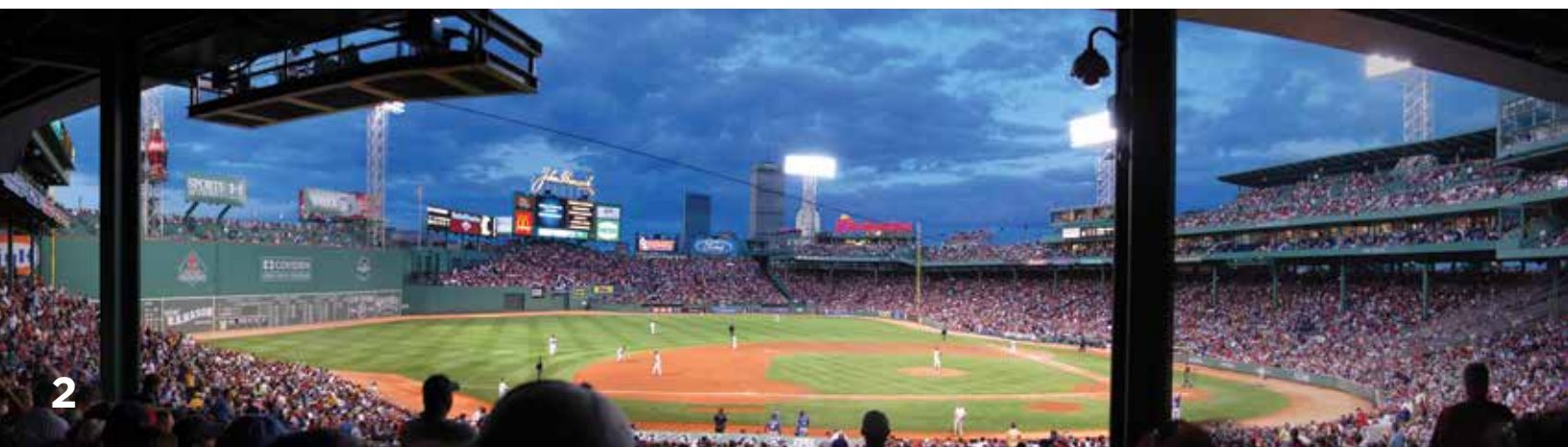
These projects were an outgrowth of the strategic plan published three years ago, calling for greater global diversity. In 2015, we formulated a new strategic plan, which calls for the Institute to

continue to broaden its influence globally and across multiple sectors of the construction industry. But the new plan also challenges us to deepen our relationships with members, especially relationships with the business executives who need to utilize capital project excellence as a strategic competitive competence in this complex business environment.

Finally, 2015 was pivotal in terms of transition within the organization. Wayne Crew, who has served CII for 12 years, 9 as our Director, handed his responsibilities over to Dr. Stephen Mulva. For the past eight years, Stephen served as Associate Director for Performance Assessment, and led CII's global expansion. Stephen brings to CII a deep understanding of our member companies and their needs, formed in his years in industry and in service of CII research and benchmarking. Beyond this foundation, Stephen brings insight, vision and energy gained on the expanding edges of CII's influence. I am convinced that Stephen will be a visionary leader who will help the Institute deliver ever greater value for stakeholders and communities.

Our company joined CII as a small member, and our involvement with the Institute has enabled us to grow in several dimensions. Simply put, we are a better contractor because of our active CII membership. We are grateful for the relationships we enjoy with colleagues, competitors and customers, all project professionals and academics focused on collaborating to make our industry not only better, but great!

Jim Backes, P.E.  
Executive Vice President  
Hargrove Engineers + Constructors



# REMARKS FROM THE DIRECTORS

Construction spending in 2015 was strong, and the industry is optimistic that the dollar volume of projects will be even higher in 2016. In one report I read, 70 percent of contractors reported having a hard time filling key salaried and hourly craft positions. Yet, many tell me that they also fear that the construction spending momentum is slowing down. Falling energy prices, softer global economic growth, and a stronger U.S. dollar are leaving their mark—and the world seems riskier than it did just a few months ago.

Set against this volatile backdrop, 2015 was yet another year full of accomplishments for CII. Ten research projects reported out at the annual conference in Boston, covering a broad range of topics from Front End Planning through Startup and Commissioning. One of the conference presentations, “Successful Delivery of Flash Track Projects,” outlined a new delivery method, while another reported on a better way to deliver information to the craft. One research team addressed the changing craft demographics the industry faces. Every CII member can implement these research findings and garner increased efficiency in their capital projects.

The effort to restructure the CII Knowledge Base made significant progress in 2015, keeping the new knowledge base well on track for its 2016 launch. This great accomplishment was facilitated by all CII members participating on the Restructuring, Integration, and Tagging (RIT) teams. I would like to express a special thank-you for these efforts, since they will benefit CII and its members for

many years to come. CII’s new content management system will be completed and launched by the 2016 CII Annual Conference.

Those of you contributing to the 10-10 Performance Assessment System will also reap the benefit of your efforts in 2016, as the increasing influx of data is offering very insightful analysis. On another positive note, CII’s Best Practices Program had a record 15 universities and 300+ graduate students participate this past Fall. Finishing off a great year, CII promoted two practices to CII Best Practice status: Advanced Work Packaging and Planning for Modularization.

Looking back at 2015, and all the previous years I served as CII Director, I see that your leadership and effort enable the Institute to accomplish more and more each year. Looking forward, I know that—under excellent leadership and with outstanding research and innovative programs—CII is poised to be even more influential and indispensable, especially in uncertain times. You have been a blessing to Rivanna and me these past 12 years, and I thank you.

Wayne Crew, P.E.  
Outgoing Director CII



There’s an old saying, “may you live in interesting times.” Whether this is a blessing or a curse is for each of us to decide. Yet, we can probably all agree that the capital projects business encountered interesting times in 2015, and that they may be around for some time. While this reality may cause distress, it can also give rise to new opportunities for our industry and CII’s members. As I begin my tenure as Director of CII, I remain very optimistic about what we can do together to create new innovations in the arena of capital projects. I believe that the work we do can yield significant benefits, and that the programs and projects you work on daily can be a source of tremendous value.

CII’s work in 2015 and over the past 32 years has dramatically improved the capital project in multiple measurable ways. This annual report chronicles the numerous advances CII and its member companies made this past year. Going forward, we can take what we’ve discovered and documented in the CII Knowledge Base, and use the capital project to foster new levels of business success. Doing so will demand enhanced collaboration and a “laser focus” on the imperative of each business sector, program, and project. Engaging our contractors and suppliers in the pursuit

of business results will reveal their ingenuity and creativeness in unique ways as owners work to promote a new form of execution. In the future, capital projects will once again become a source of organic growth and competitive advantage for businesses. While this may sound like a dream, I’m highly confident that this future state can be achieved and that CII will be its catalyst.

The research, development, measurement, education, support, and advocacy efforts of CII will continue to be crucial for the creation of new innovations in the world of capital programs and projects. Although it is an exciting and challenging time for sure, I’m looking forward to the journey and to working alongside you to build what’s next. If we remain true to our mission, I know that we will be successful.

Dr. Stephen Mulva  
Incoming Director CII







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*As of December 31, 2015*





# KNOWLEDGE CREATION

## RESEARCH COMMITTEE

In 2015, the CII Research Committee (RC) continued its work to establish and support effective, productive CII research teams. Composed of industry and academic veterans, the RC meets face-to-face four times a year (and virtually, when necessary) to manage the entire research process. Its efforts involve soliciting research topic ideas, formulating research topic statements, seeking the research priorities of the CII Board of Advisors, and supporting the Associate Director’s efforts to launch and advise research teams throughout the research cycle.

At the RC meeting held during the Annual Conference in Boston, Stan Tripp of Lyondell Bassell finished his term as committee chair. As Tripp stepped down, Brian Rhodes of Hargrove Engineers + Constructors assumed the role, having served as vice-chair for the past year. Danny Daoust of ConocoPhillips then accepted the vice-chair position.

At the 2015 CII Annual Conference, the following ten research teams reported the research findings:

- Improving Engineering and Procurement Alignment and Coordination with Construction (The University of Texas at Austin)
- Successful Delivery of Flash Track Projects (Virginia Tech; Georgia Tech)
- Best Practices for Commissioning and Start-up (The University of Texas at Austin)
- PDRI Tool for Small Industrial Projects (Arizona State University)
- Successful Delivery of Mega-projects (The University of Texas at Austin)
- Instantaneous Project Control Systems (Arizona State University; University of Alabama)
- Is There a Demographic Craft Labor Cliff That Will Affect Project Performance? (University of Colorado Boulder; University of Kentucky)
- Transforming the Industry: Making the Case for Advanced Work Packaging As a Standard Practice (The University of Texas at Austin)





# KNOWLEDGE CREATION

- Innovative Delivery Methods of Information to the Crafts (University of Colorado Boulder)
- Maximizing Success on Integrated Projects: An Owner's Guide (Charles Pankow Foundation & CII Joint Research)

The teams that kicked off in 2014 also attended the conference, to observe presentations and plan for their 2016 report-outs. Following are the teams slated for the 2016 Annual Conference:

- Definition and Measurement of Engineering/Design Deliverable Quality (The University of Texas at Austin)
- Using Precursor Analysis to Prevent Low-frequency High-impact Events Including Fatalities (University of Colorado Boulder; Oregon State University)
- Improving Project Progress and Performance Assessment (North Carolina State University; Florida International University)
- Finding Leading Indicators to Prevent Premature Starts, and Assuring Uninterrupted Construction (The University of Texas at Austin)
- Future Construction Needs of Virtual Design Models (Pennsylvania State University)
- Best Practices for Succession Planning (Arizona State University)
- Maximizing Virtual Team Performance in the Construction Industry (Virginia Tech; University of Colorado Boulder).

Every year, RC members stand as sponsors for the newly formed research teams, attending their kickoff meetings and monitoring their progress as they undertake their investigations. Following are the research teams CII launched in 2015:

- The Role of Frontline Supervision in Improving Construction Productivity and Performance (The University of Texas at Austin)
- Assessing the Maturity and Accuracy of FEED to Support Phase-gate Approvals (Arizona State University)
- Measuring the Productivity of Model-based Engineering (University of Illinois at Urbana-Champaign; Virginia Tech; Stanford University)
- Transition Management between Construction Completion, Pre-commissioning, Commissioning, and Operations (The University of Texas at Austin)
- Best Practices for Preventing Out-of-sequence Construction Activities and Minimizing their Impacts (University of Wisconsin-Madison; The University of Tennessee)
- Improving the U.S. Workforce Development System (University of Colorado Boulder; University of Kentucky)

Early in the Fall, after these teams had spent the Summer formulating their research proposals, the RC met with them virtually to review and approve their plans.

The RC continued to support the CII New Scholars Program, a recent CII Research Committee (RC) initiative to subsidize the travel of new academics with no previous CII research experience to the CII Annual Conference. At the 2015 Conference, the RC welcomed three new scholars: Alex Albert (North Carolina State University); Semiha Ergan (New York University); and Stephanie Vereen (University of Alabama).

In 2015, the RC and the Performance Assessment Committee (PAC) jointly instituted an initiative to support research and performance assessment data collection at the Board of Advisors (BOA) level. Research staff consolidated data requests from active research teams in October and presented them at the Fall BOA meeting, asking BOA representatives to match the requests with the names of people within their organizations who could provide the data. Because the BOA response was outstanding for this initial effort, the RC plans to continue to elicit data requests from research teams for both Spring and Fall BOA meetings every year.

## BREAKTHROUGH STRATEGY GROUP

With the board's approval at the Fall BOA meeting in 2015, the Breakthrough Strategy Committee (BTSC) was reorganized as a sub-committee of the Research Committee. Now called the Breakthrough Strategy Group, this subcommittee has begun to integrate the BTSC's process for developing research topics into the RC's topic generation process. CII expects this more cohesive topic generation process to broaden its outreach to new academics and, thus, enable more effective identification and development of high-impact breakthrough research topics. Still led by BTSC Chair Ray Simonson and with Tad Fry replacing outgoing Vice-chair Michelle Kayon, the group will continue its efforts to enhance exposure of CII members to the emerging and most innovative practices and technologies as they become available and affordable. By consistently and more frequently offering these glimpses over the industry horizon, the BTSG will increase the competitive edge CII members enjoy.





# KNOWLEDGE CREATION

## ACADEMIC COMMITTEE

As CII’s primary forum for the academic community, the Academic Committee (AC) continues to support CII research with their expertise. At its meeting during the 2015 Annual Conference, Dr. Carlos Caldas (The University of Texas at Austin) finished his term as Chair of the committee, and John Taylor (Virginia Tech) assumed the post. Dr. Ed Jaselskis (North Carolina State University) was appointed Vice-chair.

With this new leadership in place, the committee successfully held its annual research poster competition at the 2015 CII Annual Conference. This contest benefits everyone involved: it introduces CII members to non-CII research on a variety of topics; it offers an opportunity for promising researchers to experience CII, and therefore to disseminate CII research to the broader academic community; and it creates direct contacts between CII industry members and participating researchers, increasing the likelihood of future collaboration between industry and academia. The competition drew more than 40 submissions, of which 10 were selected. Cristina Poleacovschi, a graduate student at the University of Colorado Boulder took first place for her poster titled “Which positions and connections matter in knowledge networks?” Co-authoring the poster was Dr. Amy Javernick-Will of the University of Colorado Boulder.

Dr. Burçu Akinçi of Carnegie Mellon University was the AC’s plenary speaker at the 2015 annual conference. In her presentation, titled, “Visual Sensing and Analytics for Construction and Infrastructure Management,” Dr. Akinçi discussed the ways that visual sensing technologies prevent quality and schedule issues during construction, and how they

support energy efficiency and occupant comfort once operations have commenced.

In addition to its CII Annual Conference activities, the committee continued to promote wider awareness within academia of CII-sponsored research, by organizing a CII research track at the 2015 Canadian Society for Civil Engineering Conference. In addition to overseeing the 11 papers presented in this session of the conference, CII was affiliated as a first-time conference sponsor in 2015.

To extend the Institute’s outreach further into the academic community, the AC also conducted three webinars in 2015. As in previous years, the first one provided an orientation for anyone interested in joining CII research. The second consisted of two parts. The first addressed how to be competitive for CII research, offering guidance on preparing qualification submissions on potential CII research topics. To give academics a bird’s-eye view of successful research execution at CII, the second part discussed the overall CII research process and the expectations CII has of its researchers. The committee also introduced a new webinar in 2015, which explained how to access and use CII publications in the classroom. This webinar was part of the AC effort to fulfill the committee’s duties as well as to disseminate CII research broadly into the academic community. It provided an overview of the CII body of knowledge and its publications, along with a review of academic access to and use of CII publications for academic purposes.

In the near future, the committee also plans to deliver lessons learned from academics with experience in using CII publications in the classroom.





# KNOWLEDGE DISSEMINATION

## IMPLEMENTATION STRATEGY COMMITTEE & PROFESSIONAL DEVELOPMENT COMMITTEE

The Implementation Strategy Committee (ISC) and the Professional Development Committee (PDC) joined together in 2015 to develop a three-year strategy to increase the awareness and access of CII resources for all of our member organizations. The plan incorporates both self-directed “on demand” options and instructor led activities.

At the beginning of the year, CII and the McCombs School of Business at the University of Texas at Austin collaborated to offer its annual CII Executive Leadership Program. This highly rated program—a two-week, in-residence, educational experience—provides in-depth knowledge of a range of leadership skills necessary for the capital facilities of the future. The Executive Leadership Program has now been held for nine years and boasts 193 program graduates.

In 2015, the Implementation Strategy and Performance Assessment committees co-hosted a unique new workshop that delivered the best of implementation and assessment when the Performance Improvement Workshop (PIW) and Performance Assessment Workshop (PAW) merged into one event as CII’s inaugural Performance Workshop (PW). The workshop agenda covered the latest CII 10-10 Program results along with the CII practices and tools that can be deployed to improve and impact results in 10 areas: Safety, Planning, Organizing, Leading, Controlling, Design Efficiency, Human Resources, Quality, Supply Chain, and Sustainability.

At the 2015 CII Annual Conference in Boston, CMAA chair Sam Sleiman PE, CCM, welcomed CII and spoke of the success of the CII–CMAA Best Practices–Best Practitioners Alliance. The ISC and PDC joined forces to host four implementation sessions in the “CII Best Practices Room” at the conference. In this unique facilitated implementation session, attendees had the opportunity to learn from each other as they exchanged perspectives on promoting change.

The lively discussions and knowledge exchange at each of the Best Practice tables were facilitated by members from the ISC, PDC, Membership Engagement Committee, Performance Assessment Committee, and the NextGen Community of Practice. In addition, there were two highly-rated CII Best Practice courses presented at the conference: Dr. W. Edward Back from The University of Alabama presented the Project Change Management course, and Sandra MacGillivray from Valency Inc. presented the new Implementation Planning course.

The first CII Clinic was hosted by PTAG in the Fall of 2015 in Calgary. This one-day custom event, presented by knowledgeable and experienced implementers from PTAG and CII, provided the attendees with first-hand experience on proven CII processes and tools to improve capital project delivery effectiveness and predictability.

The annual CII Best Practices Course was held at The University of Texas at Austin and broadcast to 14 other universities during the 2015 Fall Semester. Each Fall, senior leaders from CII member organizations serve as course lecturers, offering graduate students in civil engineering and construction management insight into the workings of the engineering and construction industry.

The Registered Education Provider (REP) Program added three new providers to its ranks in 2015. The purpose of the REP program is to provide a list of qualified instructors who are knowledgeable about CII research and available to teach at organizations and other venues.

The number of companies subscribed to the CII Online Education Courses continued to grow in 2015. The online course curriculum has a special focus on the CII Best Practices. This year, under the direction of the PDC, three new safety courses were added to the online catalog: Introduction to Safety Parts I and II, and Hazard Recognition and Communication. One of the committee’s highest priorities in the next three years is the development of self-directed “on-demand” options that will expand the online curriculum.

In November, the ISC and PDC wrapped up the year by joining the Membership Engagement Committee for a mini-workshop dedicated to developing a new look for the CII website home page, set for rollout in early 2016.

The ISC members continued to support the CII News Digest with three featured articles in 2015.





# KNOWLEDGE ASSESSMENT

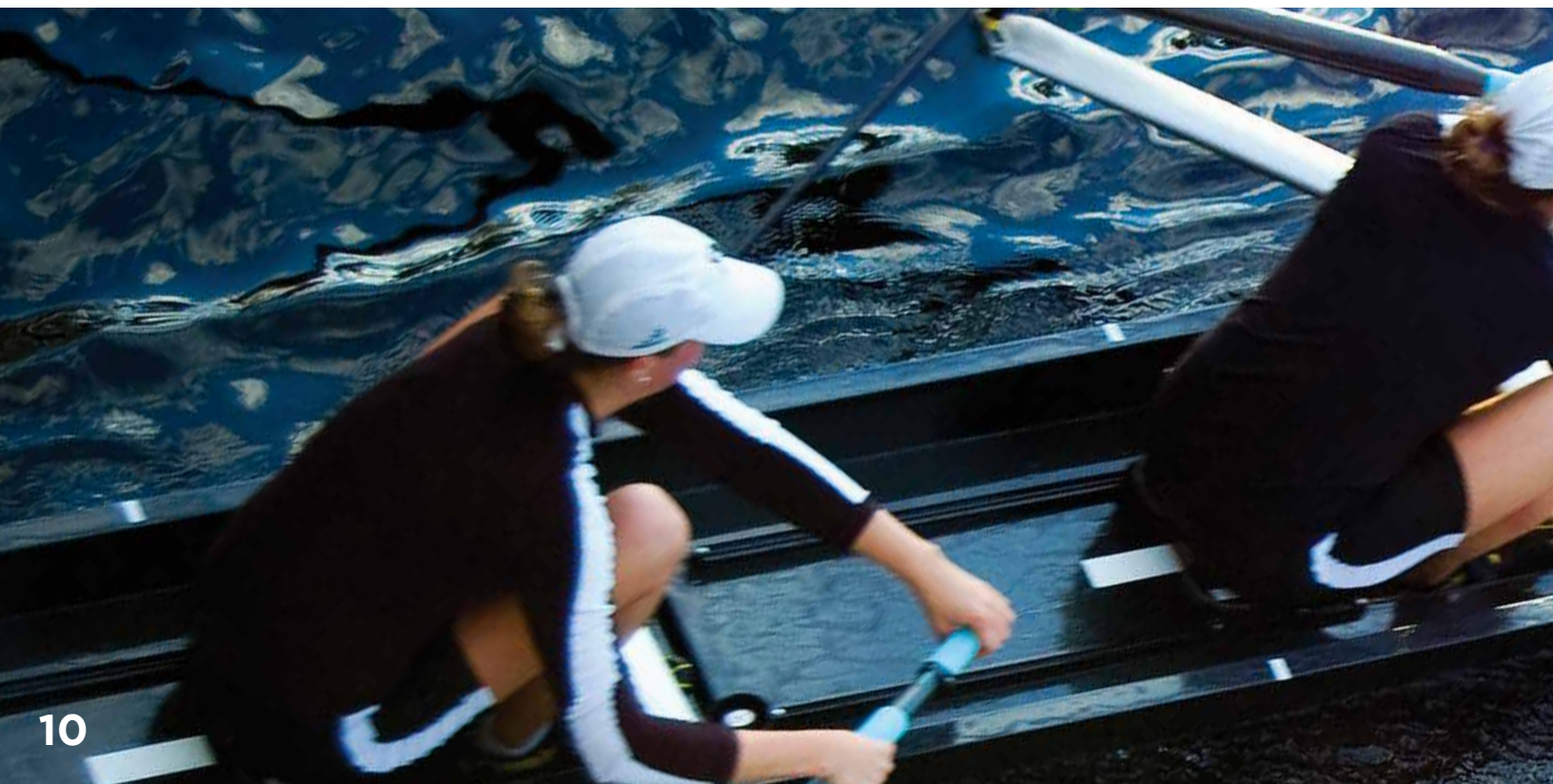
## PERFORMANCE ASSESSMENT COMMITTEE

The mission of CII's Performance Assessment Committee (PAC) has been to identify key elements of capital project management practice and correlate them with project results. To do this, the Performance Assessment Committee and staff have implemented management information systems to collect and report data from a secure database located at The University of Texas at Austin. The metrics that CII maintains in its database allow member companies to assess their performance and find opportunities to improve capital effectiveness. Moreover, CII's database provides quantitative analyses for CII research teams that often form the point of departure for their topic of interest. Last year was important for CII's work in performance assessment for the following reasons:

- The PAC continued to broaden CII's global reach. In August, CII signed a three-year contract with the Singapore Economic Development Board (EDB) for Phase II of a research program to implement productivity management and measurement practices among industrial-sector owners and contractors in Singapore. The PAC's work in Alberta, Canada continued with the Construction Owners Association of Alberta (COAA) for benchmarking phase III and the high-level productivity research project. This project found that a single metric could be used to assess the unit-rate level productivity of a capital project. The PAC and staff also continued work with the Korean Institute of Civil Engineering and Building Technology in South Korea toward establishing a Performance Assessment Lab (PAL)

there in 2016. In addition, CII launched the 10-10 Program in Norwegian at the PAL, administered by Project Norway and the National University of Science and Technology. Finally, the PAC continued to support the benchmarking efforts of CII Africa located at the University of Pretoria in South Africa.

- The PAC sought to increase CII's influence across many specific sectors of the capital projects business. Phase II of the National Healthcare Facilities Benchmarking Program continued in 2015 and several more organizations contributed data. The PAC also launched a benchmarking program for gas processing plants. Additionally, the committee and staff prepared to restart the Pharmaceutical and Biotechnology Benchmarking Program. Interest in sector-specific benchmarking remains at an all-time high, and organizations in the high-tech business began to explore how capital projects in their business could be assessed.
- The work of the committee and staff resulted in several significant external research grants which will extend CII's work in benchmarking, safety, and productivity. These grants comprise approximately 44% of CII research (by dollar value). While many of the grants are sponsored by foreign agencies such as those in Singapore and Norway, the U.S. Department of Defense (Defense Health Agency) and the U.S. Department of Veterans Affairs (VA) have also continued their grants to support CII's work benchmarking healthcare capital projects.





# KNOWLEDGE ASSESSMENT

- The PAC began looking beyond traditional greenfield EPC projects to examine the performance of maintenance projects and shutdown, turnaround, and outage (STO) projects. Some of this work involves benchmarking productivity in maintenance and STO environments, which has not been done before. CII member companies on the PAC have also championed the benchmarking of STO projects—an idea that has resonated with the membership.
- The PAC initiated a focus on technology-assisted benchmarking that will dramatically decrease the effort required by organizations to assess their projects. In the healthcare benchmarking project, construction management software company E-Builder worked with CII to pioneer the automated transfer of data from their clients' databases directly to CII's database. This form of data entry already shows much promise. CII also launched its efforts to benchmark data residing in BIM models to possibly determine the efficiency of different project designs.
- Using results from the CII 10-10 Program, the committee and staff began work on a phase-based approach to determining the value of CII Best Practices. While most CII Best Practices have been evaluated regarding their impact to the entire project, this new approach yielded several unique findings about improving the cost and schedule predictability in each phase of the capital project.
- The CII Annual Safety Survey received a record 3,197,829,820 work hours. This is likely the single largest source of industry safety data outside government agencies.
- The PAC started its work with the CII Research Committee to develop a standard data collection system for CII research teams concerning project performance information.
- Data received in the 10-10 Program continued to validate the theory that the nature and quality of working relationships among project stakeholders is the primary source of cost and schedule variation on a capital project. As a result, the 10-10 Program represents a unique opportunity for CII member companies to achieve significant competitive advantages.
- The PAC sponsored the CII Registered Advisor Program (RAP) which was approved by the CII Executive Committee. This program enables CII consulting companies and CII company retirees to assist in the implementation of any CII practice or service, including performance assessment. The PAC believes that the RAP represents a significant leap forward in the performance assessment of a capital project.

It is clear that a strong Performance Assessment Program remains essential for CII's continued efforts to improve capital project outcomes. The data, information, and knowledge produced by CII continue to benefit the Institute's members and the capital projects business around the world.





# KNOWLEDGE MANAGEMENT

## KNOWLEDGE MANAGEMENT COMMITTEE

The purpose of the Knowledge Management Committee (KMC) is to maintain and add value to CII's ever-expanding body of knowledge, and to establish and support CII Communities of Practice. Members leverage collective industry wisdom through the Knowledge Structure—a systematic online categorization of CII's research products. The committee manages and maintains this structure and is responsible for approving changes, including the placement of new products and archiving outdated products. The Knowledge Structure categorizes research publications into knowledge areas, and further subdivides them into best practices, other practices, and information topics.

In an effort to maintain and add value to CII's body of knowledge, the KMC reviews research products on a periodic basis to determine their relevance; slots new research products into the Knowledge Structure; recommends CII Best Practices for updating; identifies and validates emerging best practices, and nominates new research topics to the Research Committee for consideration.

In 2015, the KMC completed its assigned reviews and slotted 24 new publications into the growing Knowledge Structure. Additionally, two new CII Best Practices were validated and announced in 2015, Advanced Work Packaging and Planning for Modularization, bringing the total number of CII Best Practices to 17. News digest articles were published on each of these practices, featuring the many benefits of adoption and

implementation. The committee also initiated a 'tool triage' program to review, evaluate, and update 40 CII tools to ensure compatibility on future platforms.

The Knowledge Base Steering Committee, a subcommittee of the KMC, continued its work on CII's major initiative: the Knowledge Base Restructuring and Integration Program. The restructured knowledge base will allow both members and visitors to explore CII content using structured navigation through different category portals and an easy-to-use, powerful search interface. The new platform will also integrate content from CII's publication library, workshop and conference presentations, and implementation tools; and provide new topic summaries highlighting key research findings, and 10-10 Performance Assessment Program metrics.

To support the reinvented knowledge base, CII procured a content management system (CMS) to provide an improved user interface in a new web environment. Twenty-one Restructuring, Integration, and Tagging teams (RITs) comprised of 170 member volunteers have been launched to develop the topic summaries and tag the research material into new portal categories. Additionally, a communications campaign is underway to promote awareness, update members on progress, and address change management. Rollout of the new knowledge base is scheduled for the 2016 Annual Conference.





# KNOWLEDGE MANAGEMENT



## Communities of Practice

In 2015, the KMC expanded CII's Communities of Practice (COPs)—groups whose members share a passion for a particular topic or practice area. COPs provide a virtual environment in which members can deepen their knowledge and understanding of a specific topic through ongoing collaboration and knowledge sharing. At the beginning of 2015, established COPs addressed safety, sustainability, globalization, information management, front end planning, next-generation leaders, risk management, quality management, federal facilities delivery, modularization, and process controls. In March, the Advanced Work Packaging COP was launched, bringing the total of active COPs to 12, with participation of over 400 members from 100 member companies. In addition, three new COPs (infrastructure, supply chain management, and pharma/bio) have been identified and are set for a 2016 launch.

A highlight during CII's 2015 Annual Conference in Boston was the Next-Generation Leaders Forum, co-sponsored by CII and

the Next-Generation Leaders COP. This popular event featured Dr. John Daly from the University of Texas at Austin, and was attended by more than 100 participants. Daly's presentation, "Advocacy and Influence" focused on idea and image-branding in the workplace, with the use of persuasion and influence. The forum received exceptional ratings and will be held again at the CII 2016 Annual Conference in National Harbor, MD.

The Next-Generation Leaders also sponsored a plenary and implementation session during the conference to highlight all of CII's COPs, allowing participants to meet the various COP leaders and obtain more information in a "speed-dating" format. As a result, over 100 new COP members joined the COP revolution. The KMC sponsored its fourth annual COP Leadership Forum, held during the annual conference week. COP leaders provided insight into their progress, growth, deliverables, and lessons learned, as well as ideas for continuous improvement and expansion of CII's COP program.



# SPECIAL COMMITTEES

## STRATEGIC COMMUNICATIONS COMMITTEE

The Strategic Communications Committee (SCC) aims to support the vision and mission of CII through communications; improve the quality, consistency, and alignment of core process and standing committee communications to deliver more value to CII members; maintain and promote CII's brand and industry leadership; and maximize communication channels to expand CII's audience and membership. The SCC also manages CII's Communications and Branding Guidelines to help members and staff plan and develop all forms of communications. The goal is to maintain a strong brand identity through all communications that carry the CII name.

In an effort to move CII communications from tactical to strategic, the SCC developed a Strategic Communications Plan in 2015 to provide a more targeted and coordinated focus for CII communications. A member-wide communications survey provided key input to this plan and the results formed an important base for CII's first communications strategy.

The SCC continued to expand media relations to increase industry awareness and coverage of CII research and the annual conference, including articles that appeared in Engineering News-Record (ENR), and Associated Construction Publications (ACP). CII continued to partner with ACP to publish a monthly feature

article in all of their regional publications. Mentions of CII in online and paper media more than doubled in 2015, reaching over 100 at year-end. CII also increased its efforts on social media platforms, spreading the word about CII research, best practices, and key events.

In addition, the SCC launched CII's new news format, which includes an online news feed and regular distribution to members through a "news digest". The committee also implemented other communications work plan actions, such as developing and publishing CII's 2014 Annual Report, and producing instructional videos for the 2015 Annual Conference App, Best Practices, and the CII Store. For the first time ever, 17 prominent CII members were interviewed about their CII experience at the annual conference. The footage will be used for video testimonial features to be published on various CII platforms in 2016.

The committee also supported the Performance Assessment Committee on various initiatives (gas plant survey, Singapore contract, etc.), the Implementation Strategy Committee on regional clinics, and assisted the Knowledge Management Committee in developing a Knowledge Base Program change management and communications campaign that will be instrumental to the 2016 rollout of CII's new Knowledge Base.

## MEMBERSHIP ENGAGEMENT COMMITTEE

The mission of the Membership Engagement Committee (MEC) is to develop and implement strategies and resources to recruit new members, promote the early engagement of new members, ensure the continuing participation of current members, and monitor member value and satisfaction. The MEC recruits organizations that add to the stature and knowledge base of CII, keeping a balance between owners and contractors. CII member retention remained high in 2015 at 92 percent.

In addition to recruiting, the MEC spends a large part of its time developing information and reference tools to assist the Board of Advisors (BOA) in gaining the most from their CII membership. In 2015, the MEC continued to manage the one page online BOA Reference Guide and myCII, a member only portal to assist BOA members in managing their organization's participation in CII. The MEC organizes various orientations throughout the year.

Board of Advisors Awareness Webinars were held every other month in 2015 to inform new members and update existing members on various topics ranging from in-depth reviews of a core knowledge process to research team staffing preparations. New BOA members are invited to a special orientation before each BOA meeting to familiarize them with their role, and provide a comprehensive overview of the organization. Additional orientations are held for prospective and existing members throughout the year.

The MEC also surveys its members periodically to assess member value and satisfaction. It is this continuous improvement that drives CII and its membership to be the best of the best.



## SPECIAL COMMITTEES

## ANNUAL CONFERENCE

The 2015 CII Annual Conference held in Boston, chaired by Daniel Christian of Victaulic, was attended by more than 650 industry professionals, representatives of both member and non-member organizations. The conference theme, “Lead the Performance Revolution,” highlighted CII’s commitment to improve the predictability of capital project performance.

Keynote speakers of the conference included Barry LePatner, author of *Broken Buildings, Busted Budgets: How to Fix America’s Trillion-Dollar Construction Industry*; Jan Tuchman, Editor-in-Chief of *Engineering News-Record*, and Scott Hazelton, Managing Director of Construction and Manufacturing with IHS Economics & Country Research. In the birthplace of the American Revolution, nine CII research teams presented a plethora of revolutionary research findings, the breadth of which CII Director Wayne Crew called “unparalleled.” The Implementation and Professional Development committees hosted a very popular session in the CII Best Practices room, while the Next Generation Leaders Community of Practice facilitated a “recruiting session” to encourage people to join one of the various CII Communities of Practice. The Academic and Performance Assessment committees’ presentations featured notable guest speakers Dr. Burcu Akinci from Carnegie Mellon

University and Dr. Art Markman with The University of Texas at Austin, respectively.

CII continues to support the education and training of the industry’s next generation. As every year, the Academic Committee sponsored a poster session of non-CII funded research from engineering programs at universities across North America, while NCCER organized a Scramble for Skills Golf Recruitment Drive, and Next-Generation Leaders hosted a successful forum for future leaders. CII also debuted its first-ever conference mobile app in Boston, allowing attendees to access all conference information, including schedules and presentation downloads, on their mobile devices.

During the annual awards banquet, CII’s top two awards were presented by CII Director Wayne Crew, CII Chairman Jim Backes, Jan Tuchman of ENR, and Conference Chair Daniel Christian. Rich Hoffer of Chevron’s Project Execution Center of Expertise won the Richard L. Tucker Leadership and Service Award. Taking home the Institute’s most prestigious award, the Carroll H. Dunn Award of Excellence, was Craig Martin, former CEO of Jacobs, for his lifelong commitment to the engineering and construction industry.



# PROCESS INDUSTRY PRACTICES

Process Industry Practices is entering its 23rd year of operation and continues its growth and success. In 2015, PIP added eight new members, growing to a total of 131 owner, operator, and contractor companies utilizing PIP Practices. With an additional 21 PIP Licensees, we remain a recognized industry consortium. As the global reach of our members, subscribers, and licensees grows, we continue to see the use of our practices extend beyond the process industry.

PIP is an independently funded organization operating under the umbrella of CII. Success is a direct result of our member companies applying key resources in support of nearly 600 PIP Practices in 12 engineering disciplines. Developing PIP Practices involves harmonizing member companies' internal standards. The content of these practices is applicable to the needs of non-members in the process industry and related industries around the world. The enthusiastic participation and support of member company volunteers continues to improve the quality and quantity of approved PIP Practices.

Member-driven initiatives in 2015 included the continuation of our work to identify opportunities to make the practices more globally applicable, development of a new logo, and the beginning phases of the development of a new PIP website for better delivery of the practices. The Pipeline Systems Function Team continued its work developing Piping Practices related to ASME B31.4 and

B31.8 codes for gas/liquid transmission and distribution piping systems. The special requirements for hygienic processes have resulted in practices to support this industry. In addition, we updated and published our strategic plan and converted it to an evergreen process to utilize the PIP standing committees, so the PIP strategy will be updated annually.

Workshops at our PIP Annual Conference continue to provide excellent forums for sharing implementation success stories. PIP members report that they achieve considerable savings by implementing PIP Practices. The PIP Annual Conference had record attendance. In 2015, PIP offered the following workshops:

- Access Roads & Implementation Pathways
- Advancing Process Safety Through Global Engineering Standards
- Establishing New Function Teams And Practices
- How Standardization Improves Project TIC — Total Installed Cost
- What Drives Machinery And Vessel Function Teams
- Spotlight On Electrical And Process Control Function Teams

The networking opportunities and access to (non-proprietary) knowledge are recognized as additional benefits to PIP Members.

## MEMBERS — OWNERS

3M Company  
AeraEnergy, LLC  
Aramco Services Company  
Archer Daniels Midland Company  
Arkema, Inc.  
Ascend Performance Materials  
Axiall Corporation  
BP America, Inc  
Black Diamond  
Celanese Ltd.  
ChemoursCo.  
Chemtura Corporation  
Chevron  
CITGO Corporation  
ConocoPhillips  
Compass Minerals  
Devon Energy Corporation  
DuPont  
Direct Energy

Eastman Chemical Company  
Evonik Corporation  
Flint Hills Resources, LP  
FMC Corporation  
GrupoPetrotemex-GPT  
Hess Corporation  
HollyFrontier  
Honeywell International, Inc  
Huntsman Corporation  
INEOS Olefins & Polymers  
Invista  
Lubrizol Corp.  
LyondellBasell  
Mallinckrodt  
Momentive Specialty Chemicals, Inc.  
Monsanto Company  
Mosaic Fertilizer, LLC  
NORAM E&C

Occidental Petroleum Corporation  
Pasadena Refining System, Inc.  
PESRM (Philadelphia Energy Solutions R&M)  
Phillips 66  
Pioneer Natural Resources  
PVS Chemicals  
REC Silicon  
RES Kaidi  
Saudi Basic Industries Corporation -SABIC  
Sekisui Specialty Chemicals America, LLC  
Styrolution  
SundropFuels, Inc.  
Tesoro Corporation  
UOP LLC  
WestRock  
Zachry Holdings, Inc.  
Zeon Chemicals L.P.



# PROCESS INDUSTRY PRACTICES

## MEMBERS — CONTRACTORS

- |                                |                                   |                                      |
|--------------------------------|-----------------------------------|--------------------------------------|
| AECOM                          | ChemtexInternational              | Merrick & Company                    |
| Ambitech                       | Chiyoda                           | Middough, Inc.                       |
| Audubon                        | ENGlobal Engineering, Inc.        | OnQuest                              |
| BE&K (a KBR company)           | Fluor Corporation                 | Preferred Engineering                |
| Bechtel Group, Inc.            | GE Energy                         | Ref-Chem                             |
| Brinderson, LP                 | IHI E&C International Corporation | S&B Engineers and Constructors, Ltd. |
| Burns & McDonnell              | Jacobs                            | Samsung Engineering America, Inc.    |
| Burrow Global, LLC             | JGC America                       | SK E&C USA, Inc.                     |
| CB&I                           | KBR                               | SNC-Lavalin                          |
| CDI Corporation                | Kiewit Engineering & Design       | TECHNIP                              |
| CH2M                           | Leidos Construction, LLC.         | WorleyParsons, Ltd.                  |
| Chart Energy & Chemicals, Inc. |                                   |                                      |

## SUBSCRIBERS

- |   |  |   |
|---|--|---|
| Agrium, Inc.  | Lanier & Associates                            | Roxtec International AB   |
| Bahrain Petroleum -BAPCO                                      | Lloyd Engineering, Inc.                        | ROXUL Technical Insulation  |
| Baker Hughes  | M & H  | Sasol Technology  |
| Braskem, PP Americas  | North West Redwater Partnership                | SGC Energia SGPS  |
| Brock Group   | NOVA Chemicals                                 | Stepan Company  |
| Chevron Phillips  | Nuclear Fuel Services, Inc                     | Sumitomo Chemical Company   |
| City of Montreal  | ONEOK, Inc.                                    | The Sherwin-Williams Company  |
| Coskata   | OXEA Corporation                               | The University of Texas at Austin<br>Department of Utilities & Energy<br>Management |
| Engineering for the Petroleum & Process<br>Industries (ENPPI) | Petroleum Company of Trinidad<br>& Tobago Ltd. | Valero Corporate Services   |
| Hargrove & Associates   | Praxair, Inc.                                  | Velocys, Inc.   |
| Indorama Ventures PCI   | Phoenix Park Gas Processors                    | The Williams Companies, Inc.  |
| Jotun Paints, Inc.  | Rockwood Lithium, Inc.                         | Wood Group Mustang  |
| Kraton Polymers   | Roquette America, Inc.                         |   |

## LICENSEES

- |                          |   |  |
|--------------------------|---|--|
| API                      | IHS                                     | South Central Louisiana Technical College<br>(SCLTC) |
| Autodesk                 | Intergraph                              | St. Paul Technical College                           |
| Aveva                    | ISA                                     | SAI Global   |
| Bentley Systems, Inc.    | Lee College                             | ThomasNet  |
| Blue Cielo ECM Solutions | National Institute of Building Sciences | Thomson Reuters / Techstreet                         |
| Codeware                 | National Insulation Association         | University of North Dakota                           |
| IEEE                     | Palomar College                         |  |

# FIATECH

With more than 100 member organizations and strategic partners, Fiotech leads the way to productivity improvement through the identification and development of new technologies and innovative solutions for critical challenges that drive the future of the capital projects industry.

Fiotech completed over a dozen projects in 2015, while increasing the impact on the industry by delivering key notes and presentations at many top industry conferences. Fiotech’s popular industry conferences and events, which provided information on new technology and other innovative practice advancements, were viewed as premier industry networking events for members. Through these events, members were also given the opportunity to demonstrate and highlight advancements and successes for the industry.

The tremendous input and interest at Fiotech workshops gave momentum to a revolutionary initiative known as Fiotech Productivity Advancement Targets (PATs). These 12 targets and assessments have been in development since the September Leadership Forum and will be launched in 2016. Examples of productivity areas include: reducing change orders, improving integrated materials management, and leveraging interactive project planning. Fiotech owner members found that these targets are capable of realizing over \$200M in cost avoidance per \$1B capital project.

The Fiotech H360 Team, which scans the horizon for emerging technologies, identified cognitive computing/artificial intelligence as a front-runner for deeper evaluation. This effort gave wings to a fourth Fiotech event called “Bring Us Your Problems,” co-hosted by Black & Veatch and IBM Watson. The results of this interactive gathering will be used for a new project in the near future.

New projects launched in 2015 include MARS-ROVER, which will provide improvements to construction project site facilities operations and management improvements, as well as the BIM Supported Building Lifecycle Management project, which will improve the efficiency of facility lifecycle management, help avoid the cost of repurchasing lost facility data, enable the use of predictive software for facility asset management, and facilitate the effective use of operations and maintenance documentation post-construction.

Fiotech also held several highly informative webinars in 2015 with 16 Tech Tuesday, Celebration of Engineering & Technology Innovation (CETI) Award Winner, and Mobile IT-focused events. In addition, the Voice of the Owner (VoO) series engaged more than 80 owner/operator companies in open dialogs on change order reduction, change readiness, and more.

In 2015, Fiotech welcomed Deborah McNeil of Dow Chemical and Randy McMeekin of Hatch to the Board of Advisors, and appointed Jim Purvis of WorleyParsons to chair this volunteer leadership committee.

The three-year strategic plan’s implementation phase, led by the Strategic Direction Committee, continued to emphasize Fiotech’s focus on the technologies and innovative practices that provide greatest potential. In 2016, the Committee will begin updating the Strategic Plan to keep Fiotech at the forefront of industry opportunity. 2016 will also bring new opportunities for step change improvements in the capital project industry, and the Fiotech team and members are poised to advance a strong portfolio of industry advancement.

Follow this progress online at [www.fiotech.org](http://www.fiotech.org).





**FIATECH 2014 MEMBERS & PARTNERS**

- |   |   |  |
|---|---|--|
| 4SPECS Inc.                               | DMS Corporation (Formerly Beijing)                        | Myongji University                         |
| Agility Project Logistics, Inc.           | Douglas Day Associates                                    | NIST                                       |
| AREVA                                     | Dupont  | ORACLE                                     |
| Arizona State University                  | E2Open  | Ruby + Associates, Inc.                    |
| Atlas RFID                                | Eastman Chemical Company                                  | S&B - Engineers and Constructors, Ltd.     |
| AUCOTEC                                   | Element Industrial  | Shell                                      |
| Autodesk                                  | Emerson Process Management                                | Siemens                                    |
| AVEVA                                     | ExxonMobil  | Skanska USA Building, Inc.                 |
| Avolve Software Corporation               | Faithful & Gould (division of Atkins)                     | Solibri                                    |
| Bechtel                                   | Fluor   | Synchro Software LTD                       |
| Bentley Systems, Inc.                     | Goodman, Allen & Filetti                                  | Target Corporation                         |
| BergerAVART, Inc.                         | Hatch   | TEAM Integrated Engineering, Inc.          |
| Black & Veatch                            | InEight (Hard Dollar)                                     | Tecgraf / PUC-Rio University               |
| buildingSMART alliance™                   | Intelliwave Technologies                                  | Texas A&M University                       |
| Burnham Nationwide                        | Intergraph Corporation                                    | Thalden - Boyd Architects                  |
| Cardno TEC                                | Jacobs Engineering  | The Dow Chemical Company                   |
| Carnegie Melon University                 | JKB Architectural Specifications                          | ThomasNet                                  |
| CCC - Consolidated Contractors Company    | Kaiser Permanente   | Trimble                                    |
| CCT - Computer & Communication Technology | KAIST, Korea Advanced Institute of Science and Technology | Underground Imaging Technology (UIT)       |
| CH2M                                      | King Fahd University of Petroleum and Minerals            | University of Alberta                      |
| Chevron                                   | MadCad  | University of Illinois at Urbana-Champaign |
| Class of Your Own                         | McLaren Software  | University of Michigan                     |
| Clemson University                        | Mechanical Contractors Association of America             | University of San Antonio                  |
| Conspectus, Inc.                          | Mechanical Contractors Association of Chicago             | University of South California             |
| Construct-X                               |   | University of Washington                   |
| Crossrail                                 |   | WorleyParsons Ltd.                         |
| Dassault Systemes                         | Mott MacDonald  | WRENCH Solutions                           |
|   |   | Zachry Engineering                         |



# CII AWARDS

## CARROLL H. DUNN AWARD OF EXCELLENCE

*The award is recognized as one of the most prestigious awards in our industry and was named in honor of Carroll H. Dunn, Project Director of the Construction Industry Cost Effectiveness Project, which formed the foundation of CII.*

### **Craig L. Martin**

Craig L. Martin accepted CII’s highest honor, the Carroll H. Dunn Award of Excellence, for his lifelong commitment to the engineering and construction industry. Martin’s rise to the CEO position of Jacobs was the result of a lifetime of applying his mind and skills where they were most needed. Martin said he appreciates CII’s ability to bring together the most sophisticated members of the community to work on industry problems. He felt honored by CII’s recognition of his contributions to the industry and attributes his growth and success to the range of experience he acquired over the years.



## RICHARD L. TUCKER LEADERSHIP & SERVICE AWARD

*The Richard L. Tucker Leadership & Service Award was named after Dr. Richard L. Tucker, who led the founding of the Construction Industry Institute in 1983. The award traditionally recognizes individuals who have made a significant contribution to the CII mission and its success.*



### **Richard Hoffer**

The recipient of this year’s Richard L. Tucker Award, Richard Hoffer, has shown a devotion and commitment to service through his outstanding involvement and volunteer effort with CII. With over 30 years of experience in the construction industry, Hoffer has served on the Board of Advisors, several Communities of Practice, and currently as the co-chair of the Knowledge Management Committee. He also participated on Research Team 300, True Impact on Late Deliverables at the Construction Site. In his Board of Advisors role, Hoffer has been successful in recruiting his Chevron colleagues to serve on CII research teams—on average, two teams per year—as well as on two CII standing committees.



## OTHER CII AWARDS

As CII does every year at its annual conference, it honored the winners of its various achievement awards. These member organizations, individual volunteers, and research academics distinguished themselves in their commitment to the CII mission, whether through their implementation of CII research findings, involvement in CII activities, or contribution to the CII Knowledge Base. All the award recipients were announced at the CII Annual Conference banquet, where the winners of the Richard L. Tucker Leadership and Service Award and the Carroll H. Dunn Award of Excellence—CII’s most prestigious awards—accepted their honors. Below, the honorees are listed with summaries of their accomplishments.

### Outstanding CII Researcher

#### Dr. Matthew R. Hallowell

- Showed excellent work and leadership on Research Team 293, Strategies for HSE Hazard Recognition, exploring strategies for improving hazard recognition on construction job sites.
- Developed new research methods that advanced CII research and produced breakthrough results.
- Research findings have potential to save lives and advance competitiveness of CII companies.



### Outstanding CII Instructor

#### Dr. Fernanda Leite

- Assistant Professor in Construction Engineering and Project Management at The University of Texas at Austin.
- Recognized for her outstanding teaching and mentoring efforts, championing project-based learning in her classes.
- Involved in the Women in Engineering Program and served on the STEM Women Leaders Panel.



### Outstanding Graduate Research Assistant

#### Wesley A. Collins

- Graduate Research Assistant at Arizona State University
- Known for his dedication and commitment to Research Team 314, The Project Definition Rating Index (PDRI) for Small Industrial Projects (SIP)
- His thorough, yet speedy, review of the literature enabled the team to develop a new PDRI within six months of its kickoff meeting.
- Developed a tool that helps users determine which PDRI they should use for their industrial projects: the PDRI-Industrial or PDRI-SIP.



### Outstanding CII Implementer

#### Joseph Martucci

- Continually encourages the implementation of CII methods in his company, PSE&G Transmission Construction Group (DPC).
- His strong advocacy for the use of CII Performance Assessment and the application of the PDRI tool has had a major impact on the company’s processes and procedures.
- Delivered a comprehensive presentation on the benefits of using PDRI to DPC leadership.



# CII AWARDS

## Performance Assessment User Awards

### Owner (Buildings): U.S. Department of State

- Actively participated in CII's Benchmarking and Metrics Program since 1998.
- Submitted 90 projects to the General Program and 24 project phases to the 10-10 Program; one of the highest rates of participation in CII Performance Assessment.
- Made a concerted effort to input metrics for every construction project that finished during 2014.



### Owner (Industrial): The Williams Companies, Inc.

- Implemented a wide range of CII's Best Practices since joining in 2014.
- Trained three employees as CII Benchmarking Associates in a short time.
- Submitted 22 project phases to the 10-10 Program in 2014.
- Made CII Performance Assessment a significant part of the company's ongoing efforts to improve project delivery



### Contractor (Buildings): Walbridge

- Embraced the 10-10 Program since its launch two years ago.
- Submitted 17 project phases and trained five employees as CII Benchmarking Associates.
- Worked closely with CII staff to gather the required data from their teams.



### Contractor (Industrial): S&B Engineers and Constructors, Ltd.

- Previously won the Performance Assessment User Award in 2002.
- Submitted 50 projects into the CII General Program since 1996.
- Added 30 additional projects to the 10-10 Program.



## CII Professional Development Award

### CCC Group, Inc.

- Incorporated several aspects of CII continuing education and professional development resources into its comprehensive Professional Development Program.
- Committed to the delivery of two primary leadership programs: CCC Group Operational Readiness Education (C.O.R.E.), and the CCC Group Leaders Education and Development Program (LEAD), using various CII resources.
- Made a significant push toward having its project personnel complete the CII Online Education curriculum, making CII a substantial part of their programs.



## CII Curriculum Partner Program Award

### University of Alabama, College of Engineering

- Began incorporating CII research into its curriculum after the introduction of a new construction and engineering program in 2006.
- Updated existing course content based on CII research and also created new courses focused on groundbreaking CII research.
- Encouraged its faculty to be active within CII in order to stay alert to potential research projects that could be implemented into the curriculum.





**CII Distinguished Professor Awards**

**Dr. H. David Jeong**

- Associate Professor in the Department of Civil, Construction, and Environmental Engineering at Iowa State University
- Earned his Ph.D. in Civil Engineering at Purdue University in 2005.
- Served for six years as a project engineer and cost engineer for Daewoo Engineering & Construction Company in Seoul, South Korea.
- Has been affiliated with CII since 2007, having served as a principal investigator on Research Team 253, Estimating as a Competency in Capital Projects.
- Has skillfully developed teaching materials based on the findings and implementation tools of several CII research projects.
- Has worked with industry practitioners and used CII research findings to develop realistic in-class group assignments.



**Dr. Ali Mostafavi**

- Assistant Professor at the OHL School of Construction, and supervises the Infrastructure System-of-Systems Research Group at Florida International University
- Served as a principal investigator for Research Team 322, Improving Project Progress and Performance Assessment.
- Serves as a member of the CII Academic Committee
- Incorporates CII research findings into his teaching to expose students to the knowledge and practices in the construction industry.
- Collaborates with industry to connect the classroom concepts with real-world applications.
- Continually introduces his students to CII research findings and tools and includes CII material in his courses.



**Dr. SangHyun Lee**

- Associate Professor and John L. Tishman Faculty Scholar of Civil and Environmental Engineering at the University of Michigan
- Received his MSc. and Ph.D. from MIT.
- Served as a principal investigator on Research Team 302, Interface Management.
- Introduced CII Best Practices to the University of Michigan in 2012, and additionally to companies in the University of Michigan Construction Industry Alliance Program, which he directs.
- Incorporated several CII modules into his graduate course.



**Dr. Carol Menassa**

- Assistant Professor and John L. Tishman Faculty Scholar in the Department of Civil and Environmental Engineering at the University of Michigan
- Served as a principal investigator on Research Team 306, Quantitative Measurement of Project Manager Competencies.
- Serves as a member of the Academic Committee.
- Has earned several accolades including the 2014 NSF Career Award.



**CII WOULD LIKE TO CONGRATULATE ALL VOLUNTEERS ON THEIR EXCELLENT WORK AND DESERVED RECOGNITION. THEIR SERVICE TO CII AS INDIVIDUALS, MEMBER COMPANIES, OR ORGANIZATIONS IS GREATLY APPRECIATED. THESE WINNERS SET THE BAR HIGH FOR OTHERS WHO ASPIRE TO MATCH THEIR ACCOMPLISHMENTS.**

# CII FINANCIALS

## Sources and Uses of CII Resources in (\$000)

		Net
<b>BEGINNING BALANCE</b>		
Carried Forward from 2013	1,086	
Balance Forward	392	
Reserve	1,000	<b>2,478</b>
<b>SOURCES</b>		
<u>Membership Dues</u>		5,042
<u>Product Sales:</u>		
Revenue	135	
Production & Sales Expense	(201)	(66)
<u>Other Sources</u>		40
<b><u>TOTAL SOURCES</u></b>		<b><u>5,016</u></b>
<b>USES</b>		
<u>Programs:</u>		
Research	2,352	
Implementation	198	
Professional Development	191	
Best Practices Program	40	
Knowledge Management	224	
Benchmarking & Metrics	1,001	
Executive Leadership Program	302	
Breakthrough	61	
Benchmarking & Metrics Revenue	(453)	
Other Program Revenue	(724)	3,194
<u>Conferences:</u>		
Annual Conference	1,483	
Attendance Fees	(1,020)	463
<u>Supporting Activities:</u>		
Support of Members & Director's Groups	455	
Academic Committee	36	
Other Activities	70	
Supporting Activity Revenue	(172)	389
<u>Information Systems</u>		189
<u>General Expense:</u>		
Administration	403	
Other Activities	350	753
<b>TOTAL USES</b>		<b><u>4,988</u></b>
<b>NET</b>		<b>30</b>
<b>ENDING BALANCE</b>		<b><u>2,509</u></b>



# CII STAFF

## Director

Wayne Crew

## Executive Staff

Kim Allen

*Associate Director, Knowledge Management*

Dr. Cynthia King

*Associate Director, Implementation and Professional Development*

Dr. Stephen Mulva

*Associate Director, Performance Assessment*

Dr. Stephen Thomas

*Associate Director, Research, Academic, and Breakthrough*

Jewell Walters

*Program Director, Member Services*

## Staff

Nuria Ayala, *Senior Program Coordinator*

Michael Burns, *Technical Writer/Editor*

Terri Buvia, *Executive Assistant*

Erika Corbell, *Senior Program Coordinator*

Frances DeCoux, *Senior Administrative Associate*

Deborah DeGezelle, *Project Manager*

Kristi Delaney, *Senior Program Coordinator*

Mariette Hummel, *Program Coordinator*

Kelly Lenig, *Senior Program Coordinator*

Dr. Daniel Oliveira, *Research Associate*

Pipper Ramsey, *Administrative Associate*

Donna Rinehart, *Senior Administrative Associate*

Bernie Rosenblatt, *Accountant*

Debbie Samilpa, *Senior Administrative Associate*

Dr. Junghye Son, *Research Associate*

Dr. Jacqueline Thomas, *Technical Writer/Editor*

Stevan Wilsan, *Systems Administrator*

Dr. Sungmin Yun, *Postdoctoral Fellow*

Hong Zhao, *Project Manager*

# IN MEMORIAM

Jon C. Vanden Bosch

*Associate Director (Research), Construction Industry Institute, 1992 -1999*

Edward (Ted) A. Wynant

*Academic Committee, 1988 - 1992*

*Task Force-4, 1984-1990*

*Board of Advisors, 1986*

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**The Knowledge Leader for Project Success**

*Owners • Contractors • Academics*

**Construction Industry Institute®**

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