



# Order Takers or Value Creators?



Engineering, Construction, and Facilities Groups as  
Critical Drivers of Organizational Performance



## Background

While those embedded in corporate engineering, construction, and facilities (E/C/F) teams have long understood the value they create for the corporate bottom line, internal business customers may not realize the vital role these teams could play in enabling corporate success. The role served by corporate E/C/F teams

is becoming increasingly critical to the success and survival of the corporation. The Construction Industry Institute (CII) and Continuum Advisory Group joined forces to better understand the relationship between the internal E/C/F groups and the overall corporate strategic plan.

**Continuum Advisory Group** is a national management consulting firm serving the entire “continuum” of stakeholders within the engineering and construction industry, including owners, contractors, architects, engineers, homebuilders, and building product manufacturers. Continuum Advisory Group solves strategic issues for our clients related to optimizing capital program delivery, resulting in improvements in schedule, cost, quality, and safety.

**The Construction Industry Institute (CII)** is a research consortium of over 130 leading owners, service providers, and academics from both the public and private arenas. CII is based at The University of Texas at Austin where it conducts world-class research and is recognized as the principal national forum for the engineering and construction industry.

The CII and Continuum Advisory Group research team set out to:

1. More deeply understand the current relationship between corporate E/C/F teams and the internal clients they serve. Are E/C/F departments viewed as “order takers,” executing without question the facilities they are directed to build and maintain? Or do these teams sit at the highest-level strategic table, advising on corporate asset strategies and enabling corporate success on key metrics such as share price, return on assets, operating costs, and speed to market?
2. Determine whether that relationship is shifting. Are E/C/F teams gaining more strategic ground? If so, which strategies and tactics have helped to position these teams as the high-value, innovative solution providers they are?
3. Capture invaluable lessons learned regarding how to align every employee, every team, and every department to develop and execute the strategies and tactics that are critical to corporate success.

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## Study Purpose

**The purpose of the study** is to inform future decisions by both corporate E/C/F leaders, and corporate business leaders, to more fully leverage the valuable resource of optimized capital asset decisions to the greatest benefit of corporate financial success.

## The Hypothesis

This research study focuses upon four hypotheses developed prior to initiating the research:

- The relationship between E/C/F departments and the internal business units they serve is changing.
- A technically competent E&C function which delivers requested projects safely, on time and on budget is not enough for organizations to remain competitive.
- E/C/F teams must be engaged in developing strategic business solutions if an organization is to compete in today's fast-changing and highly competitive markets.
- There are specific strategies and tactics that contribute to gaining a strategic seat at the table with the senior management of an organization.

“After hearing Jon Pemberton speak on his directive to cut 30% of the cost and 50% of the time out of the capital program delivery process at Intel, I immediately approached CII about collaborating on this study. The need for transformational change and improvement in our industry is a critical issue.”

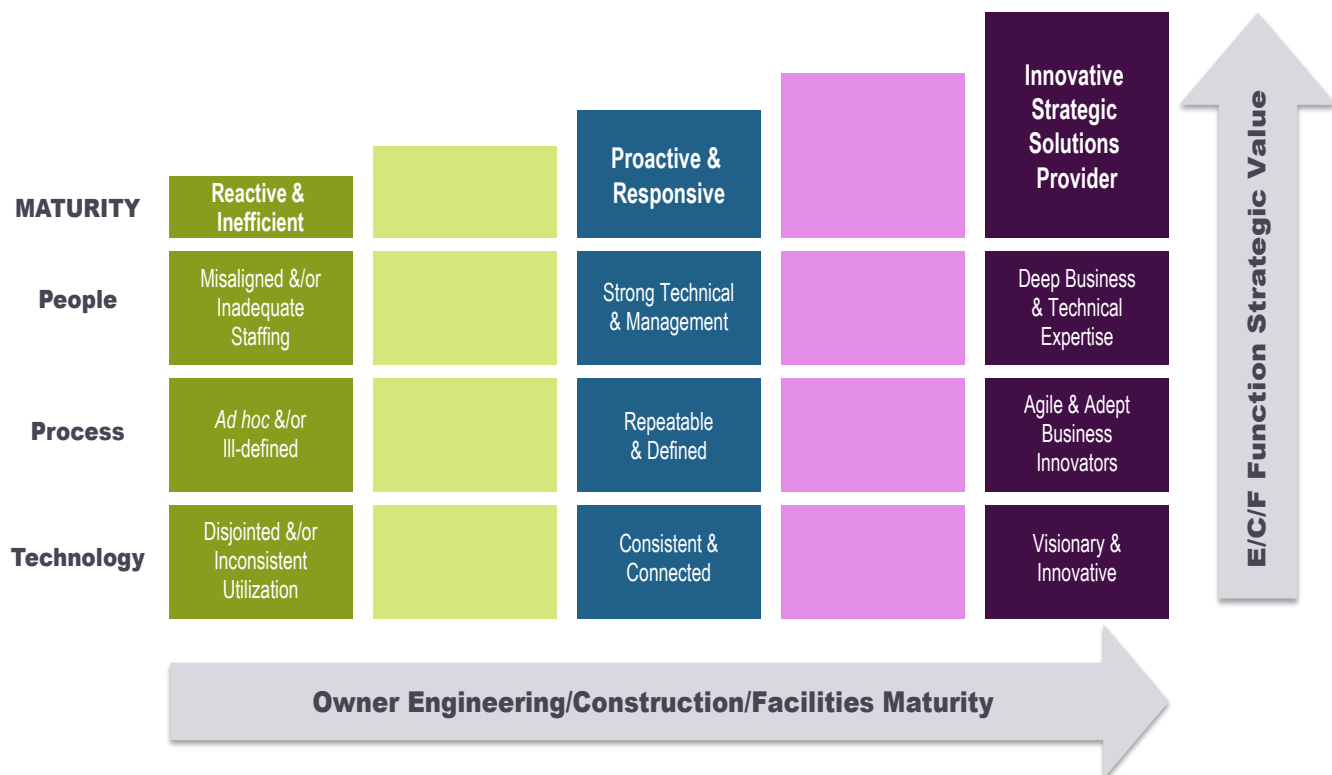
– **Gretchen Gagel**, *President,  
Continuum Advisory Group*

## Research Design

This research was conducted as a qualitative study, with a focus on interviewing both the leaders of E/C/F teams and the business leaders they serve. Interviews were conducted utilizing a standardized interview guide with 35 corporations representing a wide variety of industries – retail, oil & gas, manufacturing, hi-tech, pharmaceutical, and energy. The researchers compiled numerical data utilizing a Likert scale for several questions, and thematic data was culled from interview summaries.

A maturity scale was developed to capture the general strategy of each organization. The scale represents a spectrum of corporate E/C/F team maturity from “reactive & inefficient” on the low end to “innovative strategic solutions provider” on the high end. The scale demonstrates the concept that as corporate E/C/F teams advance in maturity, their strategic value to the organization grows.

### Owner Engineering/Construction/Facilities Maturity Scale

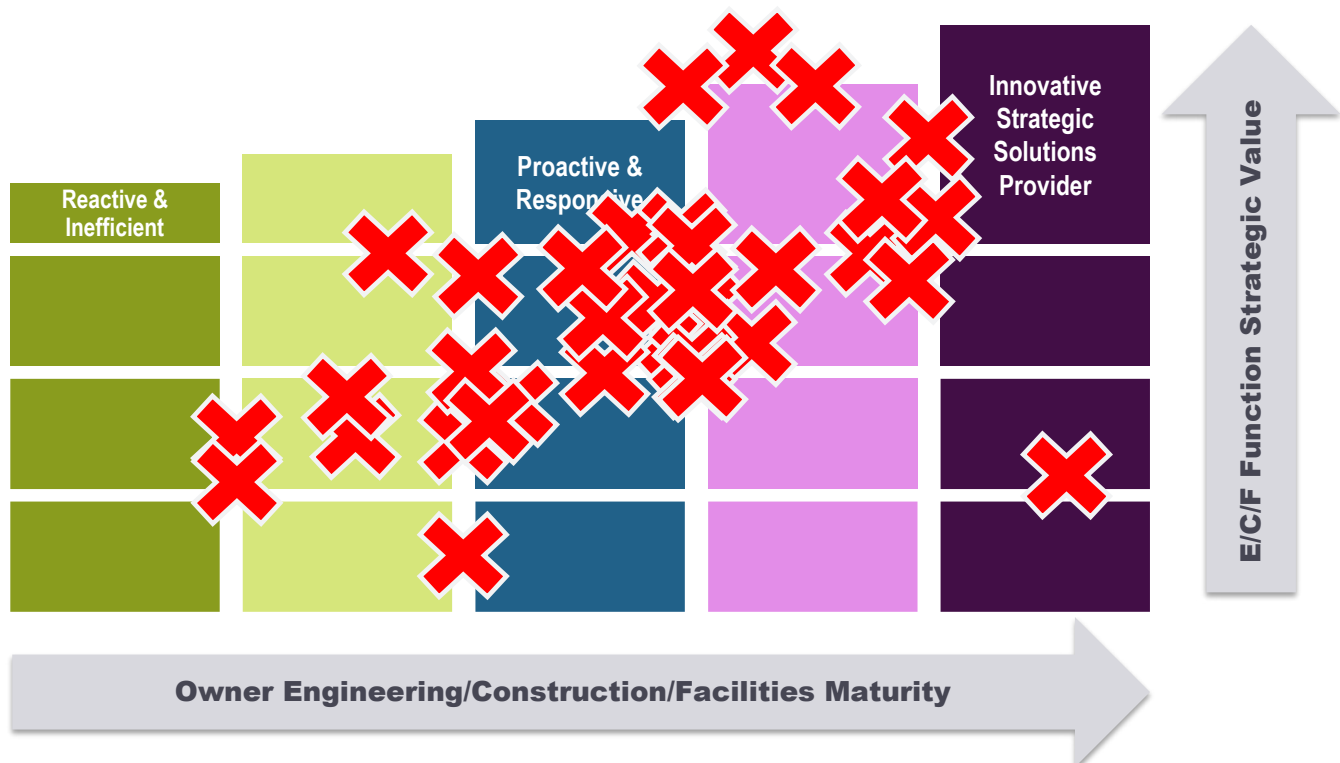


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## The Results

The results of the study tell a tale of E/C/F teams living at every level of the maturity scale from responsive service providers to innovative solution collaborators. Not only are the E/C/F departments scattered in their approach to innovation and driving corporate performance, they are also moving in various directions. Some E/C/F departments, due to cost containment, are moving to the left, becoming less focused upon innovative solutions. Some departments are clearly moving to the right, focused squarely upon a seat at the corporation's strategic table.

### Owner Engineering/Construction/Facilities Maturity Scale



The study team assessed E/C/F maturity and E/C/F strategic value to the organization for each of the 35 companies interviewed, depicted by the red Xs on the chart above.

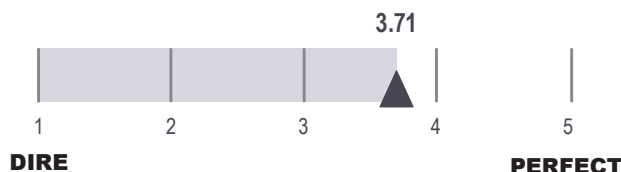
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## Several key themes and quantitative results emerged from the study:

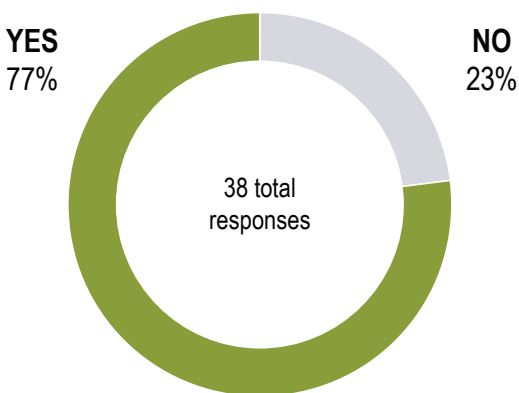
### 1. Identify your current position on the maturity scale, your desired position, and your migration strategy.

Most of the companies interviewed, regardless of where they are on the maturity scale, clearly understand the current versus desired location on the scale, as well as strategies for changing the position. They also realize that self-assessment, while difficult at times, is critical. Many of the companies interviewed were attempting to shift their position but felt constrained to focus upon incremental versus transformational change. Lack of resources was a contributing factor. On a scale of 1 to 5 with 1 being “dire” and 5 being “perfect,” companies interviewed rated their staffing level for capital program delivery as a 3.71. Respondents also reported that 77% of E/C/F leadership members are involved in strategic planning at the highest corporate level.

How would you rate the appropriateness of your organization's staffing level?



Are the people responsible for capital construction or facilities maintenance involved in corporate strategic planning efforts?



“The first step in shifting from a service provider to a solution provider was simple – change the name of our department from ‘Global Engineering Services’ to ‘Global Engineering Solutions.’ The difficult part will be to change the culture and mind set from both a customer perspective and for our own employees. We want to be viewed as a strategic solution provider that drives corporate success.”

– **Jim Stephanou, V.P., Global Engineering Solutions, Merck**

“We understand that the services we provide to our internal clients can easily be outsourced. We have to be the premier provider of capital program execution – and prove our value every day.”

– **Anonymous Respondent**

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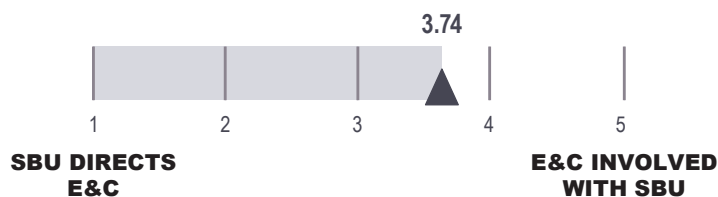
## 2. Invest in understanding the needs of your internal business clients.

Many of those interviewed stated that it's not enough to service your internal business customers; you have to live inside their needs to truly understand the business units and how you can impact the bottom line on a daily basis. Strategies for doing so include structural solutions internal to the organization to create close links, performance measurement solutions to align performance to key business objectives, and educational solutions to inform people of the need to provide high levels of innovation and internal customer service, as well as the relevant corporate metrics and how they can impact them. Companies interviewed rated their involvement in strategic business unit thinking as 3.74 on a scale of 1 to 5, and 71% of respondents are involved in strategic decision making for internal business units.

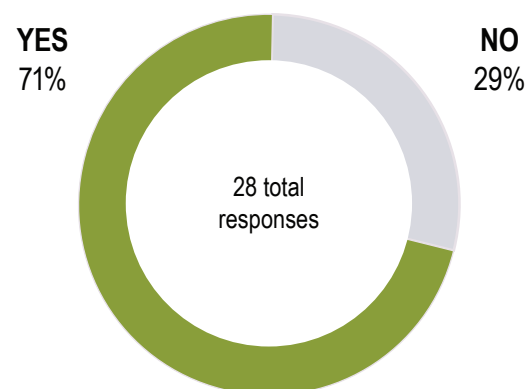
“Our facilities group is part of our fully integrated response to restaurant development and maintenance. They play a key strategic role to our ongoing business success by expertly caring for our ongoing needs, forecasting future challenges and preparing our facilities and team members for our future growth path.”

– **Michael Ulm, V.P.,**  
Construction & Facilities,  
Noodles & Company

How would you rate the level of E/C/F involvement with your organization's SBUs?



Is E/C/F part of making SBU decisions?



“We don’t **serve** our internal customers, we **live** with our internal customers by being deeply embedded in each business unit. We view this as critical to our ability to provide innovative capital asset solutions.”

– **Anonymous Respondent**

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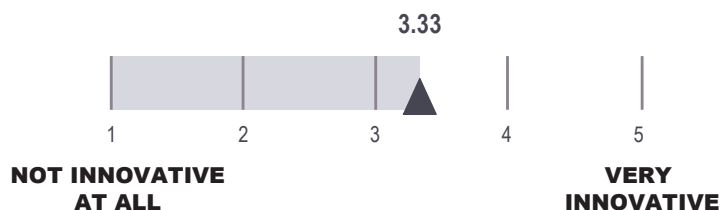
### 3. Drive towards innovation and agility in support of corporate objectives.

Many of the organizations interviewed are aggressively moving towards higher levels of innovation and business solution provision on the maturity scale. However, some organizations interviewed that either reside or are moving to the left of the maturity scale are not doing so because they desire to. Some are hindered by a lack of resources, and/or a culture that resists innovation, or some other barrier to achieving success as a high-value partner in the creation and execution of corporate strategy. Those respondents asked about their level of innovation related to providing strategic asset solutions for the corporation rated it a 3.33 on a scale of 1 to 5.

“We are more focused upon innovation than we have ever been in our history. The electric utility industry is shifting rapidly, and if we are going to be successful, we can’t just keep up with the changes, we have to help drive the changes by understanding the utility of the future.”

– *Anonymous Respondent*

How innovative is the E/C/F Group relative to proposing solutions to business needs?



“If we don’t move rapidly enough, we lose out on opportunities in the real estate market related to better serving our internal clients. Speed and agility is a must.”

– *Anonymous Respondent*



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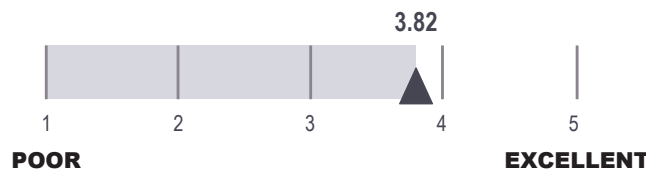
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#### 4. Create a culture of innovation and accountability to corporate results.

Study participants believe that before corporate E/C/F teams can articulate an internal value proposition of providing innovative solutions to critical bottom-line issues, these teams must **live** a culture of innovation. Teams must **want** the seat at the strategic table, and be confident of the value created by their involvement in key business decisions. Building a team culture of innovation, accountability to corporate metrics, and service to the internal customer was critical to those organizations that have achieved a seat at the table. Respondents rated their level of service to internal customers as a 3.82 on a scale of 1 to 5.

How would you rate the level of service provided by E/C/F?



“Questar Gas has hit every growth goal for the past eight years, in large part because of our ability to achieve significant increases in our capital spending. We continue to drive a culture of accountability and innovation. Doing things the way we’ve always done them is just not an option.”

– **Craig Wagstaff**, President, Questar Gas

“Our culture is built upon measuring and driving key performance indicators and understanding how this in turn impacts the company’s bottom line.”

– **Mike Staun**, Associate Director, Capital Management & Engineering Systems, Procter & Gamble



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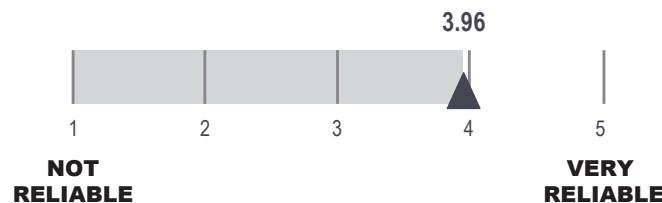
## 5. Measure the value that innovative capital program delivery creates.

Interviewees articulated that the key to having a seat at the table is understanding where the table sits, what it looks like and how employees at every level impacts that bottom line. Being able to directly link project and program execution to critical corporate objectives such as share price, speed to market, and return on investment is critical. There is less tolerance by C-level executives of actions that negatively impact the bottom line. Those interviewed rated the capital budgeting process a 3.96 on a scale of 1 to 5, and many agreed that reliability is the focus, at times at the sacrifice of innovation and risk taking. A total of 87% of respondents stated that E/C/F is involved in the capital budgeting process.

“We can link the execution of the capital program and its projects directly to return on investment and earnings, which correspondingly supports our growth plans. It is the way we ensure that our capital program is supporting the financial objectives of the enterprise.”

– **Ron May**, Executive Vice President,  
DTE Energy

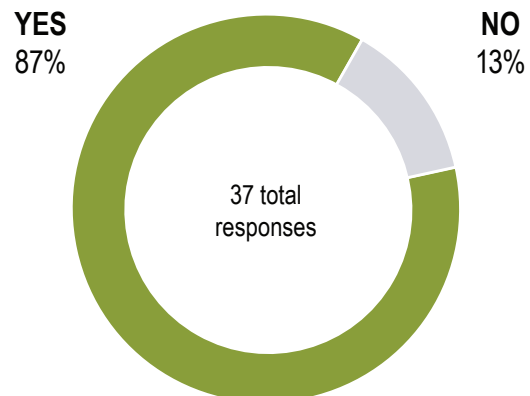
Do you think your capital budgeting process is reliable?



“Our CEO has made it clear that ‘hoarding’ capital dollars or unreliable capital budgeting DOES hurt the bottom line – and in fact in recent history cost us \$.02/share during a stock repurchase. We MUST understand our impact on corporate objectives, now more than ever.”

– **Anonymous Respondent**

Is E/C/F involved in the capital budgeting process?



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## 6. Communicate how each person serves the needs of the organization.

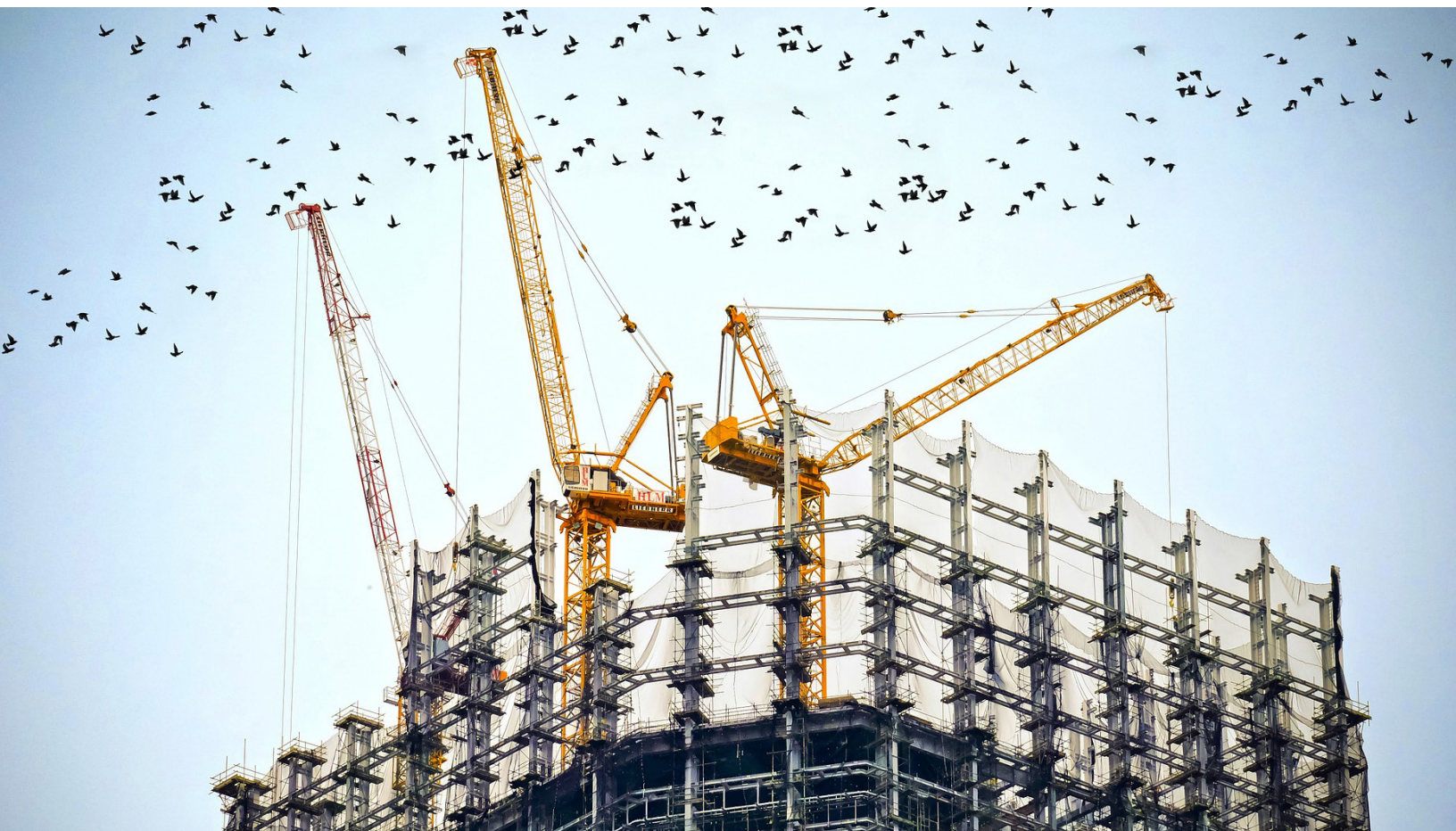
People interviewed indicated that you cannot serve a client if you do not have a deep knowledge of their needs. They can't understand your value as a thought partner if they do not know what you can and cannot do for them. Communication is the critical link, as is a clear understanding of how each person's daily actions serve the corporate objectives.

"At GM, we are working with industry groups and peer owners to understand the key metrics of success, such as construction productivity, how we measure those metrics of success consistently across the industry, and how we apply those metrics to the success of our own organizations."

– **Michael Mayra**, *Construction Group Manager, General Motors*

"We've taken the step of educating every employee, to the inspectors in the field, on how their work, their actions on any given day, support the financial objectives of the organization. The training has been very well received – we plan to expand it."

– **Brad Hasty**, *General Manager, Engineering & Project Management, Questar Gas*



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## 7. Benchmark, benchmark, benchmark – continuous improvement is key.

Many of the organizations interviewed engage in some form of benchmarking, and view this activity as critical to the success of E/C/F teams. It's not enough to focus upon best-in-class in relation to your own organization. Understanding where you stand in relation to your competitors is an important step in driving improvement and market performance.

"We measure a multitude of metrics, and benchmarking is a part of our culture. Without measurement, we don't know where we stand on performance, and that is not acceptable to our organization. Our benchmarking efforts drive a focus on innovative business solutions."

– **Walter Ennaco**, Deputy Director,  
Smithsonian Facilities,  
Smithsonian Institution

"Our journey of focusing upon innovative continuous improvement started with extensive benchmarking efforts, both within and outside of our industry. We want to know where we stand in relation to our competitors, and we want to be the best."

– **W. Darin Moody**, V.P.,  
Corporate Engineering & Global Health,  
Safety & Environment, Eli Lilly and Company



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## 8. Engage your service providers in innovating for success.

Several of the companies interviewed are aggressively involving their A/E/C partners in efforts to leverage innovation for corporate success. These companies realize that their partners are a key source of innovation, especially in bringing new ideas from different industries and driving technological advancements. The best of these partners take time to understand the business needs of the owners they serve and are not afraid to bring up new ideas or point out areas for improvement.

“We engage our suppliers in ‘Value Add Day,’ a collaborative process of exchanging innovative ideas to drive improvement in our business. This is an important step in driving solutions that support the business.”

– **Dave Meyer**, Capital Plan Manager,  
Supply ZBS Capex Group – North  
America (NA) Zone,  
Anheuser-Busch InBev

“Our contractors are strategic partners in driving continuous improvement and innovation. They play such a huge role in our success. Finding the right partners, and building mechanisms for co-learning, co-innovation, and candid feedback on our performance as an organization, is vital as we’ve grown our construction program from less than \$200 million to over \$1 billion.”

– **Chuck Shafer**, V.P.,  
Engineering & Construction, NiSource



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## Summary of Key Themes

The key themes discussed by those interviewed reflect diverse yet consistent thinking on the focus of innovation in response to the needs of internal business clients.

## Using This Information

The purpose of research is to more fully understand an issue and benefit from the application of that knowledge. The CII and Continuum Advisory Group research team has confidence that the themes uncovered in this research will help you in doing the following:

1. Have regular conversations with your business customers.
2. Align your strategic plan with the corporate strategic plan.
3. Measure and articulate bottom-line value creation.
4. Reward team members for innovation and value creation.

## Future Research – Phase II

While providing significant insight into the relationship between corporate E/C/F teams and their corporate customers, this study brought up more questions than it answered. The intent is to proceed with a Phase II of the study in late 2016/early 2017, with a focus toward:

- Engaging corporate E/C/F teams in conversations with their business clients in roundtable formats within a select number of corporations.
- Developing a more detailed roadmap of the steps to take to create, and articulate, higher value creation by corporate E/C/F teams.

## Study Participants

1. Anheuser-Busch Companies, LLC
2. AstraZeneca
3. Atmos Energy Corporation
4. Buffalo Wild Wings, Inc.
5. Chevron Corporation
6. Cisco Systems, Inc.
7. Commonwealth Edison Company
8. Consolidated Edison Company of New York
9. Denver International Airport
10. DTE Energy
11. Eastman Chemical Company
12. Eli Lilly and Company
13. Exelon Corporation
14. ExxonMobil Corporation
15. General Motors Company
16. Huntsman Corporation
17. Johnson & Johnson Services, Inc.
18. Kaiser Permanente
19. Marathon Petroleum Corporation
20. Merck & Co., Inc.
21. Nestlé Purina PetCare
22. NiSource Inc.
23. Noodles & Company
24. NW Natural
25. Phillips 66 Company
26. Procter & Gamble
27. Questar Gas
28. SABIC
29. Shaner Hotel Group, Inc.
30. Smithsonian Institution
31. Southern Company
32. Tennessee Valley Authority
33. Toyota Motor Engineering and Manufacturing North America, Inc.
34. Young Life
35. (Anonymous Source Silicon Valley Technology Company)



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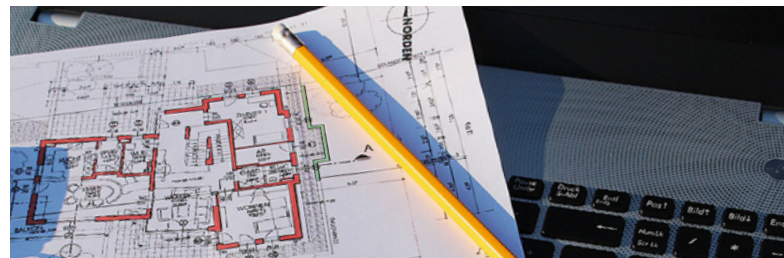
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