



How to create an innovative culture in a construction company







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As part of the <u>AXA XL Ecosystem</u> for construction, AXA XL assembled a roundtable peer consortium of innovation leaders from across the construction industry called The Innovators' Circle.

The 100+ person peer group convenes to tackle common emerging issues in construction technology and innovation. The members collaborate and ideate to develop and share actionable solutions and best practices to elevate innovation across the entire construction industry.

The Innovator's Circle is sponsored by <u>Gary Kaplan</u>, AXA XL's President of North America Construction, and led by <u>Cheri Hanes</u>, AXA XL's Head of Construction Innovation and Sustainability, and <u>Damon Ranieri</u>, AXA XL's Construction Innovation and Sustainability Partner. At the time of this project, the consortium was led by AXA XL's <u>Rose Hall</u>, and the founding co-chairs included a few of the industry's most influential innovation leaders: <u>Kaushal Diwan</u>, Corporate Director, Strategic Investments and Partnerships at DPR; <u>Dave Burns</u>, VP of Applications at McCarthy; <u>Rick Khan</u>, formerly of StructureTone, now Director of Mega-Projects at

VIATechnik; and <u>Cutler Knupp</u>, Director of Strategy and Technology Investments at Haskell and Managing Director of Dysruptek. The co-chair positions have rotated over the years, and have included other prominent innovation leaders such as <u>McKenzie Lewis</u>, Manager of Emerging Technology at McCarthy; <u>Jesse Jones</u>, formerly of Swinerton, now Principal Solutions Architect at Rivet Work; <u>Tim Gaylord</u>, Corporate Director of Innovation at DPR Construction; <u>Lucas Manos</u>, Director of IT Applications at Ryan Companies; and <u>Karl Sorensen</u>, Director, Construction Technology + Innovation at James G. Davis.

The consortium's first project focused on the most popular topic amongst our members: How to Create an Innovative Culture in a Construction Company. This paper describes the findings of that series of workshops.

Introduction

"If you always do what you've always done, you always get what you've always gotten."

- Henry Ford

Most construction companies have historically been successful due to strict adherence to standard processes and procedures - a culture which is reinforced by the many large losses that have occurred when someone deviates from the norm, so the industry is preprogrammed, in a sense, to be wary of outside-the-box thinking. This is the exact opposite of the mindset needed for innovation, which is why, in some ways, innovation and technology adoption is counterintuitive for construction. This industry is really good at figuring out processes and then formalizing them for precise repetition. That approach has been a key to success in construction and the industry is good at it. As a result, there is a bias towards perfecting and repeating a process forever, with no deviation. Additionally, most construction C-suite executives gain their positions through operational excellence and their ability to lead their teams to a repeatable process, not for their creativity and innovative mindset.

Innovation is not that. Innovation is constant, iterative, and disruptive change. Innovation is the opposite of the above; it starts with the desire to change. To break things. To fail fast and learn faster. So, when a construction company "commits" to innovation by hiring an innovation leader and (hopefully) investing in some resources, they often underestimate the challenges of developing a company-wide innovative culture to support that well-meaning initiative.

In this workshop series, the innovation leaders from ENR-top construction firms came together to identify some of the major hurdles in creating an innovative culture and offer the following suggestions to address and overcome them to create an innovative culture in today's construction industry.

Business alignment

"Our visions are the world we imagine, the tangible results of what the world would look like if we spent every day in pursuit of our why."

- Simon Sinek, Start with Why

Start with your "WHY." To be successful, innovation must be in line with a business's overall strategy. It is critical that this effort start with strategic direction based on the **core values of the company.** Not every company has appetite for extreme innovation. Some want to be on the bleeding edge, moving fast and breaking things; some are more cautious; and some are only going to adopt a tech or innovation when they are forced to. All those positions are ok. Each business must do what works within its own culture and aspirations – as long as their culture and their plans align. Firms may begin by identifying where they want to be on that scale, how they want to be viewed, and what problems they want to solve. This can inform an approach to innovation.

Once this factor is clarified, firms should make sure their tech and innovation department and the overall organization are in sync, or innovation efforts will fall flat. This outlook will inform everything from who is hired, to what types of innovation they will work on, to what technology partners might be engaged in the effort. If an innovation department is bleeding-edge in a firm that is relatively staid, their efforts will be destined for failure, or will at least experience a severe lack of traction. That is poor alignment, which leads to a poor investment in innovation. Construction firms must begin with this alignment in mind and make a conscious effort not to purport to be something they are not.

In other words, the first innovation project is strategic alignment! This is a critical juncture for companies to do some soul searching and truly understand what the goal of their innovation and technology department will be.

Our workshop found the most common hurdles to creating an innovative culture to be:



Business alignment



Funding and budget



Team structure



Finding the right people



Building a culture of innovation beyond the direct team



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The purpose of this paper is to compile the team's thoughts and experiences on each hurdle - starting with business alignment.

Funding and budget

"Don't tell me where your priorities are. Show me where you spend your money and I'll tell you what they are."

- James W. Frick, Vice President, Notre Dame With slim profit margins, funding new initiatives at any construction company can be challenging. However, without dedicated funding, innovation will suffer.

AXA XL's Technology Adoption Maturity Index (TAMI) includes "Dedicated Innovation Budget" as one of the Key Performance Indicators (KPIs) when evaluating a contractor's level of technology adoption maturity – the benchmark for this KPI is >1% of revenue for overall technology budget, and > 0.1% specifically for innovation. We find that many large contractors are achieving this benchmark, however many mid-sized and smaller contractors take a case-by-case approach to funding innovative ideas and technologies rather than committing to a dedicated budget.

The peer group found that establishing a dedicated budget has important impacts beyond ensuring that your innovation initiatives are funded. Among other things, it communicates to your internal team and your potential clients that innovation is a priority for your company.

The peer group agreed that one of the most essential elements to consider when developing an innovation plan is to consider how that plan aligns with the company culture and core values, and then translate that commitment directly to funding and resource allocation. For example, if a company is employee-owned and/or touts autonomy and individuality as their strength, it may make sense to empower the specific business units (or even project sites) to self-fund their innovation experiments. In this way, businesses can capitalize on a robust self-starter culture. Alternatively, a company with a focus on a more cohesive corporate culture with a strong process and procedure backbone may benefit more from a corporate overhead innovation budget and established framework, capitalizing on their strong infrastructure and corporate support for new initiatives. In either case, it is important to view technology as a future-focused asset, not just an expenditure. Similarly, the departmental alignment should also compliment the company culture. If the innovation department stands alone, outside the IT department, then it should also have an independent budget. Read on for more on how an innovation team may be structured and to whom they may report.

One idea that arose in our workshop was the concept of tying innovation to a preestablished core function within the company to best align the results and responsibility with an already prioritized effort. An example might be to pilot safety technologies through the safety department's budget and organization, or quality-related experiments from the quality department. In this way, companies could tie the spend and resource effort to the specific department that will also eventually benefit from the return-on investment (ROI). If a company has an initiative around quality, or safety, or another business focus, the benefits that the focus on tech and innovation may bring to that effort should be factored in as part of the initiative. Strategies for funding a fledgling Innovation team also included making targeted pilots billable to projects initially – or co-funded by projects, until you can establish some success, which may have the additional benefit of a feeling of ownership from the project team, especially if there are some KPIs being measured. To successfully pass-through a technology spend into the project cost, make sure it shows value to the owner, otherwise it could be viewed as "means and methods of construction" and therefore, deemed the contractor's sole responsibility. This must be an early effort to be effective.



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When an innovation may benefit the entire enterprise, it can be beneficial to fund from a corporate budget. This may be in the form of a departmental budget, or an R&D budget. There are also a few crowd-sourcing tactics to encouraging innovation, such as internal innovation challenge competitions (more on this later) where the best ideas receive funding and resources to pursue the idea. This would usually involve a panel to judge the ideas and final approval by executive committee. This kind of competitive approach – if marketed well – can encourage people to think about innovation and making their work better every single day. That is a tremendous potential value in itself.

When an innovation is focused on a particular project, other factors come into play. When discussing owner buy-in (and potential reimbursement), particular emphasis was made on the timing of this suggestion.

At AXA XL, we offer a product called <u>Highly Protected Projects</u> (<u>HPP</u>), where we pair a suite of technologies with our policy offerings and/or provide preferred pricing and or terms based on the risks protected with the technology. We have found the same timing issue to be a roadblock in our own adoption efforts of the HPP. If the owner is approached with an "outside-the-box" idea after the budget is already set, there is little chance of uptake. It is important to begin these conversations early for the best chance of adoption, and the role of early collaboration cannot be

overstated. Engage project value chain stakeholders (e.g., owners, developers, project managers, etc.) early in the planning, before the budget is finalized, for a chance at seeking partnership in the funding. Focus on what is required by the project type, owner's vision, and the contract.

Another strategy discussed focused on changing the conversation from "how much" to focus on the value it will bring. What will the ROI be? How will it align with the long-term vision? This includes thinking about potential competitive advantages, the lessons that could be learned, the claims that may be avoided and their magnitude, the value in terms of saved time and increased effectiveness of the team involved, and the data that results from the innovation and how it may pay dividends in the future.

One interesting line of exploration might include asking how the innovator could quantify how much better their idea is over the existing state? To assess this, they will need a firm grasp on the existing state is and why it exists as such. Much will be learned in the analysis. In short, rather than focusing on the price tag, it is important to focus on the alignment with the company's core values and leadership's vision/goals and how an innovative solution may support them.

Building the team

"If you change the way you look at things, the things you look at change."

- Wayne Dyer, The Power of Intention **Create the team structure.** Once business alignment and funding issues have been decided, it is time to turn to structure. The human element of innovation commitment cannot be overstated, a theme that appears consistently throughout our Innovator's Circle discussions. What should an innovation and technology team look like? The answers are as varied as construction companies themselves, but there were important considerations raised in the sessions. These include how the reporting structure affects the outcomes and the remit of the team.

Where the innovation team reports can make a massive difference. There is not a right structure for all businesses, but the structure a firm chooses affects several things. If the innovation team reports to the CFO, then everything will likely be viewed through an ROI lens. This may seem efficient on the surface, but some important opportunities are likely to be passed over. If innovation reports to operations, everything they do will be viewed through an operational lens. Again, some innovations that might be meaningful will not be entertained if that is the case. Both approaches put constraints around innovation that may not be useful. And, surprisingly, it may be that most egregious reporting structure scenario is when innovation reports to IT. In that scenario, it is possible that the team becomes so narrowly focused on tech that they miss the nuances of the human element, and the complexity of a construction site.

The group suggested considering another reporting line, which may include a C-Suite position focused on innovation – the Chief Innovation Officer. Many Fortune 500 companies have this position, however very few construction companies do. This allows an innovation team to imagine and explore the future value of all potential innovation, the freedom to pursue operational improvements and ROI, and the support from the top to implement effectively. It's important to note that where the innovation team sits and their titles don't just affect the internal audience. These factors affect perceptions when talking to external parties as they may be perceived to demonstrate the commitment and seriousness of a company with regards to innovation and technology.

And a further question is who to include in the innovation team? Innovation is broader than just technology and stretches into many types of potential improvements, including means and methods like prefabrication or novel building materials like mass timber. How will the innovation team interact when discussing these topics? Does the team include Innovation and technology? How about IT? Is VDC part of this team? It bears repeating that the departmental alignment and collaboration should complement the company culture.

Find the right people. Once the team structure is decided, the focus shifts to finding the right people for the roles. One of the most important things a construction company can do at this juncture is double down on the commitment to hire and train dedicated resources, but where can you find them?

Let's explore the internal and external options:

Internal resources: Perhaps the answer to your innovation and technology needs is already in-house. Work to identify early adopters, tech champions, and evangelists, those who are already always looking for these solutions with a passion to make the enterprise better – innovation hobbyists, if you will. Look for individuals who, in addition to interest in technology, also have strong critical thinking, analytical, and management skills. All are necessary.

If you have instituted an innovation challenge as mentioned above, there may already be a list of these folks. Leverage the talent you already have, who know the business, its needs, strengths, and weaknesses. That is a valuable head start. Something else to consider is rotating members of other teams into the innovation team to keep the ideas and perspectives fresh. This gives the permanent members of the Innovation Team fresh perspectives, and the rotating members a platform for their ideas and greater exposure to how improvements are made within the organization. Everyone benefits in this scenario.

External: When hiring folks from outside the organization, there will necessarily be some perspective and communication challenges. They will not have the scope or the network that an established candidate has. However, this is not always a negative. A balance of folks from "outside" of the organization will have different perspectives and may be less accepting of how it "has always been done." This is not a bad thing.

And finally – remember that innovation and technology can – and should – also be a part of your talent attraction and retention strategy. Innovation and technology are not considered problems for Millennials and Gen Z, they are opportunities. They live and breathe it. It's a feature, not a bug, as they say. These folks are digital natives, and they want to work in a tech rich environment – in fact, they will walk if it is not. Leverage this fact.





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Fostering innovation beyond the core team

"Leadership is the art of giving people a platform for spreading ideas that work."

- Seth Godin, Tribes; We Need You to Lead Us If an innovation department is viewed as something separate from the organization, or "someone else's job," then there is not truly a culture of innovation within that firm. For a business to have a truly innovative culture, everyone must understand their own role in innovation and the organization's commitment to it. This does not just happen; where a culture of innovation truly shines, there is some structure for driving communication, visibility, engagement, and the training and encouragement to bubble up and develop ideas.

Communicate the importance of innovation to your organization. The team agreed that this communication must come from the top down to demonstrate executive buy in, and from the bottom up via the sharing of success stories, lessons learned, and current needs. When an executive shares how an innovation made the company better (especially with acknowledgement of the team that brought it to life) or a project team shares how a tech solved a problem for them, that drives home the real impact of innovation in a way that mission statements simply cannot.

One of the most important success factors for innovation is the intentional sharing of these things between business units, across regions, and between functional teams. In this way, everyone starts to think about what innovation might do for them and their work. And that is where amazing, relevant, impactful innovation occurs.

In all communications, focus on giving clarity. Many times, employees do not understand what is being asked of them when asked to test a new technology, try something, or participate in a pilot program. Give them clarity and a structure for evaluating a tech, tool, etc. Relate the pilot or test to business goals and share examples that demonstrate past successes.

Also, spend time communicating that one goal of any pilot is knowing when to say "no" to something. Sometimes the best thing you can learn from a pilot is that you do not want to scale it, and testers need to understand that a "no" is as valuable an outcome as a "yes," as long as the reason why the decision was made is clear. This is another place for an innovation manager to identify risks to the success of the pilot before embarking on the process, and drive constant communication with pilot testers, and any partners, on what is and isn't working along the way.





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Give visibility to current, past, and upcoming innovation efforts.

Driving general visibility of completed or ongoing projects is also paramount. Internal sharing of a list of projects with a quick description and contact information can spur ideation, promote efficiency, and drive uptake. Even better if this is taken one step further and a project is featured monthly or quarterly on an all-company call or newsletter. Whether this amounts to a success story, a status update, or even a "stopped project" with lessons learned, this type of communication leads to more innovation.

Build a volunteer army. It is a major challenge to get everyone on board, especially when the subject matter feels unfamiliar and new – like tech and innovation. The peer group members found that, in addition to creating a dedicated team for innovation, it has been important to make room on other people's plates to innovate. The best, most impactful ideas come from those facing the problems in their various corners of the business.

The goal is to create a voluntary army. This might be a rotating group that is not the same every year, or there may be some or all members who are static.

This "army" should be a diverse team not only for their perspectives, knowledge, and novel ways of thinking, but also for the evangelism they can carry to the corners of your organization. People from diverse parts of the organization speak the language of your various teams and will be able to communicate the value of what you are doing in language the teams can understand and buy in to, in ways that an outsider to their specific team simply cannot.

One of the most important things to focus on in assembling this volunteer team is demonstrating that your organization values individuals who engage deeply and champion innovation.

Personal recognition and incentives go a long way and show that you notice and support them as individuals and what they are doing for the company. Make sure they are visible, recognized, and get credit for what they are doing.

Another benefit of this approach is the leadership development opportunity it provides to individuals who engage. Innovators must work with finite resources, both their own time and any corporate seed money, to justify, articulate, and make the case for their idea to senior leaders, all important business skills. Even if their idea is not chosen, this process is a great learning and growth opportunity, as long as these senior leaders provide meaningful feedback, and work with innovators to help them uncover potential risks and challenges.

Offer training on how to innovate. This would make a great quarterly or annual training focus, starting with how to ideate (design thinking) and then going on to strategies to develop the resulting ideas (project management). This will make all your teams better at problem solving and may lead to new innovations that really make a difference. If you are going to have a training series, consider making an innovation contest the final phase of the training.

Some Innovators' Circle members have reported remarkable results from holding an annual innovation contest. This drives home the idea that innovation does not have to come from the innovation department. At a minimum, this will identify issues faced "on the ground" and – best case – solutions that effectively address them.

Final thoughts

"Champions keep playing until they get it right."

- Billy Jean King

We find ourselves at a golden moment for innovation. As more individuals become comfortable using technology at home and in their personal lives, they may be more inclined to adopt new ways of working too. Harnessing the power of this shift will require all our resources pulling in the same direction.

We can do that by focusing on our "Why," funding and building the right team, and intentionally building a culture of innovation that spreads throughout whole organizations. Not surprisingly, many innovation hurdles relate to human behavior, and efforts to support and inform the people involved allow innovation to flourish.

We must never underestimate the power of focused collaboration when it comes to innovation. We can all learn so much from each other. In today's complex world, none of us are going to solve everything in a vacuum. Collaboration across an enterprise, an industry, or across industries, is key to accelerating the development and adoption of the different ways of working, new products and services, and advancements in technologies intent on helping business grow. Innovation moves everyone forward.



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