Institutionalizing Sustainability: Transforming Professional Practice to Achieve Portfolio-wide Improvements

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Abstract: *The future of our planet and the future of our industry depend on our ability to thrive in systems, to co-create in collaboration and to achieve levels of synergy that transform our impact. The 2030 Challenge, Living Buildings, Net Zero, BREEAM and LEED, etc. all define building performance targets for the industry. Yet, a critical gap remains between rising performance goals and the organizational capability to consistently achieve them. The current reality is that sustainable building is approached through a technical lens, ignoring the culture, systems and processes embedded in the organizations providing the design and construction services.*

Most firms have some percentage of green projects in their portfolio, but haven't figured out what it takes to institutionalize sustainability so that they can achieve more all the time and be proactive instead of reactive. In order to meet that challenge, we need to move beyond the individual target, the individual project and the individual superstar designer or green team. We need to undergo a paradigm shift in our company culture, relationships, systems and processes at an organizational level. We must move beyond "random acts of sustainability" to holistic, comprehensive initiatives that transform our internal daily operations, project delivery and external collaborations. We need to transform the reality of day-to-day practices within our firms in order to be more effective at achieving sustainability goals. We need to become a global community of sustainability practitioners that apply these principles all the time and just not on-demand.

How can green champions within a company advocate effectively and "lead from the middle" to gain the buy-in necessary to get leadership commitment? If management thinks your company is "good enough", how can you assess what's missing? What strategies are successful in affecting culture change, especially within a large organization? How can best practices in green design or construction be institutionalized and delivered consistently? What's important to measure and how? Is it possible to achieve performance targets laid out in the 2030 challenge?

This paper provides readers with an understanding of a framework and roadmap to implement in their firms immediately and put themselves ona path to achieve consistently higher sustainability performance on projects.

Keywords, sustainability, institutionalize, corporate responsibility, performance

Introduction: then need to address sustainability at the organizational level.

The built environment has profound and lasting impacts on the planet. The buildings and infrastructure created by the industry affect the environment, the economy, public health and society. A paradigm shift is needed in the fundamental approach to design and the synthesis

between natural and human-made systems. At a minimum, sustainable development "meets the needs of the present without compromising the ability of future generations to meet their own needs" [Brundtland Commission]. Ideally, the built environment can become a catalyst for regeneration and synergistic with natural systems.

In order to meet this challenge, the industry needs to move beyond individual successes and commit to sustainability at all levels of their organizations from management and operations through project delivery. Individual champions within companies are not enough, the culture and shared vision within every company must be based on a fundamental premise that integrative, holistic, high-performance design is integral to excellence in professional practice. Design culture must change and be held accountable in its systems, processes, methodologies and protocols.

Since the early days of the "green building movement", rating systems have defined the industry's perception of what it takes to build green. Because of this focus at the project level, within teams convened over a limited period of time to solve a specific problem, there has not been an industry-wide paradigm shift at the organizational level. Many firms who have participated in delivering "LEED projects" do not apply those basic best practices to their other projects and only a small percentage of their portfolio achieves the value and high performance of green buildings as articulated through the USGBC's LEED program. Now that Architecture 2030 and the American Institute of Architects have clarified performance targets over time, firms struggle even more with how to achieve those audacious, yet critical, goals. The 2030 Challenge has highlighted the disconnect between achieving one-off successes through individual building certifications and truly institutionalizing sustainability within the organization so that every project achieves high performance goals. The reality of climate change and severe weather events has created a sense of urgency and an imperative that we can, and we must, do better. The steps that need to be taken to close the gap are not expensive or impossible, but they must be committed to and there must be an intentional process in place to transform the culture, processes and methodologies of every day practice. This paper outlines the elements and framework that can guide this transformation.

A Roadmap to intentional change

The Roadmap to Excellence provides a framework to help firms accelerate their own journey and address the fundamental issues that position them as truly excellent firms, capable of delivering consistent, high quality sustainability services. The methodology described in this paper helps firms institutionalize sustainability and move from "random acts" to consistent leadership. The content presented here reflects the best practices that leading green firms have implemented over time and that distinguish those firms from the "professional greenwashers" who, out of ignorance or malice, make false or exaggerated claims about their capability. These truly green companies have basic standards and best practices for sustainability that are internally driven and not reactive and completely dependent on their clients. They prove the

saying, “if it IS being done, it CAN be done” and do not see sustainable design as an add-on or solely a reaction to client demand.

Transforming practice requires two things, the “what” and the “how”. Organizations need an understanding of what needs to be changed, what the desired outcome is and a clear process that shows them how to achieve it. When organizations think of sustainability, they tend to focus on technologies and strategies and they forget that there is a significant social dynamic at play. In order to design and build green buildings consistently, the company culture, processes and methodologies need to change. This means that people may be driven outside of their comfort zone, they may be asked to behave differently or to engage with each other in new ways. They will resist and initial efforts will result in frustration. Change is the most difficult thing to ask of people. That is why the concept of change management is pivotal for institutionalizing sustainability. Change management is rarely discussed in design and construction firms, but it has been greatly explored in the mainstream corporate arena, which provides the building industry with proven methodologies to draw from. There are two thought leaders in the business world who have contributed models for change management, Kurt Lewin and John Kotter. Kurt Lewin is thought of as the "founder of social psychology" and was one of the first to study group dynamics and organizational development. Dr. John P. Kotter is regarded internationally as the preeminent authority on leadership and change and has written extensively about how the best organizations actually achieve successful transformations.

Lewin developed an early model of change, which he described as a three-stage process. The first stage he called "unfreezing" to disrupt the current state, challenge the existing mindset and behavior and overcome inertia. In the second stage focuses on “creating/establishing”, typically a period of confusion and transition and this is when the change occurs. The old ways are being challenged but a clear picture of the future is not yet established. The third and final stage, "freezing" is when a vision for the future is established, the new mindset is crystallizing and people are readjusting to a new comfort level. Kotter created an 8 element framework that articulates the steps critical to overcome the status-quo and implement change effectively from creating a sense of urgency to generating short term wins through embedding the change deeply into the company’s culture. (To read how how Kotter’s model applies to design and construction, this 9 part blog series provides more detail: http://www.sustainable-performance.org/putting-the-management-back-in-change/).

Change can happen because top leadership drives it, but it can also be “led from the middle”, which is more often the case. Either way, the reasons for the change must be framed in a context of urgency. Clear and “SMART goals” (specific, measurable, achievable, results-oriented and time-bound) must be articulated and the expectations for meeting those goals must manifest in ways that are tangible to staff throughout the organization. A strategic approach must be taken to building allies and collaboration at different levels of the company

and the effort must demonstrate success in the short term in order to build on itself for the long haul. The underlying values and cultural norms must be addressed intentionally. If leaders state a commitment to sustainability but visible office operations continue to be wasteful, actions will speak louder than words and the effort will deteriorate because no one will take it seriously.

Applying the Roadmap

The process of institutionalizing sustainability can be very similar to a traditional strategic planning process, the major difference being the use of the Framework for Organizational Sustainability to help anchor the process. The Framework is the "what" and the process described below is the "how". It is worth mentioning that, although a process is outlined below, every organization has a unique context and is at a different point in their evolution so this should be understood as a guide and not a strictly literal, step-by-step formula. Each organization will adopt steps and may do things in a different order depending on their particular culture or priorities. The important thing is to be thoughtful in formulating your goals and strategic in setting metrics to track, figuring out how to achieve goals as effectively as possible.

As with any transformation, a good first step is to understand where you are currently, think about where you want to end up and then figuring out how to get there – with a realistic understanding of the barriers, costs and challenges to deal with along the way. Any change within an organization is difficult, whether you are introducing a new technology, a new timesheet protocol or something more complex. Because of that, this particular effort must incorporate intentional change management as mentioned above.

1. Baseline: you can't know how to get where you want to go if you don't know where you are starting. Understanding your company's SWOT (strengths, weaknesses, opportunities and threats) and getting a 360 understanding of staff perception, client perceptions and how well you deliver your services is the place to start. A competitive analysis to understand your position in the market is a critical part of this step/effort. To get a full characterization of your current situation, we recommend 3 activities:

    a) Feedback: using surveys (see samples in Appendix 1), ask staff a series of questions to understand what the perceptions are of current commitment, availability of resources, capabilities, etc., and ask external parties (clients, partners) questions about their experience working with you (and how you rank compared to competitors). The results of these surveys can identify any red flags and draw your attention to issues that will affect your success going forward.

    b) Mapping process: (see Appendix 2) If you don't already have a clear methodology that everyone understands for project delivery (and integrative design), spend a few hours with a number of staff to discuss and map your current project delivery

process in order to understand what's working and where the barriers are for managing or participating in an integrative, collaborative process that optimizes analysis and feedback loops to make decisions. This leads to the last item:

c) Review current systems and processes to understand what's missing or what's not working well enough. These could include project management, knowledge management, quality control, ongoing professional development, the effective use of tools for analysis or BIM, etc.

2. Vision: You have a sense of where you are. Now ask yourself: where do you want to be 3 years, 5 years or 10 years from now? Who do you want to be? What kinds of services do you want to provide? Will you be a market leader in sustainability or a solidly, reliable "in the pack" provider? Are there any project types that you don't want to include in future work? Are there business development opportunities you want to expand? You need to establish your vision of the future and then put stakes in the ground to define it. The Current/Future exercise with "back casting" can help you go through these questions expeditiously. (see Appendix 3). This exercise leads directly into the next step, goal setting.

3. Goal-Setting: This is where you get specific. What do you want to accomplish and how will you know when you get there? Goal setting discussions can feed right off of the Current/Future exercise, or the Framework for Organizational Sustainability can provide a menu of elements to help you identify and prioritize your goals. Goals should go beyond technical capabilities and include operational sustainability and collaboration effectiveness so that culture and methodology are engaged. SMART goals require a rigor and discipline so that you have a measurable and time-bound framework. Vague statements and platitudes are not goals. The Framework for Organizational Sustainability provides greater clarity and examples.

4. Analysis: Once you know how you want to be defined in the future (in terms of services, capabilities, culture, etc.) you have to do some analysis to inform what strategies you deploy to pursue your goals. These can include (in no particular order):

a) Barriers: looking at your goals, what barriers are in the way? It is much more effective to remove barriers than to try and push through them, but you can't address them if you're not clear on what and where they are. For each SMART goal you have, outline what the barriers are and think about which are possible to remove and how (Kurt Lewin's "Force Field" model addresses this dynamic).

b) Stakeholder analysis: this can be iterative with barriers. Understanding key stakeholders and their roles is critical in addressing barriers and implementing new strategies. Who has direct authority? Who has influence? Who has neither? Of the key players in your company, who do you need involved? How can you get them

involved? (Robert Cialdini explores these factors in detail in his book "Influence: The Psychology of Persuasion"*).*

5. Strategy: Developing strategies based on your analysis will help ensure that they are successful and won't fail because you didn't foresee barriers or get the right people on board. The strategies that are developed also have to take into account change management tactics. These strategies lead directly to the

6. Implementation plan: which identifies timeframes, responsible parties, resource allocations, partnerships (outside collaborations) and metrics or indicators to track to monitor success. The implementation plan must have change management strategies embedded in it or else all of your good work will have been for nothing. (For more detail about how to implement change management, refer to this 9 part blog series: http://www.sustainable-performance.org/putting-the-management-back-in-change/).

It bears repeating that these steps are important if you are trying to institutionalize sustainability but they may occur in a different order or may be variants of what is described above. The approach to doing this will be heavily influenced by an understanding of change management as detailed in the link above. Creating a sense of urgency is the first element in John Kotter's model. In order to create a sense of urgency, you must understand what company leadership perceives to be urgent. That will take some research and might require enlisting allies and collaborators who have an understanding – or even an influence, on leaders – these activities can be going on in parallel with goal setting discussions or Current/Future exercise. Implementation will also depend on the size, scope and culture of the organization you are in. For each of these steps, you should be referring to the Framework for Organizational Sustainability to get a clearer understanding of the specific elements to consider.

Expectations of professional practice

When we refer to "institutionalizing sustainability" or "excellence in sustainability practice" we are referring to a basic premise which is that "best practices" in the industry represent a standard of care that is intrinsically rooted in the principles of sustainable design. This means that the fundamental principles of healthy, high performance, integrative design are present as a basis of design excellence on all projects regardless of the client's demands and the ability to deliver "sustainable" or "green" is not an add-on service that greatly differs from core services. This has proven to be the case in organizations that have truly committed to sustainability and demonstrated that being reactive to client demand is not the only defining factor for achievement.

This does <u>not</u> mean that every project is net zero, has solar panels or a green roof, but it does mean that excellence in (sustainable) practice is based on critical thinking and a collaborative design process aligned with the following cost-neutral principles:

- Maximizing passive strategies

- Performance-based design approach
- Collaborative process of analysis and effective decision-making (integrative design)
- Reliance on metrics and accountability
- Use of life cycle cost considerations
- Focus on systems integration and optimization
- Effective use of tools and analysis to inform critical decisions
- Feedback loops for continuous learning from built work and operations
- Sustainable construction practices
- Post-occupancy understanding of occupant behavior and performance
- Green operations and maintenance

It doesn't cost more to ask the right questions.

Barriers and challenges may exist and the performance of every project is a result of many factors including building type, geographic context, client, budget, schedule, contract structure, etc. Still, efforts must be made to adhere to best practices on every project and this will result to portfolio-wide improvements that you can measure.

Overview of the Framework for Organizational Sustainability

The Framework for Organizational Sustainability outlined in the following pages was initially developed as the core of the Sustainable Performance Institute's (SPI) Organizational Certification program. This Framework provides the guidance for the Roadmap to institutionalize sustainability. SPI is an American nonprofit organization dedicated to improving the effectiveness of organizations to deliver sustainability services and improve portfolio-wide performance. This framework was developed over 10 years and has been through extensive peer review and public comment. It was adopted by a federal government agency and adapted for affordable housing developers as a program to help them achieve portfolio-wide energy reduction and has been used by organizations of all sizes from 10 employees to many thousands.

The following sections break down each of the Framework elements in detail and provide explanations as to the intent and requirements to be successful with implementation. The Framework focuses on quantitative metrics where possible and also recognizes the importance of qualitative data in painting a complete picture of sustainability within your organization. For each element of the Framework, you should be thoughtful about both the core content AND effectiveness. For example, putting a policy in place without holding people accountable will lead to failure. Having resources in place such as life cycle costing templates or integrative design (IDP) roadmaps is great, but if no one uses them, they are

meaningless. Success requires looking at both what is being done and how effectively it helps achieve the goals.

While much detail is articulated in the following pages, it is true that different organizations have different approaches to operations, management and project delivery. While the detail may be helpful, it should not be perceived as overly prescriptive; organizations should feel free to explore alternate methods to achieve the desired outcomes defined within.

Framework for Organizational Sustainability: overview of elements

1.0 Leadership, Goals & Implementation

1.2 Mission & Vision

1.3 SMART Goals

1.4 Leadership & Accountability

1.5 Strategy & Implementation Plan

2.0 Project Delivery / Portfolio Management

2.2 Methodology

2.3 Project/Portfolio Performance

3.0 Infrastructure and Support Systems

3.2 Tools and Resources

3.3 Continuous Learning

3.4 Human Resources

3.5 Quality Control

3.6 Internal Communications

3.7 Marketing

4.0 Partnering & Collaboration

4.2 Collaboration Effectiveness

5.0 Impacts & Outcomes

5.2 Portfolio Performance

5.3 Operational Footprint

5.4 Social Impact

Framework for Organizational Sustainability in detail

The Framework for Organizational Sustainability in the following sections is structured as follows:

X.0 TITLE OF SECTION

Outline of elements

X.2

X.3

X.1 Topic Overview

Overview of this section, its purpose and desired outcomes.

X.2 Element

Description of the specific action in detail.

Evidence

Description of what the evidence would be if this action were implemented. Where it would manifest and where could you find concrete and tangible materials to support implementation.

Examples

Different examples depending on what the issue is, as available

1.0: LEADERSHIP, GOALS AND IMPLEMENTATION

Outline of elements

1.2 Mission & Vision

1.3 SMART Goals

1.4 Leadership & Accountability

1.5 Strategy & Implementation Plan

1.1 Topic Overview

Many companies, including those who have been engaged in green building for a while, do not have clear “SMART” goals, metrics or accountability structures in place that reflect institutionalizing sustainability. Instead, they have “random acts of sustainability” such as a number of LEED certified projects and Accredited Professionals, some internal initiatives like recycling and some goals that talk about “increased sustainability” but without metrics or timelines. Few companies have implemented change management strategies as part of their early, or “random acts”.

The success of any organization-wide initiative depends on strong and effective leadership, well-formulated goals and strategies, and activities and policies that support them. Leadership at all levels and across all departments of a company is necessary to ensure that sustainability is embedded in the company’s culture and values. Intentional change management strategies must be incorporated into strategic sustainability implementation plan.

This section identifies key aspects of leadership, accountability and planning that will position your company for success and continuous improvement. Many of the subsequent sections depend on leadership, vision and strategy, so the first internal step that company leaders should take is to review this section and initiate a dialogue to revisit, create or clarify a clear vision for sustainability and well-articulated goals.

In reality, the term leadership typically refers to a number of partners or leaders at the executive level and these individuals rarely share identical opinions, perceptions and priorities. Therefore to assume that leadership refers to a monolithic and homogeneous group would be naïve. Part of the effort, therefore, is to use change management and influence strategies (as mentioned above, written about extensively by Kotter and Cialdini) to address the leadership divides and try and build consensus or at least align with strong leaders who can influence their peers. Additionally, efforts to make sustainability part of the company’s DNA rarely begin with leadership. Frequently they begin with middle managers or staff who are passionate and committed and find themselves “leading from the middle”. Often, these champions have technical and subject matter expertise but have not yet developed critical communications and leadership skills necessary to be effective at gaining buy-in from others in the company.

1.2 Mission & Vision

The organization should have a clear and compelling vision for sustainability, which is embedded in the organization's mission and values. Top management has articulated this vision and communicated it effectively throughout the organization and to its clients and partners. There is no substitute for strong leadership and a sincere commitment to

sustainability; nothing will take root long term without it. A clear and compelling vision that is translated into a call to action and well-defined path forward will inspire staff and grow the excitement to engage in the sustainability initiative. It is important that all employees know and believe that the sustainability initiative is a priority and that they understand what their role is in achieving its success. It is also important that clear public statements exist so that clients, partners and others know. Vision is important because it is the picture of the desired future; it helps define the organizational purpose and influence its culture. Vision points the way, defines the direction and target. Sustainability visions are particularly important because institutionalizing sustainability requires behavior change and engaging an organization's culture, which cannot happen without a compelling vision.

The process of developing a vision can be done by a small group of leaders, or it can be an opportunity to engage the whole organization and create buy-in. It can even deepen existing external relationships with selected clients and/or partners. Depending on the size of the organization, this can happen over a long lunch, in a half day retreat or a series of "focus groups" in different areas at different times that all funnel back to the guiding coalition. There are many ways to accomplish the input, but the communication about this priority and the space for people to connect and discuss it will lay the foundation to build on as plans and responsibilities are developed. As changes start to happen, this foundation can be the difference between resistance and enthusiasm. Appendix 5-6 contain further examples.

A useful tool for establishing a vision is a "Current State/Future State" exercise that asks:

- What is your organization like now?
- What do you want to be in the future?
- How will you effect the changes required to achieve your desired state?

Appendix 3 contains detailed description of the Current/Future exercise.

Evidence

Leadership commitment shows up in a variety of ways from a published statement of corporate mission/vision related to sustainability, public statements, websites, marketing materials, and would be verified through confidential surveys of staff and clients/partners. The surveys frequently show that there can be a disconnect between what leadership states publicly and how the actual commitment is perceived by all, so this is a good thing to check.

1.3 SMART Goals

The organization should establish SMART goals in 3 areas: external project/portfolio performance, operational footprint and social impact, and should communicated them effectively internally as well as to partners, as appropriate. Project performance relates to how projects are delivered and the health impacts and resource consumption of the projects themselves. Operational footprint relates to office space and operations, purchasing,

transportation, R&D partnerships, etc. Social impact relates to diversity, equitable pay, life-work balance and fenceline impacts. It is strongly suggested that the firm also formulate goals that address accountability structure, partnerships, and other aspects of change management for sustainability identified by this program.

Many companies that commit to a process to institutionalize sustainability do not yet have SMART goals in place. This gap is critical to address and may take some time because it requires preparation and because these goals are usually set (or signed off on) by company leadership. The first step, prior to setting goals, is to determine what can and should be measured to establish a baseline. This will determine where your greatest opportunities or impacts lie. For example, you may find that your biggest operational impact is related to vehicle miles travelled between offices for non-client meetings, or for air miles, rather than for energy use in the office. That information will help you focus your efforts on the most important targets. In your project work, you may find that energy simulations are done too late in the process to have impact on early decision making so that would inform a goal related to timing and sequence of analysis.

However, you need not have complete baseline data in order to begin sustainability planning. You can take action based on your best guess and make adjustments once real data has been collected. Conducting internal and external surveys and performing a review of your systems and processes will provide insight in your strengths and weaknesses and inform the goal-setting effort (see the Mapping Exercise in Appendix 2 which will help identify gaps in project delivery). Once you have some baseline information you are ready to set goals, if you don't have them already. This can be done in the context of a Current/Future exercise, as described above and in Appendix 3, or as a separate activity. Either way, it is often beneficial to have this session facilitated by an outside party. In deciding what the SMART goals should address, leaders should consider all aspects of this Framework, in addition to existing corporate or business objectives.

SMART Goals are: 1. Specific, 2.) Measurable (you should be able to track progress and know whether you have reached the goal), 3.) Attainable: include both "BHAG" - big, hairy, audacious goals - and more modest goals, but all should be within the sphere of influence of people, group or organization making the commitment, 4.) Results-Oriented and Time-Bound: a date or timeframe by which the goal will be met needs to be set. Goals should be a mix of short and longer term. If this is longer term there should also be interim milestones so you can track progress toward the bigger goal.

Goals must be clearly articulated to all staff and everyone should understand them and know that they are real and important. Once established, goals should inform and be reflected throughout the organization, in education plans, internal communication, job descriptions and performance, and other areas. They should be reviewed at regular intervals to track progress and revise, as needed.

Evidence

Goals become tangible when they are part of the company dialogue, when the achievemenbt of them is dependent on the behavior of staff and they are held accountable and when there are regular (quarterly, annual) company-wide conversations about progress. Participation in industry programs such as the AIA Commitment also shows that the goals are real and being pursued (for more information see: http://network.aia.org/2030Commitment/home)

Examples

Project/Portfolio performance goals:

- We will sign on to the 2030 Commitment this year and begin to track our project pEUI (and our own carbon footprint) with the first reporting period being within 12 months
- All projects (over X SF) are aligned with (LEED) Certification requirements regardless of whether the client requests 3rd party verification.
- We will develop in-house capability to perform building energy analysis and simulation using XYZ tool within the next 12 months
- We will execute energy simulations for all projects over XX,000sf for one year, using a dedicated budget from overhead of $Y when clients don't pay for it.
- All planning projects will integrate LID principles (or meet Envision standards) by 2015.
- We will benchmark 20% of our property energy consumption within 12 months, 30% more within 24 months and reduce energy consumption of those properties by 5% within 3 years.
- We will adopt O&M protocols and create preventative maintenance plans for 100% of our properties within 24 months.
- We will create an IDP (integrative design) roadmap/checklist within 6 months and integrate it into our project management systems/processes within 12 months.

Remember: the goals should not sit on the shelf unused! Project management protocols should show that performance criteria are part of early meeting or kick-off discussions. This can include Agenda templates, workplan templates of other mechanisms that fit your internal processes.

Organizational footprint goals:

- We will reduce our electricity consumption in the office by X% in Y months.

- Our purchasing guidelines will require X% recycled content in all paper supplies etc.
- We will require future (new) office space to have a "green lease" and be Energy Star rated, Green Globes or LEED EBOM certified space.
- We will replace bottled water with hydration stations within 1 year.
- We will adopt a policy for flextime within 6 months that allows people to work at home 1 day a week.
- We will reduce air travel for non-critical meetings and purchase a state of the art virtual conference system within 1 year and buy carbon offsets for the air travel we do.
- We will engage an intern to execute a carbon footprint baseline analysis of our operations, which will be completed within 12 months.

Social Impact goals:

- We will increase minority representation in management positions by X% in Y years.
- To address fenceline impacts, we will adopt a "red list" for specifying products on all projects within 6 months.
- We will create a staff volunteer program and identify 5 different programs within our community to commit to within 12 months and support X hrs per staff person to participate.
- We will begin a corporate charitable giving program within 6 months and let employees vote to select recipients from the groups selected by leadership.

1.4 Leadership & Accountability

Company leadership must make a clear commitment to sustainability, which needs to be supported by an accountability structure with clearly articulated roles and responsibilities at different levels, across the organization. It is not enough that company leadership is committed. Nor is it healthy for middle management or project staff to lead alone without executive support. A program may begin with one or the other but eventually both need to exist. Clear roles and responsibilities should be identified in an organizational chart, job descriptions or by other means so that everyone in the organization knows who is responsible for what regarding sustainability. This does not necessarily mean that people throughout the company have a title change to "sustainability", but it means that everyone - project executives, project managers, analysts, facility managers, etc. all understand how their decisions and actions support the sustainability goals of the organization.

There is not a single model for leadership or accountability structure. The form you choose will depend on the type of company, size, scope of services, culture and existing management

structure and your stage of development in regards to sustainability. A very large firm may begin with a small core group that, after 5 years has grown to a web of sustainability leadership embedded throughout many offices. Whatever structure is chosen, there should be a correlation between the goals that were set and those responsible for carrying them out. For example, if your goals include the use of a specific technology or tool for analysis or design, an IT person becomes part of the sustainability accountability structure and would be the point person to implement, track and report back on progress using the tool. If integrated design is a goal, then every person responsible for project delivery is accountable for making that happen. If controlling construction waste management is a goal, then someone on the jobsite overseeing that becomes part of the accountability structure. However the structure evolves, there should be evidence that the appropriate people are expected to dedicate time to delivering on the sustainability goals. This can be seen through timesheet codes, job descriptions, meeting schedule, meeting notes, memos, etc. There may be a formal sustainability role such as Director or Chief Sustainability Officer and other sustainability titles, especially if your organization is large with multiple offices or divisions. Having a formal title does not reduce the importance of having accountability distributed throughout the organization. The absence of a title does not necessarily mean that there is an absence of leadership or commitment.

Historically, groups of passionate, committed sustainability champions formed “green teams” as a way to channel their interest and work together to understand how to embed sustainability into their work. However, those teams were purely a volunteer effort, with no allocated time and no authority or impact on decisions being made organizationally. They tended to be thought of as a fringe group whose core purpose was not tied to the fundamental business objectives of the company, therefore they lacked perceived value to leadership. For firms today that are at the beginning of their journey, these green teams can be valuable because they provide a vehicle for like-minded people to connect and share ideas, to work together to build buy-in to engage others and to provide learning opportunities for staff. Unfortunately, a consequence can be creating an unintentional dependency on this group for knowledge as opposed to building capacity across the organization. As the organization evolves, the function of the group can change and they can become valuable to the business overall. The role and purpose have of mature green teams transforms to perform integration or quality control functions. Instead of passive activities unconnected to fundamental business, this group becomes a collection of subject matter experts from different levels, who function as “pollinators” applying their expertise across projects to educate, inform and optimize inputs. In multi-disciplinary firms, cross collaboration can yield great value. This group can also provide oversight or quality control across projects to ensure a consistent level of implementation while continuously educating and growing the capacity of everyone. One of the keys to success is to understand what works in your company’s culture and how to align the functions of this sustainability leadership team with core business objectives.

Evidence

The commitment to sustainability will manifest through the statements and, more importantly, actions of leadership and the existence of an accountability structure that can be highlighted through new titles or a clarification of responsibilities for existing roles. These can be seen in the Employee Handbook, an org chart, or published statements on the company website or in marketing materials.

1.5 Implementation Plan

The organization has developed clear strategies and an implementation plan to achieve its sustainability goals. This plan includes, at a minimum, the following elements: a) the established SMART goals; b) prioritized strategies to achieve the goals over time, including change management and communication strategies; c) indicators and metrics to track success and d) parties responsible and accountable for overseeing the implementation of strategies and tracking success; and e) what the feedback loops will be.

Once you have established your goals, you need a plan to achieve them. Those details should be embodied in your Sustainability Strategic Plan, which can be either a stand-alone plan or a part of the overall business plan or strategic plan for the organization. If your company has an existing business or strategic plan, elements related to sustainability can and should be integrated into that existing plan. If your company does not, this is an opportunity to think about business development in the context of sustainability. Many companies begin to create a Sustainability Strategic Plan, which is less comprehensive than a full business or organizational strategic plan, and focuses specifically on the goals, strategies and implementation of the sustainability initiative. The plan, on paper, is only a launching pad. The short and long-term actions and the consistent evaluation of indicators and feedback loops is critical. This means that people will be responsible for ongoing monitoring and management on a regular basis, at least annually. (See Appendix 4 for examples of good sustainability strategic plans).

Evidence

Either a formal Sustainability Plan or some record of informal implementation captured in meeting minutes, memos, emails and other communications will demonstrate the existence of a plan. Whether formal or informal, the plan must contain all of the elements listed above. More importantly, the impacts of the plan (new titles or responsibilities, new milestones and metrics, new activities and protocols) will show up throughout the organization and should make people feel that they can’t function in any part of the organization without feeling the impact of the sustainability commitment.

Example

If an architecture firm wants to be able to deliver net zero buildings by 20XX, and one of the strategies to achieve this goal is to develop strategic partnerships with key consultants who can help provide technical analysis than your implementation plan will include the following:

- Review of contracts (scope and deliverables) to revise as appropriate and align all future working relationships with the goals of NZ design. (This may include shifting timing and scope of involvement, more specific criteria articulated about the qualitative and quantitative nature of deliverables)

- Possibly development of RFQ to solicit new consultants/partners for specific scopes of work OR development of a list of criteria and expectations for workflow and deliverables and a commitment from existing partners to align with those expectations.

- *(Both of these items may require an internal meeting for your company to clarify its expectations of what key partners/consultants bring to the project and how they work with you, so that you can articulate that to them in a way that is effective.)*

- Identifying specific tools or resources, used by your company or by your key partners, which are needed to support technical or financial analysis, and make sure those are attained, staff are trained appropriately and the use of those tools is integrated into the project management timeline.

- Working with these key partners, perhaps outside the scope of a specific project, to identify any research or activities that needs to be done in order to develop capacity of your team to deliver NZ in the future. (This could relate to energy modeling, building envelope design strategies, the development of a proprietary carbon tracking tool for internal use, or proficiency using an existing tool, etc.)

2.0: PROJECT & PORTFOLIO PERFORMANCE

Outline of elements

2.2 Methodology

2.3 Performance Tracking

2.1 Topic Overview

Sustainability is integral to the organization's approach to design/construction excellence at every phase in the project life cycle. Both the collaborative process and final product show that sustainability is inextricable and not an "add on", reactive or "on demand" phenomena. The organization has established its own internal minimum sustainability baseline that is implemented on projects, independent of client demands. This section addresses all phases of project-specific activities that connect the internal commitment to sustainability to the external delivery of work or satisfaction of clients.

2.2 Methodology

Principles of sustainability are integral to the fundamental approach to project delivery. Both the process and final product reflect that sustainability is inextricable and not "added on" when a client asks for it. A methodology is articulated for major project delivery types that help everyone in the organization understand when and how to incorporate critical path collaboration, analysis and decision-making in project delivery. For companies that control the structure of teams this means collaboration/ integrative design is fundamentally embedded in project management. For companies that do not control teams, this means showing that your company advocates for participation that allows you to contribute most effectively. For companies that own or manage portfolios of property, this includes your operations and mantenance, commissioning, retro-commissioning, upgrades and other protocols pertaining to ongoing operations

Guidance

For those firms who have truly institutionalized sustainability and have a long track record of success on projects, there will be a shared understanding of what this means and a clarity for individual employees as to how they specifically contribute to achieving the sustainability goals. The integrative design process (IDP) will be inherent in the approach to project management. For these firms, there will be evidence of sustainable methodologies in the corporate culture, the survey results and independent review of systems and processes.

However, most firms have an irregular and inconsistent approach to implementing sustainability strategies on projects. For these firms, IDP is a concept that some are comfortable with but it has not yet been a factor in shaping project management. For those firms (and, indeed, for any firm that wants to continue to improve) It will be imperative to do the Mapping exercise in Appendix 2. Representatives from different services areas or disciplines in the company spend time together to 'map' each standard set of services, as they evolve in time, from start to finish.

Mapping your services has several benefits. First it helps make sure that everyone in your company (including non-technical staff) has a shared understanding of how sustainability is integrated into all steps of your project work. Second, it helps you to validate that the systems and infrastructure that support projects is aligned with these processes. Additionally, it is common that companies may have methodologies being used by some people or in some divisions of a company, but those methodologies are not being used consistently. Because there is usually no documentation of what the "standard, or recommended methodology" is for the company, this exercise can be helpful to establish that and provide a tool to communicate expectations and migrate best practices across the organization.

The mapping exercise will help participants focus on aspects of practice at each milestone that influence the outcome, such as: a.) skillsets needed, b.) analysis to be done

(qualitative/quantitative characteristics), c.) process steps to complete each task, d.) methodology (approach to the task), 3.) tools & resources used at critical steps (OPR, LCC, POE), f.) partnerships/relationships engaged – expectations from that relationship at each step, g.) culture and mindset that influences behavior.

Evidence

When a company has a methodology that is shared across projects, this does not inhibit creativity or squelch individual management styles, but this does result in consistently achieving high performance on projects, a clear and shared understanding of process protocols for analysis, enhancements to meeting agendas, workplans and other tools (such as life cycle costing templates being used consistently).

2.3 Performance Tracking

Firms who have institutionalized sustainability will have internal standards and approaches to implement some basic level of sustainability principles into their projects and should be able to provide examples from across their project portfolio illustrating that sustainability is not only on-demand. A review of project documentation should provide evidence that sustainability is applied consistently. Reviews of projects are conducted initially until a performance tracking process and system can be put in place. These should be monitored at a regular interval (quarterly, annually) by department or division heads, project managers or others depending on the size and structure of the organization. For the first review, in a firm that has been delivering green buildings, the sampling of projects should span a 3 year period and include a mix of key personnel (project managers, others) mix of building type and project scales.

Evidence

For design firms (architecture/engineering/planning, etc.) evidence of achievement would show up in many items from meeting notes and agendas to workplans and other project management tools as well as analysis and project documents like specifications. Commissioning documents, post occupancy evaluations and other ongoing facility management documentation also monitor performance.

3.0: INFRASTRUCTURE & SUPPORT SYSTEMS

Outline of elements

3.2 Tools & Resources

3.3 Capabilities & Continuous Learning

3.1 Topic Overview

Organizational infrastructure and support systems (processes and procedures) provide the institutional foundation to support project delivery and client services as well as the implementation of sustainability goals throughout the company to enable consistent, high quality sustainability services on all projects. Project delivery is often the main focus of firms trying to institutionalize sustainability, but all client services depend on supporting systems, tools and resources. This section identifies the different areas of organizational infrastructure that enable project delivery and company operations. The Mapping Exercise in Appendix 2 is good way to identify, at each step of your processes, which critical tools, resources, and methodologies are being (or should be) used. Doing this will help identify what critical infrastructure is needed, if it is being used effectively and whether the company has any gaps or needs to fill. Frequently, companies find that they need internal tools, such as templates for workplans, charrette agendas, life cycle costing, etc. that may not exist, or may not be easily accessible to everyone who needs them. Another common gap is support for managing integrative design processes. This support may show up in areas such as education and training programs, internal project management protocols, or templates for consultant contracts and may span a range of different infrastructure elements. Once SMART goals are established for both project delivery and operations, it is advisable for your company to do an internal review of systems, processes and resources to ensure that you have the infrastructure support that you need to achieve those goals.

3.2 Tools & Resources

The organization provides and maintains critical tools and resources necessary to support consistent performance and meeting its sustainability goals. Tools and resources should support both project delivery (software and analysis tools, templates and internal standards) and operational sustainability (purchasing guidelines, utility tracking, green lease guidelines or building operations & maintenance protocols). Some of the many types of tools and resources include a.) Project management tools & templates, b.) Product evaluation, c.) Reference & sample Libraries, d.) Analysis – Building & Environmental performance and BIM, e.) Design Standards/Specifications, f.) Life Cycle Costing Templates, g.) IT processes, h.) Knowledge management.

Evidence

To evaluate evidence of adequate support, create a master list of tools and resources used on projects and a corresponding list of project goals (life cycle costing, energy analysis, etc) and ensure that for each outcome on a project, there is a tool or resource (being used effectively) to support it. You should ensure that there are both project management/ knowledge management tools and content/technical tools.

3.3 Capabilities & Continuous Learning

Organization maintains critical skills necessary to achieve project performance goals and has an education/ professional development program supporting its capability to deliver sustainable design/construction aligned with its SMART goals for project performance. Professional development plans support continuous learning for interpersonal, management and technical skills, through various pedagogical models: passive, project-based, mentoring. Some or all of the plan elements may also fulfill AIA, GBCI and other CEU requirements.

Most companies already have continuous learning or professional development programs. Sometimes there are more formal educational plans and other times it is left to individual staff members to pursue and maintain their professional development. Many companies focus on technical skills and capabilities as the path to achieve their sustainability goals. Equally important are the non-technical skills of communication, leadership, change management and basic negotiation skills to overcome resistance that must be supported in order to truly enable people to institutionalize sustainability. Technical skills should span building science and envelope strategies to energy efficiency, net zero and resilient design, life cycle costing, daylighting and more.

Evidence

If your organization has not developed an educational plan, there should at least be a matrix showing skills and training by job description. If there is some form of "Company University" ensure that the course offerings and delivery methodologies support desired outcomes.

3.4 HUMAN RESOURCES

Formal HR policies, systems and processes support sustainability goals. The experience of employees through various HR functions is one way that they know and believe that the commitment to sustainability is real and not just talk, because it touches every aspect of their relationship with the company. HR support varies across companies. Generally, this includes hiring (job descriptions, performance reviews), Employee Handbook (policies, company values, etc.), new employee orientation, promotion and education/professional development. Depending on your company's SMART goals, there should be evidence in these resources

related to sustainability skills and qualifications, continuous learning, financial and/or non financial incentives (ranging from promotions to LEED AP test reimbursement to salary increases tied to acquiring key skills), time sheet/tracking relative to sustainability related efforts, etc.

As with other sections, your company's SMART goals will determine what specific HR functions and resources are relevant. Reviewing those goals and identifying the key HR support will help you understand what to look for. No matter what your company does, there is probably a need for clear descriptions of sustainability responsibilities in employee orientations, job descriptions (and therefore performance reviews), handbooks and other related systems (time sheets, billing, etc). Once HR staff understands the connection between their resources and corporate sustainability goals, they can identify evidence to share.

Evidence

Evidence of supporing HR policies would be found in the items described above such as Employee Handbooks, flex time policies, job descriptions, performance reviews, incentive programs and professional development.

3.5 Quality Control

Systems, processes and protocols - aligned with project sustainability SMART goals – should be in place to manage and maintain a consistent level of quality control across departments and on all projects and specific people are responsible for their success. Companies typically have quality control processes in general; in this case we are referring to particular intersections with sustainable design objectives. To achieve this, companies should:

a) Review existing QC protocols to make sure that they align with project sustainability SMART goals (detailing related to energy efficiency, water reuse, etc.). This can include field SOPs, internal systems for reviewing details and RFIs, etc.

b) Regularly evaluate and track QC processes to ensure effectiveness.

c) Have processes in place for adjusting and improving systems and procedures over time, based on results achieved.

Evidence

Evidence of institutionalized QC will show up in project management and closeout protocols, copies of meeting minutes, checklists or other documentation showing that protocols are being used consistently on all projects.

3.6 Internal Communications

Effective internal communications ensure that critical information is shared, lessons learned from projects (and consultants) are transmitted, and collaboration across departments/divisions is facilitated. SME's (subject matter experts) are identified and all staff knows whom to contact for information they need, in a timely manner. Internal teams communicate effectively about project coordination as well as project performance tracking and reporting.

The larger the firm, the more challenging it is to have effective communication. People suffer from email fatigue and are bombarded daily with little time to evaluate the importance of all the noise. It is important to make sure that information that people will need to seek out is located in easily accessible places through tools that people will engage with. If you have a company intranet, that may be a great place to archive information – but if no one uses it – it may be a waste of time unless the barriers for use are addressed. In some cultures, having electronic access to information works well, in others a person-to-person interaction is key. It will be important to test or pilot different methodologies to see what actually works well.

Evidence

Protocols should be put in place for one or more forms of internal communication that support sustainable practice. These may be accomplished through knowledge management systems, company calendar showing in-house peer reviews or internal project charrettes that include general knowledge sharing with non-project staff, internal newsletters, new employee orientations or handbook description of communication protocols, workplan templates which include communication expectations, use of social media platforms or other means.

3.7 Marketing

Every company claims to be "green", but often these claims are "professional greenwashing" and unsubstantiated. This can happen out of ignorance, when firms actually think that having a few certified green buildings in their portfolio means that they are a green firm. But this is not the case. It is important that there is measurable evidence that a company's claims are specific and accurate. Clients are becoming more sophisticated and aren't satisfied with broad statements. Additionally, more and more companies can make claims that are technically true, but not representative of their overall capability—for example, having projects in a portfolio that achieved LEED certification does not mean that your company has the capability to deliver consistent, high quality sustainability services–so the use of actual data and metrics in marketing makes the case that your firm is authentic. Marketing materials should fully and accurately reflect the company's sustainability approach and accomplishments and draw on measurable performance track record to tell their story. Companies should:

a.) Review existing marketing materials (website, brochures, etc) to ensure that sustainability is appropriately conveyed and no false or misleading claims are being made. The materials

may, or may not use words such as “sustainability” or “green.” More importantly, the underlying values and principles of resource efficiency, health, collaborative design and other related goals should be articulated in a way that is appropriate to the company’s culture.

b.) Evaluate responses to RFPs to see how to include valuable project data as part of qualifications. This may require new/enhanced tracking and communication between project staff and marketing staff about projects, and involve IT departments for data management.

c.) Ensure that proposals include descriptions of approach and methodology (how your company achieves project sustainability goals), collaboration (how you work with teams to achieve goals) and examples of relevant work that show what you’ve accomplished. Sustainability may not be called out explicitly by name, but these principles should be integrated into your presentation of qualifications even when the client is not asking for “sustainable design”.

d.) Review public engagements—such as conferences, trade shows, public speaking or presence on a board of directors or local government task force, or other political participation—to ensure that the company clearly presents its commitment to sustainability, either explicitly or by focusing on performance and methodology.

Evidence

Messaging will be evident on the company website, in collateral, proposals, public presence such as lectures and presentations given by staff.

4.0: PARTNERING & COLLABORATION

Outline of elements

4.2 Collaboration Effectiveness

4.1 Topic Overview

The ability to deliver consistent, high quality sustainability services depends on more than internal capability, tools and resources. External relationships can make or break a team’s ability to deliver and achieve high performance, especially in a cost-effective manner. Intentional efforts to build a team (as opposed to a collection of individuals working together under a stressful deadline) and optimize collaboration create conditions conducive for success. Collaboration effectiveness begins with team selection and composition, how the team is structured and what their capabilitis are. Scope and fee allocation should be addressed early on in the design process and coordinated to achieve performance outcomes. The team ensures fundamental sustainability goals will be pursued regardless of contract structure, project delivery method or external constraints and critical tools (such as BIM) are decided

upon and built into the workplan. This section addresses those relationships and identifies different aspects of interaction that can influence project outcomes and profitability.

This subject is often challenging for companies to take on proactively. Companies driving the process need to engage team members and address, define, or set expectations for working relationships. Consultants who are not driving the work process may have to work "up the food-chain" of authority to effect real change to how the work is structured. Whatever your company's role, going back to your SMART goals is the first step and will influence and inform what aspects of your relationships are important and what expectations you need to articulate to make sure those collaborations are effective. Everyone claims to be doing IDP (integrative design process) but few really are.

In addition to your SMART goals, you will need to understand how your workflow and partnerships connect. When you map your project delivery processes (Mapping Exercise Appendix 2) you will have identified the critical junctures where your external relationships come into play. Then you can focus on how the external relationships either support or challenge your desired outcomes. For example, if your company goal is to be able to deliver net zero or Living Building projects by a certain date, you will need to engage your partners in a proactive dialogue to figure out what that means, how you will work together, what the contractual (scope and fee) parameters might be, if you need to develop any new, proprietary tools or build capability to use 3rd party tools, etc.

We find that companies that produce well-designed, high performance buildings have evolved highly effective partnerships by revisiting the terms of their working relationships to align with their sustainability goals and integrative design process. This has meant articulating expectations (about deliverables or methodologies) that may not have been defined very clearly before; it may mean shifting the timing and nature of interactions; it may mean shifting scope or fee or engaging the property owner around perceived risk or liability that prohibits the team from pushing the envelope.

4.2 Collaboration Effectiveness

As a team member, your organization advocates for the appropriate role and scope on projects and understands how to optimize collaboration activities and participate in an integrative design process. For team leaders this means intentional efforts to structure, manage and maintain effective collaboration throughout the process of project delivery, which are institutionalized in project management. Repetitive teaming can provide opportunities to develop the working relationships that are desired. It is also advised to engage in proactive team building activities outside of the scope of specific projects. These activities may include learning and skill building such as BIM workshops or R&D activities. Elements of formal Partnering process, as created in the construction industry, bring tremendous value to projects. An excellent resource for this is *Ronco, William and Jean S. (2005) The Partnering Solution.*

New Jersey. Career Press, Inc. Additional resources and case studies can be found at: http://www.agc.org/cs/industry_topics/additional_industry_topics/partnering.

Collaboration is fostered through many different aspects of an engagement. Beginning with the RFP or RFQ, performance goals and methodologies should be articulated along with a demand for experience with integrated design and tracking of past project performance. Proposals in response to the Request should frame an approach that leverages collaboration and an integrated process with life cycle costing and a reliance on simulation (where appropriate) to inform critical decisions. Contractual agreements, ideally, should not create barriers to achieving performance goals. In the USA, the AIA's IPD (integrated project delivery) model aims to create a multi-prime responsibility to achieve higher levels of integration. It is important to review contractual requirements and endeavor to align them with project goals, including the evaluation of the construction delivery method to be used. The use of formal Partnering processes and integrative design (IDP) will ensure that the team truly functions as a team and not a collection of people under stress, and provides a clear roadmap showing how each party contributes to critical path decision making. (An excellent resource for understaning IDP is: *Reed, Bill G. and 7 Group, (2009) The Integrative Design Guide to Green Building: Redefining the practice of sustainability. New Jersey. John Wiley & Sons, Inc*.)

It is also critical to understand that optimizing team dynamics can not happen under the heat of a project alone. Efforts must be made to build trust and alignment outside of project pressures. An intentional focus to align core values, methodologies and expectations related to the qualitative aspects of deliverables is important. Many companies do performance reviews and some do "360" or "180" reviews internally. Annual reviews between partnering companies provide similar insights into collaboration effectiveness and provide an opportunity to proactively build relationships, address issues and revisit dynamics of collaboration. This "debrief" may happen more informally following completion of specific projects or prior to responding to a new RFP. If no annual review currently happens, and your company does not regularly debrief informally with other team members after projects, you should consider which model of communication would be most valuable to you.

Evidence

Indicators of collaboration effectiveness can be seen in RFPs, contracts, workplans, agendas, meeting minutes, charrette reports and any materials related to proactive efforts to align goals and activities between partner companies. Feedback on this issue will also be evident in a "external partner/client survey".

5.0: IMPACTS AND OUTCOMES

Outline of elements

5.2 Portfolio Performance

5.3 Operational Footprint

5.4 Social Impact

5.1 Topic Overview

Companies that have institutionalized sustainability will have metrics to track related to portfolio performance, their operational footprint and social impacts. Portfolio performance needs to be understood and the information tracked needs to be leveraged through feedback loops to learn from and inform future work. The request for project data is institutionalized so that it happens consistently. In order to improve the corporate environmental footprint, a baseline needs to be established and improvements tracked over time. Social impacts span internal and operational activities as well as global impacts of project decisions.

These topics may require new efforts. Tracking portfolio performance is not something that is currently standard practice, but it is the direction that the market is moving in, so companies that begin to establish systems and processes for doing this will be ahead of the curve. It is also the only way to understand the effectiveness of design strategies and construction methods to inform the evolution of those standards. If your company has adopted the 2030 Challenge or signed on to the AIA's 2030 Commitment, then you are already committed to tracking these metrics. Tracking portfolio performance is a complex endeavor because it can involve many parties, happens over time and your company may not be directly connected to the property owners. To begin, it is great to institutionalize the request for this information using a letter template required to be sent at project closeout, and lay the foundation to collect data as it becomes available. Tracking your corporate footprint may be more straightforward, but will still require you to allocate time and resources to the effort. Once you establish which tools to use and what you will track, this is the kind of activity that you can develop an intern program for, either independently or through one of the 3rd party environmental organization internship programs. Social impacts address internal issues like diversity in hiring, work-life balance, living wage and safety. Externally, fenceline impacts, community engagement and development patterns need to be addressed. This is generally the least engaged area of impact yet very important to employees and morale.

5.2 Portfolio Performance Tracking

Understanding portfolio-wide performance requires systems and processes for tracking projects. The request for performance data (to clients, partners) must also be institutionalized. Firms that have signed on to the 2030 Commitment will be engaged in this and using the tools

provided. The advocacy for and use of 3rd party certifications (BREEAM, LEED, Living Building Challenge, Energy Star etc.) also supports achieving performance measurement. Once there is a formal request for data, systems and processes in place for tracking, it is also important to develop a management and reporting protocol to ensure timely communication about outcomes. Depending on the size of the company this may be monthly, quarterly, annually or at project closeout. The important thing is to make it clear to all who is responsible for what and how the information is reported up, or across, the organization and how performance is tracked to the organization's SMART goals. Rewards or incentives tied to achieving improvements over time can be helpful.

Evidence

The best evidence of performance is the actual projects and what they consume over time. Additionally, the existence of a formal letter of request for data (and requirement to use it) together with checklist or template to fill out for each project, and regular reporting, are all elements of performance tracking.

5.3 Operational Footprint

Your corporate operations include facilities-related energy consumption, waste, water, purchasing, and transportation (of employees to and from work as well as project travel). Whether you rent or own your offices, there are actions you can take to manage and reduce your operational footprint. Aside from the actual reductions you achieve in energy consumption, etc. the other reason to implement operational sustainability is that it gives employees a visible and tangible way of seeing coporate commitment and that the company "walks the talk". Begin by collecting data to establish a baseline to understand where the low hanging fruit is, and what needs to be dealt with over time. If you do not yet have a sustainability program in place yet, measuring your corporate footprint could be the focus of internal "green team" efforts and a great opportunity to engage interns from design, business or other sectors. Track the data, compare to SMART goals and modify future action/goals based on the results. If the company participates in GRI, Ceres, B-Corp, signed on to 2030 Commitment or engages in other Corporate Sustainability Reporting (CSR), relevant aspects of that effort will contribute to this tracking.

Evidence

Progress in these efforts will show up in energy bills, purchasing protocols, lease agreements or standard lease requirements for future rental, and any internal tracking spreadsheets used to collect data for other 3rd party reporting such as GRI, ISO, etc.

5.4 Social Impact

This category is the least acted upon in the building industry. This focus requires a heightened awareness about what makes the company itself socially responsible and what actions of the company cause harm to communities elsewhere. This focus includes (but is not limited to) a.)

diversity and hiring practices (governance, partner relationships), b.) community engagement (community of practitioners, geographic, religious, etc), c.) living wage / sustainable lifestyles of employees/ impacts on family life, d.) "Fenceline" impacts, e.) Safety and risk and f.) charitable giving. If the company participates in JUST, GRI, Ceres, B-Corp or other Corporate Sustainability Reporting (CSR), relevant aspects of that effort may be addressed. JUST is a program completely dedicated to social equity. To get more detailed information about the JUST program and metrics, see http://www.justorganizations.com/.

Evidence

Commitment to social impact would manifest in many ways including (but not limited to) policies related to diversity (in hiring), program developed for volunteering in community or social action, internal "red lists" or specification requirements to avoid toxins, charitable giving and flextime policies for employees.

Appendices

Appendix 1: Survey Examples
For internal and external survey examples, please refer to page 51 of the Application Guide found on SPI's web page: http://www.sustainable-performance.org/wp-content/uploads/2013/05/SPI-AppGuide-42612.pdf

Appendix 2: Mapping Exercise
To download this exercise, please visit: http://www.sustainable-performance.org/wp-content/uploads/2013/11/Mapping_Project_Delivery.pdf

Appendix 3: Current/Future and Back Casting
To download this resources, please visit the "SPI Tools and Resources" section of the following page: http://www.sustainable-performance.org/resources/tools-resources/#resources-IDP

Appendix 4: Sustainability Plans
To review a variety of sustainability plans, vist the "Architecture 2030" section and the "Strategic Sustainability Planning: Corporate Reports & Plans" of the page below for links to download exemplary plans: http://www.sustainable-performance.org/resources/tools-resources/#resources-IDP

Appendix 5: Corporate Example of Framework Elements: Thornton Tomasetti
To see examples of Thornton Tomasetti's Mission, Vision, SMART Goals and Leadership, see the recent cover article in the July issue of Civil + Structural Engineer may suffice.
See http://cenews.com/article/9805/sustainability-as-a-foundation.

Appendix 6: Corporate Example of Framework Elements: Cannon Design

CannonDesign's progress toward a deliberately sustainable practice is about a single word - LIFE. Human creativity, our spirit, our arts and our architecture are the manifestations of this unique aspect of our planet. The joy we share in our work comes from our Purpose … *Together, we create design solutions to the greatest challenges facing our clients and society.*

Building LIFE. We share a challenge with every one of our clients—working with increasingly limited and valuable resources. CannonDesign has organized specialized sustainability services creating enduring value through reducing cost, optimizing resource consumption, and creating durable, lasting and respected buildings. This is a shift in architectural and engineering services toward a true lifecycle approach and long-term client engagement.

Project LIFE. Project LIFE is a clear, focused approach to integrative design. It is how sustainable projects get delivered on the ground by the team. Tools, resources and guidance are provided for Project Team members as they work toward delivering a high performance building. Twelve succinct steps are outlined, each with additional guidance and documentation such as Integration Plans, Owners Project Requirements and Basis of Design templates.

Renew LIFE . In this document we highlight the crucial need for the employment of renewable energy technologies. Educational resources, research and internal knowledge experts are bundled together in a guidance document for projects and clients. Building energy loads, renewable energy technologies-wind turbines, solar thermal, solar photovoltaic and geothermal exchange -are all covered clearly and succinctly for project teams to employ.

Regional LIFE . This is about the cities and regions that Cannon Design has offices. It is where we work and live. The intent is to elevate knowledge of environmental conditions in the cities we inhabit and to make more "real" the impact of the built environment and the role of the design professional. Seven categories are investigated in each city—Energy, Renewable Energy & Climate, Water & Climate, Environmental Quality, Transportation, People, and Health & Waste.

Office LIFE. Here we outline the business and operational actions we employ to reduce our corporate footprint. Guidance, goals and the means for measuring progress are all outlined. Paper, Energy Use, Transportation and Travel, Equipment and Office Supplies, Recycling, Water Use, Catering, Vending and Food Service, Indoor Air Quality and Vendor information & Sample Materials are all addressed with a focus on ongoing impact reduction strategies.

Material LIFE. This is Cannon Design's design tool enabling proejct teams to assess and purposely select materials with lower embodied energy. This tool graphically compares construction systems and materials from "cradle-to-gate" in a way that allows design deams to make deliberate choices focussed on global energy use reductions. This allows us to make choices for our projects that have a positive supply-chain and life-cycle impact.

Water LIFE. Water is an increasingly stressed resource intimately tied to the built environment. CannonDesign understands the designer's impact and takes this responsibility seriously. Through Water LIFE, CannonDesign seeks to analyze, develop, and implement procedures and best practices regarding water use reduction for our projects and our clients. We explore design opportunities in relation to domestic, process, HVAC, irrigation, and other water systems.