DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

1000
Ser N095/19U145066
March 18, 2019

The Honorable Kristine L. Svinicki, Chairwoman
Nuclear Regulatory Commission
The Nuclear Regulatory Commission, Mail Stop O-16G4
Washington, DC 20555-0001

SUBJECT: THE COMPETITIVE ADVANTAGE OF LEARNING CULTURE

Dear Chairwoman Svinicki,

I want to personally thank you for your organization's tremendous support of the U.S. Navy's Industry Best Practices and Learning Culture team. We were fortunate to engage with many private and public organizations that were willing to share their perspectives on this subject and help our organization learn. As you may know, Dr. Stephanie Morrow, Ms. Diane Sieracki, Mr. Dave Solorio, and Dr. Catherine Thompson met with members of my team last year to discuss the culture practices for which NRC is recognized.

The perspectives and feedback from your team and the many other contributing organizations were extremely helpful, and the anecdotes and examples they shared were instrumental in helping us shape our point of view. This input enabled us to develop recommendations on how we believe the Navy can incorporate leading practices associated with learning cultures and learning organizations.

In appreciation for your participation, I've enclosed the Executive Summary and "Findings from Industry" sections of our draft report (with company names and identifying characteristics redacted). Starting in April, we intend to release the unredacted report only within the Navy for leadership training throughout the Fleet. I am excited to use the lessons learned from 30 top-performing industry partners and 15 high-performing Navy commands to improve our Navy's culture of learning and performance. NRC has been an important and instructive part of this journey, and I thank you again for your participation.

If you have any questions or wish to discuss this project, please feel free to contact my team lead, Captain Eric Gunn, at eric.gunn@navy.mil or (703) 614-1374.

Sincerely,

LUKE M. McCOLLUM
Vice Admiral, U.S. Navy
Chief of Navy Reserve

Enclosure: 1. The Competitive Advantage of Learning Culture Summary and Findings

Executive Summary

It is impossible for a man to learn what he thinks he already knows. - Epictetus

The Industry Best Practices & Learning Culture (IND) team was established as one of seven Readiness Reform Working Groups (RRWG) charged with implementing the recommendations from the Comprehensive Review (CR) and Strategic Readiness Review (SRR). Additionally, the IND team was tasked with building on the original work of the SRR to further identify leading practices of building and sustaining a learning culture. The findings and recommendations in this report are complementary to the tasking within, "A Design for Maintaining Maritime Superiority, Version 2.0" (Design 2.0).[1]

Over the course of six months, the team expanded on the collaboration with industry from the SRR project, engaging with 30 companies, 11 academic experts, command triads from 15 top-performing Navy operational commands, and leaders from 14 Navy staff commands that focus on various aspects of Navy culture. The team's lessons learned from industry, along with high-level recommendations for inculcating a learning culture throughout the Navy, are included in this report.

In all 70 engagements, the IND team started discussions with the question, ***"How do you best develop, sustain, and measure a learning organization and learning culture?"*** Free-formed discussions followed, yielding varying narratives on ***learning culture*** and how organizations achieve success at their respective missions. While the initial question focused the conversations on learning culture, the discussions consistently turned to ***high-performance***, which is both a common organizational objective and typical result of building and sustaining a learning culture.

The industry leaders did not typically differentiate among the traits of ***learning culture***, ***organizational culture***, or ***high-performance***, often conflating the three topics. The companies typically implemented culture change as a means to enhance productivity, improve the "bottom line," or recover from high-visibility errors or accidents. In successfully initiating positive culture change, the companies incorporated learning culture traits to attain higher performance. Industry and academia used the terms ***"High-Performing Teams"*** (HPTs) and ***"High-Performing Organizations"*** (HPOs) to describe the organizations (and teams within the organizations) that were able to achieve and sustain a learning culture. These high-performing companies were also considered ***"learning organizations."***

> Behaviors are critical to both creating learning culture and overall organizational culture, as both have the potential to develop leaders and teams that learn and adapt faster, producing higher levels of organizational performance.

Invariably, company leaders relayed that they initiated culture change by defining their organizations' aspirational values, and then implementing and reinforcing the desired behaviors to achieve their stated objectives. They selected a small but impactful number of improvements with the idea that they could not implement a large list of desired culture changes all at the same time. The discipline involved in making positive changes to one aspect of culture (e.g., learning culture) changed not only that component, but also benefited other parts of culture (e.g., overall organizational culture, culture of excellence, questioning culture, risk-taking culture, safety culture, culture of innovation), producing positive effects in multiple areas of the company. In several cases, a concentration on safety culture, in particular, was effective at initiating behavioral change that benefited the entire organizational culture. Irrespective of how they started their culture change, focusing on one or a few aspects of culture

invariably improved overall culture, and ultimately performance. Despite the varying terms applied by the industry leaders toward their learning culture and high-performance journeys, the IND team was able to capture the essence of positive culture change that propelled the companies toward more successful outcomes (whether described as learning culture, organizational culture, or high-performance).

The IND team found that high-performance and learning culture are two sides of the same topic; learning culture enabling high-performance, and high-performance enabling increased productivity (or other metric for mission effectiveness). To better understand learning culture, the IND team researched various definitions of the term, including the definition of learning culture from the SRR[2], and informed by discussions with corporate leaders, created an operating definition to reflect takeaways from industry and academia. The resulting IND ***definition of learning culture*** is:

> "We foster a questioning attitude, and we encourage everyone to look at new ideas with an open mind. Our most junior teammate may have the best idea; we must be open to capturing and implementing that idea."
>
> -- A Design for Maritime Superiority Version 2.0, December 2018

> ***The defined values and set of observable behaviors of an organization that support open communication and feedback; individual, unit, and organizational-level learning; and continuous improvement; to promote mission effectiveness and organizational adaptability.*** *A learning culture cultivates leadership that furthers organizational values and objectives, and embraces the "human factor" to harness the strengths of individuals and teams, and promotes open communication to avoid and mitigate mistakes. It is a culture that promotes understanding of the relationships between indicators and risk, and develops growth through assessment, analysis, and dissemination of lessons learned.*

The linkage between learning culture and high-performance, as well as an emphasis on the ***humanistic aspects of employees, teams, and leaders*** are inherent in the IND definition. It is this ***people-centric*** perspective that differentiated the IND findings from other approaches to culture change. Where the CR focused on programmatic issues[3] (e.g., training, manning, certification, and operational risk management) and the SRR concentrated on institutional and systemic issues (e.g., stress on the force, operational culture, budgetary tradeoffs, accountability structures, and risk management), discussion of the human element, or ***"the human factor"*** dominated the IND engagements.

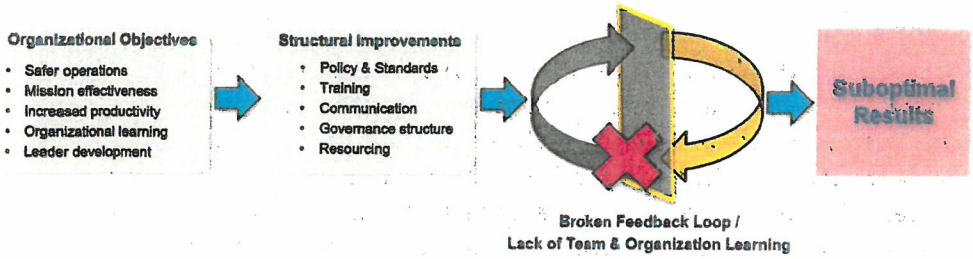
The industry leaders and academics used the term "the human factor" (or other terms approximating human factor, like ***"humanness"*** or **"human element"**) to describe not only the frailties and inherent risks involved with human performance, but also the ingenuity, adaptability, and high potential associated with employees and teams. HPOs plan redundancies, workarounds, additional training, quality checks, and myriad other approaches to mitigate the inevitable human variances and mistakes. They also enable and empower individuals and teams to harness the creativity inherent in the human factor.

When mistakes do happen, a common and reflexive reaction in management practice has been to enhance oversight, prescribe new policy, or add a variety of other structural or mechanistic changes. The companies with advanced learning cultures defy this convention in order to continually make adjustments and facilitate improvement. HPOs plan and execute the hard work of intentionally setting the conditions for individual and team success, playing to the strengths of the human factor. The

learning cultures of HPOs foster trust, empowerment, accountability, feedback, validation, employee voice, sense of belonging, context (understanding mission and impact), and ***"psychological safety."***[4]

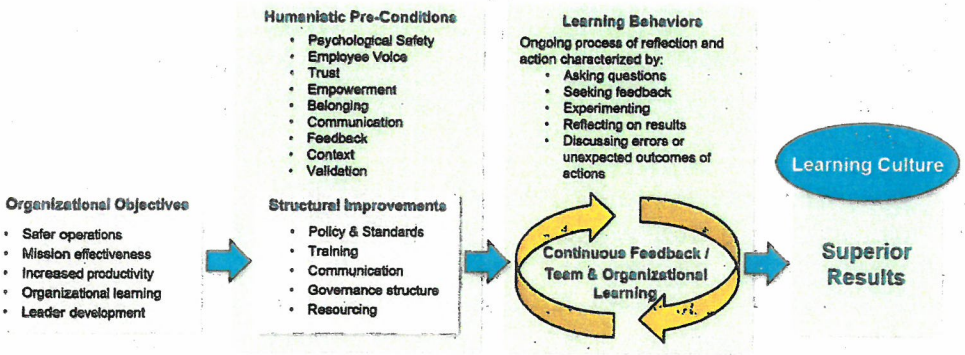
> "Team ***psychological safety*** is defined as a shared belief that the team is safe for interpersonal risk taking."
>
> "The term is meant to suggest...a sense of confidence that the team will not embarrass, reject, or punish someone for speaking up. This confidence stems from mutual respect and trust among team members."
>
> - Dr. Amy Edmondson, Harvard University

Academic literature largely presents two divergent ways of viewing organizational learning. According to Dr. Amy Edmondson's 1999 study, *Psychological Safety and Learning Behavior in Work Teams*, "some discuss learning as an outcome; others focus on a process they define as learning."[5] In the former, organizational learning comes about from, "encoding inferences from history into routines that guide behavior."[6] In the latter, it is a "process of detecting and correcting error."[7] **The first is an iterative, backward looking approach to learning, while the second is an inquisitive method of embracing complexity, learning from mistakes, and looking forward.** The HPO leaders interviewed by the IND team were immersed in this forward-looking approach to organizational learning.



(Fig. 1) A common bureaucratic response to accidents, mistakes, and lack of performance is to instill new or additional reporting requirements and oversight (structural improvements). However, absent improvements to the human interactions within the process, organizational learning is impeded. Structural changes can provide some measure of improved performance, but the results are typically sub-optimal without concurrent enhancements to the "human factor." A lack of trust, psychological safety, and other pre-conditions can cause employees to not report or under-report mistakes.

The IND team devised a graphic to indicate the role of psychological safety in creating the conditions for learning culture. Figure 1 depicts how a lack of psychological safety inhibits employee trust and voice, thereby limiting feedback and learning. With feedback marginalized, organizational effectiveness and mission accomplishment decreases.



(Fig. 2) With the tenets of the human factor having been established, the organization harnesses the full capabilities of its employees and teams. This enables team and organizational learning, leading to better performance. The term "Psychological Safety" (pp. 350) and the "Learning Behaviors" (above, pp. 356) are concepts developed by Dr. Amy Edmondson, in her article, "Psychological Safety and Learning Behaviors in Work Teams."

Figure 2, which incorporates Dr. Edmondson's learning behaviors, indicates how open and continuous feedback facilitates high-performance, accurately reflecting the findings of the IND team.

Where psychological safety was discussed as a precondition for realizing a true learning culture, ***leadership*** was cited as its most important criterion. Without the right leaders, culture change and other large, transformative initiatives are likely to fail. The corporate leaders prioritized finding top talent and stressed the need for

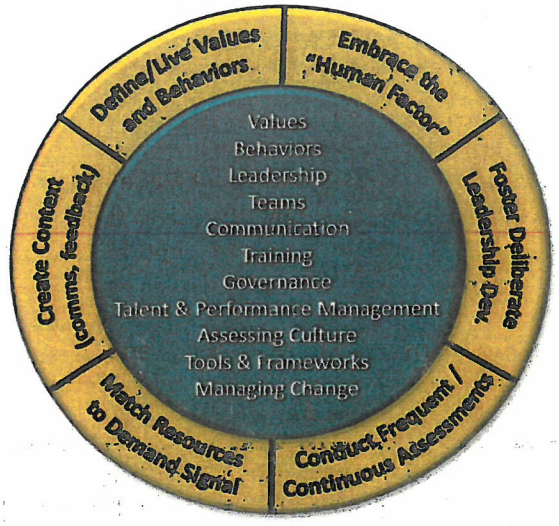
organizations to acknowledge that effective leadership is a skillset of its own. Technical competence is not, in itself, enough to merit promotion to a leadership position. Only the best and most ideally suited leaders consistently live the values and exhibit the desired behaviors of the organization, properly en gage and coach employees, create and communicate a sense of purpose, and define and execute the vision of these companies. These leaders are ***genuine*** in their approach to the obligations of leadership, taking pride in their ability to positively influence and develop their employees, and by extension, the trajectory of the organization. In identifying these traits and promoting the leaders who exemplify them, organizations ***nurture loyalty to the institution*** in a self-reinforcing cycle.

While the leadership described above can be inspirational, truly "transformational" leadership requires an additional step. The corporate leaders explained that leaders who are ***self-aware*** are the best types of leaders – those who are able to not only notice performance trends in their employees and provide effective feedback, but are also able and eager to receive the same type of feedback. After establishing psychological safety and human factors as a foundation, transformative leaders further differentiate themselves by embracing the practice of self-awareness. Where other managers merely accumulate knowledge and feedback, truly effective leaders go beyond. These high performers are able to overcome the mental blocks others commonly display when receiving criticism, such as defensiveness or self-justification. These successful leaders accept, internalize/acknowledge, and take action to correct identified shortcomings or blind spots. They constantly re-define themselves, acquiring new ideas, perspectives, and skills, while jettisoning others that are no longer relevant.

> "Put simply, because many professionals are almost always successful at what they do, they rarely experience failure. And because they have rarely failed, they have never learned how to learn from failure. So whenever their single-loop learning strategies go wrong, they become defensive, screen out criticism, and put the "blame" on anyone and everyone but themselves. In short, their ability to learn shuts down precisely at the moment they need it the most."
>
> Chris Argyris, "Teaching Smart People How to Learn" (Harvard Business Review, May-June, 1991)

Jim Clifton, the Chairman and CEO of Gallup notes that, "The very practice of management no longer works. The old ways – annual reviews, forced rankings, outdated competencies – no longer achieve the intended results."[8] Some of the key findings from the 2017 Gallup *State of the American Workplace* report highlight how companies fail to select the right leaders with the traits listed above, and the implications of their decisions (bold and underlined emphasis is from the *State of the American Workplace* report):

- *One of the most important decisions companies make is simply whom they name manager, Gallup has found. Yet our analytics suggest they usually get it wrong: Companies fail to choose the candidate with the right talent for the job **82% of the time**.*
- *And great managers are scarce because the talent required to be one is rare. Gallup's research shows that about **one in 10 people possess high talent to manage**. Though many people have some of the necessary traits, few have the unique combination of talent needed to help a team achieve the kind of excellence that significantly improves a company's performance. When these 10% are put in manager roles, they naturally engage team members and customers, retain top performers, and sustain a culture of high productivity.*
- *In 2016, **33% of U.S. employees were engaged** – involved in, enthusiastic about, and committed to their work and workplace...The majority of employees (51%) are not engaged and haven't been for quite some time.*[9]



(Fig. 3) The IND team's depiction of the 11 learning culture attributes, supported by the six "C-Suite" Principles.

In the industry engagements, the IND team inquired about the aspects of leadership and engagement mentioned above. From their 30 discussions, the team distilled the take-aways from industry into **11 attributes of learning culture** and HPOs/HPTs that describe ***the focus areas*** for organizational culture change and sustainment. This list of high-level considerations for building a positive culture will no doubt look very familiar (shown in the blue circle in Figure 3). The values, behaviors, leadership, teams, communication, training, governance, talent and performance management, assessing culture, tools and frameworks, and managing change are the ***"what"*** of culture change. The leaders of HPOs/HPTs agreed that describing the ***"what"*** of learning culture is relatively easy. It is the ***"how"*** that is difficult to execute, and which demands so much of the ***human factor*** detailed above.

The *Industry* section of this paper outlines the multiple, actionable components within each of the 11 attributes that improve and reinforce culture, and raise levels of performance and provide insight into the "how" of inculcating a learning culture. That section also highlights a common refrain from industry leaders, that culture change must be planned and exemplified at the top of the organization. The ***"C-Suite"*** (e.g., Chief Executive Officer, Chief Financial Officer, and Chief Operating Officer) constitutes the very top of the organization, where transparency, living the corporate values, leading with the human factor in mind, and leader self-awareness are particularly important. Though the tangible changes to culture evolve over time at the working level (i.e., "deckplate" level), culture change starts in the C-Suite. If not supported by the C-Suite, culture change is not likely to take root because the top leaders have the power to incentivize or disincentivize specific behaviors, provide or strip resources from initiatives, and enhance or disrupt organizational communication.

> "In vibrant learning cultures such as UPS, American Express, Bridgewater Associates, and the Container Store, C-Suite executives and leaders within the business are committed to learning. They model behaviors that communicate their belief that being smart is no longer about how much you know or how adept you are at avoiding mistakes. Instead, it's about being a critical thinker, a motivated learner, and an effective collaborator to further the business."
>
> - Robert J. Grossman, JD, LLM, "How to Create a Learning Culture." Society for Human Resource Management online. May 1, 2015.

The ***six C-Suite Principles are unique to top-level leadership and are key to fostering these changes throughout the organization***. In his address at a recent 3-4 Star Symposium, Secretary of the Navy, the Honorable Richard V. Spencer told the Navy's assembled C-Suite leaders, "You are in a position to think differently and affect change across the enterprise, not only by your decisions, but by your example. That's how you build and sustain a continual learning enterprise. It takes initiative at every level, and a command environment that encourages problem solving and proactive thinking."

Ultimately, the purpose of building and sustaining a learning culture is to make any organization better at what it does. The Gallup *State of the American Workplace* Report[10] (2017) plainly states that, "Greater performance is the end goal." While employee engagement and psychological safety are central to increasing employee satisfaction,

*Organizations falter in creating a culture of engagement when they solely approach engagement as an exercise in making their employees feel happy...**Happiness is a great starting point, but just measuring workers' satisfaction or happiness levels and catering to their wants often fail to achieve the underlying goal of employee engagement: improved business outcomes.** Organizations have more success with engagement and improve business performance when they treat employees as stakeholders of their future and the company's future. They put the focus on concrete performance management activities, such as clarifying work expectations, getting people what they need to do their work, providing development, and promoting positive coworker relationships.[11]*

Organizations have traditionally favored leadership qualities and attributes that are easy to measure and track through a linear set of well-defined metrics. By contrast, traits such as flexibility, adaptability, and resilience are much more difficult to define and measure, but prove to be key drivers of value among companies.

A recent Cornell University study of 72 senior executives found that when evaluating C-Suite leaders, a strong self-awareness score was the single highest predictor of success. These findings directly challenge the conventional view that 'drive for results at all costs' is the right approach. The executives most likely to deliver impressive bottom line results are actually self-aware leaders who are especially good at working with individuals and as part of a team. Conversely, executives who are focused primarily on numbers and processes perform poorly over all but the shortest time periods.

In other words, soft values drive hard results. This does not mean that self-aware leaders are pushovers or are unable to hold teams accountable. Instead, these mostly lower-ego, trust-inspiring executives demand high performance, but do so with a leadership style that incorporates strong relational skills and respect.

- Synopsis from, "When it Comes to Business Leadership, nice Guys Finish First," J. P. Flaum, Managing Partner, Green Peak Partners

What this report will demonstrate is that by embracing the 11 attributes of learning culture and high-performing teams, the Navy can significantly accelerate improved safety, innovation, compliance, high performance, and ultimately combat effectiveness. The Six C-Suite Principles can provide the basis by which our top leaders set the conditions for success and continually enhance the readiness and lethality of the Fleet. The 11 attributes of learning culture and six C-Suite Principles, working together, can be major enablers of Navy's warfighting culture as well as the Navy's core values of Honor, Courage, and Commitment.

The Industry engagements provided the IND team context for high-performing teams, but the visits to the Navy operational commands validated that those lessons learned not only work for the Navy, but are already present in many of our commands. The IND team's learning culture attributes and C-Suite Principles illuminate how the ***Four Core Attributes of Integrity, Accountability, Initiative, and Toughness*** (Design 2.0) can be operationalized, increasing the prevalence of HPTs across the Force.

Findings from Industry

The IND team engaged key leaders and subject matter experts across multiple industries including commercial aviation, construction, energy, transportation, health care, and technology. In addition, the team met with leading academics who are subject matter experts (SMEs) in the fields of leadership, management, organizational change management, and related domains. Through these discussions with industry and academia, the team identified five component areas of a learning culture – ***foundational elements, people, processes, tools and frameworks, and managing change*** – which are critical to developing, sustaining, and measuring a learning culture. In all, the IND team distilled the lessons from industry and engagements with Navy high performing teams into 11 attributes within these five component areas:

Attributes of Learning Culture	Component Areas
Values	Foundational Elements
Behaviors	
Leadership	People
Teams and Teaming	
Communication	
Training	
Governance	Processes
Talent and Performance Management	
Assessing Culture	
Tools and Frameworks	Tools and Frameworks
Managing Change	Managing Change

(Fig. 4) The IND team's distillation of 11 learning culture attributes. The IND Detailed Report has an expanded explanation of each of the attributes, along with stories from the various companies interviewed by the IND team. These stories provide insights into how these attributes contribute to organizational success in ways specific to these companies.

Foundational Elements

Many of the organizations the team engaged emphasized the criticality of defining, communicating, and living the core values and behaviors that were the **foundation** for establishing and nurturing a learning culture.

Values

Values are the foundation of an organization's culture and are critical for developing and sustaining a learning culture.
Organizational values are the bedrock of an organization's culture and they impact ***why*** things are done and ***how*** they should be done. The following "leading practices" are split into general and specific (or unique) values that contribute to a culture of learning and high performance.

Companies offered that values need to be defined, lived by everyone, and adopted for the long-term.

- *Define General Values*: Many companies emphasized the importance of not only stating their corporate values, but defining them and ***placing them in a framework that enables critical behaviors in areas such as learning, safety, innovation, and collaboration***.
- *Live the Values:* Values should be lived at all levels of the organization, from the field to the executive suite. Employees at [redacted] "feel" the values and take them home. At [redacted], everyone is expected to "live" the value of leadership in their respective areas of responsibility, and leadership is not about rank, title, or role. [redacted] has 14 leadership principles that are defined and "lived" in the organization. These principles are consistently applied across the company – from the field to the [redacted] executive suite. Conversely, employees can be called out for not living up to the values. The importance of leaders "living the values" of the organization was also voiced during engagements with [redacted], [redacted], [redacted], and [redacted].
- *Focus on Legacy and Long-Term Impact:* A learning organization encourages people to seek purpose beyond their work or the organization. [redacted] asks every employee, "What do you want your legacy to be?"

Specific values are not the complete set of values mentioned by industry. They are, however, the ones mentioned most frequently, and those most applicable to learning organizations and high performance.

- *Invest in People*: Companies primarily explained investment in people as time and energy to keep the workforce motivated and safe. "Investment" is the concept of putting effort and resources into recruiting, retaining, training, and promoting the right people for the job, and setting up the systems and processes to maximize employee potential. [redacted] places this at the same level as their [redacted], and refers to developing people and building teams as the "[redacted]" At [redacted], investing in people also means placing people in the right jobs. [redacted], [redacted], and [redacted] invest heavily in training their workforce, with the latter two explaining how this safety mindset extends beyond the workplace, promoting an overall "culture of caring." [redacted] gives their employees time and space to develop themselves or their communities, which leaders believe to be an investment in the organization. Once a month, they host an "In" day, organized by employees and grouped around a specific theme related to the company's culture tenets and values.
- *Be People Centric*: This value places emphasis on the human element, even in highly automated environments. HPOs get the most out of their employees in order to better serve their organizational mission. The Japanese term Jidoka (i.e., "automation with a human touch") was highlighted by both [redacted] and [redacted] as they emphasized to the IND Team the criticality of keeping a human in the loop even in an area of high automation, for overall monitoring and fail-safe purposes.

- *Be Open and Transparent*: This value relates to information and decision-making. According to [redacted] CEO, an open culture ignites the passion and performance of people. An open organization starts with defining the purpose, and requires the principles of transparency, inclusivity, adaptability, collaboration, and community. At [redacted], these principles work together and cannot stand alone, and leadership holds people accountable. Institutionally, everyone is held accountable to the standard. Everyone who works at the company is included in a broad-based conversation of business through an all-employee e-mail list where project statuses are updated and comments are posted for all hands to view. In the same breath, every meeting at [redacted] is all-inclusive, with the invitation for any employee to join if they believe the content of the meeting would benefit their professional development or the organization as a whole.
- *Have Courage to Speak Up*: This is a culture attribute that reminds employees to speak with their team members and leadership about anything they feel is critical to the company. This value focuses on driving open and honest dialogue to prevent mistakes and mishaps before they occur, enable continuous learning, and encourage employee "buy-in" and ownership. This is also known at [redacted] as the courage to "have backbone, disagree, and commit." According to [redacted] it is okay to disagree, but everyone should be "all in" when a decision is made. [redacted] emphasized that this courage to intervene should be promoted at all levels of the organization.
- *Continuously Learn and Improve*: An ***unrelenting pursuit of "better" describes this particular value***. A range of approaches can achieve continuous learning. At [redacted], learning is "not a formal process" because the expectation is that feedback, and therefore learning, is continuous. [redacted], on the other hand, had a formal Learning Council chosen to develop training opportunities. These companies highlighted that learning has to be authentic; individuals and organizations must be willing and committed to changing as a result of learning. Likewise, learning should be constant, continuous, and on the job. Some companies even went so far as to say that such continuous learning results in "better practices" vice "best practices," underscoring the importance of iterative and progressive learning, rather than a particular end-state. Learning is the outcome of problem solving, and leads to innovation.
- *Fail Fast to Innovate:* A culture of learning will produce innovation, and the development of new ideas. [redacted] includes curiosity and risk taking in their Objectives and Key Results (OKR) for innovation and culture. Likewise, [redacted] states that individuals and teams should be allowed to "fail fast" if new ideas are the desired outcome. [redacted] creates adaptive space (i.e., the figurative and flexible "space" between innovation and execution) which allows conflict to occur, resulting in the creation of new knowledge that fuels organizational innovation.
- *Treat Safety and Quality as Organizational DNA*: ***A safety or quality culture is about stopping to fix problems to "get it right" before an incident occurs or a product reaches the customer.*** Safety is a cross-functional requirement and everyone's responsibility. It is not just an exercise, and there is no negotiation when it comes to safety. At [redacted], for example, everyone on the line is a quality inspector. Safety is not assigned to a person in a certain color vest or a quality review team after production. Safety and quality inspections, and any concerns that arise, occur real-time. [redacted] incorporates system-wide initiatives, which work to complement supervisory tasking to "rule check" in both planned and no-notice fashion. Noticing safety and quality anomalies is part of the job description for all employees because this focus on quality and safety is embedded in these organization's DNA.
- *Empower Top Down Command, Bottom Up Control*: Top down command means providing senior leader intent to all levels. Bottom up control provides empowerment to solve problems, make decisions, and take action at the lowest levels. Those closest to the problem, or "doing the work," are in the best position to provide the best solutions. According to Stanford Business School, an

organization is working if you can "take your hands off the wheel and it still runs" – they identified a leading technology company whose CEO takes pride in making as few decisions as possible, proclaiming "this is the sign of a strong culture."

Behaviors

Behaviors are the natural extension of values, are observable, and are the key for changing culture.

Discussion on the topic of behaviors accounted for roughly a quarter of the IND team's engagements and source material, outpacing every other theme and emphasizing the topic's weight in the IND team's exploration. It is important to understand the role behaviors play in relation to all cultural components. Like values, behaviors are a key foundational component that define culture. Behaviors are derived from an organization's values, and it is these behaviors that drive team interactions and outcomes.

Companies emphasized the importance of understanding how people and teams behave within their organization, and why they behave the way they do. Values provide the "why," but behaviors further define an organization's culture and provide the "how." While behaviors are grounded in an organization's values, they are more than words posted on the wall. They are the physical embodiment of those values, and they reflect "how work gets done." They are observable, measurable, and actionable, which is why industry also referred to them as practices, interactions, actions, and activities.

> *"It's not about getting results; it's about getting them the right way."*
>
> – Ann Rhoades, former executive, [redacted]

In discussions with industry, the IND Team learned that changing culture begins by changing behavior. Behaviors become a natural feedback loop to organizational culture. Because behaviors are the observable portion of culture, changing behaviors is both a direct and indirect approach to change. While it is important to identify and define the right behaviors within a learning organization, it is equally important to identify and dampen undesirable behaviors (e.g., arrogance, blame, complacency, lack of communication).

Developing and sustaining culture is heavily linked to organizational behaviors. General considerations on achieving a learning culture include:

- *Define Specific Behaviors:* Several executives talked about specific behaviors being critical to influencing culture change. They explained that unless the desired behaviors are defined, each employee and team will have their own interpretations of the aspirational culture, and the organization will not be able to measure behaviors to know how successful the change is. Former airline executive Ann Rhoades explained it succinctly: "define who you want to be, then outline and define behaviors." Her suggestion was to simply describe the behaviors of the organization's best employees and teams. Companies that understood the importance of defining behaviors poured effort into this in order to provide guidance to employees. [redacted], offers an example. After a number of broad performance issues, leadership set out to improve the culture through improved interactions, described in clear, consistent guidance. Guidance containing expected interactions was packaged into "The Leadership Manual" and "The Safety and Expectations Manual," which were distributed to every employee. Other examples include the Nuclear Regulatory Commission (NRC), [redacted]

traits and associated behaviors, and IBM's "1-3-9" model (One Purpose, Three Values, and Nine [redacted]

- *Be Consistent:* Desirable behaviors must be consistently emphasized, demonstrated, reinforced, and rewarded. [redacted], and others emphasized the importance of organizational leaders modeling key behaviors. Continuing the [redacted] story, safety behaviors in their two manuals mentioned above were referenced daily by leadership in multiple forums and venues. Through unwavering guidance, [redacted] improved its culture of safety with consistent messaging.
- *Individual Accountability:* An Industry practice expressed in a majority of engagements with the IND Team was that if behaviors are contrary to an organization's values, they may need to be addressed and corrected. [redacted] explained that safety is about safe behaviors, and changing behavior requires accountability. They acknowledged that sometimes accountability requires blunt feedback and sometimes it warrants reprimand. The NRC handles reinforcement and feedback of "bad behavior" by incentivizing the "right" behaviors to amplify desired attributes. NRC does this by drawing clear distinctions between honest mistakes and willful violations.

Below are specific behaviors identified during Industry engagements as foundational for developing and sustaining a learning culture. Defining behaviors is an iterative process, as are many aspects of the culture journey, and requires periodic review.

- *Be Present and Be Vigilant:* Being present is about being "in the moment," or as [redacted] states it, to "be here now." Being present is a precursor to vigilance, which enables one to be primed to actively observe and help overcome complacency. Dr. Catherine Tinsley, Professor of Management at the McDonough School of Business (Georgetown University), explained how "cognitive activation" helps overcome inattentional blindness – the bias that we will not see what we do not expect to see. The ability to notice, record, and process information has application in briefing and debriefing, in execution, and in learning, and is in many ways a function of being present and being vigilant.
- *Listen and Seek to Understand:* Listening involves paying attention to detail and giving an ear to the voice of both employees and customers. Listening enables better understanding of underlying conditions that might influence safety, for example. Seeking to understand requires not only listening, but also active engagement, questioning, and dialogue. [redacted], for example, implemented a positive mental health initiative to actively listen to workers and better understand their mental and emotional states and the potential impact on their work. The IND Team's understanding was that this was less of a formal program and more of an informal approach to talking and listening to employees each morning to understand if their "heads were in the game." Similarly, [redacted] places a premium on listening to their customers, to ensure best service by developing the features their customers desire.
- *Build Trust:* Note that while "trust" is a value, "building trust" is a behavior. ***Trust was called a critical element of learning culture, essential to high performance, and even a "fuel" that drives individual development.*** In fact, [redacted] leaders call trust their number one tenet of building organizational culture. Building trust enables psychological safety, and reinforces trust between individuals and teams throughout the organization. The IND Team came to understand that while a high level of trust and honesty should exist between all levels of the organization, building trust must be clearly demonstrated by leadership. [redacted]

[redacted] Deliberate leadership actions and behaviors are essential to establish organizational trust.

- *Create Psychological Safety:* "Psychological Safety" is a term coined by Dr. Amy Edmondson, Professor of Leadership and Management at the Harvard Business School. It refers to the ability of the individual to bring their "whole selves" to work and to take interpersonal risks in the workplace. Google explained that psychological safety involves the willingness to take *interpersonal risks* by, (a) speaking up, (b) valuing differing opinions, (c) openly and transparently addressing failures, and (d) creating an environment of "no fear." [redacted] went on to say that ***psychological safety is the "number one attribute" of high performing teams. All employees are responsible for encouraging it, and all leaders are accountable for creating it.***

  The practice of creating a psychologically safe environment is deliberate. It communicates through words and actions that the organization supports vocalization, diversity of thought, forthrightness, and courage. A significant number of other firms mentioned psychological safety as a key to creating a learning organization and executing with high performance. ***Psychological safety should not be understood as a "safety time out" or as a practice within industry to soften standards. The practice of inculcating psychological safety, if anything, is meant to harden the organization through individual and team resilience. It calls for an enlightened style of leadership; one that not only allows employees to speak up, but actually builds processes for doing so. It requires strong leaders who are able to maintain strict adherence to standards, while ensuring employees have a voice to question everything and everyone – including the leader.***
- *Speak Up:* As noted above, psychological safety directly enables "speak up." Speaking up was one of the most consistent behaviors mentioned by Industry. This theme was also communicated as the courage to intervene or initiate tough conversations. Speak up involves sharing ideas, voicing and defending opinions, and results in an environment where there is eventual consensus. It was common for Industry leaders to also describe this behavior as the antithesis of a blame culture. The companies are intentional about rewarding positive intervention in the form of praise and support to create the safety for speak up to exist and perpetuate. It is also important to note that for many companies this behavior was only learned and valued after a major incident. Often, it appeared to the IND team, this behavior had been learned "the hard way."
  - At [redacted], "speak up" is codified in a core value they call "have backbone, disagree, and commit." Companies operating in environments with physical risk tied this to their overall safety efforts and typically gave this behavior a descriptive, action-oriented name such as "step back" ([redacted]), "speak up" ([redacted]), and "I'm coming home" ([redacted]). [redacted] ([redacted]) enables this behavior by practicing design thinking in order to overcome group think. [redacted] and [redacted] stated that within their cultures it was very easy for people to speak-up. The former stated that leadership is responsible for enabling "speak up," and the latter stated their employees have no issue raising concerns as four of their five culture components at [redacted] relate to speaking up: willingness to challenge, complete transparency, open dialogue, and be vocal about failures.
  - [redacted] shared stories which exhibited the importance of speaking up:
    - A past accident at [redacted] taught the company the importance of speaking up. Following an accident, it surfaced that the general manager had made a poor decision that the floor manager had known was unsafe. The floor manager did not speak up, enabling the conditions leading to the accident to occur. [redacted] now gives employees the "right of refusal" to say "no" to any task they feel is unsafe.

- [redacted] had a similar experience with a major accident, which focused the company on its need to change its culture. The company found that the missing link was the human factor. By incorporating "humanness" into their safety culture, the company has created an environment of caring and trust. All [redacted] employees now have the right to "step back," to take a "time out", and assess the safety of a situation.
- [redacted] shared a story about an employee that had failed to use a new risk management process as directed, which caused an issue with a new product. Instead of covering up his negligence, the employee raised his hand in a meeting and openly shared that he had failed to follow procedure. Instead of placing blame, the VP thanked the employee for his integrity and transparency. The focus shifted immediately from the failure to follow procedures to how the team would move forward from the error.
- [redacted] uses a unique mechanism to promote psychological safety and encourage people to speak up and share information at all levels of the organization. Prior to any project [redacted], CEO [redacted] personally sends an e-mail to all [redacted] employees inviting response. Anyone at any level with any concern around the project, is requested to directly respond to him. Asking questions and inviting participation are behaviors for creating psychological safety and encouraging speak-up behavior.

- *Share and Celebrate Failures:* Related to speaking up, sharing and "celebrating" failures were common in the industry discussions. While this might seem paradoxical, many companies made it clear that they share and "celebrate" failure because it drives dialogue and maximizes learning. They also were quick to point out that they recognized the difference between willful misconduct "failures" (not celebrated) and honest mistakes (celebrated).

  In progressive and innovative environments where it is "safe-to-fail," many companies found that embracing failures, self-reporting, and sharing stories about failures were tools and methods used to learn and reduce risk going forward. [redacted], [redacted], and [redacted] explained the importance of "near miss" or "close-call" reporting. [redacted] [redacted] stressed failure forgiveness and organizational resiliency to make it safe for employees to try new ideas, saying "Fail fast, but keep trying." [redacted] [redacted] and [redacted] mentioned the idea of rewarding mistakes. [redacted] [redacted] mentioned another [redacted] company that actually

Context for "Celebrate Failures"

It is important to understand that the term "failure" was not used in industry in the way it is understood in the Navy. This is where the concepts of "safe-to-fail" (in which failure is a desired part of a process to ferret out inefficiencies) and "fail-safe" (in which failure is not allowed due to extreme consequences) are important distinctions, both in the Navy and in industry.

Companies whose failures would result in death or other cataclysmic consequences did not use the phrase, "celebrate failure," while those companies involved in safe-to-fail enterprises like software development, were eager to fail early and often. Safe-to-fail failures weed out options that won't work in the final product, while true failures in a fail-safe environment exceed acceptable thresholds.

The Navy has both contexts (fail-safe and safe-to-fail) contained within the wide array of work tasks around the Fleet. Therefore, it is important to understand the distinction between those tasks that will allow for a greater degree of risk and those that will not. Failing early and often is a positive work process for experimentation, allowing more rapid fielding of capabilities and better team dynamics for ferreting out bad results.

In the context of fail-safe tasks, "failure" can be desirable when it comes in the form of "mistakes" that occur before total failure. Mistakes that are captured prior to a cataclysmic failure provide positive lessons that can be instructive in future task execution. These mistakes expose gaps in knowledge, process, policy, etc., that provide organizational learning, thereby lowering the risk of total, impermissible failure.

pays for the reporting of honest mistakes. [redacted] views failures as learning, and the honest debriefing of failures as an opportunity to engender more robust collaboration, empathy, and trust. [redacted] has a fervent culture of "rewarding failure" and even achievement of partial success. They encourage employees to "kill" projects early and with transparency, because this results in shared lessons learned and frees up resources.

Another example included an employee who inadvertently [redacted], with potentially significant impact to [redacted] earnings and customer experience. Because the employee escalated the issue immediately and transparently, [redacted] was able to rectify the issue quickly and bring its applications back online. Had the employee not reported the mistake, it would have been difficult to diagnose, and could have been significantly costlier. This particular employee was rewarded with a spot bonus for escalating his error with integrity, transparency, and honesty.

- *Share Learning:* Proactively sharing learning so that others may benefit involves not only reporting near misses, but actively sharing stories of failures and successes to cascade throughout the organization. It includes such examples as a "war room" construct to ensure all key participants are involved at the start of a new effort. Some companies require project teams to visit high-performing teams on other job sites, looking for leading practices throughout industry, and inviting external stakeholders to observe evolutions. Knowledge sharing activities work to dampen the organizational hierarchy, overcome the tyranny of distance, accelerate learning, and reinforce other desired behaviors. An aspect to emphasize when sharing learning points is how outcome bias and cognitive bias can exist at the subconscious level. Without understanding "how" success came to be, one naturally does not see, nor think to investigate, what could have led to failure or any elements that could be obscuring potential near misses. Through sharing the learnings of high performing teams, individuals and teams can construct a mental model for how to conduct business. This model allows them to understand which interactions to amplify, and which behaviors to dampen. In their [redacted] document, the [redacted] stresses the importance of shared learning. "We value knowledge transfer and retention principles, understand the risk of knowledge gaps, and we support the development and growth of our employees. We anchor learnings and experiences for sustainability, while developing innovative solutions for the future." [redacted] conducts a series of courses and forums that provide systemic sharing opportunities to emphasize this point.
- *Share Success:* Recognition is a behavior of successful organizations, and sharing success stories helps identify desired organizational behaviors to emulate. Deploying a system of recognition amplifies specific behaviors and nurtures attitudes and traits for people to reflect on and live out. At [redacted], when teams perform exceptionally well they are recognized by the C-suite and then held up as the standard. [redacted] doles out competitive safety awards and recognition at least every month, and annually at the corporate level. Sharing these awards publicly puts the ideal safety behaviors in a spotlight, which allows the company to highlight these traits for the workforce. At [redacted], articulating issues and potential problems is encouraged and subsequent resolution is celebrated. Where employee insights were the impetus for change, videos were made and distributed among the employee base. Employees can also nominate their co-workers for recognition of good deeds and insights, and [redacted] managers have a "$10 lunch card" they can give to employees as impromptu rewards when they are seen illustrating model behavior. In this way, [redacted] incentivizes desired behavior to drive positive change.
- *Universal Ownership of Safety:* ***High performing organizations viewed safety as part of their organizational DNA***. For these companies, safe behavior was a part of the job, not a competing requirement. Companies also used standard procedures for safety and quality checks that became part of the culture. At [redacted], the mindset was that safety was not solely the responsibility of the Safety Department or "just an exercise." They viewed safety as a cross-functional requirement and

the responsibility of all individuals across the entire organization. At [redacted], all employees have "permission to step back," essentially the authority to call a safety time out. [redacted] stresses that safety is important, and that everyone needs to "own safety." [redacted] sought to create a culture that combines maximum safety and total quality. At [redacted], every employee on the line is a quality inspector. If an employee observes a problem, he or she pulls a tripwire (Andon Cord) to alert the line. This cord turns a green light in the workspace to yellow, and then causes music to start playing to cue there is a problem. A supervisor immediately responds by directly proceeding to the site of the issue. If the issue is not resolved within a pre-determined time, then all production is halted until the problem is solved.

People

From a people perspective, the company leaders described how teams enable rapid and continuous learning through their size, construct, and skillset composition. These companies and academics shared their perspective that communication in a learning culture is based on open and continuous dialogue between leaders and employees at every level of an organization – and that it occurs across multiple channels and thrives on employee "voice." Lastly, the leaders the IND Team engaged described how in a learning organization, individual skill proficiency, combined with the ability to team, accelerated and maximized learning.

Leadership

Leaders in a learning organization are highly visible, deeply engaged, and laser-focused on serving and enabling their organizations and teams.

Over the course of the IND Team's discussions with industry and academia, there were specific leadership characteristics consistently identified as central to the development and sustainment of a learning organization. These leadership characteristics, displayed at all levels of the organization, played a critical role in enabling individuals and teams within the organization to thrive – to do their best work and achieve optimal results for their teams and the organization in an environment that minimized physical, psychological, and business risk.

Specific leadership characteristics recorded by the IND Team were:

- *Be Visible and Be Observant:* The idea that leaders at every level must "see and be seen" was one of the strongest and most consistent themes. ***Leadership being visible, physically present, and keenly observant in the places where the "front line" work was being done was identified as essential*** for a number of reasons - it enabled dialogue between leaders and workers, created a deeper understanding of the work itself and of issues requiring resolution, it supported the identification of opportunities for improvement, and perhaps most importantly, it enabled leadership to model behaviors that are critical to developing and sustaining a learning organization and learning culture. This emphasis on leaders being visible and observant was seen by the IND Team at many companies, especially those heavy in operations. For example, [redacted] promotes visible leadership and expects that management and ship masters be present and seen at all levels of the organization. At [redacted], senior management can immediately assess the level of engagement and on-site leadership of project managers by whether or not they know the first names of trade workers on

site. Similar sentiments were shared at [redacted] with the anecdote that managers "should be washing their hands at least five times a day" based on the number of times they visit the floor. [redacted] expects their management personnel to be out in the field with their crews and counters [redacted] hand washing with prescribing dirt under the nails - "leadership is about getting your hands dirty." [redacted] learning culture brings managers to the floor in a practice called "Gemba," the Japanese term for "the actual place" or "the actual place the work is done." At [redacted], "Gemba" takes the form of a daily safety walk of the [redacted] floor and yard (about two miles of area encompassing three to five thousand employees) that is conducted by senior leadership in order to observe the work being done on the floor and to identify safety issues. Safety Gemba's take about two hours each day and are a significant but critical daily investment of senior leadership time. During the Safety Gemba, senior leaders model desired behaviors for workers – openness, transparency, learning, and attention to detail. They ensure thorough "eyes on" examination by following a checklist and report results weekly to regional leadership in a face-to-face / peer-to-peer forum where their firsthand experience provides for honest debriefing points.

- *Coach and Mentor:* The idea that leaders must serve as coaches and mentors in order to develop and sustain a learning culture was another common theme. It was important for leaders to be supportive by guiding more and directing less. It was also critical that leaders create context for employees, communicating vision and then allowing employees to operate within that environment. [redacted], for example, considers coaching to be the number one attribute of a leader. [redacted], in a similar fashion, is focused on harnessing the "can do" attitude of their employees through leadership that is less directive and more collaborative. At [redacted], leadership converts to mentorship, and is measured by how many people you impact through influence. The company uses the formula I = Y * N (I is impact; Y is you; N is the number of other people impacted through your influence). They believe that the purpose of leadership is to bring out the best in others, leverage others' expertise, gather input and feedback, influence others to participate, and take responsibility and initiative as a community member.
- *Servant Leadership:* While similar to coaching, servant leadership was also highlighted by many companies as a critical leadership characteristic. Whereas coaching and mentoring is focused on "guiding," servant leadership is more closely linked to "enabling." [redacted], for example, thinks of leaders as "enablers." The constant question from [redacted] leaders is, "How can I help?" Rather than thinking first of a deliverable owed to them by subordinates or focusing on how the individual should carry out their assigned tasks, the leader focuses first and foremost on setting the conditions for their subordinates to excel. The idea of an enabling leader creates a paradigm in which the leader exists for the subordinate, rather than the subordinate existing to serve the leader.
- *Be Open and Transparent:* This leadership characteristic, centered on honesty and openness, was identified as critical by multiple companies. It was most often manifested during dialogue between leadership and employees, from a willingness by leadership to give employees context (i.e., the *why* behind the *how* and the *what*) to admitting mistakes and answering questions. [redacted] CEO talked about the importance of answering employee questions honestly and openly, even when the answer was, "I don't know," which the CEO remarked "is one of management's favorite answers." By being open and transparent, admitting mistakes, and acknowledging when information is incomplete, leaders model that it is "okay" to learn, because even they do not have all the answers. This practice invites transparency, and pauses the issue so that everyone can find and assimilate the information necessary to make an informed decision.
- *Be Accountable to the Institution*: The idea that leaders must be accountable first to their organizations and to their people was another common and critical theme. Most notably, accountability required that leaders put the good of the organization and individuals first by being accountable for adherence to established safety and operating standards. Whether that be

complying with established "go / no go" criteria or other operating standards, leaders at every level must be willing and able to say "no" when asked to operate outside of standards or guidelines. In more than one instance, companies emphasized the importance of developing a "compliance" culture for selected critical factors, in parallel with a "learning" culture. In order to increase accountability around safety and operations, [redacted] pointed to the importance of identifying a "critical few" factors that were essential for safe operations and focusing on them – ensuring leaders at all levels had visibility into what those safety factors were, whether or not their organizations were in compliance with them, and reporting status in accordance with a defined cadence.

Teams and Teaming

Based on size, construct, and skillsets, team composition enables rapid and continuous learning.

Industry leaders and academics emphasized the critical role of teams in an organization's success. Teams are closest to and are the most intimately aware of an organization's problems. With background knowledge and context, teams become fast moving agents of learning and change, and are able to rapidly respond to and fix issues.

Based on a team's size and composition, members are often able to quickly adopt the language of the team, adapt to the group's shared mental model, execute with common vision and speed, communicate effectively, and bring learning back into the broader organization. Industry suggested building teams around issues, corporate concerns, and improvement ideas. Fast-forming (and equally quick to disband), a team's goal is to operate with agility, changing course and making corrections with new information as it drives toward an objective.

Teams elevate organizations and optimize output by practicing behaviors central to learning. Teams are both the result of a learning organization and the process by which a learning organization is built.

Teams play a key role in a learning culture when managed as follows:

- *Build Teams:* A number of the companies shared that people tend to behave in a way that reflects how they are organized. To facilitate teaming and rapid learning, they shared that organizing principles should account for the problem at hand, the size of the team, physical location of individuals, and roles and skillsets of members. These companies shared that the size of the problem dictates the resources necessary to pursue resolution. ***Many high performing teams are made up of relatively small numbers (e.g., 2-5 people), and this size enables rapid communication, accelerated feedback loops, rapid learning, and agility.*** For effective and intensive collaboration, physical set up of team members should be taken into account, since physical proximity also contributes to immediate communication, accelerated learning, and truncated decision-making cycles. Additionally, a physically close set-up facilitates cross-functionality of team members, deeper ownership of responsibility, and helps flatten learning curves across the organization.
- *Trust Teams:* Due to their ad hoc formation and the manner in which teams are tasked to solve problems, teams will often design themselves and are made up of individual members closest to the problem. They are close to the voice and concerns of the customer, and with this intimate knowledge can apply concerted effort to resolve situations and incorporate lessons learned. ***Because teams are closest to the business and the issues, they need to be listened to and empowered by leadership to solve problems. Many factors and traits combine to form a winning***

team, however, it is the practice of teamwork and the development of trusting relationship between members that most contributes to results of excellence and learning.

- *Foster Learning:* With the attitude that the whole is greater than the sum of its parts, a learning community engenders overall growth and development by upping the game of individuals, improving the community through shared learning, and improving the team. Learning communities have expectation to enhance and propel organizational learning via individual members' personal development and growth. Elements that contribute to foster a learning community include: questioning assumptions and biases, driving social change, sharing knowledge between members, exercising the full potential of each member's perspective, and embracing the spirit of inter-community. Dr. Kazimierz Gozdz (Partner in [redacted]) agreed with the importance of psychological safety for empowering employee voice, but stressed that a feeling of belonging to a community motivates individuals to *want* to speak openly and freely. Community strikes balance between what people have the urge to say, with what would be accepted / heard by the organization. When setting conditions, Dr. Gozdz recommends top leaders remove bad habits and insert people into environments conducive to sharing learning experiences. In an environment of community and learning, conditions are set for success, and behaviors and interactions support the development of practices for high performance at the individual and team levels. In order to perform at the highest level, teams embrace honest feedback for continuous learning.
- *Shaping Context is Critical:* For teams to be most effective, leaders must create the context, physically and psychologically, for optimal results – specifically, buy-in and support of an established vision and purpose for the team, role clarity for members, an environment of psychological safety, and a culture of caring. This places onus on leadership to enable conditions for teams to intentionally distribute learning throughout the organization. Teams enable learning through noticing, processing and recording information through organizational systems and frameworks. According to Dr. Edmondson, if employees are "natural impressions" of their managers, they will shape reality as their manager sees it, hence the critically for middle managers to deliberately shape context for their teams to form, work effectively, and thrive.

Communication

Communication in a learning culture is based on open, continuous dialogue between leaders and employees at every level of an organization – it occurs across multiple channels and thrives on employee voice.

The IND Team heard diverse perspectives on communication from the organizations it engaged. The overarching and consistent theme was that communications are absolutely critical for enabling the workforce, ensuring employees' concerns and ideas are heard, and for creating context and clarity around strategic vision.

- *Leadership Communication and Employee Voice:* Learning organizations communicate from the top and set the conditions for employees' voices to be heard at every level. Communication from leadership is consistent, frequent, broad in its reach, and enables interaction from the top to the bottom of the organization. Though the frequency of leadership communication may vary in its ability to reach total workforce at one time, the elements of communication vary less. Methods of communication can take different forms dependent on the organization's culture and available communication tools, but the overarching goal is to engage in dialogue, communicate the organization's vision, share successes and learnings, encourage dialogue, and solicit feedback.

Active communication from company leaders at the top occurs on a consistent and extremely frequent basis, ranging from weekly to quarterly (e.g., [redacted]). Enabled and empowered by senior leadership, exercise of employee voice is the critical derivative of leadership communication. Companies engaged by the IND Team approached employee vocalization differently and in ways that complimented their culture and community – but all did so in a way that afforded employees an opportunity to speak and be heard. The [redacted] affirmed, as did many others, that psychological safety was key to creating a learning organization, and described psychological safety as "giving voice" to each member. That employees are liberated to do so is a product of enabling, open, and transparent leadership.

Examples of leadership communication and employee voice occurred within the following settings:

- [redacted] hosts weekly "All Hands" meetings for their entire workforce of 80,000 employees. The meeting is typically led by [redacted] CEO and exists as an open forum environment. The typical agenda for the meeting is to comminute success stories, failures, and Q&A. Any and all employees can ask questions that are then crowdsourced and prioritized by the majority's level of interest. [redacted] Moderator crowdsources employee questions, allowing those involved in the meeting to vote up user submitted questions through an application nicknamed [redacted].
- At the entrance to [redacted], there is a "Voice of the Associate" board (VOA) where [redacted] associates are able to post questions or comments about production, quality, processes, safety, or anything the associate wants to voice. At the start of each day, senior leadership (e.g., the General Manager and two Operations Deputies) reviews the VOA board and owners are assigned to each comment or question. These owners are required to respond to associates' postings within 24 hours. There is also an audit process conducted every three days to ensure responses occur in a timely manner. The VOA board is a critical part of the culture and has "democratized" [redacted] associates' voices.
- [redacted] encourages employee voice through a confidential "All Hands" forum with the caveat that "what happens at the All Hands, stays at the All Hands." When amongst "family," unguarded employees can share feelings and bring truth to situations that might not otherwise occur if broadcast outside the confines of [redacted].
- [redacted] offers a near real-time forum with what CEO [redacted] called "Ask Me Anything." In this forum employees are given opportunity to pre-submit questions directed to senior leadership for response. Like [redacted], [redacted] decides which questions to highlight based on employee voting.
- In another instance, [redacted] delivers communications through an all employee distro list. Intellectual sharing and information flow are important behaviors within [redacted] "open" culture and bolster the company's shared vision. The distribution list aims for open conversation and collaboration where all members can post and respond. To subscribe to the distro list is mandatory for all employees, and to unsubscribe is prohibited. That employees cannot turn off communication reinforces free-flowing thought and open dialogue. [redacted] also uses this sort of all hands communication to drive strategic alignment. With the tool of the all employee distro list, every employee knows [redacted] direction. Enveloping employees in all projects and the broader business brings purpose to each individual's work and creates a common baseline of knowledge for all initiatives.

Maximize Communication Vehicles: In a learning environment, channels for communication are maximized, and omni-channel communication is preferred, especially across a multi-generational workforce. Options for communications vary based on a company's type of work, available tools, and their culture. Firms have adopted various ways to communicate leadership's message across all levels of the organization. In addition to direct leadership communication before launch events,

[redacted] uses a traditional newsletter to provide organizational transparency and does so on a weekly basis. [redacted] and [redacted] model desired behaviors by walking the operations floor to observe, demonstrate favorable practices, correct performance where necessary, and most critically provide a mechanism for direct engagement and dialogue with the workforce. [redacted] ***conducts a 0900 meeting daily to physically "stretch and flex," at which point, the entire corporate office empties out into the elevator lobby of the Empire State building for a 10-15-minute calisthenics evolution while management spreads the word about project happenings and business development wins-losses.***

- *Strengthen Culture through Storytelling:* Telling stories was highlighted as a critical part of building, strengthening, and sustaining culture. Story-telling was an important tool for many companies as a way to communicate "how we do things" and reinforce the organization's desired values and behaviors. Stories and vignettes were shared across multiple forums and reflected the culture the organization aspired to be.
  - For example, [redacted] and [redacted] concur that stories are the way business is most effectively communicated in their organizations. Stories are the way to explain and convince, and the way to relate topics and people. Dr. Tinsley of Georgetown University explained to the IND Team that stories have the ability to change perspective, and when perspective changes learning can occur. Story telling is a natural form of communication to convey thought, share opinion, debrief, and perhaps most critically, connect emotionally to people within organizations.
  - Narrative gives individuals and groups a sense of how the world works and a way to understand their places within it. [redacted], for example, hosts a Saturday morning meeting that is open to all – employees bring their children, there are company cheers, stories are told, associates are celebrated, and specific business content is delivered through a cultural lens.
  - [redacted], speaking from her experience at [redacted] said, "Culture begins with a story." Dr. Dave Snowden, complexity theorist, explained that story is the best way to make sense of complexity, the domain in which organizations lie. Narrative is how people are hard-wired to understand their environment, and stories, he argues, are the best way to understand what really matters to people and how they perceive behaviors and the culture of their organization. When organizations understand the drivers of behaviors and interactions between individuals, they may begin to effectively shape their culture.

Training

In a learning organization, individual skill proficiency combined with the ability to team accelerates and maximizes learning.

Interestingly, discussions with Industry on learning culture and learning organizations did not identify a high number of detailed characteristics related to training. They did, however, identify two broader trends that are critical within a learning organization. ***Specifically, the importance of individuals being deeply proficient in their required skill sets, and the ability of individuals to come together with "teaming" skills that enable them to achieve a common objective and continue to build on the team's base of knowledge were critical.*** Through mastering individual skills and team training, organizations seek to better prepare their employees to achieve success and execute with high performance.

Key characteristics of training to build a learning organization include:

- *Build Individual Skill Proficiency:* Training is essential for building individual mastery – and the most effective training, as [redacted] put it, is on-the-job training that is "real, practical, visceral, and not

contrived." Learning by training on the job also creates specific muscle memory for tasks (i.e., "work hardening") and builds knowledge through repeated action. These types of methods can be used to train individuals without creating a curriculum or venue for "event based" or classroom learning. Training of this nature lends itself to industries with heavy operations and manufacturing plants.

- [redacted] employees, for example, are trained to have a high level of individual skill proficiency. Every employee on the assembly line is trusted to know the fundamentals of their job before arriving to the job; each individual onboards with shared experience. For instance, before joining the assembly line, each worker spends three months at the gym and can be counted on to be able to physically carry the weights required for their job function. Their knowledge of the assembly line is required to be so precise that as a spot check, employees are sometimes blindfolded and asked to perform work and determine parts on the line by feel. Additionally, employees are not allowed to become so comfortable in their place on the assembly line that they stop learning. Not only is each worker required to memorize their process and procedure manual, they are also expected to be agile in learning and cross-train to execute related jobs within their work space and manufacturing team. [redacted] believes in the power of people and their ability to train above and beyond fundamentals.
- Multiple companies discussed the importance of individual competency as a cornerstone of team performance. Teams cannot form rapidly and execute to standard if individual members are not able to "block and tackle" effectively. A shared baseline of technical proficiency supports the trusting relationships between team members that allow teams to work and excel together.
- An organization where individual skill proficiency was highlighted as a prerequisite for a strong team was at [redacted] helps mariners maintain and upgrade certifications and licenses. Many courses are taught with individuals enrolled from various companies who have never worked together before and who may never work together again. [redacted] conveyed that after one week their teams could be competitive with world-class bridge teams in terms of seamanship and navigation. ***The only reason these teams can be competitive is because each individual has the deep fundamental knowledge of the technical skills to manage bridge resources.*** Because of the team's common foundation, the team has a deeper relationship and one on which to establish trust. Without this baseline, trust would take longer to develop between individuals. With skills, trust, and a shared mindset the team has a foundation for high performance built on the bedrock of each teammate's individual competency.

- *Build Teaming Capabilities:* Dr. Edmondson, a Harvard University professor at the forefront of research on teaming and learning organizations, explained how teaming is "teamwork on the fly." While a team typically has a well-defined and stable group of people with specific skillsets who are focused on achieving a common goal, teaming is different. Teaming is about the behaviors and ways of working required to bring an ad-hoc team together. A number of leaders suggested that helping individuals recognize, understand, and overcome the human elements of fear, ego, and cognitive bias was a critical enabler of teaming skills and promoted rapid learning. NRC, for example, focused on building trust and refining interactions at the team level. NRC explained that leadership and effective teamwork is about "the ability to establish, extend, and restore trust with all stakeholders." Training at NRC focused on this deeply "human" theme. Of note, Dr. Edmondson, identified the Navy's Crew Resource Management (CRM), Operational Risk Management (ORM), and Human Factors training as being examples of effective teaming / teamwork training.

Processes

With respect to **process**, interviews highlighted that governance requires and supports clear and tailored standards, leverages independent auditors and reporting channels, and is designed in a way that enables the organization to operate effectively and learn continuously. Both companies and academics addressed talent and performance management by highlighting that learning organizations hire, develop, and promote with significant emphasis on culture fit – and leverage comprehensive, continuous, and deeply qualitative processes to do so. These organizations also addressed how assessing culture entails measuring behaviors, outcomes, and providing actionable feedback to leadership.

Governance

Governance in a learning organization requires clear and tailored standards, leverages independent auditors and reporting channels, and is structured and designed in a way that enables the organization to operate effectively and learn continuously.

Governance in the learning organizations was characterized by several themes – most notably a reliance on defined and clear operating standards that could serve as "go / no-go" criteria for operations, the use of independent monitoring boards and alternative reporting channels to ensure the integrity of assessment process and to guarantee the free flow of safety reporting, and organizational design that made roles, responsibilities, and accountabilities clear.

In the context of the IND Team's discussions with industry, governance was generally considered to be the standards and structures that enable oversight of an organization with respect to decision making, operations, and reporting. Governance was typically comprised of policies and procedures but did not remove the need for leadership to set expectations, observe operations, and inspect for quality. Successful governance served to provide foundational guidelines, enable organizational learning and improvements through feedback loops from oversight and compliance boards.

Key characteristics of governance included:

- *Establish Standards and Drive Compliance:* A number of companies shared their perspective that operating guidance should be explicit and adhered to. If conditions are not properly set, the team does not operate. Through commercial standards, many governments and industries hold companies accountable for safe operations. While these entities in many cases create a layer of administrative reporting, the intent is a focus on safety and mandated safe operating criteria. Operating in accordance with commercial standards creates limits within which companies can tailor their own organizational procedures and "go / no-go" standards. When guidelines are clear, so then is deviation from them. ***Strict "go / no-go" criteria provide compliance metrics for organizations to identify key factors and conditions that lead to mishaps and accidents. These standards also create an opportunity for teaching and training to specific criteria.***
  - Industry standards provided a common baseline for safety standards. While these standards typically cannot be deviated from, companies may add tailored layers to them for their organizations benefit. [redacted], an [redacted], specializes in both "vertical" construction projects – such as high-rise buildings, or skyscrapers, and "horizontal" projects – such as bridges, roads, and tunnels. In such an environment, Environmental Health

and Safety (EHS) standards are of utmost importance. [redacted] created a Unified Safety System encompassing the ISO standard to ensure correct Industry standards are applied to each unique job site. The company uses a unified EHS manual to quickly create a specific, project-based EHS plan from a Master Construction Work Plan. In this way, there is consistency in adhering to regulation regardless of the unique nature of each project.

- *Establish Independent Channels to Confirm Compliance:* Be they monitoring boards or 1-800 numbers, mechanisms such as independent oversight and alternative reporting channels exist in company governance to create an independent means of maintaining set standards, enforcing compliance to those standards, and conducting business safely and effectively. These channels serve as a "bypass" or "relief valve" in the organizational hierarchy, and exist outside of the chain of command.
  - For example, at [redacted], groups are formed to visit and inspect job sites. Because this monitoring group routinely shows up without warning, they do not interrupt or impact operations, and business is conducted as usual in parallel with these audits. These groups, boards, or audit teams are a natural part of the corporate culture in many companies and support organizational and personal safety.
  - Standing up a Designated Person Ashore (DPA) is a legal requirement at [redacted]. This imperative ensures [redacted] complies with industry standards. Notably, its function is operational rather than administrative. ***The DPA does not simply field and log risk and hazard related calls but is responsible for taking action when in receipt of a call from those underway or in-port who phone in safety issues.***
  - Many companies discussed recovery of business operations after a major setback. Often, the recovery process included standing up an independent review board with oversight responsibilities for identifying issues prior to a safety incident. Of significance, the selection of individuals to serve as auditors was critical. To be considered for these boards, employees had to have a record of integrity and modeling of desired organizational values and behaviors.
  - [redacted] shared with the IND Team that after [redacted], they stood up a separate Audit Group to provide redundant, independent oversight of their safety system, removed from management layers to minimize bias, and with a direct reporting relationship to the COO. Personnel assigned to this Audit Group are considered "model" employees, well versed and respected for their professional safety knowledge and integrity. The [redacted] understood the need for strict adherence to standards and in the wake of [redacted] it recognized the need to reshape its oversight process.
- *Organize People with Intent:* Discussions revealed that the flatter and more cross-functional an organization, the more clarity people had with regard to their roles and how they fit within the larger organization. Additionally, operating outside of siloed departments increased cross-organizational learning for the benefit of the organization. Other benefits driven out of flatter organization structures included faster and better communication and accelerated and shared learning.
  - Thoughtful organizational design helps to drive and shape interactions. For example, the physical set-up at [redacted] supports a learning culture – the design group is located next to the engineering group, which is next to the manufacturing floor, which is next to planning. This allows for positive interactions, rapid communication, and accelerated learning.

Talent and Performance Management

Learning organizations hire, develop, and promote with a significant emphasis on cultural fit – and leverage comprehensive, continuous, and deeply qualitative processes to do so.

The IND team's discussions with industry indicated that talent management processes (recruiting, retaining, developing, and rewarding of employees) along with performance management processes (measuring of employee performance) play an elevated role in learning organizations. Companies emphasized the criticality of hiring, developing, and promoting people who were aligned with the values, behaviors, and more broadly, the culture of the organization. In addition, processes for hiring, promoting, and selecting employees for increased or different responsibilities were characterized by rich dialogue and qualitative discussions. Continuous feedback from seniors, peers, and juniors was often a critical input to these talent and performance management processes. ***Lastly, investments in leadership development were commonplace and were focused on coaching, mentorship, and improving the way leaders delivered and received feedback.***

Specific findings included:

- *Hire and Promote for Cultural Fit:* Recruiting the right people and selecting the right leaders for specific roles within the organization are strategic priorities for learning organizations. In a learning organization, the values and behaviors that enable a culture of continuous learning are defined – and hiring and promoting people based on their alignment with and living of those values and behaviors is essential. Companies highlighted the importance of mutual fit between prospective employees and employers, and in some cases administered formal or informal "culture fit assessments" before hiring decisions were made. Once onboard, it was important for employees to demonstrate that they were living the values and modeling the behaviors that enable the learning organization to further improve. Multiple companies shared with the IND Team that employees who were not a fit with the typically strong cultures of these learning organizations usually left relatively quickly for new endeavors – and those departures were usually welcomed.
  - Illustrative examples from industry demonstrate the importance to learning organizations of hiring and promoting for cultural fit. [redacted], a former executive at [redacted] and [redacted], expressed that ***the best way to "develop" the right employee was by "hiring" the right employee*** – in other words, hire for culture fit. Several companies noted that they looked for certain attributes in new hires and promotion candidates as these attributes are linked to culture fit and long-term employee success. [redacted], for example, looks for self-awareness, emotional intelligence, the ability to lead projects, and the ability to give feedback when hiring and promoting candidates, while [redacted] stated that if individuals who hired on did not buy into the [redacted] philosophy, they typically did not move up or stay long. To find the right people, [redacted] uses a cultural fit quiz to assess recruits.
- *Leverage Qualitative Assessment Processes:* Many companies focused on the richness of dialogue and the deeply qualitative nature of discussions about candidates for hiring and promotions. Regardless of the level of employee, there was a distinct bias toward ensuring that candidates were being considered in the context of the organization's culture and the expectations of the new role. Promotions or selections for increased responsibilities did not happen through a mechanical process nor did they occur without open and candid dialogue.
  - To cite one example, [redacted] pointed out ***that they look for character, capacity, energy, and experience – in that order – when considering candidates for promotion and that the discussion around these considerations is robust.*** [redacted] offered that when replacing leaders due to promotions or exit, that there are typically deep qualitative conversations not only about the specific candidates in question but also around what the next generation of leadership in a given role needs to contribute.
- *Incorporate Continuous and Multi-Dimensional Feedback:* Several firms identified the delivery and receipt of feedback, in real-time and on a continuous basis, as a key mechanism for driving

continuous learning. In conjunction with frequent feedback, they leveraged comprehensive and multi-dimensional (i.e., 360 degree) feedback inputs for talent management and performance management purposes. In some cases, feedback was measured against "behavioral markers" that defined what behaviors were expected. In other cases, there was also a degree of "self- input" that enabled employees to increase their self-awareness. Collectively, this continuous and comprehensive feedback ensured that input from subordinates, peers, as well as supervisors was considered to create the most holistic view of a leader's ability to enable teams and contribute to the organization. Additionally, understanding comprehensive evaluation created incentives for leaders to focus their energy across the spectrum on "how" they were obtaining outcomes and the reasons "why" things were done – as opposed to just driving to achieve the "what" and thereby receive high evaluations from their own leaders. Multiple companies interviewed used continuous feedback as part of their talent and performance management processes, namely [redacted], [redacted] Nuclear Regulatory Commission, [redacted] though nomenclature and the periodicity of assessment varied.

- *Develop Leaders:* In many of the companies, growing leaders begins with selecting the individual with the talents best matched to the job, and then investing to continue to develop that leader. ***The learning organizations focused on two very specific elements of leadership development: the ability to actively and effectively give and receive feedback, and providing resources – including coaching and mentorship – to aspiring and existing leaders.*** These organizations believed that being able to effectively give and receive feedback in an open dialogue and exchange of ideas was a critical enabler of learning – and that this skill was a "must have" for leaders. This skill was honed in multiple ways – from traditional classroom training and discussions to more operationally focused on-the-job training. These organizations also believed it was critical to invest in and develop leaders at all levels through internal expertise as well as external resources.
  - [redacted] in particular, identified the importance of being able to have hard conversations to reach the best solutions. [redacted] communicated that they deliver training specifically on how to give and receive feedback. [redacted] detailed how they developed leaders in part through walks of the operations floor for the purpose of putting "eyes on" equipment and people to know what normal is as compared to what deviation is. This must be taught through example. The IND Team found that when organizations teach people to walk around, teach them what to look for, and amplify good behaviors, they grow leaders. [redacted] and [redacted], companies whose industries are on opposite ends of the spectrum, followed like-models for coaching talent. The emerging leader at [redacted] is developed through aspiring and apprentice manager programs that include practical exercises. "[redacted]" and "[redacted]" (respectively) were designed to set these next generation leaders up for success. These programs are designed with a two-day onboarding, followed by four months of rigorous professional coaching. [redacted], on the other hand, outsources leadership coaching to an external third party. They understand their core competency is construction, and that coaching is outside the firm's area of expertise. Recognizing this (as a learning organization with a culture of continuous improvement), they have identified ways to address this challenge and believe that they have seen significant return on this investment. [redacted] focus on legacy and long-term success of the firm makes this investment a company priority.
- *De-emphasize "Up or Out":* Several companies cited the importance of developing career paths that enabled those with deep technical expertise to continue to progress in terms of roles, responsibilities, and rewards, even though they might not be candidates for expanded management or leadership roles. This served three purposes: (1) to keep deep expertise and knowledge within the organization as an enabler of a learning culture, (2) to ensure that people who did not have the appropriate skills or the potential to lead or manage others were not placed in those roles, and (3)

to enable people to continue to contribute in a meaningful and impactful way where their contribution was appropriately rewarded.

- Several companies offered that within their companies the concept of up or out, or high year tenure, was dampened. [redacted] understands the workforce they hire serves separate and distinct functions, and people are measured on different outputs and behaviors. One track is built for the individual contributor, and the other for management. In another example, [redacted] identified that promotion of their managers had previously been based on their technical competencies and not necessarily on their ability to lead. In assessing their talent and performance management processes, they recognized that they were making promotion decisions with an overemphasis on seniority and technical expertise, as opposed to leadership skills. They made changes to their selection criteria, with an emphasis on leadership ability, and saw immediate, positive results. At [redacted], employees can continue to work at specific levels based on their technical proficiency while still receiving regular compensation increases – enabling people to remain at a level where they are competent without the pressure of an up or out requirement.

Assessing Culture

Assessing culture entails measuring behaviors, measuring behavioral outcomes, and providing actionable feedback to leadership.

Many of the companies spoke to some sort of culture assessment used within their organizations. At their core, assessments are a tool for feedback and understanding, which stood out as a key theme in organizations seeking improvement and higher performance. ***Intentional measurements yield greater clarity, better decision making, and more control of the organization's culture.*** It appears that an evolution in assessments is underway, from tracking *what* is happening (or the outcomes of certain actions), to knowing *how* it is happening, and ultimately to understanding *why* it is happening. Themes presented in this section describe methods to reach answers to those three questions.

Some general observations explain the ways culture assessments are being used in industry today:

- To establish a baseline for culture transformation
- To develop a culture strategy and communicate that strategy
- To ensure momentum
- To monitor an organization's culture status at a point in time
- To present a (non-punitive) learning opportunity

Because behaviors are observable and can be measured, they are rightly viewed as the preferred means for affecting change. Measuring behaviors is neither hard nor complicated. However, the IND team sensed that industry is just beginning to understand the value of not just defining and describing behaviors, but also measuring behaviors and their impact to produce a desired culture.

Behavioral outcomes are represented by organizational climate – the perceptions and attitudes that individuals form about organizational cohesion, morale, and performance. Pervasive in industry is the use of the annual employee engagement survey. These surveys typically measure sentiments or feelings of individuals towards the organization's culture and behaviors of company leaders.

Understanding the connection between behaviors and their outcomes, and measuring both, closes the loop on two forms of feedback. Taking two types of measurements allows an organization to take a more accurate "fix" at any point in time. Closing these two circuits unlocks double-loop learning, which allows an organization to understand if it is "doing things right," as well as "doing the right things." Understanding these relationships and taking two forms of measurement enables better analysis and insight. Armed with this insight, decision makers can make better informed decisions regarding which values and behaviors to address.

Below are further explanations and examples of these measurements, and the analysis and feedback process described by Industry.

- *Measuring Behaviors:* Behaviors are observable actions produced by individuals. By defining desired behaviors, Industry may enable measurement and then take decisive action. ***For repeatable application, organizations need to learn how to measure management and employee compliance with the defined behaviors from which they intend to draw conclusions.*** While there was no universal best practice for measuring behaviors, an important consideration was the format of the data. Some companies used qualitative data, usually obtained through open-ended survey questions. Others used quantitative data, through the use of evolving concepts such as behavioral markers, and some firms used a combination of qualitative and quantitative efforts. Another consideration when measuring behaviors was the matter of frequency. For overall culture assessments, the trend to measure behaviors was towards biennial measurement, while measuring to track specific safety behaviors trended toward more frequent monthly pulses. Examples of measuring behaviors to learn and improve culture included:

> *"During transformations we usually focus on behaviors as those cultural aspects that you can see and feel."*
>
> – [redacted]

  - [redacted] shared their seven defined behaviors which contribute to their culture, 18 individual competencies that map to these behaviors, and associated scoring criteria (much like a Navy Fitness Report or Evaluation). Behaviors included: "Think Customer," "Innovate New," "One Team," and "It's On Me." They consider this approach to be the use of behavioral markers. They also have a separate culture measurement tool under development.
  - [redacted] conducts an Organizational Health Assessment (OHA) every two years. The inspiration for this focus on culture is their Beyond Zero safety program. The OHA measures 37 practices, one of which is Innovation and Learning. Examples of behaviors associated with Innovation and Learning include: top-down innovation, bottom-up innovation, knowledge sharing, and capturing external ideas.
  - [redacted] Insights indicated they were in a transitional phase and had just completed their inaugural culture survey. This was to complement and add depth beyond their annual Employee Voice Survey (EVS). They wanted to understand how their culture tenets and values are "flowing" from leadership to behaviors of management and how they are "showing up" and manifesting in the workplace. They felt the EVS was an insufficient tool to assess overall culture because it was only measuring sentiment. ***The culture survey questions took the format of, "I see (insert behavior) at work."*** Answers were both quantitative (Likert scale of 1 to 5), and qualitative through the use of behavioral markers.
  - [redacted] measures behaviors in their new "[redacted]" program which encompasses their "[redacted]" program. A section of their dashboard is clearly labeled "Leading Indicators," and they explained these are proactive safety behaviors they perform to reduce injuries. They measure behaviors across five categories: Culture, Competency,

Communication, Controls, and Contractor and include formats and forums to achieve these behaviors such as training, regional communications, audits, and outreach. Another section of their dashboard includes measurements for reprimand and recognition, which could also be considered behaviors.

- [redacted] wanted to know why people were getting hurt and how to break-through a "plateau" in accident metrics. Desiring something specific to construction management that would enable them to quickly influence a largely transient contractor workforce, they ultimately came back to Skinner's model of Antecedents, Behaviors, and Consequences (ABCs)[12]. Then they worked with the Center for Education Research (CPWR) to devise a "[redacted]" system of eight leading indicators. In one example, "Demonstrating Management Commitment," [redacted] asks managers to "Rate yourself in (this behavior)" and then selects a focus area for improvement over the following months. They use a third-party vendor as well for logging other leading indicators, such as safety-related behaviors.

- *Measuring Behavioral Outcomes:* The companies indicated that in the context of culture, outcomes are employee sentiment, feelings, happiness, satisfaction, or engagement. Because these are employee-centric, they are not to be confused with business or financial outcomes. Behavioral outcomes are typically measured through an annual employee engagement survey. Examples of questions for this survey may include, "How do you feel about your job?" and "How long do you intend to stay at the company?" A number of companies also mentioned the repurposing of [redacted] Net Promoter Score (NPS) to ask employees if they would recommend their company as a place to work. Examples of measuring culture outcomes in the general sense, and also for specifically measuring safety outcomes included:
  - [redacted] shared with the IND Team their [redacted] that on average 33% of U.S. employees are actually "engaged" in their work. Inversely, at the world's best organizations 70% of employees "feel engaged." [redacted] employs a set of 12 elements to assess employee engagement. Their survey is called the [redacted] and measures overall job satisfaction. A specific survey item asks the employee whether "[he or she has] a best friend at work." Both [redacted] and [redacted] shared their employee engagement results with the IND Team, which compared favorably to the [redacted] numbers.
  - [redacted] revealed that they recently shifted from their legacy 200-question employee engagement survey to the [redacted]. [redacted] noted that survey respondents would try to manipulate the score on their old engagement survey. Gaming of assessments undermines the point of collecting data in this manner.
  - [redacted], in addition to the detailed measurement of leading indicators and reinforcing behaviors mentioned earlier, also puts lagging indicators or behavioral outcomes on their dashboard. Specifically, they show safety incidents, and break down this information in several ways such as by region, by entity ([redacted] or subcontractor), by incident type, and severity. While important to a [redacted], these outcomes are distinctly different from their business or financial outcomes.

- *Providing Analysis and Feedback:* ***The corporate leaders believed the energy and priority placed on assessing culture was crucial to their overall strategy and success.*** Assessments present opportunities for learning and can be a way to provide transparency, contributing to the desired culture of the organization through gathering, analyzing, and summarizing data, and providing recommended or suggested actions or interventions to decision makers. A key enabler for both analyst and end-user is an understanding of the relationships between different indicators. In a culture framework, this is the association of behaviors to outcomes, with the behaviors acting as leading indicators and outcomes as the lagging indicators. Companies use terms and phrases such

as "elevated risk" rather than the more stringent language of "predictive" data. Leaders seemed to feel that the purpose of culture assessment was to derive deeper insight of what behaviors to reinforce, and determine what behaviors had little to no impact on culture or climate in order to iterate and adjust for future measurement endeavors. Often the evolution includes the use of comprehensive dashboards, where all available information is aggregated and displayed – both behaviors and behavioral outcomes in one location – which helps visually enable the realization that behaviors are leading indicators, outcomes are lagging indicators, and behaviors drive outcomes. Companies which mentioned leading indicators or drivers were: [redacted].

- [redacted] told the IND Team they know their incident metrics are strongly influenced by safety behaviors. They are working to understand the drivers between their leading indicators and incident metrics on their dashboard.
- [redacted] has created their own safety index that measures leading and lagging indicators, and they are moving to a higher ratio of leading indicators in the future. They believe their safety factor tool will become incrementally more predictive over the next few years.
- [redacted] uses information from two stand-alone systems, [redacted] and its customized dashboard (for leading indicators), and [redacted] (for lagging indicators such as recordable/non-recordable incidents, insurance claims) in conjunction.
- [redacted] has their People Analytics department looks at metrics from the back end. They investigate correlation, regression, drivers, and patterns. Their driver analysis seeks to determine which items drive the other ones. To apply this analysis to the "How long do you intend to stay at [redacted]?" outcome mentioned earlier, [redacted] would like to know which driver is the most predictive of retention. They also seek to make these relationships actionable. If all employees at a certain location feel a certain way about retention, for example, what actions can they take to adjust the behaviors at that site to affect retention?
- [redacted] is working to understand drivers in their Culture/Behaviors/Outcomes model via their culture survey. They believe that culture is evolving, and there should be a feedback loop of action from outcomes back to culture and behavior. To reiterate, [redacted] wants to understand how their [redacted] tenets and values flow from leadership to the behaviors manifested in the organization and ultimately, to outcomes.

Tools and Frameworks

These engagements underscored that the consistent use of simple **tools and frameworks** is a key enabler within learning organizations, supports continuous learning, and mitigates risk.

Tools and Frameworks

The consistent use of simple tools and frameworks that support continuous learning and which minimize and mitigate risk are key enablers within learning organizations.

Many of the learning organizations used simple and straightforward tools and frameworks to enable continuous learning and to minimize risk during operations. These organizations saw the use of these tools as essential to their success and as a key to driving out risk across their business; from physical risk impacting people and equipment, to business risk associated with product quality, product delivery, and effective and efficient operations. ***While these tools and frameworks had different names and***

formats, they were used by many of the companies to create a common understanding of the work to be done, to mitigate risk during the execution of the work, and to enable learning upon completion of the work.

The most common tools typically took two forms; end-to-end frameworks for planning, briefing, executing, and debriefing that enabled immediate learning, and the use of a shared / common language of standardized terms.

In many cases, ***the use of these tools was considered "non-negotiable" and was part of the organization's cultural norms.*** The consistent use of these tools and frameworks was driven by active engagement and was used by all levels of leadership; engagement which permeated the culture, and which made the use of tools and frameworks a natural part of "how we do things around here." Interestingly, while metrics were considered an important tool for feedback, they appeared to be less important than frameworks that enabled "real-time" or "near real-time" learning by individuals, teams, and the organization more broadly. In fact, when specifically asked about the use of metrics, many of the companies continued to refer back to tools or frameworks that enabled individuals and teams to learn in the moment.

Many of the tools and frameworks discussed shared common characteristics, including:

- *Simplicity:* Tools were simple to use and did not require significant additional administrative overhead. The value of any tool or framework was that it facilitated rich dialogue and discussion at the team level and that it did so in a spirit of inquiry and continuous learning, as opposed to fault finding.
- *An "End-to-End" Focus from Initial Planning through Debriefing:* For any given operation or evolution, there was the consistent use of end-to-end frameworks that focused on the planning, briefing, execution, and debriefing of that operation or evolution. These frameworks were intended to ensure that the work of a specific evolution or the work of a specific factory shift or work group was carefully planned, communicated, and discussed by the team that would be doing the work, and then debriefed by that team to measure progress against the plan in order to identify areas of improvement. The IND Team heard this at multiple organizations including [redacted].
- *Orientation around a Common Purpose and Vision:* Tools and frameworks were commonly used to help build shared mental model within teams to get team members onto the same page as to the purpose, method, and end state associated with the work they were to do. These shared mental models helped create the foundation for how team members interact and behave and provided the team with a shared understanding of "what right looked like." This common understanding enabled teams to operate at their best by decreasing variance in mindset between members.
- *Use of Standardized Terms and Communication Procedures:* The use of standard terms, verbatim repeat-backs, and "all-hands" call-outs during evolutions were particularly evident in high risk to life environments (e.g., [redacted]). These techniques were used to minimize the risk of misunderstanding and to ensure participants involved in an evolution (e.g., [redacted]) were communicating in a common / shared way that maximized situational awareness for all-hands, and served as a mechanism for cross-checking and improving the ability of the team to notice deviations from standards or norms.
- *Culturally Embedded:* Tools and frameworks were part of the culture and there was a shared expectation that they would be used. At many of the companies, the tools and frameworks

were considered "non-negotiable," (e.g., [redacted]) and were a part of the day-to-day conduct of business, modeled by leadership, and expected to be implemented and used at all levels of the organization.

- *Shift to Digital:* There were multiple examples of a shift from manual and paper-based tools and processes to digital tools and processes, specifically targeted at issue identification, risk reduction, and (by extension) continuous learning. Where observed, this shift to digital tools and processes was used specifically to increase speed of reporting and maximize visibility and transparency into issues and their resolution status. For example, [redacted] uses a "risk ticket" system that allows any worker to identify a risk and enter it in an online tracking system that provides maximum visibility in the form of a threaded conversation. Employees are able to see their risks being addressed in real time. [redacted] also has a formal Risk Management Board which reviews these risks on a monthly basis. There is a premium placed on visibility to progress, simplicity of system use, and low level of effort required.
- *Learn Locally – Share Globally:* Learning was focused locally and at the team level as a function of the plan, brief, execute, debrief process. This was done to ensure continuous learning was occurring at the team level immediately after an event, with a focus on identifying specific areas of improvement and ensuring specific individuals understood what to do differently during the next evolution. Key lessons were consistently rolled up and shared across the organization to ensure learning was maximized. Sharing occurred via multiple mechanisms including written communication and company portal postings as well as in-person venues that included sharing of lessons at broader meetings and on-site visits specifically scheduled to enable learning from high performers.

While many examples of common tools (e.g., dashboards, checklists, surveys) supported a learning culture, the most impactful tools and frameworks were those that enabled high performance, mitigated risk, and increased the depth, breadth, and speed of learning.

Specific examples of these high-impact tools and frameworks included:

- PBED: A significant number of high performing organizations employed PBED (Plan-Brief-Execute-Debrief) or similar frameworks to enable continuous learning. ***PBED served as a common framework for how teams plan, how they develop a shared understanding of the plan, and how they capture feedback for collective learning - essential elements of a learning culture.*** High performing organizations used briefings as an opportunity to push knowledge out to the team, and to engage in dialogue prior to execution. They also leveraged methods to mitigate natural biases and ensure assumptions were challenged. When debriefing, organizations ensured individuals had been primed to notice positive and negative elements of execution by the pre-brief, and that they were equipped with efficient, effective processes to record observations. Perhaps most critically, the actual debriefing itself had to occur in a "psychologically safe environment" in order to be successful. If individuals were unable to share what they noticed, the debrief became an ineffective activity. If the debrief became a forum to assign blame or to avoid fault, individuals would not speak-up. Effective debriefing depended on the ability of the individual to think critically, speak freely, and be heard without negative consequences.
  - For example, at [redacted], [redacted] teams plan and do their pre-work the day before a [redacted] to ensure that plans are in place and that threats to a successful [redacted] outcome are assessed. Identifying concerns up front enables operations to be more efficient and teams to be more agile during execution. Effective planning and briefing also provides a mechanism for "cognitive activation," which prepares individuals to mentally shift gears into

execution with a heightened sense of awareness of what they are about to do and what they should expect to see. After an operation is complete, [redacted] teams conduct "hot debriefs" – typically ten minutes from start to finish – to allow for open discussion. These debriefs create a critical and immediate learning environment that occurs in the moment and which are followed by broader retrospectives which occur once a month and with a larger, extended team. The end-to-end focus of the PBED model maximizes preparation and readiness to execute, ensures all members of the team are aligned on approach and preparation, and maximizes the learning to be derived from any given evolution.

- Pre-Mortems and Post-Mortems: Similar to the PBED model, the use of pre-mortems and post-mortems was also observed. In the case of a pre-mortem, this approach (also called a "red team") was used as a method to challenge group assumptions and consider a pending project or evolution from different angles and new perspectives. For a pre-mortem to work, individuals must feel they can voice counterpoints to commonly held views or identify risks and hazards that may lead to failure without fear of negative repercussions.
  - An example of this is the culture of "pre-mortems" at [redacted], which exists to dissect and understand how a project might fail at the outset so that potential issues can be addressed before a project or investment begins. Post-mortems are similar but serve as a post-event opportunity for learning – for looking at not just what happened, but at how and why it happened – focusing on the execution of teamwork over task work. The goal of a post-mortem, similar to a debrief, is for the team to collectively process, understand, and learn from a singular event or a longer-term project in a venue that is free of blame. At [redacted], a culture of "post mortems" and "retrospectives" are used to create accountability, foster ownership, and ensure a learning environment exists.
- Formal Learning and Escalation Processes: In some instances, companies leveraged the use of formal learning and escalation processes as tools to increase the speed of learning from issues or challenges confronted by teams.
  - For example, at [redacted], when individuals or teams are working through an issue but are unable to agree on a way forward, a five-day period is defined as the limit to address and resolve the issue. Within that time if resolution is not achieved, individuals are required to escalate their issue up the chain of command for adjudication. The [redacted] model gives teams the space to engage and address issues. It also recognizes a broader commitment to resolution and the benefits to both the team and the extended organization, by rapidly resolving and moving past issues. Ultimately [redacted] wants space for employees to speak up, resolve issues, and commit to a common understanding in order to progress and not waste time. Through sharing, discussion, escalation, and resolution, individuals come to common understanding of team goals and the way forward. [redacted] and [redacted] also shared this mentality of time boxing problems and utilizing formal escalation to resolve issues and accelerate learning.

Managing Change

A number of the companies and academics shared that a deliberate, robust, and ongoing effort to **manage change** is an essential component of a culture change journey.

Managing Change

> "Overextension in the short- and long-term-the pursuit of ends that are beyond the ways and means of the force-is self-defeating. "
>
> - A Design for Maritime Superiority Version 2.0, December 2018

A deliberate, robust, and ongoing change management effort is an essential component of a culture change journey.

Through discussions with industry leaders and academic experts, the IND team identified several considerations for managing the culture change journey. These considerations ranged from the strategic (i.e., the broader framing of the change management approach), to the more tactical (i.e., specific areas of focus requiring targeted change management efforts). In order to drive successful culture change outcomes and accelerate and maximize adoption, many companies employed deliberate and focused efforts to manage change.

The primary focus of the change management efforts which the IND team observed was on preparing and equipping individuals and organizations to successfully adopt and sustain changes and new ways of working. There are multiple components that typically comprise a change management initiative. First, there is an initial focus on understanding and defining "what" is changing and "who" is impacted. This is typically followed by an ongoing series of activities across multiple "lines of operation," which may include stakeholder alignment and engagement, communication, training, readiness assessment, and adoption measurement activities. These lines of operation are used to set the conditions for success by driving awareness, understanding, buy-in, and ultimately commitment to the change.

Strategic considerations for planning and executing a culture change effort and sustaining the changes included:

- *Deliberate and Defined Change Management Effort:* The approach to manage and facilitate culture change tended to evolve over time within the companies. A number of culture change initiatives started as loosely-managed efforts that progressively, and by necessity, became more tightly managed and more closely synchronized throughout the process. This was driven in large part by the need to align, train, and communicate with individual stakeholders and groups across large, multi-national, and globally distributed companies.
  - [redacted], for example, found this to be the case after they launched their company-wide culture change efforts. Narrowing the focus (e.g., to three or four major themes) and driving activities in support of their "lines of effort" were important considerations in framing the approach to their culture change journey. Framing the culture change journey in the context of the organization's mission and purpose was also considered critical. [redacted] found that planning for "quick wins" and communicating those wins broadly were important factors in building and sustaining momentum. Lastly, tethering the culture change to the company's history and traditions – leveraging the past as a key component of the way forward – was critical.
- *Long Term Perspective - Iterative Approach:* Several companies called out culture transformation as a long-term activity that requires significant time (typically two to four years) for meaningful changes to occur. Some companies mentioned the importance of focusing on the long term (e.g., 20+ years) as the real target of culture change efforts. Another key theme of culture change was that the journey was not only long but by its nature, iterative. ***Moving to a "better place" should be the goal, not necessarily trying to achieve the "ideal."*** Many of the companies addressed this very pointedly, offering that it was both acceptable and suitable to start to move the culture in the right direction while continuing to iterate and adjust "course and speed" as necessary to hit their targets.

- [redacted], for example, spoke to the importance of being patient with the process, expressing that all progress in the right direction was a good thing, no matter how small. The Nuclear Regulatory Commission stated how a new culture cannot be bought "off the shelf," and that the company had to nurture it, assess it, and "keep circling around it." At [redacted], there was focus on the level of effort around and commitment to the initiative, as opposed to concentrating on immediate success – and a recognition that sustained efforts over time were critical. [redacted] took approximately four years for culture change to become well established after a culture transformation initiative was implemented. [redacted] also underscored the importance of an iterative approach when discussing their safety culture initiative.

In addition to these strategic considerations, many companies highlighted "tactical" change management activities as essential when conducting a culture change initiative, specifically:

- *Communication:* When executing a culture change initiative, communication was identified as perhaps the most critical change management activity. In this step of the transformation, leaders engage with all levels of the organization to gather inputs, and then transmit defined goals, expectations, and the change management plan. Leaders seek continuous feedback is from employees to gain buy-in, and to gather feedback for process improvement. ***Organizations that underwent culture change initiatives stressed how communication needs to be driven by leaders at all levels of the organization: it needs to be continuous, and it should be synchronized across business units and delivered through multiple channels.*** Communication needs to be two-way dialogue and must be enabled by an environment that allows employees a "voice" to speak, free from fear of negative ramifications.
- *Stakeholder Engagement and Alignment:* In culture change initiatives, perhaps more so than with other projects, stakeholder alignment and engagement activities are paramount. Leaders at [redacted], an employee engagement company, expressed that people need to be "pulled into the change." Creating a sense of ownership across and within business units, leveraging a cadence of meetings, discussions, assessments, and feedback to ensure leadership alignment across and within business units, hosting workshops with key stakeholders to identify obstacles and risks to the culture change initiative and gain buy-in, and maximizing the use of individuals and teams as change agents were considered critical. Lastly, it is important to note that some of the organizations ([redacted]) ***highlighted middle management as the stakeholder group most critical for the success of a culture change initiative.*** Middle management was frequently mentioned as perhaps the hardest population to drive alignment with the change initiative, given that they are most at risk from a culture change transformation perspective.
- *Assessment and Feedback:* Audits (programmed and random), as well as "pulse surveys" were identified as an important factor for capturing status of the culture change initiative, and allowing leadership to evolve and iterate on their approach.

Six C-Suite Principles

One of the major findings of the study was the idea that C-Suite leaders have responsibility not only for implementing culture change, but also for modeling and leading the changes they want for their companies. The Six C-Suite Principles are the attributes most referenced by the leaders in relation to their own accountability to their companies and their obligations to "set the conditions for success."

In all the discussions, it was evident that improving culture was a means to increasing performance and business outcomes. The C-Suite Principles fosters an enlightened and engaged workforce, generally resulting in improved performance. Central to this idea is that leaders are genuine in their leadership and their interest in their employees, along with fostering "employee voice." Along with employee voice, leaders help build the conditions for psychological safety as a part of the work process and organizational culture. In addition to these aspects of the human factor, self-awareness is a critical component of learning for leaders as well. While leaders of HPOs embrace the human factor for their employees and teams, transformational leaders also acknowledge the same forces of the human factor within themselves. They make a practice at self-reflection and deliberately seeking feedback from others in order to continually progress as leaders. The IND team found that the HPOs had remarkably enlightened views of leadership, including the role of each individual C-Suite member, and the entire C-Suite team as enablers of the organization. The following descriptions of the C-Suite Principles describe the detail of how these top leaders initiate and hold themselves accountable for culture change:

Define and Live the Organizational Values and Behaviors

The C-Suite leaders described their first priority for changing culture as defining the values that describe the organization. The values are in themselves a statement about what motivates the company and provide indication to the employees about what inspires their leaders. [redacted], in his six-step process for transforming workplace culture[13] advises top leadership to, "Change from a culture of "paycheck" to a culture of "purpose."[14] Defining the organizational values is the first step in finding purpose.

Behaviors are the next step, as the employees will only embody the behaviors they see modeled and incentivized. The C-Suite leaders were universal in saying they are responsible for leading the charge in molding behaviors. Their behaviors are the manifestation of organizational commitment to culture change. Defined values will transform culture only if the employees are able to observe their leaders living out the same values. This was a key change in industry that company leaders said had evolved only recently (over the last 15-20 years). This was also one of the primary areas in which they said the corporate world had learned from the military.

- In [redacted], [redacted] C-Suite recognized their organizational values needed to be refreshed. To that end, they laid out a set of values and behaviors they championed, and then put on workshops by team and region where "the rubber meets the road." They saw marked improvement in multiple facets of the business, most significantly safety, asset management, and employee buy-in.
- [redacted] C-Suite invests in its people through its "culture of caring." For instance, one of its values is that leaders must be visible and supportive. Therefore, [redacted] implemented practices such as Observation Circles, Five-Worker Lunches, and routinely asking every employee "What do you want your legacy to be?" The objectives of these programs are to sustain frequent interaction and communication with both company employees and contract members of the team, and to motivate C-Suite leaders to reassess their values and loyalty to company and team on a daily basis.

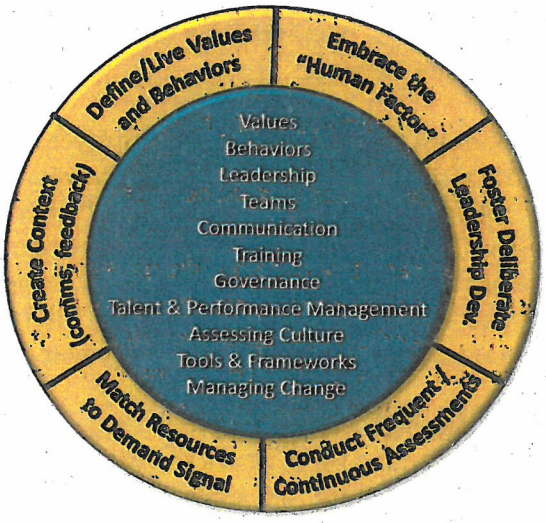
Embrace the Human Factor

The HPOs recognize that humans are fallible and *will* make mistakes. This is an obvious statement, but one that is also relatively new in industry. Where top companies had previously tried to train and

manage the workforce with a goal of zero or near-zero defects, the emphasis is now on planning for and mitigating errors. Managing processes toward near-zero defects is still a goal, but one that is informed by the role of the entire team in creating a safer and more efficient workflow. Where the employee and line management had previously been accountable, HPOs evaluate the entire chain-of-command and every participant's role in creating success or defects. This approach changes the context from "what did the employee do wrong and why?" to "did the organization set the employee up for success?" (e.g., training, work environment, oversight, materials, audits) along with questioning the employee's role in creating an error.

- [redacted] was once a top-down driven culture that experienced a series of performance issues. To address this, C-Suite leaders created an environment that empowered their employees to raise issues and celebrated those whose suggestions served as the impetus of positive change. The company distributes training videos among employees to foster continuous learning, and several channels provide opportunity for employee feedback at all times. Employees are encouraged to nominate co-workers for recognition of good deeds/insights to highlight exceptional performance.

HPOs also celebrate the human factor for the benefits they derive from having a "human in the loop." While the HPOs now plan for mistakes and put in place the mechanisms to mitigate their severity and rate of recurrence, these organizations also build in methods to capitalize on the strengths of individuals and teams. Given the right conditions for change, individuals and teams can be primary enablers for organizational adaptation. Embracing the human factor is a C-Suite Principle because the top leaders of HPOs recognize their role and obligation in creating the "right conditions." They are in the position to create the environment for employees and teams to thrive and perform to their maximum potential.



Embracing the human factor also involves building psychological safety into all interactions. The IND team learned from a number of the academic experts that humans learn and perform best through positive interactions. Positive interactions are achieved by building trust and exhibiting genuine leadership, valuing each individual's contributions and voice, and providing continuous communication and feedback. Over time, habitually positive interactions can prove to all employees that they are safe to speak up and express their views. Employees who trust in the system and who feel safe in this manner provide are more apt to "buy-in" to culture transformation, company values, and organizational purpose. They are also better positioned to adapt to changing conditions because of their contextual understanding of the organizational purpose and goals.

Foster Deliberate Leadership Development

Company leaders placed primary emphasis on the role of leadership in maximizing the potential of individuals and teams. The HPOs are fanatically intentional about placing the "right" people in positions of leadership. The right people are those individuals who match technical competency with genuine

care for employees, and who exemplify the values and demonstrate the organization's desired behaviors.

In another recent shift within industry (again, 15-20 years), the company leaders explained how promotions for leadership positions are no longer based solely on technical competence. Leader selection now involves more careful consideration of a candidate's ability to exhibit desired organizational values and behaviors, and their propensity for genuine leadership and concern for employees. As explained above, leaders who have the disposition to exemplify organizational values and behaviors, and who exhibit genuineness to their employees, are more likely to build team psychological safety. This ultimately strengthens the team dynamic and organizational learning because of the trust that is developed through strong leadership and a positive teamwork dynamic.

- The [redacted] C-Suite offers multiple programs for leadership development – specifically the emerging leader program and apprentice manager programs that include practical exercises. 360-degree feedback is incorporated as part of the "[redacted]" programs, which helps leaders understand the positive or negative "shadow" they cast on their teams. Relatedly, their onboarding process for new leaders involves a two-day in-person instruction and four months of follow-on professional coaching to reinforce company values.

The HPOs are deliberate about building processes that facilitate leader development. They intentionally recruit, train, retain, select, and promote the right people who are able to foster and sustain a learning culture. The leaders express that they own this process and are ultimately responsible for its output – a systemic ability to place the right leader in the job.

Conduct Frequent and Continuous Assessments

The leaders' narratives about building learning organizations emphasized hands-on leadership over assessments as the primary mechanism for maintaining the pulse of the organization. However, assessments and other measurements were still important. In particular, companies have infused various assessment tools to measure employee sentiment and culture. Companies like [redacted], [redacted], and [redacted] all described how their tools are simple to use, can be used on a frequent basis without a lot of time commitment, and provide employees the opportunity to share feedback and ideas. The tools can scale in sophistication, gathering more detailed feedback from employees, when desired. The companies were enthusiastic about their ability to correlate employee feedback with leaders' observations to continually gauge culture and climate, and to make real-time changes, when required.

- Senior leaders at [redacted] regularly conduct 12-question engagement surveys to pulse employee concerns. The surveys are used to get to the heart of what is really important. These surveys are tailored to be quickly acted upon. Leadership noted, "We should be using the survey to improve the working environment in a way that's relevant for each individual team."
- [redacted] modified their annual Employee Voice Survey (EVS) because they felt the EVS was an insufficient tool to assess overall culture, as it was only measuring sentiment. The updated culture survey added open-ended questions that ask employees to comment on topics such as, "I see (insert behavior) at work." Answers were both quantitative (Likert scale of 1 to 5), and qualitative through the use of narrative capture, providing company leadership the ability to track progress over time and also take immediate action on current concerns.

Match Resources to the Demand Signal

Some of the company leaders discussed their obligations to provide resources to the mission execution part of their companies. At the companies and the Navy ISICs that remarked on the issue, the leaders adopted a "servant-leader" approach. Despite being in the senior role, the leaders' viewed their job as maximizing the efficiency and effectiveness of their subordinate teams.

In business, where demand signals can change rapidly, the HPO leaders said they were responsible for anticipating new requirements and resourcing their teams appropriately. In periods of rapid expansion, there were times during which companies could not bid on new projects or take new orders because the demand outstripped the company's capacity. The company leaders would then plan the pace of expansion that fit their ability to field new capacity, while maintaining quality and protecting organizational culture.

- The C-Suite at [redacted], recognizing that the [redacted] work environment can be a grind, invests in efficiencies and programs to "make the ride better and more enjoyable" for their people. The invest heavily in executive coaching and mentoring to foster self-awareness and more enlightened leadership. They also require their C-Suite leaders to travel to job sites to learn first-hand how the job is progressing. These visits force leaders to assess how well the company is resourcing the job site, essentially determining whether the site supervisor and the crew have the resources required to complete the job. While at the site, the leaders are also able to assess behaviors, safety compliance, and all standards for the job site.

Create Context

Many of the HPO leaders talked about the obligation to communicate with all company employees (all hands) to convey leader priorities; sustain company mission, purpose, and messaging; continually update employees on the business environment; and provide a venue and method for creating two-way communication. All of these facets of communication create context that inform employees at all levels of the organization. Most of the companies created a predictable schedule for engagements with employees, many holding all-hands calls with the CEO on a frequent basis. [redacted] provided the most impressive example, with the CEO holding an all-hands call every week. During this event, all 80,000 employees attend the meeting or view it live on the internet. Everyone has the opportunity to ask questions and have them answered in real-time (depending the number of questions posed to the CEO). The C-Suite responsibility is to share information as broadly as possible to create shared context, and receive quality feedback to create new context from employees.

- [redacted] is passionate about maintaining an "open" corporate structure where information and decisions are transparent, and everyone knows strategically where the company is going. Its CEO regularly conducts "Ask me anything" meetings involving the whole staff, and the company maintains a standing policy that any C-Suite meeting is open to all employees. [redacted] recognizes learning is not necessarily a formal process – one in which feedback needs to be constant – and holds senior people accountable by encouraging employees to "call out" bad behaviors (including its leaders).

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVY RESERVE (N095)
2000 NAVY PENTAGON RM 5E254
WASHINGTON DC 20370
OFFICIAL BUSINESS

FIRST CLASS

U.S. POSTAGE PITNEY BOWES

ZIP 20373 $ 001.45⁰
02 4W
0000343872 MAR 28 2019

The Honorable Kristine L. Svinicki
Chairwoman
Nuclear Regulatory Commission
The Nuclear Regulatory Commission, Mail Stop O-16G4
Washington, DC 20555-0001