Workshop T5

Tuesday, October 30, 1:30–3:00 p.m. and 3:30–5:00 p.m.

REDUCING THE COST OF RISK WITH ENTERPRISE SAFETY MANAGEMENT

Presented by

Peter G. Furst
Director of Contracting
Liberty Mutual Group

As companies grow, the need to manage risk effectively and efficiently is amplified. Whereas enterprise risk management (ESM) offers an integrated approach for managing organizational risk, enterprise safety management represents a holistic approach to reducing injuries throughout the organization, as opposed to individual job sites. Find out how to simultaneously improve productivity, morale, and the company's bottom line by managing safety on an enterprise basis.

- Describes the ESM concept and the impact it can have on management, employees, contractors, and third parties.
- Examines the interaction between core contractor functions and an injury-free workplace.
- Provides strategies for implementing and integrating ESM from a top-down and bottom-up perspective.

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Peter G. Furst, MBA, RA, CSP, ARM, REA, CSI
Director of Contracting
Liberty Mutual Group

Mr. Furst is presenting Workshop T5, "Reducing Cost of Risk with Enterprise Safety Management," on Tuesday afternoon. He has been the Technical Director of Contracting Services for Liberty Mutual's National Technical Center in Pleasanton, California, since 1995. He is responsible for the Western U.S. and the Pacific Rim countries served by Liberty Mutual's International Division. As Technical Director, he provides specialist support in the Contracting Service areas. He works with field Loss Prevention Consultants and contracting customers to enhance the quality of service provided. He has been instrumental in implementing strategic solutions resulting in substantial reductions in the cost of risk.

Mr. Furst has over 30 years of construction experience with a multinational general contractor serving as estimator, superintendent, and project manager on numerous projects varying in size from $5 million to $350 million, involving hundreds of craftsmen and subcontractors. He also had overall safety responsibility for projects amounting to over $450 million annually with resultant EMRs under 0.50. He has also worked for various architecture firms and has done organizational consulting.

He is a Registered Architect, Certified Safety Professional, Associate Risk Manager, and a Registered Environmental Assessor. Mr. Furst has a Masters in Business Administration with emphasis in management, a Bachelor of Architecture, and a Bachelor of Science in Construction. He has taught business and management as well as construction management and safety courses for over 25 years at different times at UC Berkeley, UCLA, USC, Cal Poly Pomona, Cal State Long Beach, and East Bay Universities. He was elected an Honored Instructor in 2005 at UC Berkeley.

He has lectured for over 10 years on management, construction, and safety topics at numerous conferences in Canada and the United States including IRMI, RIMS, NSC, ASSE, WSC, CSI, ACI, IIE, WofC, CSC, BSN, AIHce, OSP, NeoCon, and regional conferences in Oregon, Hawaii, Alaska, and Alabama, as well as the AGC, ABC, and CEA conferences.

Mr. Furst is a past member of the San Francisco and Los Angeles chapters of the American Institute of Architects (AIA) and a member of CSI, ASSE, and NSC. He has served on various California AGC Committees. He is the recipient of the California AGC Safety Professional of the Year award. He serves as a Commissioner for the California State Board of Architectural Examiners and is a member of the ANSI A10 and Z359 as well as numerous ANSI subcommittees.

Notes

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ENTERPRISE SAFETY MANAGEMENT (ESM)— CREATING AN INJURY FREE WORKPLACE (IFW)

Peter G. Furst
Liberty Mutual Group

Introduction

Enterprise Safety Management (ESM) is a framework for achieving an Injury Free Workplace (IFW). The ESM framework create an innovative, excellence driven, business focused approach to addressing challenges in the safety management process. The framework starts with a culture that has a vision & goals for excellence, incorporates leadership, requires win / win thinking, fosters empathic communication, & instills continuous improvement. These basic principles aligned with sound business practices create the basis for a highly effective approach to managing the safety process.

ESM gives the enterprise a unique agility to respond to adverse situations because of the total alignment of IFW into the organizational fabric and a universal integration of all operations and systems. What is unique about ESM is the breath of its vision. Once ESM is implemented it does not stop. The real value of ESM becomes evident when it becomes an integrated and fully aligned part of the business enterprise. Compliance with safety standards and the reduction of the cost of risk are a by product of Enterprise Safety Management, not the focus of it.

ESM represents a fundamental shift in the way businesses can approach providing an injury free workplace (IFW) for its employees. The present globally orientation and, economic reality dictates the need to manage effectively and efficiently. Impacting the cost of risk is one such area that the company can excel in by the use of the ESM process. ESM also contributes to effectively managing organizational risk, fosters integrated decision making, assists in streamlining operations, improves communication, and positively impact the bottom line.

So what is ESM and how does it work? Some of the underlying principles, practices, definitions and/or impact of ESM include the following:

1. An integrated view of the enterprise safety management (ESM) process. Many organizations are vertically organized into functional departments or silos. These departments or functions may have their own “language”, processes, expertise, metrics and goals. These “differences” may create a physical and/or mental separation between departments of an organization. ESM is an integrated system, with an injury free workplace (IFW) as a catalyst for managing employee safety across an entire organization. It looks at how various organizational functions, such as estimating, purchasing, procuring, scheduling, operations, logistics, etc., create the environment or influence the employee’s perceptions behavior and/or decision-making.

2. A bottom-line view of ESM. The adverse effect of injury and/or losses, as well as the cost of risk is always viewed in terms of its impact on all aspects the whole organization, and not in terms of exposures, incidents or worker injuries.

3. A safety process' view of ESM. The successful implementation of IFW is facilitated by a senior executive office that provides the "champion", leadership, expert staff, internal alignment and resources usually not available to safety. One might argue that if you don't have an IFW office, you are going to struggle with ESM.

4. A longitudinal view of ESM. The management of the risk associated with worker safety is an ongoing activity and behavior, and not a scheduled process, focused activity, or priority program.

5. A lean thinking view of ESM. ESM advocates process efficiency & a value stream focus. It builds on cross-functional integration, waste elimination through a holistic view of the value stream. To truly achieve an IFW, contractors must look to influencing their partners, vendors, suppliers, as well as the owner and the design team to think in holistic terms.

ESM is not new. It springs from a linage of related proven processes employed by enterprise risk management which draws upon the quality movement of the 1970s, when manufacturers adopted quality standards that paved the way to better production and the subsequent Lean Enterprise thinking that further improved the process. ESM addresses risk within organizational systems, business procedures, and operational processes and through the collaboration of leaders from different departments minimizes risk across the whole organization.

ESM creates a powerful mechanism for improving business performance. It tends to be a vehicle for getting all levels of management and the workforce involved in something that is universally valued, operationally important, impacts general health and welfare and results in a safe work environment. The workforce wants a place that is safe and protects their health, the first line supervisor wants a workforce that is engaged and meets the daily production goals, middle mangers want the achieve the project's schedule and budget requirements and depend on the workforce being productive, while senior manager want the project to be profitable which can only be accomplished by all to lower tier's best efforts. So in a way ESM creates the framework for a "win – win – win – win" situation.

ESM also directly impacts profitability by controlling the cost of risk. A recent study by the University of Tennessee of a large population of contractors indicated that approximately 6-7% of the estimated cost of construction goes into insurance (loss) and safety related expenses and costs. These same contractors reported a 1.5% profit from their operations. It would seem rather obvious that even a small reduction in the insurance expenses and/or safety costs would significantly improve these contractors profit picture. Though contractors understand this, they do not have a clear picture of how to go about changing this reality.

Historical Perspective

There are many good reasons for this dilemma. Some are historical, functional, operational, evolutionary, developmental, legislative, through poor assumptions, misdirected research, etc. Human motivation is a complex matter! Traditional safety management involves complying with the governing safety standards as promulgated by the State or Federal jurisdictions. Therefore most safety programs, processes, and procedures follow these standards, with a primary focus on compliance. There is also the prevailing understanding that following these standards will create a safe work environment. That is really not strictly true. One only needs to look at the trigger height of fall protection to find that it varies from 6 feet to 25 for different kinds of (trades) work. Gravity does not differentiate on the basis trade; mass times acceleration is a universal law of physics!

The basic structure of most safety programs goes back to the three Es. This was created by the National Safety Council as a simplification of Heinrich's ten axioms for safety management. The three Es include: engineering solutions, education, and enforcement. Virtually all the safety standards fall into one of these categories. The engineering solutions address the physical conditions and the protection of employees from exposure to hazards in their physical environment. Education deals with providing the employee with training about the standards and the use of the protective system. And of course enforcement deals with site inspections and getting the workers to comply with the safety standards.

Safety as a result has been vertically organized and managed. It has its own rules, metrics, practices, language, and procedures. These do not necessarily mesh with those used by the other departments within the construction company. Many construction companies are vertically organized as well. In a construction firm there is a marketing function, an estimating department, a purchasing/procurement department a cost department, and operations department and of course all the other necessary supporting departments such as accounting, HR, legal, etc. So a vertically organized safety department "fits" into this mix. But safety has to be managed cross-functionally. The way things are done, commitments made, plans instituted, etc, may impact the choices the individual worker makes on a daily basis which may increase the residing risks within the system. This can only be addressed by an enterprise wide safety process.

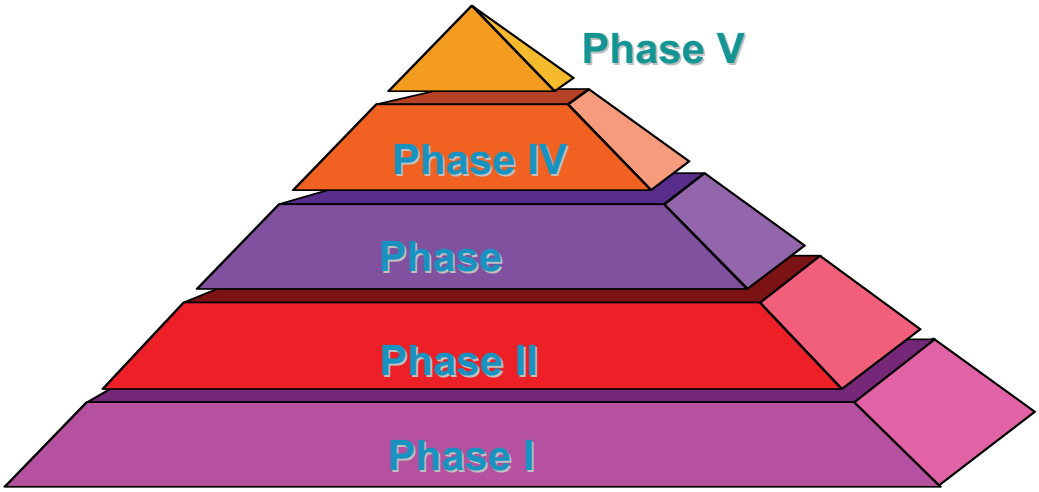
Another historic reason for this disconnect is that the learning model in construction historically (over hundreds of years) has been working in a trade under the guidance of a master builder and over a "long" period of time acquiring the experience to "build it right", and to some degree to do it safely. Projects sometimes took decades with the same workforce (more or less) doing similar things in the same location for the same "owner". In the last 100 years or so, things have changed dramatically and the traditional learning model is inoperable. Modern safety management requires the use of tools and techniques that are not found while working at ones trade. By this I mean you can pour a million yards of concrete and not come across any culture, or behavior or leadership concepts. To truly affect safe performance one has to apply concepts outside of the traditional safety and building process.

Path to Excellence

The path to safety excellence evolves from virtually no management of the safety function through compliance to the safety standards, to safety becoming a priority, to it becoming a value and ultimately to it becoming instinctual. At the instinctual level safety becomes an integral part of operation's and business practices. It becomes how things are done and how people act. There are no questions as to choosing between working safely or not. Every decision made has safety in mind.

Upon reaching the instinctual level organizations stop thinking in traditional terms of hazards and exposures but about risk. Not just risk as it relates to the physical environment but also about risks that reside in the operational processes, risks that reside in the business procedures and risks that reside in the organizational systems. The risk focus also addresses the organizational tolerance of risk and communicates this to its people. It also addresses the perception of risk and defines what is acceptable and what is not. Risk is then analyzed to determine if it is acceptable, manageable or unacceptable. This is clearly communicated to all the organization's employees. Effort is then expended in understanding the manageable risks and getting them to as low as it is economically and ethically feasible so as to create a business advantage.

Evolution of Safety



With ESM, projects or departments assess risk and factor IFW requirements into their planned activities. Going though the ESM process provides more value than the end product, as the process may identify hidden risks, expose interdepartmental barriers, and inefficiencies that were not recognized; thereby enabling mangers to make 'better" decisions. The adoption of ESM does not mean more work, additional effort, or bureaucratic systems to administer; it rather is a new and different approach to work or project execution.

Foundational Elements

Value Based Culture

The most elemental aspect of ESM is the organization's culture. The culture is what defines and guides the organization and its members. The culture must value safety and an injury free workplace for its employees. Everyone shares an overriding vision of ESM and the achievement of IFW. There has to be a clear articulation of a strategy that will enable the members of the organization to achieve an injury free workplace. The key elements of value based culture are:

IFW as a deeply held instinctual value

Clear articulation of the organizational values and vision

Group commitment to a common purpose

Leader-member trust & respect

Organizational justice

A clear strategy for achieving ESM and IFW

Values say a lot about the organization. An organization's values are manifested in the actions & behaviors of management and employees. Where it is not acceptable to have to work 60-80 hours to pull one's weight, where risk taking is only rewarded when you win, where failure is

unacceptable, even when you learn from it, where safety is only important because it costs money when accidents occur, where management say we hire bright people who know how to beat the system, or our competitors are generally stupid & are rarely better than we are, or people that quit our company are generally ones we don't mind losing, or we don't believe in communicating much with our employees about the company's future – they wont understand it, we are a for profit organization. This kind of culture will not support or achieve excellence in any respect or category, let alone safety! In a value based organizational culture, everyone leads from core principles, and contributes to safe operations.

For the organization to achieve an injury free workplace it must have a vision of achieving this state. For the vision to become reality the organization must have a strategy for doing so. This strategy must be clearly articulated and communicated to the members of the organization. For the strategy to work the organization must have the "right" people, doing the "right" things, resources to support the effort, and adopt objectives, targets and metrics to drive the "right" behaviors. These will drive the process and the organizational behaviors so as to achieve an injury free workplace.

Information & Metrics

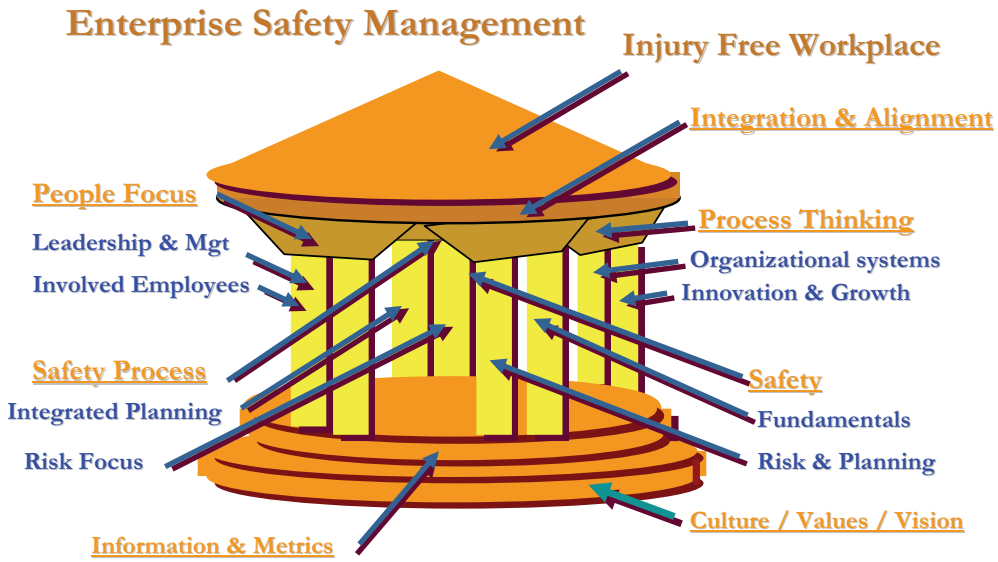
Organizations must measure in order to manage. In safety measurement is accomplished by calculating loss frequency, severity or OSHA recordable rates. These calculated results are compared to published Bureau of Labor Statistics values to see how the organization compares to industry averages. The effectiveness of the organization's safety efforts are measured in terms of cost of risk in terms of production, sales or man-hours worked. Corrective action strategies are deployed based on an analysis of past losses. These metrics do not provide real-time information with which to manage since they are historical, may not accurately predict future risks, and do not indicate what exactly is driving the losses.

Typically, strategies to improve safety performance start with a review of past losses. This analysis then establishes the interventions for the coming year. These interventions usually consist of more training, emphasis of certain program elements, or more rigorous inspections. In the short term some improvement is inevitable, but in the long run the results never live up to expectations. Some of this is because the improvement strategy is based on history and the future is never exactly the same. The data analyzed, may not give a true picture of all the contributing causes or identify the underlying risks. The focus in traditional safety is on the worker and not on the organizational system, business processes, operational procedures, and/or leadership and culture, etc, etc, etc.

Data is analyzed, related to a context to create information. Information is used to deploy strategy. Information is valuable if it predicts future performance and results as well as indicating in real-time what the proper interventions should be, where to apply them, and at what rate. So the metrics need to be derived from the "working" organizational systems, processes and procedures. There are a number of types of metrics that will provide useful information; these include input, output, process, progress, and outcome measures. Input, progress, and process measures are predictive and provide information with which the affect change. Outcome and output measures are historical and indicate results, affirming it the intervention have in fact worked or not.

The ESM Framework

The bedrock on which the ESM framework rests is a culture that values safety, has a vision for creating an injury free workplace, and follows a strategy that ensure the accomplishment of that goal. The foundation for the ESM framework is a "best-in-class" safety program that acts as a guideline to the organization's management and employees in fostering an injury free workplace. The ESM framework is about integrating and aligning the organization's systems, processes and procedures and providing the people within the organization with the information so that they may learn, innovate and drive excellence in the operations so as to achieve an injury free workplace.



The ESM framework has for four key elements: Each element has two attributes. For these elements to effectively engage in the creation of an IFW they require relevant and timely information. The sources of information are external and internal, with a 360 degree focus. The People "activate" the organization, so it is imperative to manifest the "right" leadership, manage effectively and provide timely information so that everyone may make the appropriate decisions to achieve an IFW. The reward system must also support this. The ESM elements also have to become aligned with other elements and integrated into the organizational systems.

Safety Fundamentals

Programs

The safety program is a guide to the technical aspects of safety. This program must include processes and procedures for all the fundamental material utilized by the best-in-class organizations. The key elements of the safety process include:

Fundamental safety policies and procedures

Specialized programs

Risk focus

Integrated planning

Resources

The safety program includes all the sound engineering practices, state of the art education, and audits to ensure that policies and procedures are followed. The safety process must also have elements that address the unique needs, risks, and exposures of the organization, which may include a substance abuse program, an automobile fleet program, a wellness program, etc. etc, etc. the program must become a process and integrated into operations so that it is a true "part" of the way things are done.

Risk Focus

Traditional safety management spends a great deal of time identifying physical exposures to hazards and worker behavior. These kinds of interventions do result in some improvement but ultimately they plateau. The reason being that injuries may be driven by other risks that are not dealt with in the "hazard-exposure" analysis. To effectively address the elimination of worker injuries the organization must focus on risk. Some other areas where risk may reside are operational procedures, business practices and organizational systems. These risks also must be identified, analyzed, and eliminated or reduced to an acceptable level. Other areas of risk mitigation involve the definition of the organizations acceptable level of risk.

So before we go any further let's discuss risk. Risk is the combination of the likelihood of an occurrence of a hazardous event or exposure and the severity of the injury that may be caused by the event or exposure. The risk management process includes the following steps.

Risk assessment procedure

1. Establish acceptability levels
2. Exposure determination
3. Vulnerability assessment
4. Risk analysis
5. Mitigation and countermeasure determination
6. Selection of best solution

7. Implementation

8. Monitoring, assessing and improving

Both the probability of harm and the severity of the outcome are uncertain. So, two issues come into play. One is the perception of risk (does one recognize the probability and the severity of harm when engaging in an activity) and to what level is one tolerant of the risk if and when one recognizes it. So as an organization we have to establish what levels of risk are and are not acceptable as well as educating our employees to recognize risk and its constituents so as to be able to assess it and make informed decisions.

To effectively manage risk one needs to be able to control the hazards.

Hazard control hierarchy

1. Elimination of risk though planning

2. Reduction of risk by substitution

3. Controlling the risk by separation or segregation (safety devices)

4. Providing warning

5. Providing personal protective equipment

Risk must first be identified this is followed by analysis of the organizational systems that drive the risk. Once this is done then integrated solution may be created to effectively eliminate, or reduce their adverse effects.

System risk is created by processes or procedures that do not function in harmony with each other. Organizational interventions sometimes are created to address specific issues without thinking through all the ramifications and side-effects. These “friction points” create occasions where employees have to make decisions on how to overcome the barriers in order to accomplish their tasks. So decisions have to be made and they are made based on the “best” information the employee possess at that point in time. The outcomes may not be what the organization wants!

Integrated Pre-Operational Planning

Per-operational planning is by far the most important element in this cornerstone. Planning is a key element of contracting. Contractors are good at planning the work. The key is to plan the work with safety in mind. To effectively plan for safety pre-operational planning must occur very early in the contracting process. Some of the longest lead items dealing with safety may have to be included in the “buy”; therefore safety planning should start at the time of estimating and pricing.

Resources

There must be ample resources and staff to manage the ESM process. ESM needs an executive level champion to provide support, remove barriers, and resolve issues as they arise. Diligent execution is imperative.

Process Thinking

Organizational Systems

Business and operational integration is crucial to the creation of an injury free workplace. The internal systems, processes, and procedures must be in harmony and all work towards the creation of an injury free workplace. This internal alignment means a 360^0 focus horizontally, vertically and inside to outside. It also implies flawless execution.

Innovation, Growth & Learning

Innovation, growth & learning are important because of the nature of modern business. Just about the only constant in business is that change is inevitable. And change is occurring at faster and faster rates. So the organization has to understand its environment and learn from it so as to change its internal processes and procedures to remain competitive. The innovation continuum includes efficiency, evolutionary, and revolutionary innovation. Growth involves increased knowledge and understanding of the employees thereby enabling them to effectively operate, and support the internal integration and alignment necessary to create the injury free workplace.

People Focus

Leadership

Leadership is a key element in creating and sustaining a value based culture, which supports excellence. Principle centered leadership involves:

Ethical Behavior

Causal thinking

Inspire a shared vision

Enable and encourage others to act

Model the way

Challenge the process

Leading change

Ethical Behavior means leading by principles involves behaving fairly, ethically and with integrity. Demonstrating concern for others as well as sharing of control. Conducting meaningful communication and providing relevant information. Empower others to act and giving credit where it is due.

Causal thinking involves creative, strategic and transformational thinking. Creative thinking involves coming up with new ideas, anticipating the future, improvement, etc.

Strategic thinking is all about connecting creativity with value, and transformational thinking results in the ability to take radically new ideas and make them work.

Challenge the process by confronting and changing the status quo. Recognize & remove constraints, open to taking calculated risks, pushing the envelope being a change agent and early

adopted. Looking for and create opportunities for learning and growth for others. Recognize good ideas or ways.

Inspiring a shared vision is all about getting others to believe in and act upon the organizational vision. Breathing life into other people's hopes & dreams. Forging a unity of purpose and ignite a flame of passion.

Enable others to act means removing barriers to the success of others. Supporting, involving and enabling and sharing information. Leadership is a relationship founded on trust & confidence. And listening, listening and listening.

Model the way is about setting the example. Genuinely paying attention by actively listening. Working on small wins, and thinking win-win in all cases. Act with a sense of urgency. Being empathic, etc.

Encourage others to carry on. Genuinely caring for others is uplifting and fosters loyalty.

A showing person that they can win is a powerful attribute of leadership. Building peoples self confidence. Always being positive & helpful. And celebrate accomplishments.

Management

Management is the process of obtaining, deploying and utilizing a variety of essential resources to effectively and efficiently contribute to an organization's success. Managers deal with one of the most important resources of the organization – the employees. Managers spend much of their time planning, organizing, controlling, staffing and energizing the work of people and other resources.

Management is all about getting things done. Managers link goals to effort. They plan for converting resource into outputs. Manager must have a balanced concern for production as well as people. Managers must motivate the workforce. Managers play a key role if providing the employee with meaningful work and job satisfaction. Managers must treat the workforce with respect, fairly and recognition. An empowered workforce is involved, effective, and productive.

Integration & Alignment

Growth and profit are ultimately the result of alignment between people, strategy, process and customers. Alignment gives mangers at every level of the organization the ability to:

Deploy strategy

Customer focus

Effectively develop people

Continuously improve internal systems

System integration and alignment established a culture that results in stellar levels of employee involvement and satisfaction, customer loyalty, and superior financial results.

Alignment and system integration magnify and intensify the efforts and outcomes of the four cornerstones and create an injury free work environment.