Our Capabilities

Wouldn't it be great if we could really address the dilemma that *by the time someone has enough experience to be valuable, they're either gone or they've become part of the problem?*

Structurally speaking, examples from areas as diverse as software to health care point out that we need system improvements in the way "innovation happens" in

- requirements definition
- systems analysis
- verification & validation
- safety
- quality
- and security.

We need to mechanize the process without losing the benefit of human intuition.

Answering this contradiction now has a name: **Systemkey**™ from Systems Thinking Institute LLC (STI). Through a robust five-part nested sequence, described at systemkey.net, targets of staggering complexity can be methodically analyzed. Systemkey™ is a flexible, scalable and powerful component solution which solves the deep experience/fresh perspective dilemma as well as the challenge of siloed information across divisions or channel partners.

Systemkey™ does this by breaking down decisions into categories, components, causes, types and cases, recording these incremental stages into shorthand that allows STI-certified teams (or teams that we lead under contract) to sort for the common and recognize the residual risk that either gets management sign-off or becomes the focused starting point for a more detailed iteration.

Who We Are

Systems Thinking Institute LLC, a veteran-owned small business (CAGE Code 1JNS9), applies quality systems, safety principles and systems engineering practices to foster more effective, resilient and productive business enterprises by making safe operations a clearly defensible profit center through innovation, improved business processes and growth. Clients engage us in three primary areas:

We augment staff capabilities in:

- Documentation, *including our proprietary rapid, full-content indexing*
- A full-suite of safety analyses (HAZOP, LOPA, PHA, SR/CA, SSHA, SHA, O&SHA, FMEA, FMECA, EBTA, Fault Tree, What-If/Checklist, SoW Milestones)
- Requirements definition, verification and validation
- New product matrix decision trees

We provide leadership and process champion facilitating via:

- System Safety (all specialties above)
- Occupational, Environmental Safety & Health program management (ESH, OSH, HSE, "Safety"), including global scope and remote/matrix management with cultural sensitivities.
- Working Group Meeting Facilitation, Agenda Management and Action Item Tracking
- Technical Training across 22 Safety topic areas
- Product and Process Innovation Brainstorming

We deliver process improvement through:

- Process optimization
- Troubleshooting, scaling and hazard analysis
- Asset use analysis, Requirements definition, validation and process modeling for the diverse skill levels of staff who populate the technical workspace.

STI's strategy and organizational development consulting has the international focus today's businesses need to be globally competitive. In fact, our first two clients were the Bank of New Zealand and the Universidad Tecnológica de México.

Systemkey has delivered success stories in:

Logistics
Contracted to deliver integrated process optimization in 400,000+ sq. ft. auto parts regional depot. Saved GM over $300,000 per month by eliminating daily shutdowns caused by exceeding conveyor capacity.

Distributed Training or Distance Learning
Provided all non-radiological safety training (22 subject areas) for Energy Department contractor in Pacific NW and motor vehicle (MV) training for their nationwide staff. Applied customized training agenda to deliver an astounding five-fold drop in the MV accident rate, delivering an accident-free year for 3300 staff spanning 28 US states.

Defense OEM Systems Engineering, Systems Safety, Quality and Innovation
Delivered breakthrough capabilities allowing hazard analysis software to remain current with a missile/launcher system's 6,000-line bill of material (BOM) content. Based on project, new data import process shaves hazard analysis cycle from average 14 months to under one month, saving minimum $230,000, while spending only $4,000 in contract-coding for development. Trained other engineers and quality process technicians in new methods.

Performed detailed MIL-STD 1316 analysis for 30 mm Air-burst munition fuze with innovative "momentum latch" for the MK 44 Mod 1 automatic gun which cleared a review board's logjam over hardware specs language.

Emergency Management
Designed, staffed and coordinated cross-departmental preparation for Emergency Management (EM) exercise for 2200 medical staff. Hospital liason to multiple Texas Capital Area EM entities; managed risk management roles in 11-hospital exercise. Collaborated with cross-functional team to define goals, agenda for; *chaired* EM Group. Rewrote EM manual which serves as baseline template for all four other hospitals in network. Developed, implemented and conducted aviation safety disaster exercise for NAS Pensacola. Served as Aviation Safety Officer for HSL-43, NAS North Island, CA.

Healthcare

Drove two concepts, new for healthcare: "Safety Vault" and "Day-to-Day HVA" (Hazard Vulnerability Analysis), to drastically scale up security readiness, (365x), increase records access, maintainability and traceability. Gained 100% compliance on electronic submission of Fire Safety systems and equipment test results, for data-mining and trend analysis.

About Our Founder

Matthew E. Weilert's heritage of providing transformational value to organizations spans thirty years. Eagle Scout, B.S. SEng, Texas A&M, co-chair of Surface Warfare Officer School's (SWOS) candidate team with the highest exam passing rate and the lowest officer attrition rate at SWOS Naval Amphibious Base Coronado.

As CO of USS Halsey, Captain Bob Pacek credits (then LTJG) Weilert with $292,000 savings (2009 dollars) in "accident avoidance" for shipboard safety practices that enabled Halsey to avoid accidents experienced by other vessels during underway replenishment at sea (UNREP) evolutions.

Integrating people, process and product

As an award-winning, published writer and presenter of uniquely integrated curricula, STI's Founder Matt Weilert has provided national-level behavior-based safety and quality innovations, slashed cycle time fourteen-fold in FMECA/FMEA generation and saved a warehouse over $300,000/month by eliminating conveyor shutdowns. He was ranked the best presenter in the North American Armaments division for a major global defense contractor and is an internationally experienced conference presenter.

Writing, Speaking, on Innovation, Management, Leadership:

http://ezinearticles.com/?expert=Matthew_Weilert
http://time.eelhost.com
http://www.skerja.net/sc/articles/

How We Can Help

We propose our proven skills to complement and augment your existing system safety, technical requirements, innovation and training frameworks. We have offices in the Austin, TX metro area, academic partnerships with the University of Malta, the University of St. Thomas-Houston and the ability to offer both training and support on-site at your location or remotely.

We invite you to visit our TeamTrio™ calculator, http://www.skerja.net/rec/consult.html#tt to see how affordable it is to bring the next level of Safety performance and operational improvements to your firm!

Customized programs are available.

Systems Thinking Institute LLC

Deep Experience | Fresh Perspective

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