Linking Lean, Green and Safe to Sustainability and Deming

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The Challenge

- Many companies, large and small, are working on the somewhat nebulous issue of sustainability.
- Leaders everywhere are faced with creating an organizational culture and processes that drive continuous improvement
    - Deming's Plan-Do-Check-Act (PDCA) is the foundation for management systems and continuous improvement
- The implementation of lean and safe tools and thinking paves the way continuous improvement
    - Environmental issues are added going forward

Sustainability

Sustainability is an outgrowth of the 1987 Brundtland Commission (named for the chair) for the United Nations

- The three pillars of sustainable growth are environment, social and economic, sometimes referred to as the "the triple bottom line"
    - Sustainability is also referred to as the 3P's: people, profit and planet
- A very complex subject that includes, biodiversity, climate change, carbon footprint, etc.., for purposes of discussion in the SHE community, it may be best to deal with the practical aspects of the three Ps that safety, health and environmental professionals impact or influence
- Sustainable growth is not possible without a culture of continuous improvement.

How Deming fits into the Picture

- Deming's 14 points and PDCA are built upon respect for employees and the recognition that most issues are system related
- Deming's approach requires active leadership to more fully integrate safety into the day-to-day operation of the business
    - Safety becomes a strong value in the overall organization culture, not a safety culture
- Operational performance, quality and safety are all driven by the same tools and philosophies, e.g.
    - Getting to "zero defects" requires the same thinking and many of the same tools required for "zero injuries and illnesses"

The Marriage of Deming and Safety

Safety combined with lean offers tactical tools / processes enabling implementation of Deming's 14 Points and **PDCA** throughout all levels of any organization.

- Deming has been criticized for putting forward a set of goals without providing any tools for managers to use to reach those goals. His typical response to this question was, "You're the manager… you figure it out."
- Lean and safety are typically focused on workers. However, to lead culture change for sustainable growth, it is necessary for leaders and all management and staff to first "practice what they preach."
    - Lean tools such as 5S, 5why problem solving, one page reports, value stream mapping, and knowledge folders are but a few of the tools that should be employed by management on a daily basis
    - The continued used of lean tools is a process of 'acting your way to a new way of thinking.' These tools help to identify and eliminate the seven forms of lean waste, 1) Correction, 2) Over-production, 3) Motion, 4) Material movement, 5) Waiting, 6) Inventory, 7) Process.
        - Continuous improvement thinking becomes the enabler for eliminating safety and environmental wastes.
- The marriage of safety and lean allows the practical application of safety fully integrated with continuous improvement efforts in daily work.
    - Safety is first married with lean to establish a culture of "I care"
    - Environmental issues are a natural follow-up with safety issues

Benefits of Integrating Lean and Safety with PDCA

- An organization that safely produces quality services/products that are faster, better and less expensive to the customer
- A culture of teamwork that strives for continuous improvement by the identification and elimination of waste, including injury and illness
- Respect for employees leads to employees "wanting to" be safe rather than "having to" be safe.
- Identifying air, water, solid and energy wastes is added to the mix of the organization's DNA, driving both continuous improvement and sustainable growth.

Conclusions

- Sustainability is a complex, board-level issue, of which safety is only a minimal part
- Sustainable growth demands a culture of continuous improvement
- Using lean tools in office and business systems drives continuous improvement in the overall business and becomes the enabler for improving safety and environmental performance.