ECO LEAN SIGMA © WORKSHOP FOR PREOCUPPIED PROFESSIONALS

OVERVIEW

How does environment considerations fit with business objectives such as profitability, growth, cost reduction. The common approaches suggest handling environmental consideration as special projects. We often hear that ISO14000 (environmental management) requires an independent approach from other Quality Systems and standards. Artificial Intelligence and Machine Learning is sometimes presented as silver bullet, without giving rational and perspective

The proposed workshop will establish a clear relationship between environmental excellence goals, business goals, and improvement initiatives. This workshop aims at being resource and cost efficient, whilst integrating environmental improvement in the organization's roadmap.

Practical tools and quantification techniques will be presented and experimented. Diagnosis tools and analytical techniques will be explored between the 8 wastes, variation, and key environmental preoccupations such as plastic waste, energy, transport, travel.

The bridge between ISO14000 and other standards such as ISO9000 will be explained. An overview of Canadian Environment Laws will also be presented.

The Objective is to provide answer to these contemporary questions

- How do I as a professional help my business reach its environmental management objectives

- How can I integrate the environmental dimension in business planning and improvement planning in a logical and compelling way?

- How can I establish a bridge between reducing variation and the 8 wastes and environmental impact?

- What advantages do AI and Machine Learning provide in achieving this impact.

At the end of the 3-day workshop, participants will receive an Eco Lean Sigma © Practitioner Certificate

THE AGENDA

DAY 1

1. **Setting the stage**
    -   Compelling and accurate numbers and trends for the World and focusing on Canada and the USA will be presented. Industry and society examples will be shared
    -   Sharing on overall impact and additional elements

2. **Overview of standards and laws**
    -   Canadian environmental laws
    -   Carbon tax regulations
    -   Opportunities and limitations
    -   ISO 14000 and ISO 9000
    -   Reflection – impact on businesses

3. **Waste and environmental impacts**
    -   The link between the 8 wastes and variation will be made explicit through examples
    -   Examples of quantification will be presented
    -   Quantification and qualification planning will be done in small groups

4. **Improvement planning**
    -   An approach in terms of integrating Environment in business planning and in the Lean Six Sigma RDMAIC methodology (Recognize Define Measure Analyze Improve Control) will be proposed
    -   Presentation of the overall roadmap
    -   Strategy deployment tool – Hoshin Kanri exercise

DAY 2

5. **Recognize**
   - Assessment methodology: environmental and waste drivers
   - Environmental audit and high-level quantification checklist

6. **Define**
   - Environmental goals translation to business goals
   - Writing a project mission statement

7. **Measure**
   - Presentation of assessment tools and models
     i. Energy
     ii. Office wastes
     iii. Industrial wastes
     iv. Travel and motion
     v. Assessment exercises
     vi. ESM: Eco Stream Mapping tool: funnels through a value stream map with a time line for energy , transport, waste

DAY 3

8. **Analyze**
   - Visualization of the opportunities
   - Prioritization

9. **Improve**
   - Strategies and examples per industry
   - Transport, motion
   - Paper
   - Energy
   - Etc
   - Circular economy and European examples
       i. Reuse
       ii. Remanufacturing
       iii. Refurbish
       iv. Recycling

10. **Control**
   - Setting indicators and control points
   - Continuous reduction
   - Current and future roles of Artificial Intelligence and Machine Learning

11. **Final case study**
   - Putting in practice the 3 day learning
   - Diagnosis and action planning