Earn your money on the green economy

Use Lean Six Sigma for Continuous sustainability

Climate Change Poses Significant Financial Risks

Climate change presents serious financial risks to the global economy. Financial markets require clear, comprehensive, and high-quality information on the impacts of climate change - including the risks and opportunities presented by rising temperatures, climate-related policies, and emerging sustainable technologies.

Three Key Reasons for Sustainable Disclosure

1. **Risk Assessment:** Evaluate climate-related risks to your company, its suppliers, and competitors more effectively**.**
2. **Capital Allocation:** Make better-informed decisions on where and when to allocate capital.
3. **Strategic Planning:** Improve evaluation of short, medium, and long-term risks and exposures.

Climate Change Mitigation Requires Action

Climate change mitigation means taking action to change the way we operate. As measurement and reporting on sustainability improves, a continuous improvement process will be needed to meet our commitments to sustainability goals.

Comparing Global and Kuwaiti Data

The author emphasizes the urgent need to address these issues now, highlighting the importance of comparing global data to the Kuwaiti context.

Driving Profits through Sustainability

One way to turn the needed changes into profits is to build a Lean Six Sigma culture focused on sustainability aims. This can help drive efficiency and innovation in the transition to a more sustainable economy.

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What is Six Sigma?

A business philosophy to enable Culture Change

A systematic Process/Methodology for improvement

A standard Measure of Performance

A series of Questions and Prompts

A collection of Supporting Tools & Techniques

A catalyst for Project Management & Change Effort

Whatever we use the Lean Six Sigma methodology for; it always come down to:

Earning money for the Business and the Customer.

Lean Six Sigma is the key to make your process in earning money more robust.
Eliminate the errors which occur, optimize the way we work, minimize losses by standardize the most profitable way.

It focus on making the customers paying for our product again and again and again.

VS.

Simplified Business Model

Determining Customer Wants/Needs

METRICS: $ δ

Developing Products and Services

METRICS: $ δ

Delivering Products and Services

METRICS: $ δ

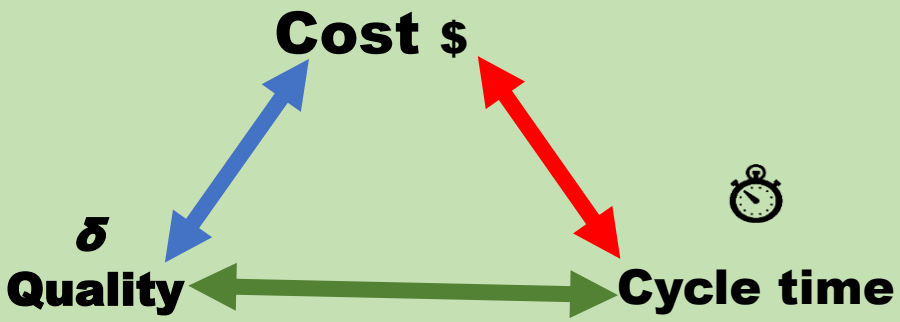
The goal is

Basic Six Sigma Principles

- Cost – Quality, Cycle Time

  You earn money when you have it **all.**

  Losing on one of then, you lose it **all.**



The usability of Six Sigma.

Seeing “how much” monetary, is a driving factor in Lean Six Sigma.

The balance between optimize earning vs. wasting money, Lean Six Sigma is just as applicable in the finance sector as in the production industry.

Whether you are in a finance house, bank or in the finance department of a bigger firm, every error has an economic consequence.

The customer want security for the trust of their money, is handled with minimum of risk, and with an optimized earning.

The difference in using Lean Six Sigma for the finance sector from the production industry is the way we define the project.

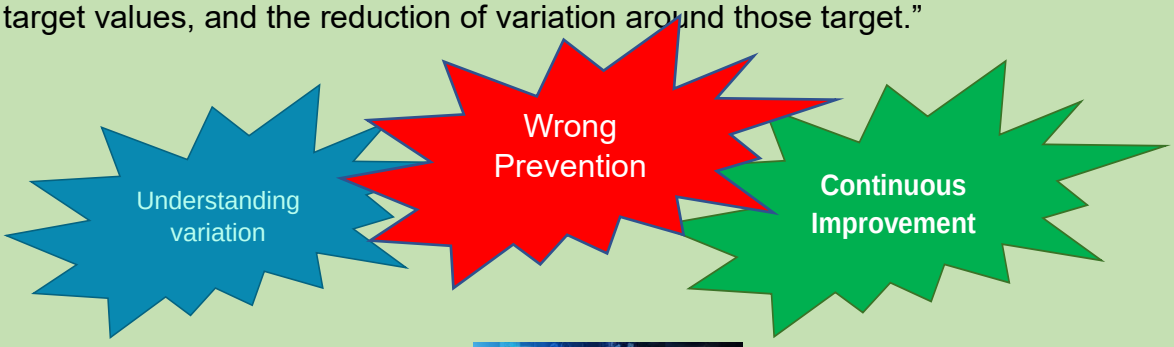
The measures are different, from industry to industry, but it comes down to identify the paraments which we are using to control the processes and the influences which affect these processes.

When we control the influences, we can optimize our earning, optimize the customers satisfaction and our business value.

Six Sigma Philosophy

"Six Sigma is a philosophy of doing business (providing any product or service) encompassing the methodologies of continuous improvement and **wrong doing prevention** rather that **wrong doing detection.**

Continuous improvement is an ongoing struggle to move products and processes to optimal target values, and the reduction of variation around those target."



What is Lean? Lean system displays the following characteristics:

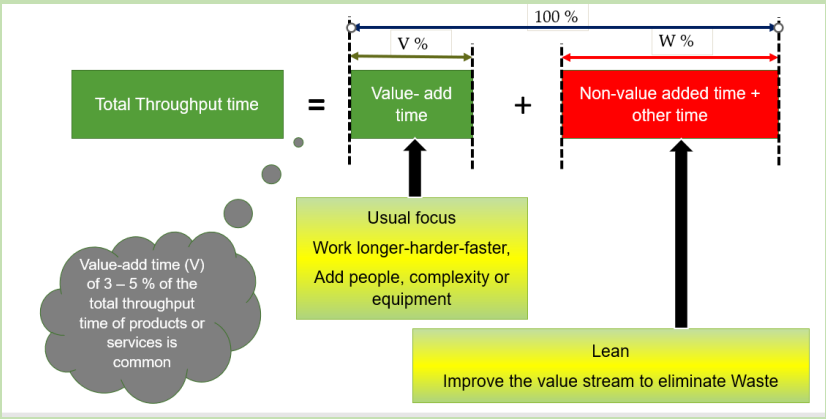
- **The elimination of non-value adding activities (working TIME)**
- **Only producing what is required and when it's required, (make the food you can eat, only)**
- **Close links in the value chain including supply chain inputs (JIT) comprehensive management.**
- **Doing things right first time (make it a way we treat each other.**
- **Ensuring processes are robust**

- Many of the techniques which we will discuss are simple and common sense, in other worlds "The right thing to do"
- In practice however only a very few companies around the world have achieved truly best practice World-class lean standards.
- Lean was originally associated with volume manufacturing because it evolved within the auto industry. However, the concepts are now being applied in other environments such as make order, banking, retail, engineering, most important it apply to social and government aspects equally...

What is Lean Thinking and the Lean Mindset?

- This is the most difficult area to define because it relates to how well management truly understand and support the principles of a transformation towards lean operation standards and the elimination of the waste.
- Learning from change management philosophy, will help us on the way
- Many managers fail to support employees and the organization during the critical change period because they cannot understand the objectives being pursued or become nervous of the risk.
- Learning from change management philosophy, will help us on the way
- In most case-studies it has been found that when a company is taken over by a Japanese owner, Lean transformations run smoothly and outcomes are successful. This is because the new senior team are highly skilled in these areas and they share the same development objectives.
- Learning from change management philosophy, will help us on the way

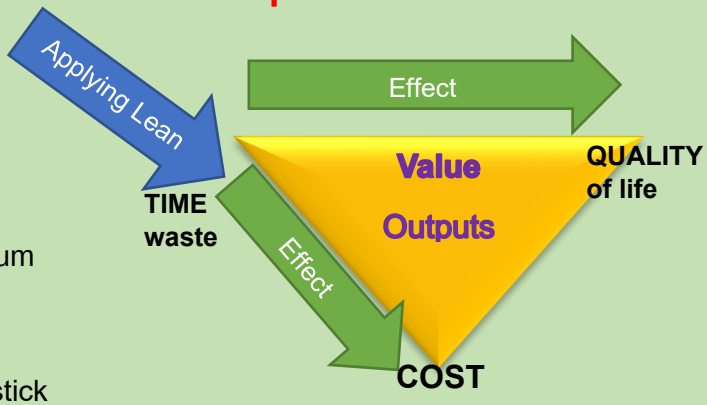
Removing Waste with a focus on Gaps and Delays (time)



How is Lean associated to Environmental Improvement?

Lean concept

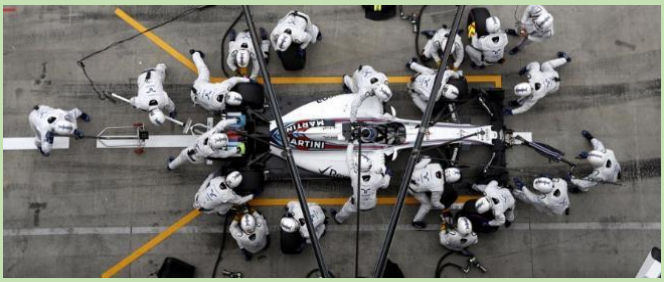
- Standardized work – same each tine
- Waste elimination
- Parallel processing 5 cells plus coordinator
- Layout – cells, minimize motion
- Batch reduction – single piece
- Quick changeover – maximum preparation, minimum car in pit
- Live balancing – each parallel activity takes approximately same time
- Visual management – hand signals, lollipop ‘stop stick
- 5 Cs – everything in right place at right time
- Error proofing



Ill-managed waste handling is a society health risk

An example of Lean

- Lean concept aims to identify and remove “waste”
- When waste in terms of time, material and cost are removed from the value streams there is more resources ad capability to deliver on time and on quality of life. Improve health and safety
- Central to Learn is the linking of processes to society demand hence central to Lean is “on time”, the clock is ticking, our climate needs help
- Waste removal usually also contributes to variation reduction within the process as it becomes more robust, hence, “on Quality of life”. We are all part of our landfills rapidly growth.



Fast and efficient or you lose !

Six Sigma vs. Lean Characteristics

Six Sigma

- Remove variation from the processes
- Design more capable processes
- Research projects (3 – 4 months)
- Focus on parts

- High complexity
- Unknown Root Cause
- Good Data available

Lean

- Remove waste, rework, and inventory
- Improve flow, velocity
- Immediate results (1- 2 weeks)
- Focus on system

- Low complexity
- Known solution

Six Sigma vs. Lean Tools and Approaches

Six Sigma

- ➢ DMAIC
- ➢ Design for Six Sigma
- ➢ Design of Experiments

Lean

- ☑ Value stream mapping
- ☑ KAIZEN Events
- ☑ 5 S

Common tools

- ❖ Process mapping
- ❖ Statistical Process Control
- ❖ Root cause analysis
- ❖ 1st time Quality
- ❖ Customer focus

Iterations ill-works

- Iterations are always bad in bad conduct
- Iterations are inherent in the way of life
    - Learning
- Iterations due to rework are waste resources
- Design rework in waste handling is very costly waste
- Often due to poor understanding of process capability and/or variation
    - Variation due to unpredictable results

Lean thinking may lead to Six Sigma projects
It is imbedded in sustainability

Practical

- This 8 days training course is split the 3+2+3 working days over 3 or 4 weeks, giving the attends the possibility to evaluate the new learned tools in their own daily process.
- Thereby relate training to work before the last more specialized tools are introduced.
- The training is based on the attendances own process, there daily work. Theory deployed in practice.

Your work - Your training - Your benefit.

Who should attend:

- Lean Six Sigma can improve all processes from finance to production floor process, and facility management as the facility management has the direct touch with the company's environmental performance.
- This course is aiming on the corporate training program, gathering cross functional and cross geographical participants, learning from our colleagues is key.
- All financial benefit is crated in the production. Hence, production supervisors and key production personal will have highest ROI of attending. - Max 16 attendance per class

Venue:

- Depending on the agreed number training courses, this can be held central in the HQ training facilities or at country / factory facilities.

Post training:

- Mentoring of Lean Six Sigma projects, the attendance will automatically initiate LSS projects.
- Specialized training in local solid waste management.
- Specialized training in local water & waste water management,
- Specialized training in specific air pollutions mitigation

CONTINUOUS IMPROVEMENTS IN SUSTAIABILITY

Lecture plan:

Day 1

Welcome
LSS philosophy and history
Six Sigma usability
Define Phase
Thought map - affinity diagram
Stakeholder identification
SIPOC - in General
Voice of the customer

Day 2

Good morning: recap Q&A
Voice of the customer
Critical to Quality
Critical to Business
Scoping the problem: 'Is/Is not' Analysis
Project Charter
Measure Phase
Process mapping Detail
SiPoC

Day 3

Good morning: recap Q&A
Value Stream Mapping
Process metrics
Key Characteristics
Measurement System Evaluation
CTQ analysis
Data Collection Plan

Day 4

Good morning: recap Q&A
Analyze Phase
Process Map ICOR
8 D analysis reporting
Pareto distribution
Cause & Effect Matrix
5 Why analysis
FMEA Part 1
Improve Phase

Day 5

Good morning: recap Q&A
Problem solving
Break down tree
Sequencing
Prioritization Matrix
Solution thinking
Control Phase
Process & Capability Analysis
Control Charts
Control Plan
Tools: 5 S'

Day 6

Good morning: recap Q&A
The Criteria for a 'DMAIC' Project
Hypothesis test
ANOVA analyzes

Day 7

Good morning: recap Q&A
Failure Mode and Effect Analysis (FMEA) Part 2
Change management
LEAN Control Tool The Kanban structure

Day 8

Good morning: recap Q&A
Scorecard
LEAN Control tool: Error proofing
Sustainability Function Deployment and DoE
Course evaluation