

**LEAN PROJECT MANAGEMENT & LEAN CONSTRUCTION MANAGEMENT  
FOR TOP MANAGERS  
18-20-22 July 2011 – Malta Enterprise – San Gwann - Malta  
COURSE TIMETABLE**

**DAY 1**

- “Traditional” **Project Management**. Comprehensive overview of basics concepts and core principles:
  - What is a Project . The 3 core parameters of a project
  - The integration of Planning and Control
  - The role of the Project Manager
  - Symptoms of Projects lacking adequate Management and likely causes
  - The traditional “matrix” organisational structure in projects
  - The traditional organisation of Project Teams
  - The main Project actors: Proposal Manager, Project Manager, Project Engineer, Project Controller, Contract Manager, Site Manager, Site Foreman, etc.
  - The “flexibility” factor – Responsibilities: integration vs. distribution
  - Planning, Scheduling, Controlling Projects
  - Why Planning – how to plan a project
  - The traditional PBS (Project Breakdown Structure)
  - PERT and CPM - basics
  - The Project Program – Gantt (Bar) Diagram
  - Project Risk Management
  - Project Cost Control - Project Financial Control (basics)
  - Resources Management – Site and Sub-Contractors Management
- Analysis of the weaknesses and failures in Traditional Project Management: why many private project-driven enterprises and public/semi-public organisations don’t “perform”? The root causes of poor performance date back to over 2 centuries ago. We have gone into the 21<sup>st</sup> century, with enterprises designed in the 18<sup>th</sup> and 19<sup>th</sup> centuries to perform well in the 20<sup>th</sup>.... Is our *Industrial DNA* still polluted by those obsolete principles that gave birth to the first Industrial Revolution? Case studies.
- ....then, the world changed.... the **scenario** - the environmental change must be understood and managed effectively.
- Today’s key to *World-Class Performance* in all Industrial Sectors: **Lean Thinking**.
- The origins of *Lean Thinking* - 1. **Remember!** Irrespective of whether you fish it, you farm it, you breed it, you mine it, you manufacture it, you mill it, you brew it, you construct it, you simply sell it, or you dance it or sing it.... no matter what you do – *you must generate value for your customers!*
- The origins of *Lean Thinking* - 2. **Remember!** Everyone that works in your organization is doing one of three things: **a)** They are generating value for your customers – or, **b)** They are creating or reshuffling waste – or, **c)** They are doing absolutely nothing! *The market leaders will always have the majority of their people dedicated to the first of these.*  
The 5 Core Concepts of *Lean Thinking*: 1) **Value** (as defined/perceivable by the customer) 2) **Value Stream** (the way Value is produced and delivered) 3) **Flow** (internal: Organisation-side, and external: Customer-side) 4) **Pull** (the *Value Stream* must flow pulled by the Market) 5) **Excellence** (the continuous improvement of a *Lean Organisation*)
- The integration of the **Value Adding Management** discipline with traditional Project Management - impact and implications. *Value Adding Management* in Industry: the pilot light and driving philosophy for the new millennium. Focusing on processes to maximise *value* and eliminate *waste*. Today’s relationship between *value*, *productivity*, and *quality*. How to “re-engineer” a project-driven organisation for generating high levels of output *value*.
- The origins of *Lean Thinking*: **Lean Manufacturing** and **Flow Production** - The “lot” issue in Manufacturing. The **small-lot** production systems: the smaller the lot, the less the waste! Case study: *One-Piece Flow* vs. *Batch Production*

**DAY 2**

- The conversion of *Lean Manufacturing* principles for deployment in Engineering and Construction works. The implementation of the *one-piece-flow* principles in the Project-Driven/Construction Industries. The result: **Lean Project Management** and **Lean Construction Management**.
- What is a *Lean Project* and *Lean Project Management*. Where does waste hide in traditional projects - how to identify it - how to reduce it drastically. How to plan project’s processes for lean implementation - the role of creativity in planning - *flow project processes*.
- *Lean Project Management* and the old and new **tools** for seeing and eliminating waste: Time Observation – loading Bar Charts - the 5W2H approach – the 5Why method – the TAKT-time principle – Communication Circles – Process and Value Stream Mapping – Spaghetti Diagram – Flow Charting. Practical exercising and case studies. The core tool: Creative Thinking.
- The secret of **Lean Project Management: Lean Planning** - workshop and case studies. The concept of the **Last Planner**: how to eliminate all waste in Project/Contract works.
- How to conceive “*realistic assignments*” – how to plan them – how to assure a high PPC (Percent Plan Complete) – how to improve the PPC even further.

- *Lean Project Management* in multi-projects situations: the TOC (*Theory of Constraints*) approach to *Lean* management of several projects at once. Workshop. Identifying the “*critical chain*” – introducing “*buffers*” – identifying the “*drum resource*”. The final results: all projects early instead of all projects late!
- *Lean Project Management* in Engineering, Design and Architectural works – practical principles for Engineers, Architects\_ and Project Management Companies.

### **DAY 3**

- *Lean Project Management* in the Public Sector – practical principles and case studies.
- *Lean Project Management* in Developing New Products – the “Concurrent Engineering” against the “over-the-wall” approach.
- *Lean Project Management* in multi-disciplinary “turn-key” projects: the integration of suppliers and sub-contractors in the “*lean value chain*”. The ***Lean Supply Chain***: new horizons for Procurement and Contract Management. *Comakership*: the present and the future.
- ***Lean Project Management*** and ***Quality***: ...eventually, the dust settled. What is ***TQM*** today, what is different from 10 and 15 years ago. Today's core principles of ***Total Quality Management*** in a *Lean Project* environment. The relationship between ***Quality Assurance*** and ***Total Quality Management***. Is the *ISO Quality Assurance* system or similar really beneficial? When should an enterprise go “top-down” *ISO* style, and when should it go “bottom-up”, ***kaizen*** style? Can the 2 approaches be combined? How to harmonise a *Quality Assurance System* to *ISO* standards with a *TQM System* targeting at eliminating all defects and opening the door to lean processes. The “turn-this-board” strategy.
- ***Poka-Yoke*** (mistake-proofing) tools for Lean Construction and ***zero defects*** – workshop.
- *Lean Thinking* vs. ***6-Sigma Methodologies***: case studies. Can the “*Lean*” and the *6-Sigma* approaches be beneficially combined? Can *6-Sigma* be part of a greater approach to Lean Performance Improvement?
- ***Lean Risk Management*** vs. traditional *Risk Management*: the benefits.
- ***Lean Construction Management, Plant and Equipment***. Industrial competitiveness today is based on the motto: “Methods first, then Technology”. What are the modern principles of Plant, Equipment and Machinery Management under the *Lean* angle of view. How to prevent major technological mistakes (the “super-star-galactica” cul-de-sac....). What machines are really suited for “lean construction” and what are not. How to harmonise People and Machines in a productive system geared to produce high levels of *added-value*. How ***TPM - Total Productive Maintenance*** principles can be beneficially deployed not only in the Manufacturing, but also in the Project/Construction Industries. Case studies.
- A world-class project-driven enterprise: case study.
- ***Lean Project Management*** and ***People***. A new breed of people is required in the modern project-driven industry - the “multi-skill” and “multi-function” factors - the “empowerment” factor - self-planning - self-control. Should everybody be a “*last planner*”?
- The demolition of Adam Smith's principles and the ***Second Industrial Revolution*** in the Project-driven Industry.

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