

An Italian Firm's Lean World Class Approach

Giovanni Casarini



1. Lean Thinking means creating value by avoiding waste. This may sound just like a slogan, but, indeed, it represents a different way of considering any organisation, a complete re-thinking of the entire value creation stream, from initial product design to the final delivery, passing through orders management. It can be as successfully applied in the shop floor as in offices.

Lean Thinking is the result of years of experience, starting in Japan, then finding further development in the USA and a solid successful life in the rest of the world.

The basic principles behind the Lean Thinking concept are not new. The core concept can be considered as a development and improvement of earlier organisational models (i.e. Total

Quality, Process re-engineering, etc.) in terms of systematic and integrated approach.

The term “lean” stresses the idea of reducing the usage of any company resource, not just raw material as in all traditional Japanese production methods, but also human labor, thanks to a re-design of the whole organisation.

The Lean Thinking approach is based on **5+1 principles** to achieve a **continuous flow** of activities without stops, waiting and reworks. **(Fig. 1)**

The first principle is to **identify the value**. The value is what the customer is ready to pay for, in terms of a product/service capable of satisfying customer requirements at a given price and time. Identifying the value allows

detection of waste that anyone in the organisation should avoid. Cases of clear wastage are not only common but even tolerated when indeed not overlooked at all. One of the first lessons of lean thinking is learning to see.

The second principle is to **identify the value stream flow**. After having defined value, the second step is to understand how it is generated along the path of transformation. A product or service value stream is the overall set of activities required for turning primary resources (materials, knowledge...) into the fully processed finished good or service.

The third principle is to **streamline the flow**. Once value has been accurately defined and the value stream for a given product family has been

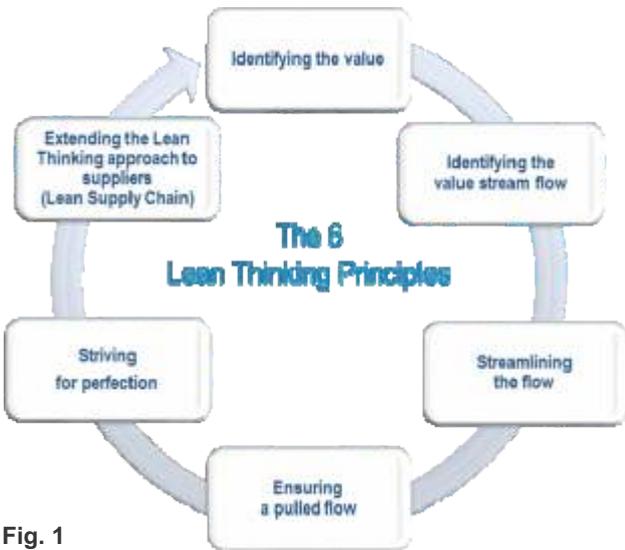


Fig. 1

properly identified in order to reject “value-degenerating” activities, the next step is to ensure that the remaining value-generating activities run smoothly and continuously.

The fourth principle is to **ensure a pulled flow**. At this point, the time has come to allow the customer to start pulling the process. Essentially, it means doing what the customer wants when the customer wants it. The organisation does not push unwanted products on the customer.

The fifth principle is to **strive for perfection**. Even if the company reaches a great performing level, it can not stop looking for better solutions, as the world moves on and the

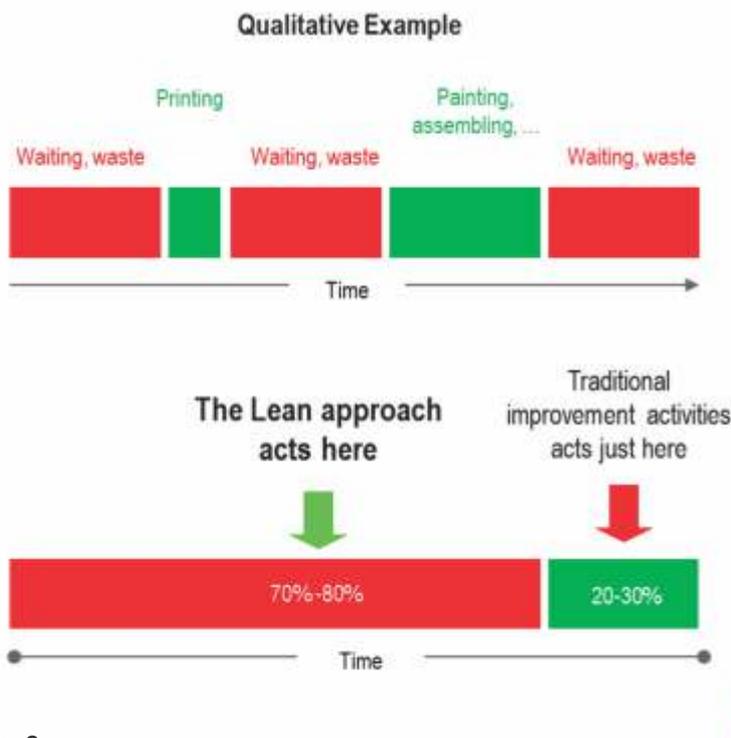
environment (competitors, market needs and tastes...) is always changing!

Even if it is not usually mentioned in lean thinking literature, based on our experience we can say that the sixth lean principle is to **extend the lean approach to the supply chain**, once the company is effectively running according to the first five principles. (Fig.2)

2. Lean World Class®

The **Lean World Class®**, developed by **Bonfiglioli Consulting**, represents the next step of the Lean Thinking approach, combining the up-to-date WCM (World Class Manufacturing) concepts along with Cost Deployment (CD) and People Development (PD) pillars. Cost Deployment pillar prioritises the decision-making processes towards improvements based on their financial returns, and the People Development (PD) pillar drives the change through HR training programs.

The **Cost Deployment** pillar strives for the full understanding of real manufacturing and non-manufacturing costs (in detail for process/equipment), including costs linked to the environment such as energy consuming, waste sorting, pollution levels and safety, in order to fully identify and review all losses. Firstly, the Cost Deployment approach defines the **relationship** between cost factors, the process generating them, and the type of waste and losses. Secondly, it detects the **connection** between waste and losses (causal vs consequential). Thirdly, it prioritises the **improvement plans to be implemented** on the basis of a Benefit/Cost Analysis and ICS. This is a key difference from the Lean approach,



The Lean approach leads to simplified processes, reducing Lead Times and improving customer service, by focusing on the most relevant waste: Non Added Value Time

Fig. 2



(Fig. 3)

which focuses on streamlining all processes by banishing all Non Value Adding Activities without any direct attention to financial returns.

The other key pillar of this approach is **People Development**. It focuses on people, the **key success factor to enduring change**. In the Lean approach, changes are driven by early successes, without any real transformation in the people's mindset. On the other hand, the People Development pillar strives for a deep change in people's mindset, thanks to highly customised training paths based on individual needs, and most of all on overall organisation growth.

Lean World Class® boosts the manufacturing capacities and capabilities and develops the needed resources.

The final remark on the Lean World Class® approach is that it maintains all Lean Thinking strengths (i.e. quick interventions with a hands-on approach) adding the two above-mentioned key pillars. This allows overcoming the weaknesses of the World Class Manufacturing methodology such as success only in big organisations.

Achieving Lean World Class® level is not just for major organisations: Bonfiglioli Consulting believes medium-size companies too can achieve such results.

Example of Lean World Class® implementation plan (Fig. 3)

Case Studies

1. Leading worldwide group in tissue manufacturing

Goals

- Definition of a Corporate Operational Model
- Increase in productivity
- Decrease in scraps and reworks

Intervention

- Model "Bricks":
- Total Productive Maintenance
- Lean tools and techniques implementation on

bottlenecks

- SMED: quick changeovers on bottlenecks
- Shopfloor Management
- Planning of improvement roadmaps in all group sites (23)
- Definition of an internal team for continuous improvements
- People development
- Setting internationally recognised KPIs to be able to measure processes quantity (OEE) and quality (FTT) and overall Plants performances

Achieved Results

- Increase in productivity by 15% per plant
- Decrease in changeover by 40%
- 0.6 million € saving on two pilot plants
- The roll-out of the plan to other 8 plants at European level is ongoing

2. Leading worldwide company in fashion eyewear

Goals:

- Decrease in Time-to-Market product development
- Decrease in Lead Time in manufacturing process
- On-Time-Delivery Improvement
- Decrease in Product Costs
- Implementing the new organisational model in the new ERP system

Intervention:

- Preliminary analysis and focused training on Lean World Class® principles
- Lean Product Development implementation
- Lean Manufacturing implementation
- Pillar Quality implementation
- People Development Pillar implementation
- S&OP (Sales and Operations Planning) model implementation
- Integration of the new organisational model with new ERP

Achieved results (intervention still ongoing)

- Decrease in new product development Time to Market: -15% with OTD >75%
- Decrease in Lead Time in manufacturing process: -57%
- Decrease in non-quality costs: -21%
- 33% of the space recovered, with launch of the production



- line
- New ERP successfully launched on revised processes
- 3. Leading Contractor in the engineering, project management, manufacturing and installation of architectural envelopes and interior systems

Goals

Manufacturing area

- Decrease in manufacturing costs
- Streamlining operations and increase in manufacturing efficiency
- Decrease in stock (focus on WIP among machinery and assembly phases)
- Decrease in lead times
- Decrease and optimisation of occupied spaces

Organisational chart

- New organisational chart (focus on Design, Project Management, Quality and Manufacturing)

Intervention

Soft Aspects

- Training about Lean Thinking approach and the related tools and techniques: 5S, Supermarket Pull System, Supply Assurance and Plant Assessment,...

- Change Management

Hard Aspects

- Lean Production, Lean Supply Chain, TPM
- 5S: workstation organisation
- SCRUM: Visible Planning in manufacturing, job production management

Achieved results

- Launch of a Multi Project Management system to manage job production and available resources
- -11% work content in assembly
- +5% in OEE
- -20% in scraps
- +20% in LQA

*Giovanni Casarini, Senior Consultant-
 Bonfiglioli Consulting Srl
 Email: gcasarini@bcsoa.it*

We request you to send your feedback on this Issue and suggestions for forthcoming issues to :
 Mr. Sudhanwa Kopardekar, Director-MCCIA
 over email : sudhanwak@mcciapune.com, Tel. : 020-25709211 or
 Mr. Pramod Potbhare, Manager-MCCIA
 over email : pramodp@mcciapune.com, Tel. : 020-25709222