



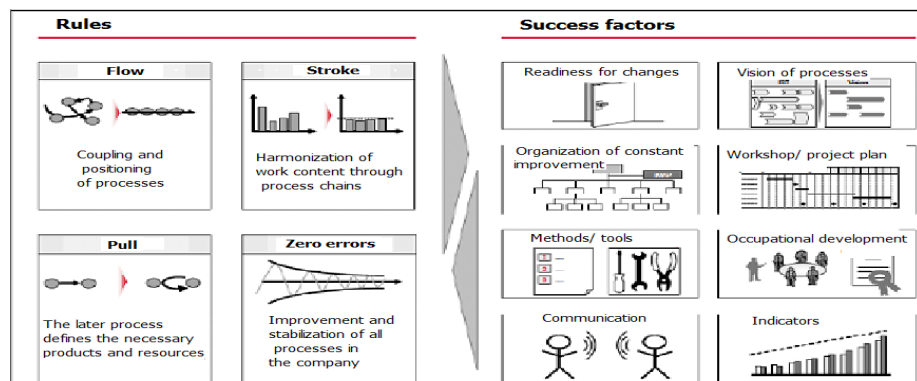
LEAN CONSTRUCTION

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The "lean" terminology is currently used in the context of defined concepts and methods of simple and clear ("lean") organization of processes, which may refer to production, management or administration. It is associated with lean thinking and lean management terminology. Lean management can be divided into lean production, lean development and lean administration. The basis for the modern lean production philosophy is offered by Toyota Production System (TPS). One of the fundamental components of TPS is elimination of waste, which should result in shortening the production cycle, improving production quality, reducing costs and improving mutual coordination and communication between employees.

Lean thinking emerged in those branches of industry which operate on a fixed, regular basis. It shows the way to recognize the value, the continuous performance of tasks that create value always, when there is demand for it, and the fully effective implementation of value. At the core of lean thinking is the concept of elimination of waste from production, management of work deadlines, human resources, construction processes, production means, machines, and equipment and construction materials.



Application of rules and factors that are decisive for successful implementation of lean construction

Partnership



The LEANCO project aims at developing and implementing a new continuing V.E.T. Training Program in LEAN CONSTRUCTION for Professionals from the Construction sector to provide them with the required knowledge and specific skills to apply and implement the Lean Construction approach.

PART 1. CONCEPTUAL LEVEL (30 hours) aiming at providing theoretical and general knowledge about the Lean Construction in order to allow Professionals to know and understand the Lean Construction philosophy and its principles.

- Module 1.1. Lean Principles (6 hours);
- Module 1.2. Systems Thinking (6 hours);
- Module 1.3. Lean Enterprise (6 hours);
- Module 1.4. Lean Management (6 hours);
- Module 1.5. Integration to the Construction Industry (6 hours).

PART 2. OPERATIVE LEVEL (160 hours) aiming at providing the specific skills to master the different tools/methods/techniques related to Lean Construction in order to allow Professionals to apply and implement the principles and practices of the Lean Construction approach within companies of the construction sector. This part will be centered on the main tools, methods, and techniques related to Lean Construction and will be composed of the following modules:

- Module 2.1. Integrated Project Delivery – IPD (30 hours);
- Module 2.2. Value Stream Mapping – VSM (20 hours);
- Module 2.3. Building Information Modeling – BIM (60 hours);
- Module 2.4. Last Planner Simulation – LPS (50 hours).

PART 3. TRANSVERSAL LEVEL (30 hours) aiming at providing complementary training to broad and enhance competences and skills of Professionals:

- Module 3.1 Transversal issues (e.g. Kaizen Lean, 5S, etc.) (30 hours).

PART 4. IMPLEMENTATIVE LEVEL (20 hours) aiming at providing Professionals with methodology to let them transferring and implementing Lean Construction in the context of their companies:

- Module 4.1 Methodology development for Implementation (20 hours).

Regarding the methodology, the LEANCO Training Program – a theoretical-practical training – will be implemented through a mixed format (classroom-based and e-learning sessions), with at least one classroom-based session per module.