

# German Lean Construction Academy

First Specialisation Course  
to become an certified  
Lean Construction Expert  
according to VDI 2553

First international **Lean Construction Expert Course** in South-Africa, Capetown-Waterfront (Marriot Hotel)

- Module 1: 22. - 24. February 2023 (in person)
- Module 2: 15. - 16. May 2023 (online)
- Module 3: 18. - 20. July 2023 (in person, with examination & presentation)

also available:  
**Introduction to LC Methodologies and Practicals such as Takt-Time Planning and the Last Planner® System (LPM)**

22. - 24. February 2023



German Lean Construction Academy  
Official training partner for VDI 2553  
[www.lc-akademie.de/en](http://www.lc-akademie.de/en)

In cooperation with Lean Institute Africa: [www.lean.org.za](http://www.lean.org.za)



# The Objective

## Why to become a Lean Construction Expert?

As a Lean Construction (LC) Expert, you are able to implement and lead different Lean Construction approaches within your own company and project environment. As a result, you'll achieve greater schedule and planning reliability in your projects, you can introduce lean construction methods yourself and have the corresponding methodological and presenting skills. This enables to reduce costs and will increase profitability.

LC-Experts are able to reduce schedule and design collisions and are proficient in various control methods, including the Last Planner® System (LPM), the methodology of Takt-time planning and control, Scrum for design management, and all lean process analysis methods according to VDI 2553. This enables to identify and implement improvement potential in companies and processes. And it is linked to a new mindset of leading projects and teams.

## The Study Framework

The German Lean Construction Academy aims to train individuals in companies to become lean construction experts according to VDI 2553.

The qualification is designed to be taken part-time, with classroom training during 8 days in presense. Method trainings are done on project exercises related to real projects and additional simulations. Each participate will implement at least on LC-steering method in his own project environment.

Course size is limited to a maximum of 15 persons per course.

Each participant receives a certificate of attendance. Upon successful completion of the final examination and presentation, the participant will be awarded with the qualification certificate of being a Lean Construction Expert according to VDI 2553 with the VDI seal of approval.

## The Target Group

- Project managers
- Site management (owners & contractors, planners & contractors)
- Project controller and quantity surveyors
- Consultants, Constructions owners and investors
- People in Lean Construction management positions

German  
Lean Construction  
Academy

The German Lean Construction Academy is the first recognized training partner of the VDI on the subject of Lean Construction (VDI 2553) to be allowed to issue this qualification certificate.

# Content of the Lean Construction Expert specialization:

## Basics of Lean Construction according to VDI 2553 – what is behind?

- Origin, definition and lean principles
- Main elements and method overview of Lean Construction, including KPI-measurement and others, according to VDI 2553

## Project and process analysis - What to do when a project needs significant improvement?

- Training of various methods on quantitation and qualification process analysis with real-case exercises, value stream mapping, overall-project-process-analysis "Multit-Moment-Analysis", GPA, waste walk, HoTT and other process analysis methods according to VDI 2553

## Organization & control - implementing the Last Planner Method correctly

- Basic introduction, simulation application, practical examples
- Implementation options, hardware and software solutions, including software-training and benchmarking
- The role of the facilitator in LPM implementations, training to become an effective presenter and facilitator of LPS-meetings

## CIP: How to really implement continuous improvement in projects and companies

- Training on the 4-step learning method, PDCA, 5W and idea improvement management
- Success factors and implementation approaches of CIP in design and construction projects

## Synergies between BIM, Lean Construction and IPD (Integrated project delivery)

- Commonalities and synergies of both approaches
- Transferability, current limits and practical outlook for practice

## Taking your communication and facilitation skills to a next level:

- The key role of the project moderator
- Individual exercises and feedback to improve communication, facilitation and presenting skills

## Lean methods for managing design phases

- Relationship between lean construction in design and construction
- Harmonization of planning stages, improved interface coordination
- Last planner method applied in design phases
- Scrum and the A3 method in early stages of design processes
- Applying Takt planning for late stages of design planning and coordination as a production processes

## Lean construction in construction execution

- Choosing the right methodological approaches for different project requirements (Scrum, LPS, Takt)
- The Takt principal + Takt control and its implementation in practice
- Lot size optimization and definition of an optimal cycle time ("Takttime")
- Space optimization within construction logistics
- Individual practical transfer of one of the LC-project control methods to your own project environment

## Legal aspects related to lean construction approaches

- Tendering aspects for the contractual fixation of LC methods
- Collaboration contract forms and liability aspects
- IPD - Contract forms and new project management mechanisms for multi-party and partnering contracts

# Course management, professors and trainers

Our lecturers are leading Lean Construction Experts with proven, profound and long-standing industry experience in theory and practice.

**Prof. Dr.-Ing.**

**Alexander Lange**

Course Management, Professor in Construction Management at the University of Karlsruhe, H-KA Germany, many years of specialization in Lean Construction in regard to design, civil engineering and infrastructure projects. Partner and senior consultant of FC Consulting and author of various lean construction books.



**Prof. Dr.-Ing.**

**Michael Bühler**

Professor of Construction Economics at the University of Applied Sciences Constance (Germany), expert in construction economics, infrastructure and construction process management, many years of professional experience at the World Economic Forum and large construction companies.



**Dr. Martin Fiedler**

Senior consultant and coach in national and international Lean Construction projects with special expertise in industrial construction sites, high-rise buildings and civil engineering, publisher of the book „Lean Construction - The Management Manual.“



**Ulrich Eix**

Specialist in Building and Architecture Law (Law Firm LUTZ | ABEL) are integrated into the curriculum on special topics such as legal issues related to Lean Construction or LC software use such as Touchplan and others.



## Creating social added value

The German Lean Construction Academy pursues a social objective: 50% of the organization's profits are donated to the foundation „Kids Island“ for the development of Christian day-care centers for children living in ultra poverty.

(Projects in South Africa and the Philippines)

[www.kids-island.com](http://www.kids-island.com)

## Dates and registration

Further details and information in regard to requirements for registration are available online at:

[www.lc-akademie.de/en](http://www.lc-akademie.de/en)



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VDI