THEORY CHAMPIONSHIP

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INTRODUCTION

A major feature in Lean Construction is it being a theory-based approach to a new understanding of the construction process as a production, and to its management.

Lean Construction understands construction as a complex production where an ad hoc organization delivers value to the client through a flow of transformations.

In this setting the goal for Lean Construction is to establish a project management system that ensures maximum value and minimum waste along with continuous learning and improvement.

The task for the theory championship is to establish a body of knowledge to support the development of methods and practices, and we invite contributions to this new understanding of construction within the areas outlined below.

CONSTRUCTION AS GENERATION OF VALUE

Understanding the concept of value and value generation in temporary production systems and not least understanding value as the client's subjective perception of the product and process quality. Also understanding the role of the client as a representative for a number of different stakeholders with different perceptions of value, is of importance.

CONSTRUCTION AS A TEMPORARY PRODUCTION

A major aspect of the Lean Construction basics is the understanding of construction as a production process, which can not be understood from a transformation point of view only, but where the perception of flow is a guiding principle to management of the production, and elimination of waste. The major flow is the flow of value towards the client, generated through the sequence of transformation, but other flows of importance are the flows of information, materials, equipment and crew, and the more unusual flow of working space during the construction process.

CONSTRUCTION AS A COMPLEX SYSTEM

Opposite to the general understanding of construction as an ordered process and system, which can be executed in accordance with established plans and thus be managed top down, Lean Construction understands construction as a complex and dynamic system, where management must be based on distributed responsibility and plans be based on local condition, and made with a short horizon. The concepts of chaos emergence are very deeply imbedded in the complex systems theory and the nature of chaos and its management in

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construction is therefore of importance, along with the understanding of spontaneous order as an emergent phenomenon.

CONSTRUCTION AS A SOCIAL SYSTEM

Lean Construction also understands construction as a social system, where plans are seen as commitments between the participants. The management of the construction process must reflect this understanding. Cooperation and continuous learning comprising individuals, groups and organizations are important elements as opposite to the usual management by contracts. However, this understanding also opens new questions such as how to manage capital projects executed by individual contractors – often in conflict – as a cooperation and mutual learning process.