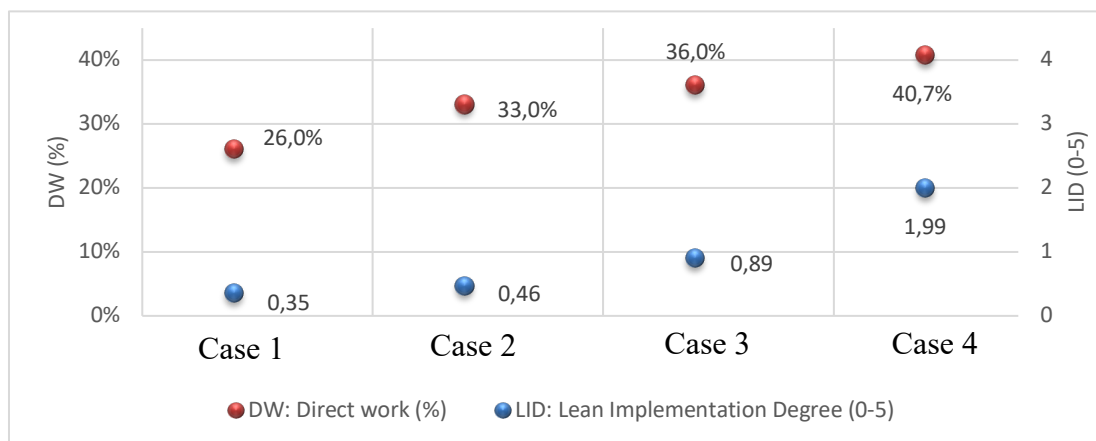


## Lean Implementation Degree's effect on Construction Labour Efficiency

Associated with the **ReVALUE** research project

**Purpose:** Construction Labour Productivity (CLP) and Construction Labour Efficiency (CLE) have been continually declining for four decades (1972-2010) and is positively correlated on activity, project and national (Neve et al., 2020c) & (Farmer, 2016). CLE and hereby CLP has a large impact on construction projects because labour costs constitute 40-60% of the total project costs (Buchan et al., 2006, Kazaz et al., 2008, Smith, 2013). These facts outline the need to develop knowledge on how CLE and hereby CLP can be improved. This proposal for both **R&D projects** and **MSc Thesis projects** aims to explore if the use of lean construction methods has any impact on CLE in construction projects. The aim is to provide in depth findings to both academia and industry on the potential effects lean construction methods have on CLE, and thus also on CLP. We already have conducted 4 cases studies, but more is need to ensure validity.



**Main activities:** Two types of experimental data are need in this study. Measuring DW time by means of Work Sampling studies. This requires typically 1-2 weeks of data collection per case. Secondly assessing the case's LID degree, by means of a survey. The more cases the merrier 😊

We have pre-existing industry collaboration agreements with Enemærke & Petersen, Adserballe & Knudsen and NCC for this proposal. Previous knowledge on Lean Construction would be an advantage, but not a requirement for this proposal.

For more inspiration read the paper Neve et. Al (2021) "*Lean construction methods' impact on construction labour efficiency*". Available upon request.

**Contact person:** Søren Wandahl (swa@eng.au.dk)

**Theory:** ☒☐☐ **Experimental work:** ☒☒☐ **Statistical Analysis:** ☒☐☐

**Suitable project type(s):** **Research & Development:** ☒ **Master thesis:** ☒