

TOWARDS A RESILIENT AND LEAN HEALTHCARE

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1 SUMMARY OF THE PROPOSAL

Although lean production is mostly known for its applications in the manufacturing industry, it has increasingly spread to a number of other sectors, including the so-called complex socio-technical systems (CSSs), such as healthcare. In fact, a number of lean principles and practices are in line with the premises of resilience engineering (RE) and complexity theory, such as the encouragement for understanding work-as-done and giving visibility to processes and outcomes. Some possible conflicting areas between both paradigms also exist, since lean is mostly focused on increasing efficiency while RE usually stresses safety. In particular, ill-thought-out lean implementations can disregard the value of slack as a resource for dealing with unexpected situations that are typical of CSSs. This drawback may be due to both the lack of an assessment of the wider impacts of lean interventions as well as a narrow view of what counts as slack – indeed, slack may take many forms, such as time, materials, redundant equipment, and cognitive diversity. Therefore, lean and RE have practical and theoretical relevance to each other, and due to this fact the proposed workshop aims at the discussion of synergies and pitfalls of using both together, emphasizing the context of healthcare.

In principle, it is suggested a 2-hour workshop, involving: (i) an introductory 10 minute presentation addressing the main relationships between lean and RE; (ii) two 15 minute presentations concerned with the use of the Functional Resonance Analysis Method (FRAM) for assessing the solutions proposed by lean in hospitals in Brazil and Denmark – these presentations will be made by the organizers of the workshop, and one of them was submitted as a book chapter for the upcoming new book of the Resilient Health Care Network (please see this chapter attached to the present submission); (iii) presentations of regular papers submitted to the conference and linked with the topic of the workshop; and (iv) discussion and identification of opportunities for research and collaboration. The minutes of the workshop will be recorded and sent to all participants after the symposium.

2 RELEVANCE FOR SYMPOSIUM

The topic of this workshop is strongly related to the theme of the conference, since lean production can have an ambiguous role in dealing with the unexpected. On the one hand, as lean eliminates unnecessary complexity by reducing waste and creating flow, it frees up resources that can be useful to deal with unexpected demands. On the other hand, if slack is reduced too much, the CSS can be vulnerable to both expected and unexpected variability. In addition to this, the topic is relevant because lean practices can be re-interpreted in the same way RE researchers have made with some safety management practices, giving rise to innovative tools for the management of resilience. The workshop will be designed in order to be attractive to both academics and practitioners, as at least the presentations made by the organizers will involve a mix of real examples of lean in healthcare analyzed from a RE view. Of course, previous basic knowledge of lean and RE (especially the FRAM) is highly desirable for those attending the workshop.

3 SIGNIFICANCE/TAKEAWAY

It is expected that participants obtain practical and theoretical insights into how lean and RE relate to each other, going beyond stereotyped views. Innovative research opportunities are also expected to be identified from the workshop.