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<p><b>Abstract</b></p> <p>The subject of the thesis was to design and implement a Lean-operating model for a case Company, which operates in oil and gas industry. The case Company is a start-up company, which develops industrial process monitoring solutions based on non-nuclear tomographic imaging. Case Company´s target is to grow in the future and the need for the development of operations was observed. Lean is a systematic method, originating from Toyota car industry, for the elimination of waste within a manufacturing system. Lean also means that the company is focusing on things that add value to the customer. The main target of this thesis was to develop the case Company´s operations more streamlined and systematic, to obtain right quality by focusing on value adding activities and achieve better effectiveness by shortening lead-times. The goals of this thesis were also to rethink and develop new process descriptions to the purchasing and to the order-supply chain process.</p> <p>The study started in the case Company´s laboratory. The objective of the arrangement was a smoother workflow in the laboratory. Arrangements were executed according to the lean 6s-method. By drawing new process descriptions, gain was to standardize case Company's operations. As a result, four different processes were found in the case Company. Target was also to control and manage projects and activities more effectively. The case Company introduced a Jira-based software system to manage its operations. The system is based on agile production and methodology. It was also perceived that production volumes were increasing in the Case Company and there was a vision that it would be profitable to concentrate on the core business in the future. Therefore, case Company executed outsourcing of production. By the outsourcing procedure, number of advantages were achieved, when resources were released to more value adding activities. To support purchasing, a process was built a diagram and practices. Target was also to create the philosophy of continuous improvement. Continuous improvement started by the assessment of competences and training plan. The case Company also began to collect development ideas and document them systematically to implement continuous improvement.</p> <p>Implementing Lean operation model was very useful for the case Company. By these actions, the case Company got rid of most losses both in laboratory and production. Case Company`s operations were analyzed, and more efficient ways of working was developed. Implementing Lean operation model to Case Company was also noticed from the perspective of stakeholders. The case Company received positive feedback on its activities from investors, suppliers and customers. Lean-philosophy is, above all, continuous improvement. Therefore, the development of activities will continue also in the future. By this thesis, the development of operations was a good start. Also the background for the case Company's growth was in place.</p>			
<p><b>Keywords</b></p> <p>Lean operating model, lean history, wastes, 6s, outsourcing, agile principles, scrum, purchasing, continuous development, project management</p>			