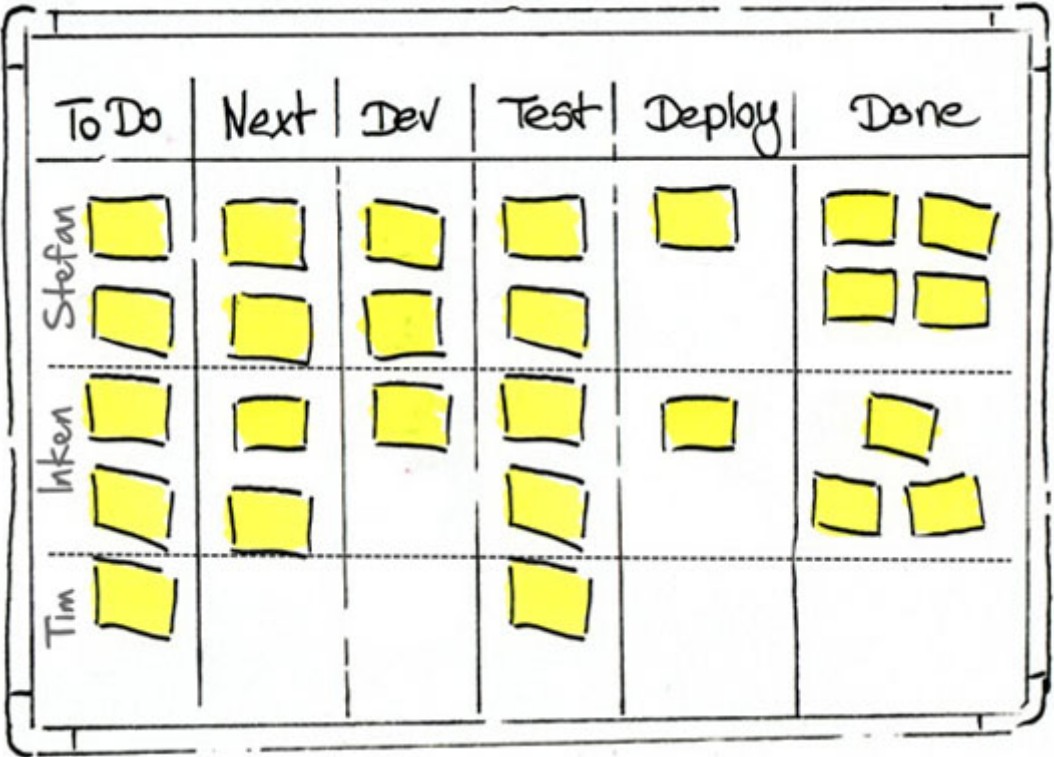


# Customized Lean Methods

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Abstract	Kanban system is an inventory stock control system that trigger signal for production of product based on actual customer requirement. Work items are visualized to give participants a view of progress and process, from start to finish usually via a Kanban board. Work is pulled as capacity permits, rather than work being pushed into the process when requested.
Keywords	Kanban
Challenge	<p>There are ten important problems that Kanban helps to solve:</p> <ol style="list-style-type: none"> <li>1. Lack of organisation</li> <li>2. Missed deadlines</li> <li>3. Communication slip-ups</li> <li>4. Overwhelmed with information</li> <li>5. Status information</li> <li>6. Inconsistency</li> <li>7. Not agile</li> <li>8. Limited access</li> <li>9. Rigid layout</li> <li>10. Productivity</li> </ol> <p>Visualize the workflow for all participants after splitting processes in parts. With the help of kanban boards the stations of a process can be visualized. Each board has a specific capacity. Therefore only a specific number of task can be done simultaneously. The tasks, features, user and stories of a process can be written on a kanban card. A single card is moving between the different kanban boards. This creates a pull-system, where a station picks up work from another station.</p>  <p>The diagram shows a Kanban board with the following structure:</p> <ul style="list-style-type: none"> <li><b>Columns (Stages):</b> To Do, Next, Dev, Test, Deploy, Done.</li> <li><b>Rows (Users):</b> Stefan, Inken, Tim.</li> <li><b>Work Items (Yellow Cards):</b> <ul style="list-style-type: none"> <li><b>Stefan:</b> 2 cards in 'To Do', 2 in 'Next', 2 in 'Dev', 2 in 'Test', 1 in 'Deploy', 4 in 'Done'.</li> <li><b>Inken:</b> 2 cards in 'To Do', 2 in 'Next', 1 in 'Dev', 2 in 'Test', 1 in 'Deploy', 3 in 'Done'.</li> <li><b>Tim:</b> 1 card in 'To Do', 0 in 'Next', 0 in 'Dev', 1 in 'Test', 0 in 'Deploy', 0 in 'Done'.</li> </ul> </li> </ul>
Target condition	Every member of a kanban process can measure queue times, cycle times and throughput in order to organize workload at the stations nearly perfect.
Moving toward the target condition	<p>There are six generally accepted rules for kanban:</p> <ol style="list-style-type: none"> <li>1. Downstream processes may only withdraw items in the precise amounts specified on the kanban.</li> <li>2. Upstream processes may only send items downstream in the precise amounts and sequence specified by the kanban.</li> <li>3. No items are made or moved without a kanban.</li> <li>4. A kanban must accompany each item at all times.</li> <li>5. Defects and incorrect amounts are never sent to the next downstream process.</li> <li>6. The number of kanbans should be monitored carefully to reveal problems and opportunities for improvement.</li> </ol>