

EXHIBIT 1: MASS PRODUCTION VERSUS LEAN

Mass Production	Lean
<p>Batch Processing. Work is processed in large batches before moving on to the next step.</p>	<p>Continuous Flow. Work moves continuously along the process with minimal or no interruptions; time spent in inventory or waiting is minimized.</p>
<p>Push. Work is produced regardless of the demand for the product from the next step in the process.</p>	<p>Pull. Work is produced only upon a signal that the work is needed.</p>
<p>Reactive to Change. Change in work only happens when management requires it.</p>	<p>Adaptive to Change. Change often happens as a result of worker initiative.</p>
<p>Control. Management's job is to make sure workers stay on task.</p>	<p>Enable. Management's job is to make sure standards are clear and impediments to good work are removed.</p>
<p>Functional. Work is compartmentalized into departments and divisions.</p>	<p>Process. The business process is the primary unit of analysis. Departments are secondary.</p>
<p>Fix Problems. Problems must be fixed as quickly as possible so that work can move down the line.</p>	<p>Learn from Problems. Problems must be solved <i>in a way that prevents recurrence</i>.</p>
<p>Manage from Data. Use data to understand how work is proceeding and to make decisions.</p>	<p>Use Data, but Rely on Observation and Experience. Data are important in finding anomalies and monitoring progress, but first-hand observation and experience in the work is indispensable.</p>