

# IoT Data-driven Manufacturing - Smart Manufacturing Operations -

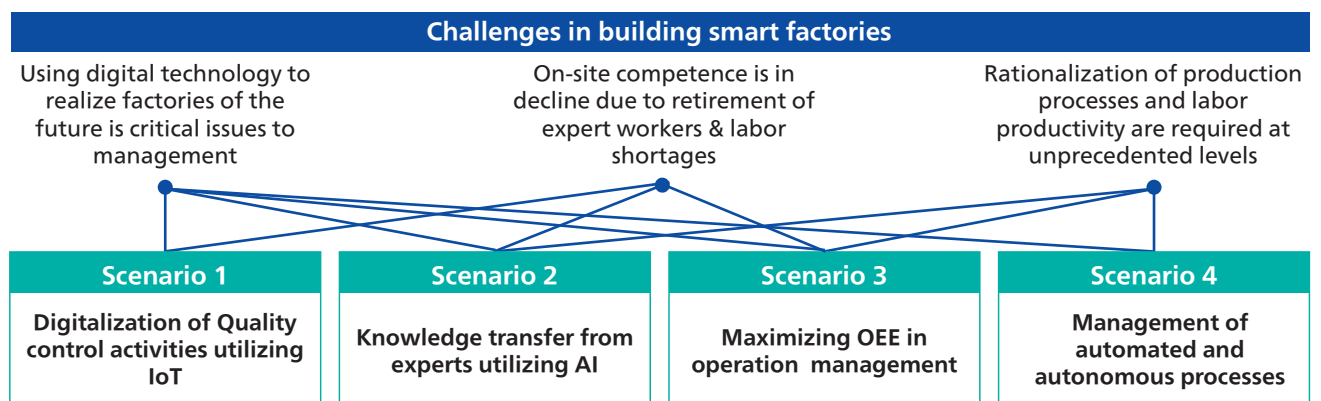
Improve process management and raise your KAIZEN level

**Creating added value is becoming increasingly difficult** in the manufacturing industry as quality requirements rise, delivery time shortened and workforces are reduced. There is also a need to respond to innovations in manufacturing arising from the digitalization of production processes, labor-saving and a general shift to automation.

ABeam Consulting strongly promotes digitalization **by involving not only Enterprise management but also manufacturing sites**. Utilizing the IoT solutions informed by extensive smart factory project experience, we support you in continuously **improving your product quality and productivity**.



## Business Scenarios



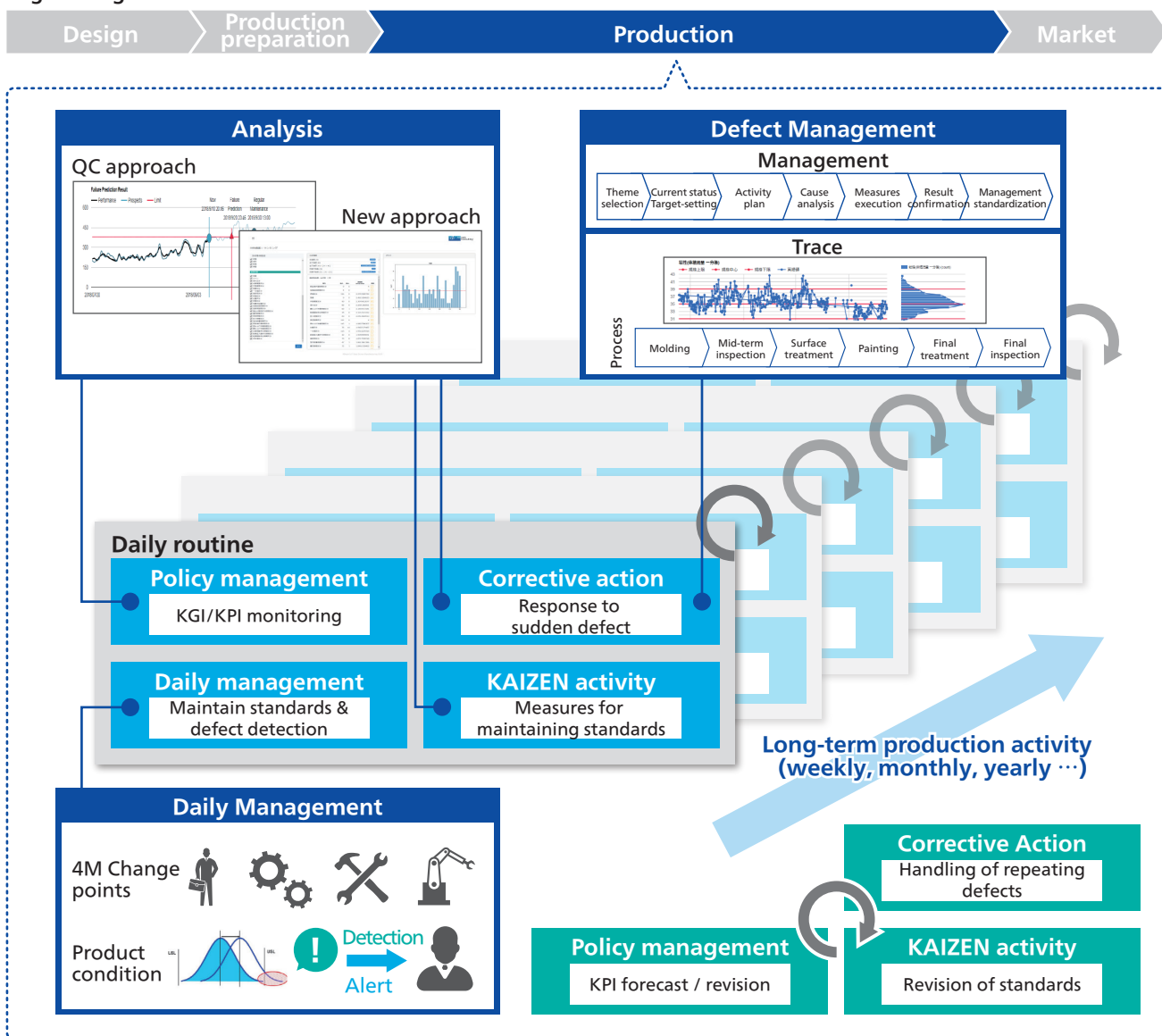
## Theme for each business scenario

	Visualization	Judgement	Prediction	Autonomy
Quality	<ul style="list-style-type: none"> <li>Accurately grasp variations in product quality by numerical value</li> <li>Strengthen the focal points for KAIZEN</li> </ul>	<ul style="list-style-type: none"> <li>Detect deviations from KPIs</li> <li>Ensure on-site and process capabilities to achieve high quality</li> </ul>	<ul style="list-style-type: none"> <li>Propose dynamic KPIs according to 4M change points</li> <li>Minimize defects due to differences in human skills</li> </ul>	<ul style="list-style-type: none"> <li>AI learns quality control in accordance with 4M change points to become automated, and finally autonomous</li> </ul>
Productivity	<ul style="list-style-type: none"> <li>Accurately grasp operational process status by numerical value</li> <li>Understand bottlenecks</li> </ul>	<ul style="list-style-type: none"> <li>Detect equipment abnormalities and failures to minimize production loss</li> </ul> <p><b>Scenario 2</b></p>	<ul style="list-style-type: none"> <li>Forecast equipment failure to minimize production loss</li> <li>Minimize influence on maintenance due to gaps in human skills</li> </ul>	<ul style="list-style-type: none"> <li>AI learns required equipment conditions to interact with equipment automatically and autonomously</li> </ul>
Management	<ul style="list-style-type: none"> <li>Accurately grasp management status (KGI/KPI) at each factory by numerical value</li> </ul> <p><b>Scenario 1</b></p>	<ul style="list-style-type: none"> <li>Detect factors that hinder KGI/KPI goal achievement</li> </ul>	<ul style="list-style-type: none"> <li>Propose measures to achieve targets by predicting targets' likelihood of success</li> </ul> <p><b>Scenario 3</b></p>	<ul style="list-style-type: none"> <li>Define KPIs &amp; processes able to control autonomous and automated production processes</li> </ul> <p><b>Scenario 4</b></p>

## Utilizing our functions in your daily production work:

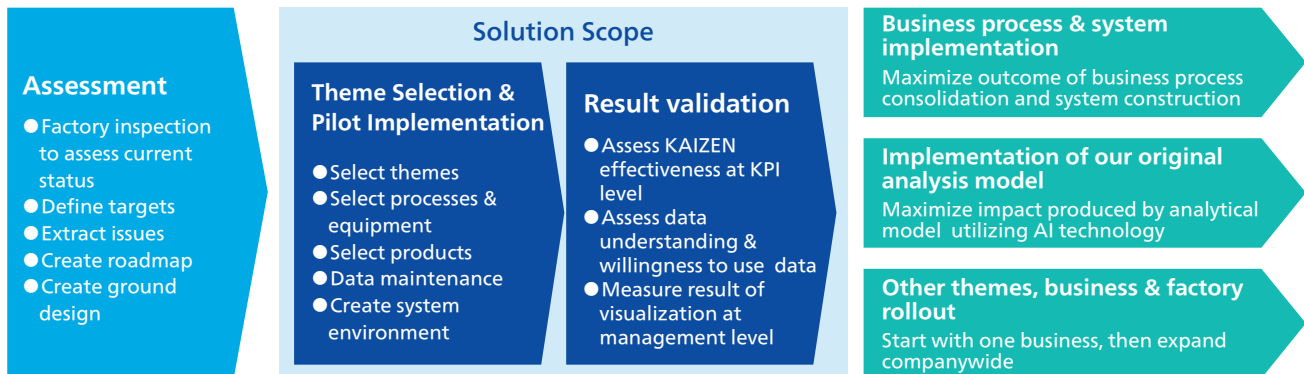
Accumulated data can be used not only for daily work but for weekly, monthly and even yearly production.

### Engineering chain



## Implementation Approach

Our specialists use the latest analytics, IT/OT technology and manufacturing knowledge to build analytical models corresponding to our customers' products and production processes. We also create mechanisms to utilize this data in order to support you in firmly establishing your operations.



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### Contact

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