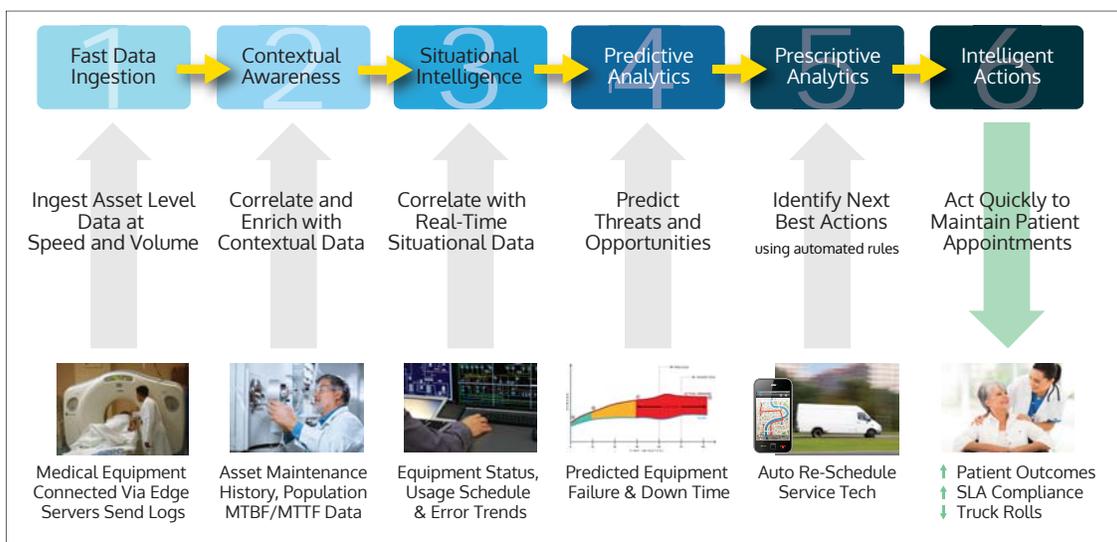


Vitria Analytics Value Chain for Medical Equipment

CHALLENGE: Manufacturers of medical equipment need to anticipate maintenance issues with their equipment and fix them before they lead to degradation in the quality or delivery of patient services.

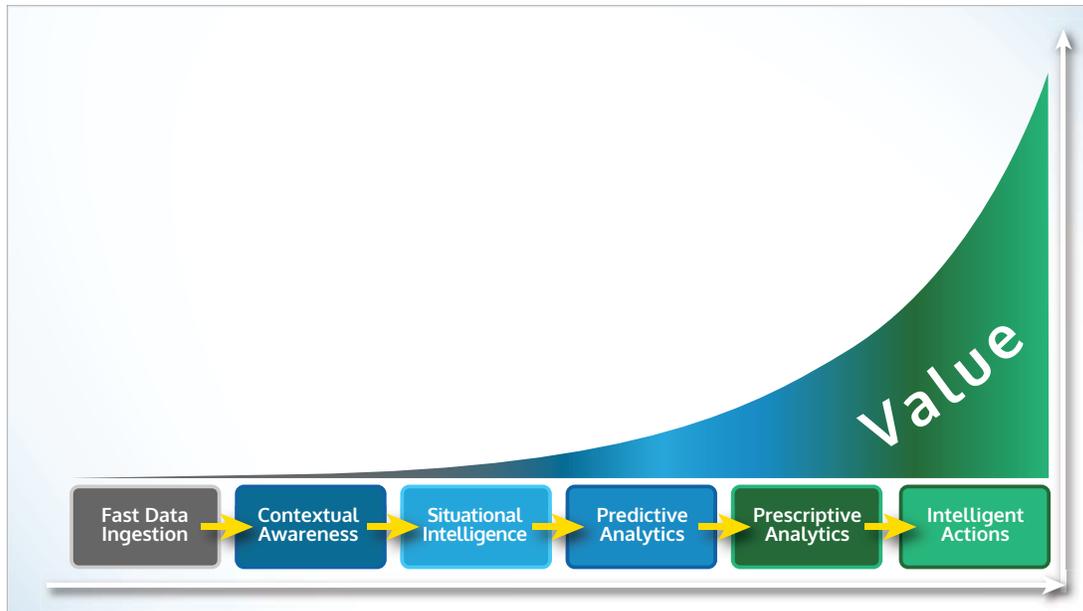
SOLUTION: Stepping through the analytics value chain used in Vitria's IoT Platform provides a methodology to predict maintenance requirements and execute the actions necessary to address issues before they cause patient problems.



- 1) The first step is to ingest all the critical data at speed and volume to ensure all the necessary context to assess equipment health.
- 2) Next is to correlate that data with context on maintenance history of the equipment – mean time between failure and other critical metrics at a population level.
- 3) Situational intelligence is critical to the value chain and understanding the real-time status of equipment – its maintenance schedule, error trends, and other behavior is the next link in the chain.
- 4) With the first three steps of the value chain in place, maintenance professionals can now predict possible equipment failures or performance issues.
- 5) Prescriptive analytics focused on identifying the next best action to address the potentially serious issues in the equipment is next – usually a technician is auto-dispatched with precise instructions for fixing the issue in the equipment.
- 6) The prescriptive analytics lead to the final step of an intelligent action of fixing or tuning the machine – leading to reduced downtime, improved patient outcomes and reduced technician visits and costs.

Vitria's Analytics Value Chain – The Key to Timely Outcomes in IoT

Analytics on the tremendous volume of data in The Internet of Things (IoT) offers great potential to create new business value – but it requires a unified approach to analytics. Analytics must be executed in real-time across the Analytics Value Chain (streaming, historical, predictive, and prescriptive analytics) with relevant contextual and situational data. This capability paired with the next best action creates the greatest value - as shown in the figure below. Vitria's Advanced Analytics Platform for IoT is the fastest way to achieve these results.



- 1) Ingesting data at speed and volume from IoT sensors and devices sets the stage for additional processing.
- 2) This data is then correlated with contextual and historical data to provide a baseline for advanced analytics. Contextual data can include information like geographic data or historical sales information.
- 3) Situational data and intelligence is the next stage of refinement and increased value. This includes information such as weather or customer location.
- 4) The next step is to predict failures, anomalies, or patterns using predictive analytics based on machine learning over historical and situational data.
- 5) The next step in the analytics value chain are to apply prescriptive analytics to determine the next best action. This could be a wide variety of actions such as better customer service or avoiding equipment downtime.
- 6) The final critical step in the value chain is to execute the real-time action to capture value.

About Vitria Technology

Vitria's advanced analytics solutions empower enterprises and industrial customers to achieve better outcomes faster in their business operations.

The company was founded in 1994 and has a long history of success in streaming analytics, business process management, enterprise application integration, and operational intelligence. Vitria is also a leading player in the rapidly growing IoT (Internet of Things) analytics market.