# How do the largest **global manufacturers** achieve high-impact business outcomes?

By harnessing the power of advanced analytics to innovate, transform, and grow.

Radically improve product quality and enable continuous yield improvement to achieve zero accident/zero defect manufacturing

80	Accurately Predict, Detect, and Solve Quality Issues	A global computer manufacturer with more than 10,000 business users <b>leverages more than 300TB of data to</b> <b>process 1Bn queries per month to diagnose quality issues</b> <b>30-50% faster and save \$MM per year</b> in time spent determining root cause.
	Maximize Intervention Capabilities to Ensure Quality Standards	Using advanced analytics, Volvo <b>generated &gt;€5m business</b> value through a comprehensive quality enhancement process and improved warranty reimbursement accuracy. They also enhanced product lifecycle management, environmental innovation, and regulatory compliance.
	Apply Insights to Reduce Rework and Scrap	A global process manufacturer achieved a 10x return on investment by analyzing 4,500 parameters per meter/ per coil produced (narrowing to less than a few hundred critical parameters). Created a predictive quality model to operationalize insight-driven improvements that yielded scrap reduction and reprocessing improvements of 20% per year.



## The Manufacturing Sector is Changing

Manufacturing transformation is being driven by unprecedented changes in technology (including a radical shift in the use of IoT), intensified pressure on margins due to an increasing reliance on globalized production systems and a radically changed competitive landscape.

To maintain profitability, manufacturers will likely need to alter their traditional business models and operating methodologies to maintain stability and become more sustainable. "Our customers get more mileage from fewer trains and, therefore, use their assets better while reducing their costs. Additionally, analytics can speed up the root-cause analysis, reducing labor (repair) time... We are able to provide completely new services with up-time guarantees, risk-sharing models and performance-based contracts for mobility systems."

- Gerhard Kress, Director of Mobility Data Services, Siemens

Use Al/machine learning to radically improve quality assurance rates	08	Automated root cause failure/quality analytics help a global computer manufacturer identify production processes that are falling out of specification or starting to fail: informing decision-making and offering corrective actions resulting in \$mm operational savings and higher quality products coming off the line.	Radically enhance quality process efficiencies and create higher quality outputs to improve bottom-line results and reduce warranty claims
Gain new insight into increasing quality from raw material input to finished product outputs	:0	A global automotive manufacturer created a 360° view of end-to-end process flows and how they link input variables to finished product output across each factory, process, production line, and individual asset using all available data (including IoT, SCADA and ODBC text records).	A sharper focus on product pathing, maintenance, profitability, and trending analytics helps improve product quality and creates more efficient operations.
Improve quality by predicting, detecting and resolving issues faster	<u>l</u>	A global micro controller manufacturer performs anomaly detection on hundreds of units in seconds, rather than hours, enabling them to identify and resolve quality issues before resulting in expensive rework/scrap or downstream customer service issues.	Reduce warranty reserves and boost quality with warranty and quality analytics insights that reduce scrap and lower warranty claims, product returns, and service calls

### Why Teradata

We have a long history, working with the world's largest, most complex companies. They have confidence in our ability to meet their short, medium, and long-term analytical requirements.

We deliver against our promises, supporting our customers in confidently embracing their most complex analytical ambitions, while driving hundreds of millions of dollars in value.

We are recognized for our superior technology vision and capability based on integration of Teradata and open source technologies deployed in the public or Teradata cloud, and/or on-premises across Teradata and commodity hardware.

We provide high-performance analytical ecosystems, experienced data scientists, industry and implementation experts that empower our clients to increase revenue and drive operational efficiency.

#### Our Objective

Help remove technical barriers that hinder success

#### Our Philosophy

Enable the discovery and operationalization of new insights, at scale, across any business

#### Our Focus

Deliver ROI, enabled by the best analytics platform and optimal cost/ performance mix

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