



## THE RIPPLE EFFECT

Stories of purpose and lasting impact

# Driving quality and safety forward

An automotive company builds an AI-enabled early quality and safety detection system.



# CAN WE **SHIFT SAFETY INTO HIGH GEAR** WITH EARLIER ISSUE DETECTION?

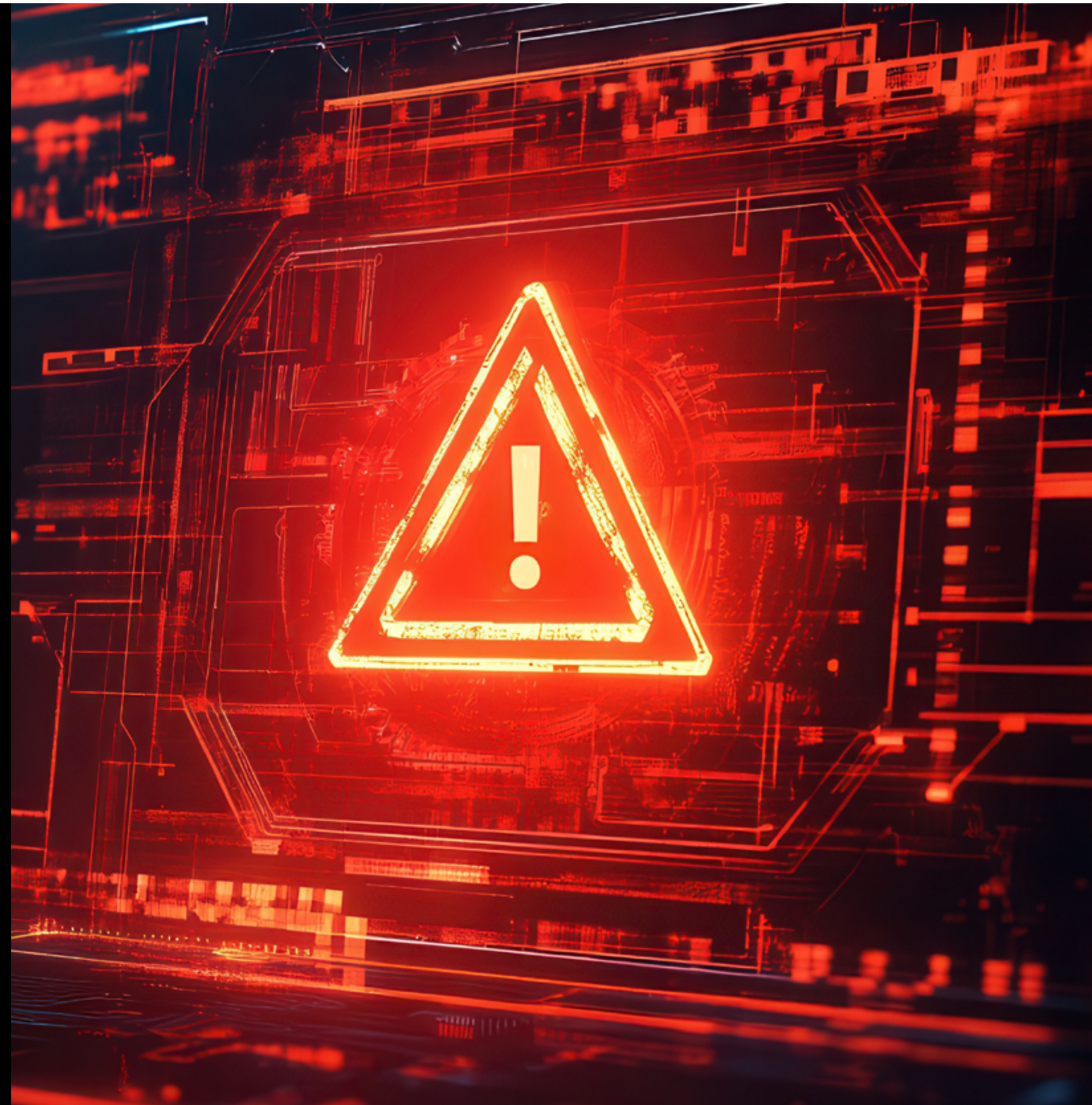
## THE SITUATION

An automotive company was focused on speed and precision, but for different reasons than one might expect. The safety office was steering this initiative, and its leaders weren't looking under the hood. They were looking at data—vast volumes of data coming from service histories, customer feedback, and safety incident logs that held critical insights related to product quality and safety.

A recent uptick in safety issues had resulted in a government-mandated improvement process, and the automotive company was working toward compliance. It was taking proactive steps to address essential improvements in data management and safety protocols that had been highlighted in a third-party auditor's report.

Safety leaders were aware of the problems that may arise when companies invest insufficiently in quality and safety sensing, including government mandates, financial implications, and negative impacts to their brands and reputations. The automotive company needed to identify a sophisticated, unified approach to help keep pace with the overwhelming amount of data coming in *and* prevent key information from being obscured.

As company leaders looked to today's data-driven landscape, they believed the Deloitte IndustryAdvantage™ framework was well suited to help guide the company's initiative toward innovative safety solutions and sustainment.



# THE SOLVE

Deloitte has a fine-tuned approach to implementing a safety data and analytics infrastructure (SDAI) that has helped companies emerge from consent orders. It can also be used to help other automotive companies prevent the orders (and the steep fines and abeyances that accompany them).

The work began with a broad assessment of the automotive company's existing systems and processes. This enabled the Deloitte team to identify gaps and areas for improvement, which were reflected in a strategic road map driving toward consent order compliance.

Next, Deloitte helped build an issue alerting model (IAM) that uses data from various sources to return prioritized and risk-ranked alerts for investigation. Transforming the massive amount of unstructured text data received by an automotive company into usable inputs for an IAM can be a common roadblock to successful SDAI implementation. To mitigate this challenge, Deloitte analytics specialists helped the automotive company run text classification models on available information, utilizing advanced machine

learning to structure and classify the data on a big data platform that could serve as a key input into the IAM.

For the first time, members of the company's safety office could see the results of their data via a custom dashboard. The dashboard visualizes alerts from the IAM so the safety office can be proactive around emerging issues. The most urgent alerts are further escalated to a tool that enables deeper investigation and supports the process to issue a recall, if necessary.

Finally, Deloitte's process and risk control specialists documented a robust set of process procedures to help sustain the SDAI system's operation at a very high level. The system's continued success will depend on the data and analytics it provides, as well as the procedures that enforce it.

## DASHBOARD PRECISION: **STEERING SAFETY WITH DATA**



# THE IMPACT

## **Improved speed and precision in vehicle safety and compliance:**

With Deloitte's help implementing the SDAI system, the automotive company exceeded the requirements of the national safety consent order—avoiding potential fines and enhancing passenger safety. The IAM's text analytics capabilities have resulted in faster identification of issues and enable the company to leverage previously unusable data.

The IAM's integration with multiple data sources helps identify more issues than before, supporting the company's mission to prioritize and enhance driver safety.

## **Context puts data in the driver's seat:**

Initially, the automotive company's data was complex and unusable. However, a platform optimized for managing the large volumes of data typical in automotive safety helped transform the data into an easily understandable and useful format. The system not only made the data manageable, but it enhanced the automotive company's operational capabilities by turning potential data overload into a strategic advantage, further enhanced by the process controls in place.

This method enhances process efficiency and establishes a new benchmark for data utilization across various industries.



AUTOMOTIVE OEMS CAN DRIVE SAFETY  
FORWARD WITH DATA

# LET'S CONNECT.

Do these challenges sound familiar?

Learn more about Deloitte **IndustryAdvantage™**

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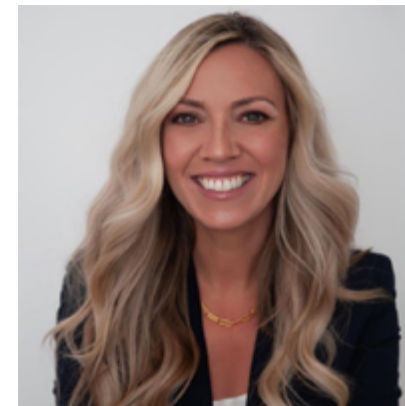
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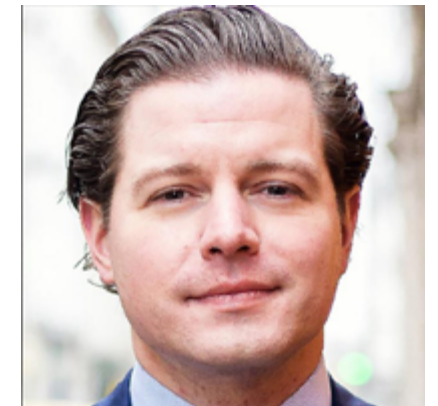
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