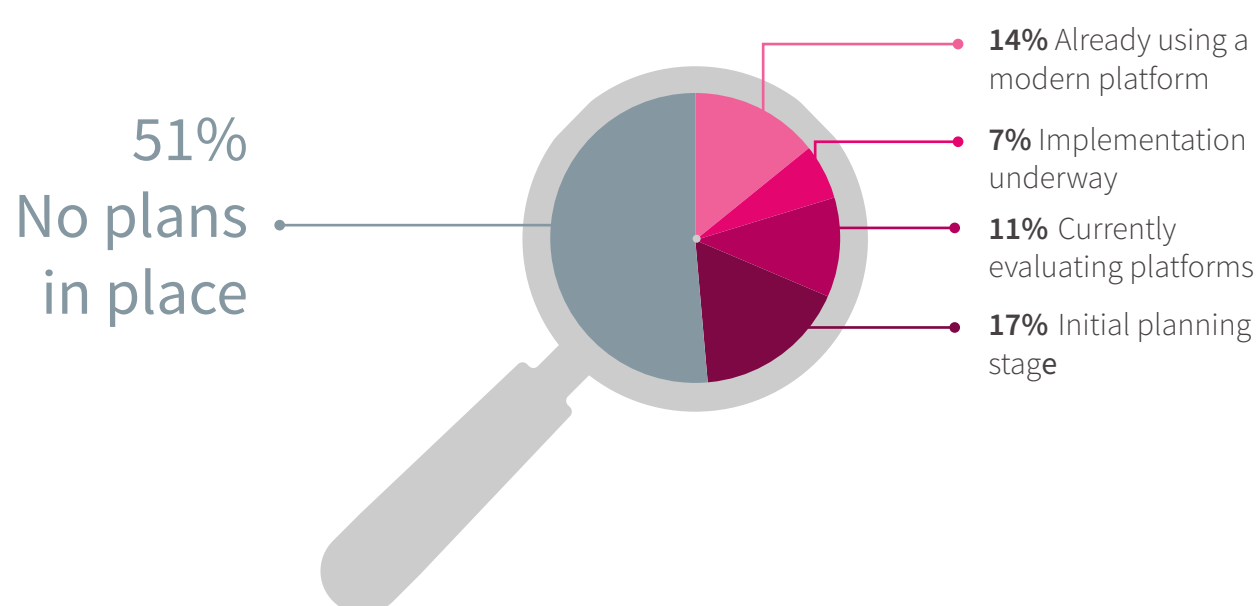


# Reimagining Anomaly Detection with a Modern Data Science Approach

**Anomaly detection** is not a new science — traditional methods of anomaly detection have been in practice for over a decade. However, as data complexity increases, modern data science is playing a vital role in simplifying and streamlining anomaly detection approaches.

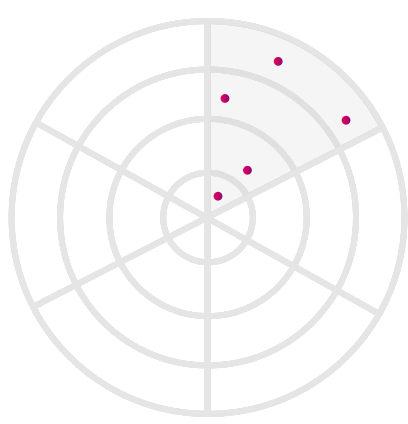
We surveyed your industry peers on where they stand in implementing anomaly detection techniques and solutions using advanced data science, machine learning, and real-time approaches. The results are below.

## How are organizations adapting to modern data science?



## Modern data science is rewiring anomaly detection

Modern data science techniques are transforming anomaly detection as we know it. As traditional methods are being replaced with advanced techniques to improve efficiency and expand existing capabilities, here are the key attributes that define a modern approach to anomaly detection.



- Works with real-time data
- Adaptable to multiple domains
- Improves detection across multiple channels
- Learns and detects variations
- More scalable, more efficient

## Emerging techniques for anomaly detection

Recent developments in deep learning have given birth to advanced techniques based on auto-encoders. As we move towards an AI-driven future, here are three significant emerging approaches.



### DEEP LEARNING (Auto Encoder)

Auto-encoders can learn the latent representation of data by using an encoder and decoder together.



### DEEP LEARNING (RNN-Based)

RNN-based architectures enable sequence prediction. The network can flag an anomaly when needed.

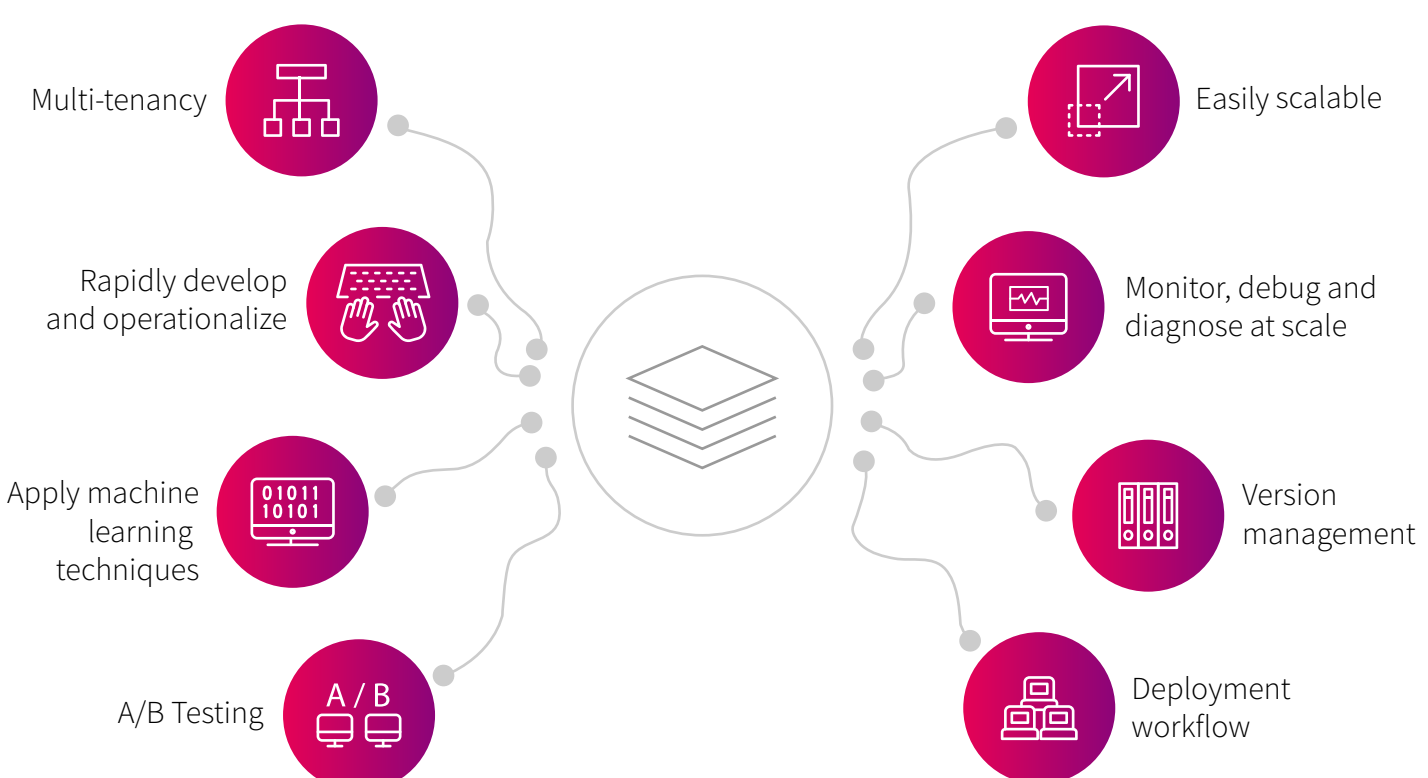


### GENERATIVE ADVERSARIAL NETS (Auto Encoder)

GANs combine two neural networks – a generator and a discriminator and can be used to find anomalies.

## A platform approach to anomaly detection

Imagine a platform that would solve the complexities of building anomaly detection models for streaming data and provide a unified solution to calibrate, deploy, and enable post-production monitoring of models on both real-time and batch data. StreamAnalytix is a specialized platform that addresses all these areas and provides advanced capabilities such as:



Watch our webinar where our experts will walk you through a real-life anomaly detection problem and demonstrate how you can implement a smarter, more efficient platform for your anomaly detection needs.

[WATCH THE WEBINAR](#)

StreamAnalytix is an enterprise grade, visual, big data analytics platform for unified streaming and batch data processing based on best-of-breed open source technologies. It supports the end-to-end functionality of data ingestion, enrichment, machine learning, action triggers, and visualization. StreamAnalytix offers an intuitive drag-and-drop visual interface to build and operationalize big data applications five to ten times faster, across industries, data formats, and use cases.

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