

**INDUSTRY 4.0**

**6 MYTHS THAT PREVENT MAINTENANCE &  
RELIABILITY PROFESSIONALS FROM  
INITIATING MACHINE LEARNING  
PROGRAMS**

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**Flipbook Strategy Guide**

# WHY INVEST TIME IN THIS DOCUMENT?

For many asset-intensive businesses, conversations about adopting maintenance and reliability-focused AI or Machine Learning solutions are halted by widespread myths, illogical barriers, and a general sense of fear. If you are reading this preamble, you have likely overheard or participated in a conversation on the topic that ended with a phrase something like this – “we aren’t ready for that”. If you are nodding in agreement, we suggest you read on.

Since its inception, the value attached to Industry 4.0, IIOT and Smart Manufacturing has been widely discussed. Analysts and industry experts have delivered a wide-range of reports and data-backed business cases that have sparked enormous curiosity (and anxiety). Given the scale and complexity of the Industry 4.0 movement, many businesses have been left in paralysis – simply unable to determine an appropriate entry-point.

For those looking to improve up-time and adopt more mature maintenance and reliability programs, this document will offer some new perspective. We understand you, and we can help

# NOT READY?

## WE AREN'T MATURE ENOUGH.

There is a misconception inside of many asset-intensive companies regarding "machine learning readiness". Is a maintenance and reliability-centered machine learning project really only appropriate for companies with top quartile manufacturing programs? Can a so-called "regular" team, ripe with opportunity for improvement, even think about investing in machine learning applications? The reality is that most organizations with a reasonably healthy maintenance and reliability foundation are excellent candidates for early adoption. In fact, deploying a machine learning application inside of your maintenance and reliability organization may bring a surprisingly quick return.



# DATA PROBLEMS

## HOW MUCH IS ENOUGH?

A successful machine learning project is not dependent on an enormous data set with pre-existing failure data. This myth - in isolation - is central to the "paralysis" noted in the introductory section of this document. There is a misconception that anomaly detection will not work on assets without a long history of operating data. So, how much is enough?

As long as there is sufficient data to support an asset running within normal operation under all operating contexts, machine learning can be applied and benefited from.



# PROVING ROI

## HOW CAN I JUSTIFY THE INVESTMENT?

The investment required to purchase, implement, and scale any cross-enterprise manufacturing technology can be daunting. There is no doubt. For Machine Learning and AI applications, the fear of failure and investment loss is amplified by the myths alluded to in this document.

At Quartic, we help our customers scale towards success by working on pre-selected strategic projects that them build an aligned and gradual approach to machine learning initiatives. Simply put, a one-time, enterprise roll-out is not always required.

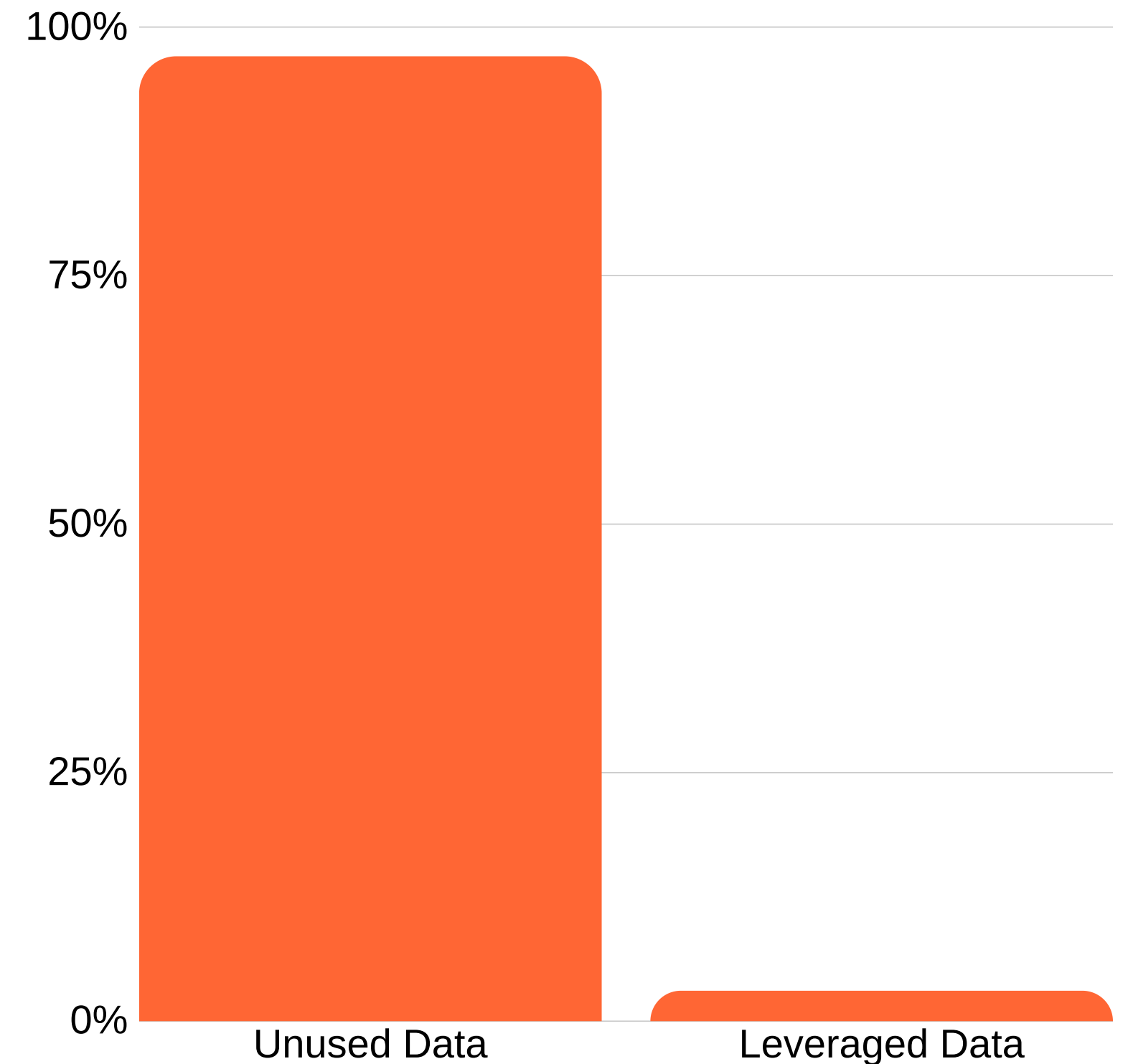


# SENSORS?

**I NEED IIOT SENORS TO DO THIS.**

In all our years of experience, this is likely the most prevalent misconception we encounter. According to Gartner, 97% of plant data sits unused (see chart). Within this enormous data set, the vast majority of manufacturers have more than enough condition data available to build and deploy high-performing machine learning models without investing in new sensors

Has your organization built something around this false assumption? If you have made a recent investment in sensor hardware, do you have a clear understanding as to how it will bolster the value and performance of your machine learning initiatives?



# DATA SCIENTISTS

## I NEED A TEAM OF EXPERTS IN-HOUSE

There are a few myths in this document that have some merit. The requirement for in-house data science expertise to help build and monitor machine learning initiatives is, in some cases, required.

But we, at Quartic, have designed our platform and implementation process to help plant professionals realize the benefits of machine learning without having to rely on internal data-science expertise. We make data preparation, algorithm selection, and performance monitoring a "self-serve" process.



# WORKING WITH IT

## WILL I HAVE GO TO BATTLE?

If you are delaying a Machine Learning initiative to avoid confrontation with IT, you are not alone. Any disruptive technology will draw attention from your resident tech overlords - and rightfully so. As plant floor technology continues to evolve, IT executives are careful not to support "rip and replace" projects that will force costly changes to foundational technology architecture.

Quartic offers virtually seamless integration for your existing infrastructure. We know how to help guide our customers through the implementation process with the support of their internal IT organization.





# NEXT STEPS

## HOW TO ENGAGE WITH QUARTIC

If you would like to speak with Quartic about how a machine learning initiative will help your organization improve maintenance and reliability performance, get in touch today.

### Contact

[quartic.ai/contact-us](https://quartic.ai/contact-us)

