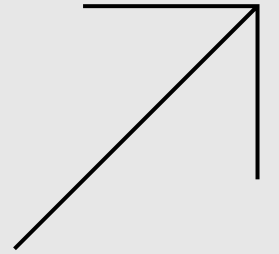


**ProRail**



**VIQTOR DAVIS**<sup>®</sup>  
DATA CRAFTSMANSHIP

DATA INNOVATION DRIVING DIGITAL TRANSFORMATION

VIQTOR DAVIS®

DATA CRAFTSMANSHIP

# INTRODUCTION



## ABOUT VIQTOR DAVIS

We challenge you to unlock data as a strategic business asset to be future-ready



# DATA INNOVATION DRIVING DIGITAL TRANSFORMATION

## WE BELIEVE

- By **combining our data services**, more value can be created for you.
- As an **international company**, we can identify **more best-practice solutions** for you.
- Data is increasingly a boardroom subject, we can translate **business issues into pragmatic data solutions.**

## OUR MISSION

- To provide the expertise and the methods that empower organizations to exploit their critical data as a strategic business asset.
- **We strive to be your partner in data strategy, governance, management, science and analytics.**

## HOW WE WORK

We are a **full-service partner** in data & analytics.

Our ambition is to be your **global partner** in data services.

Over **340+ data specialists** across territories to support you with all your data challenges and opportunities.

Backed by Waterland we follow a **buy & build** strategy in Western-Europe and the US.



ABOUT

VIQTOR DAVIS

UNITED STATES

MEXICO

UNITED KINGDOM

NETHERLANDS

INDIA

5 Markets  
and going global.

A M S T E R D A M

U T R E C H T

L O N D O N

K E N T

A U S T I N

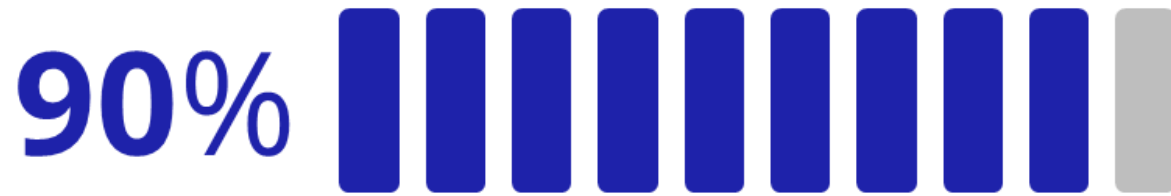
VIQTOR DAVIS - DATA CRAFTSMANSHIP

# ASSET HEALTH INSIGHTS

Optimise your asset health management



# THE DATA-DRIVEN APPROACH TO ASSET HEALTH MANAGEMENT HAS GREAT POTENTIAL



...of asset-heavy organisations see the (health) management of their assets as not very efficient

1) Source: "Digital Industrial Revolution with Predictive Maintenance", Siemens



Latest developments like **IoT, Cloud & AI/ML** enable a data-driven approach to optimize asset management





# THE THREE COMPONENTS OF AN ASSET HEALTH INSIGHT SOLUTION

## OPTIMIZE ASSET STRATEGIES



EFFICIENT MAINTENANCE



TARGETED INSPECTIONS



REPLACEMENT PLANNING

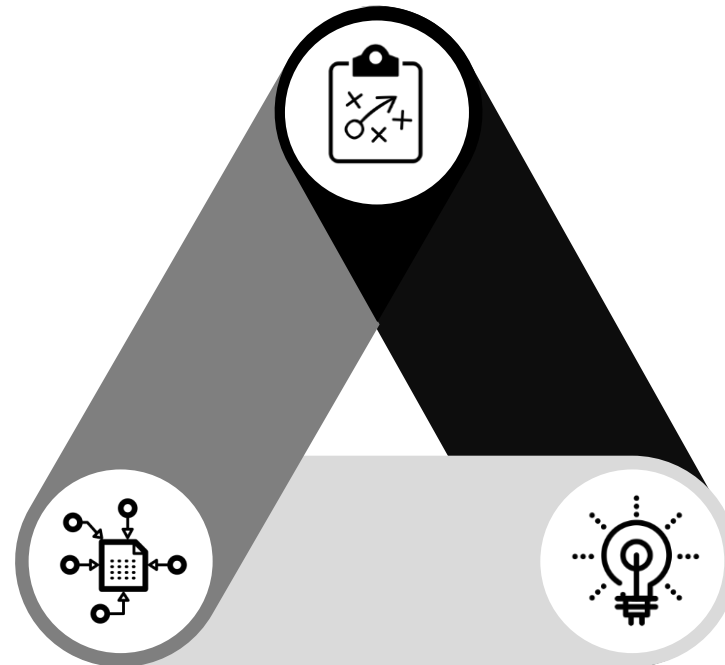
## ESTABLISH A SOLID DATA FOUNDATION



PHYSICAL TO DIGITAL



ASSET 360 VIEW



## GENERATE ACTIONABLE INSIGHTS



PREDICTIVE ASSET DETERIORATION



ANOMALY DETECTION



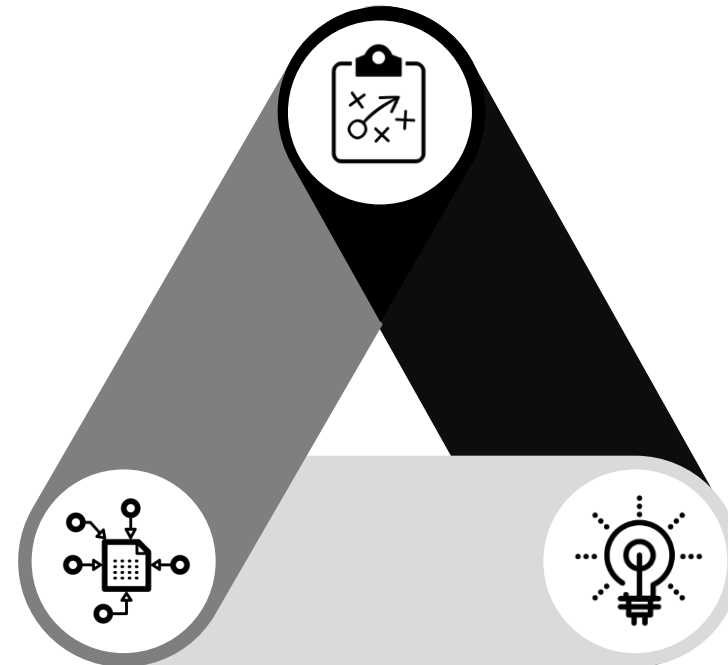
ROOT-CAUSE ANALYSES

# THE THREE COMPONENTS OF AN ASSET HEALTH INSIGHT SOLUTION

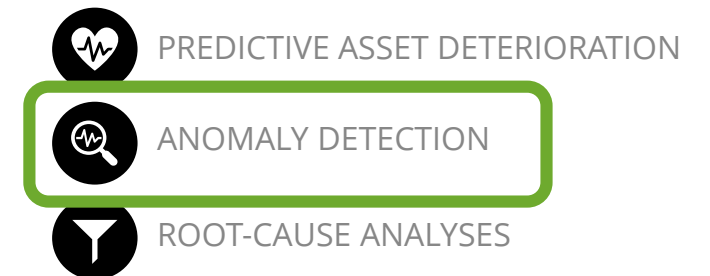
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## GENERATE ACTIONABLE INSIGHTS



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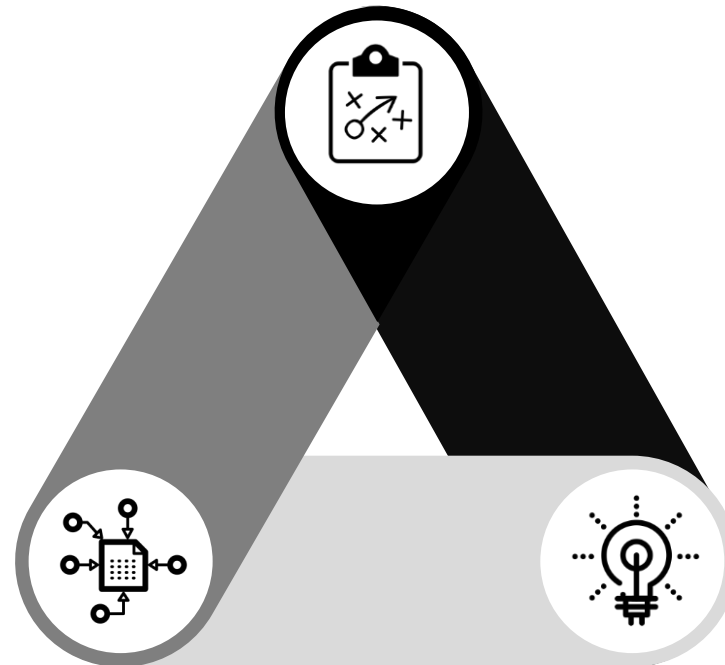
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## GENERATE ACTIONABLE INSIGHTS



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ROOT-CAUSE ANALYSES

# BENEFITS OF DATA-DRIVEN ASSET HEALTH INSIGHTS



**INCREASED ASSET UPTIME**



**REDUCED TOTAL COST**



**MINIMIZED FAILURES**



**EMPOWERED WORKFORCE**

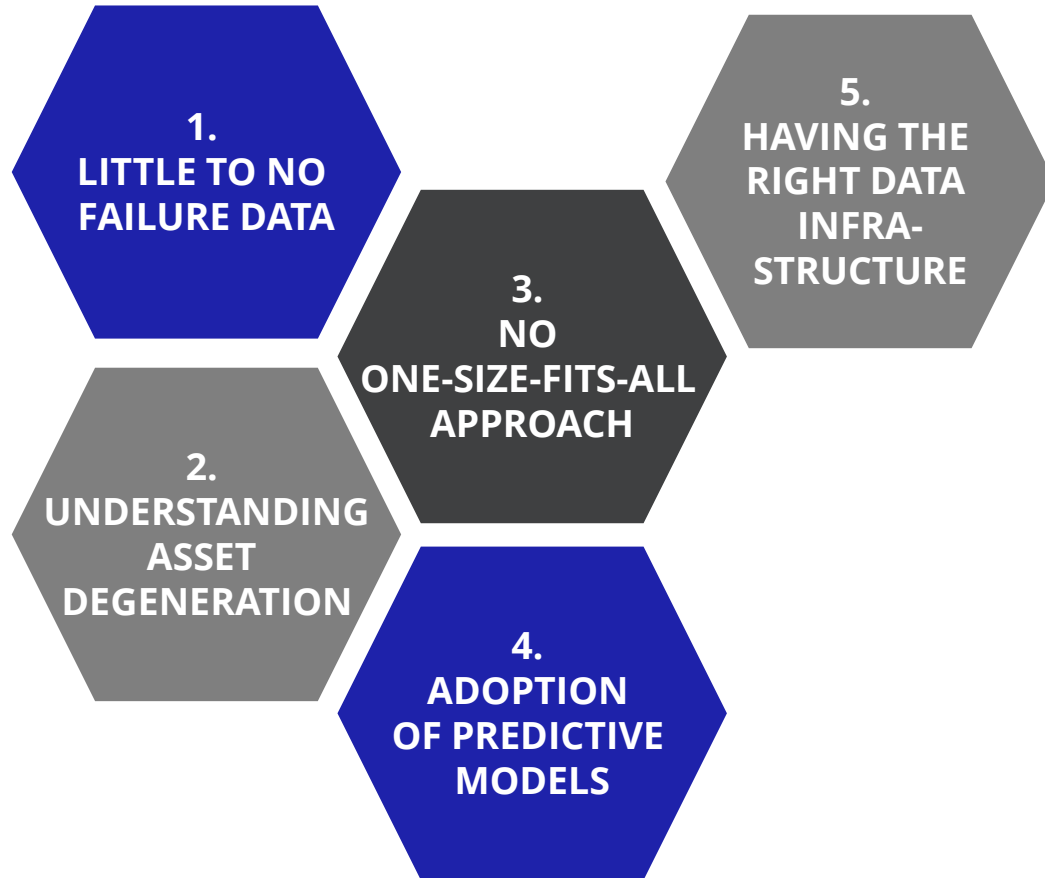


**OPTIMIZED PLANNING**



**ENHANCED QUALITY**

# KEY DIFFICULTIES/CHALLENGES



## WHERE TO START?

- Start by listing assets and assessing their failure modes.
- Can we complete the triangle with components of an asset health insights solution?
- Is there a feasible usage scenario?
- Develop models and solutions in a Agile manner (e.g., use CRISP-DM and/or ML-Ops).

### EXAMPLE: MIXER UNIT

FAILURE MODES	DESIRED INSIGHTS	INTER-VENTIONS	DATA SOURCES
Bearing failure, crushing the key	Wear	Replace bearing	Vibration sensor
	Anomalous vibration	Early stop	
Burning of motor coil	Overload due to coagulation risk	Early stop, inspect fluid	Temperature sensor
	Wear	Rewind motor coil	Viscosity sensor

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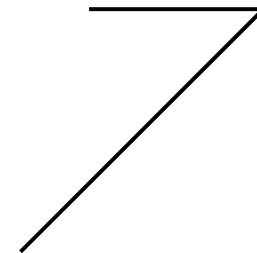
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THANK YOU  
FOR YOUR ATTENTION

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