



The Data Journey

An Intelligent Path to Machine Learning

Presented by
Ty Burrige-Oakland



The background of the slide features three large, cylindrical industrial cooling towers. They are arranged in a row, with the one on the right being the largest and most prominent. The towers have a weathered, metallic appearance with some discoloration and vertical streaks. The sky is overcast with grey clouds. The text is overlaid on the left side of the image.

Uniper Technologies Production Solutions

Global Digital Engineering Solutions

The background of the slide features two wind turbines. One is in the foreground on the right, and another is in the background on the left. The sky is a clear, bright blue.

Cross Functional Business
Delivering Measurable Value
Through Digital Innovation

Main PI Components Used

PI ProcessBook

PI DataLink

PI Server

AFSDK

Performance Equations (PE)

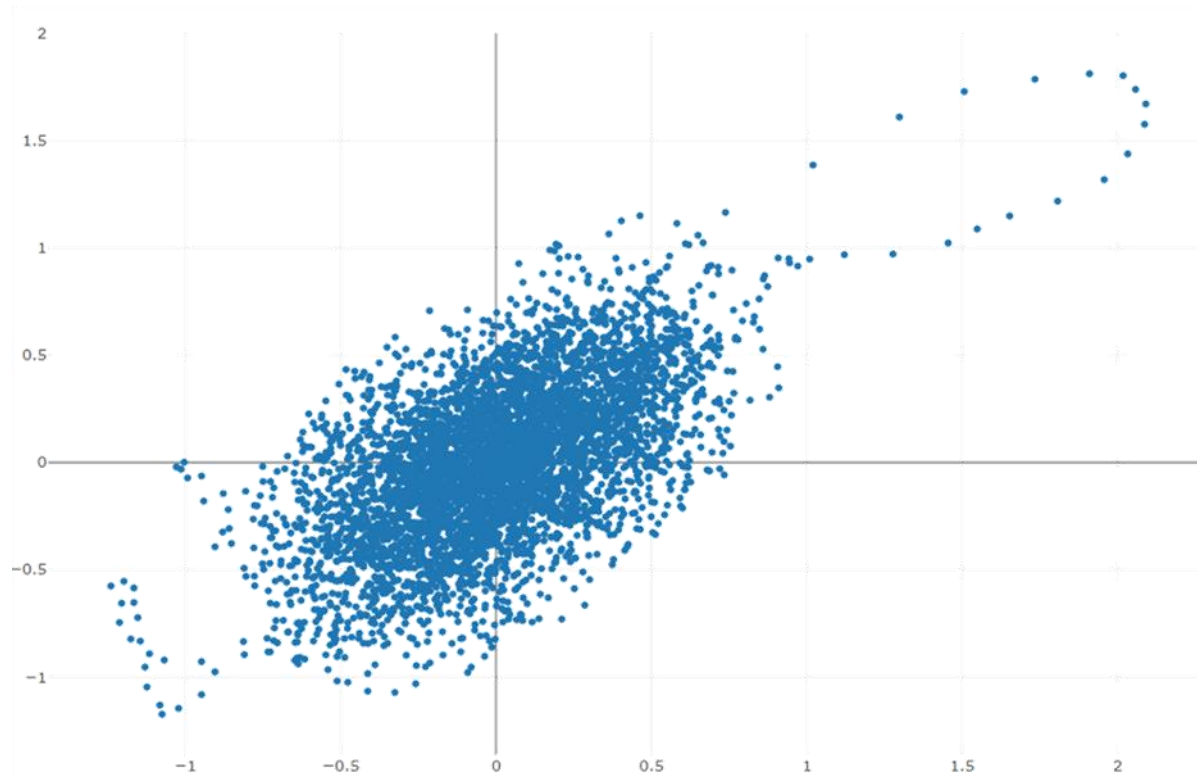
Advanced Computing Engine (ACE)

Powered by
OSIsoft PI
Systems

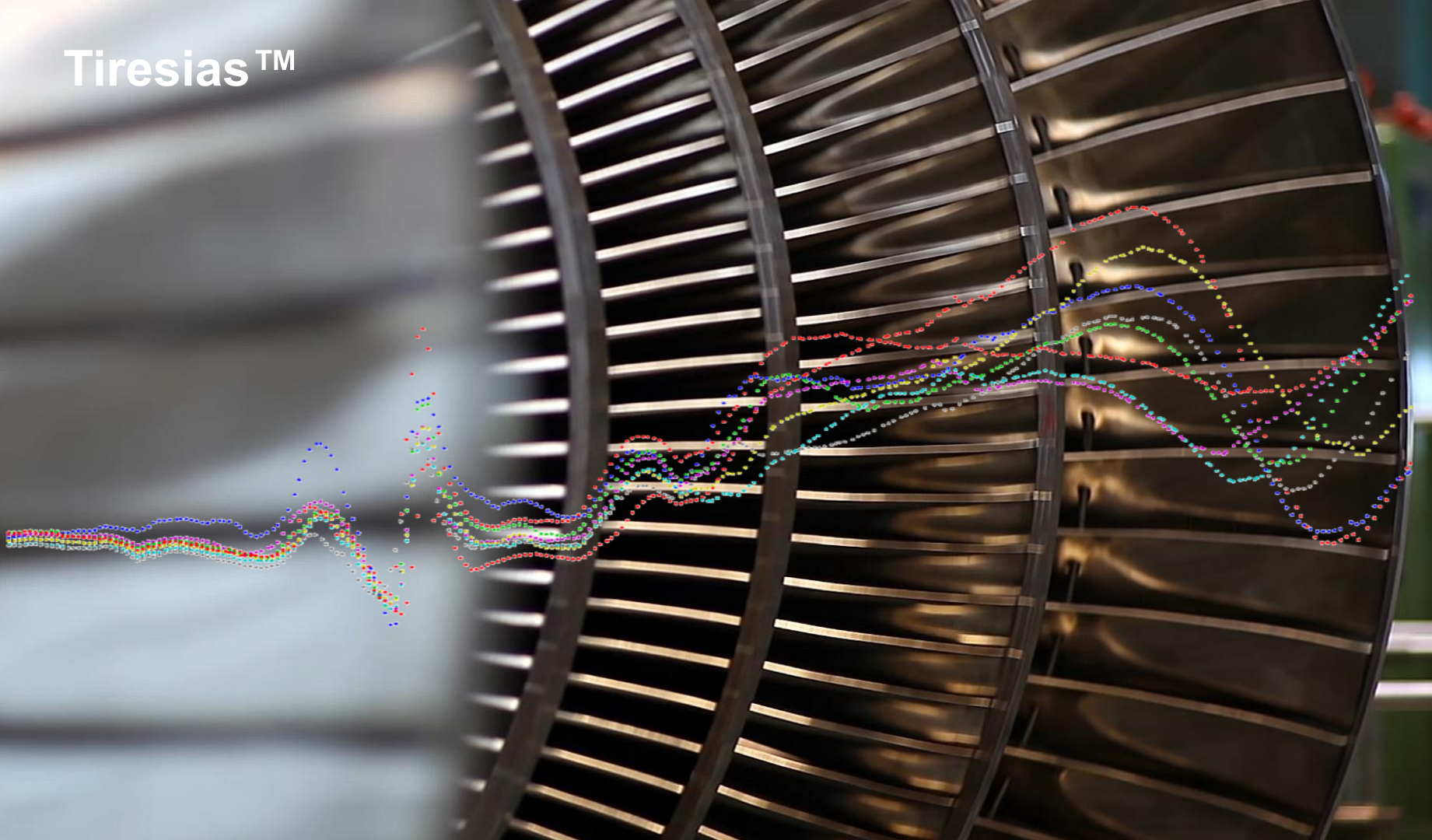
Our Universe



Real Data Algorithms



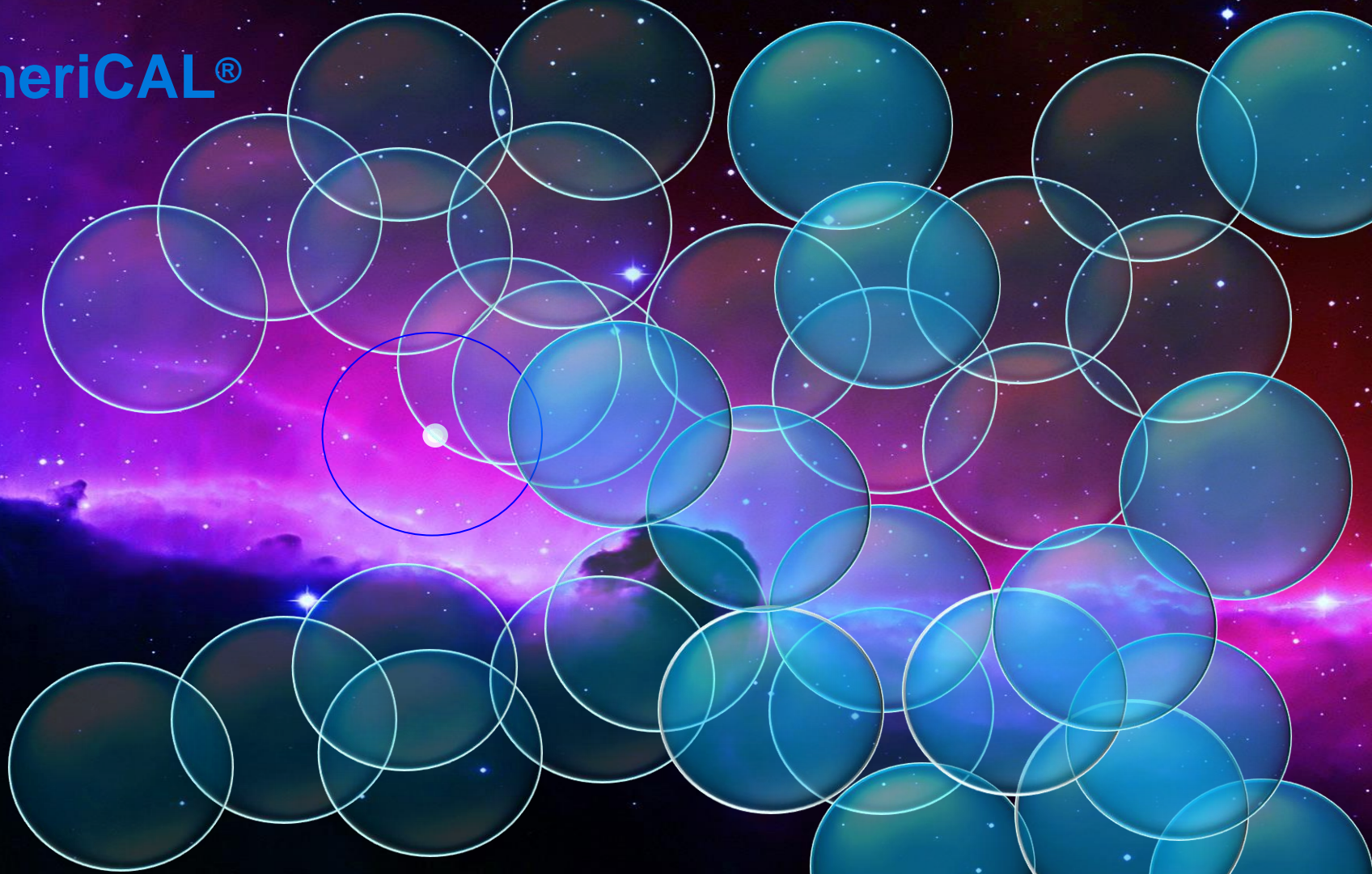
Tiresias™



The Stages

A close-up photograph of a large industrial mold assembly. The mold consists of numerous curved metal plates, likely made of copper or a similar material, arranged in a semi-circular pattern. The plates are stacked and separated by thin spacers, creating a series of stages. The top of the mold is a large, dark, semi-circular opening. The background shows a workshop environment with various tools and equipment, including a red handle and a metal ring.

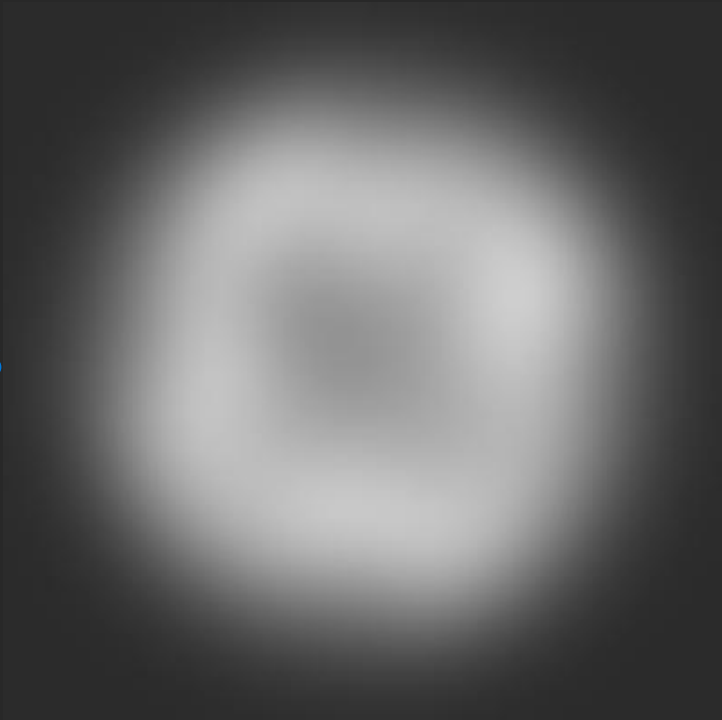
SpheriCAL®



uni
per

vs

SpheriCAL®



**uni
per**

SpheriCAL®

Gas

Coal

Biomass

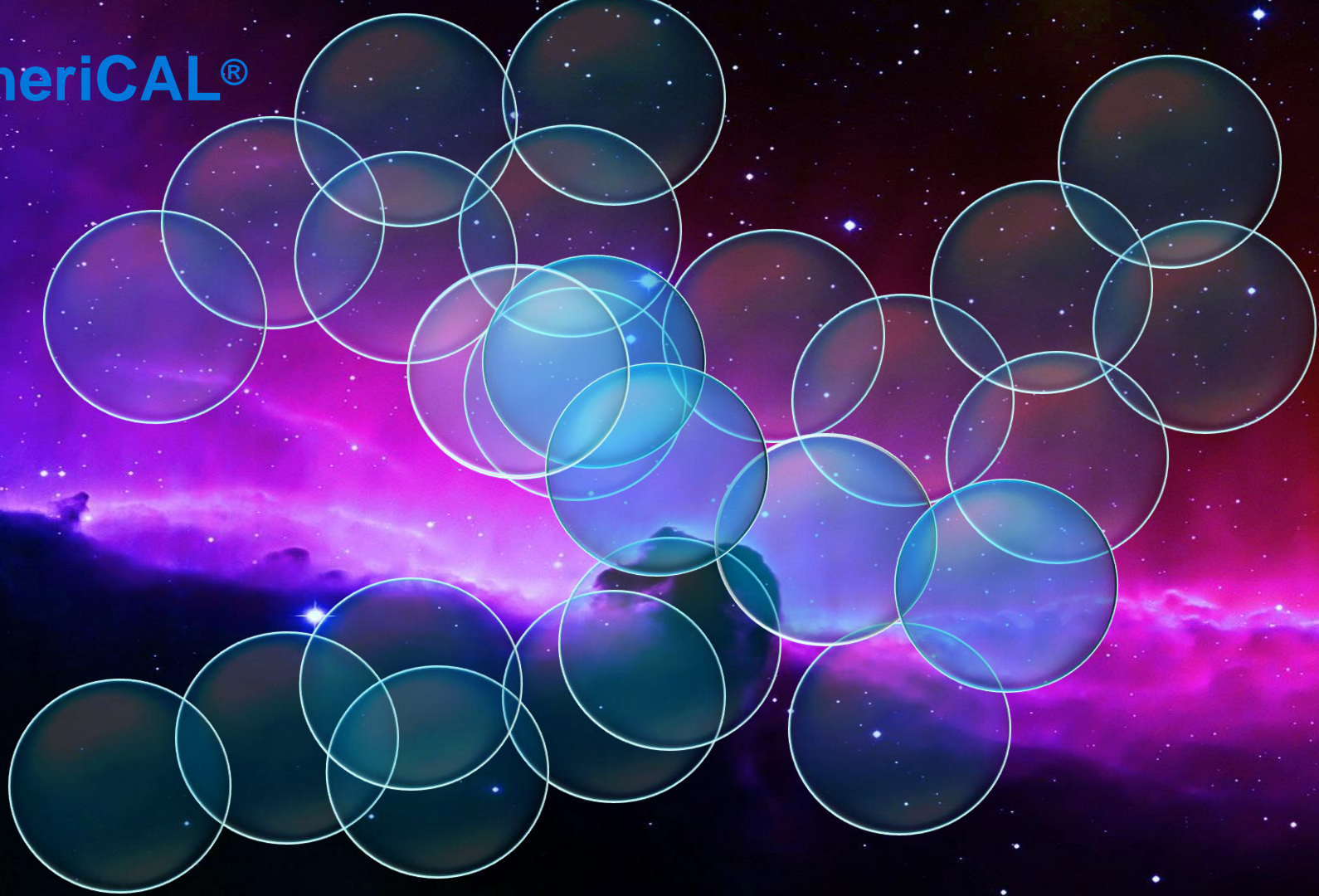
Onshore Wind

Offshore Wind

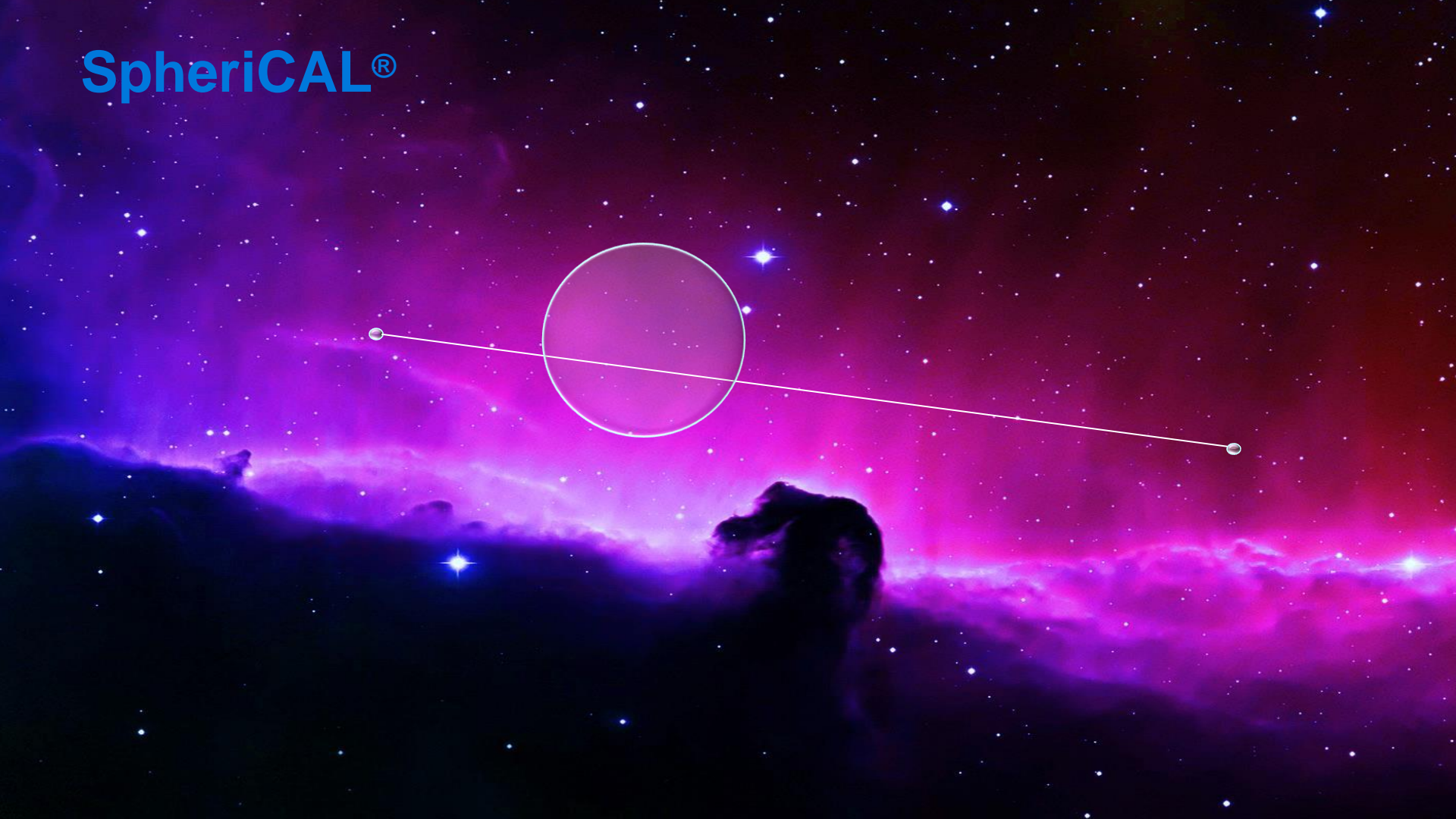
Hydro

Solar

SpheriCAL®



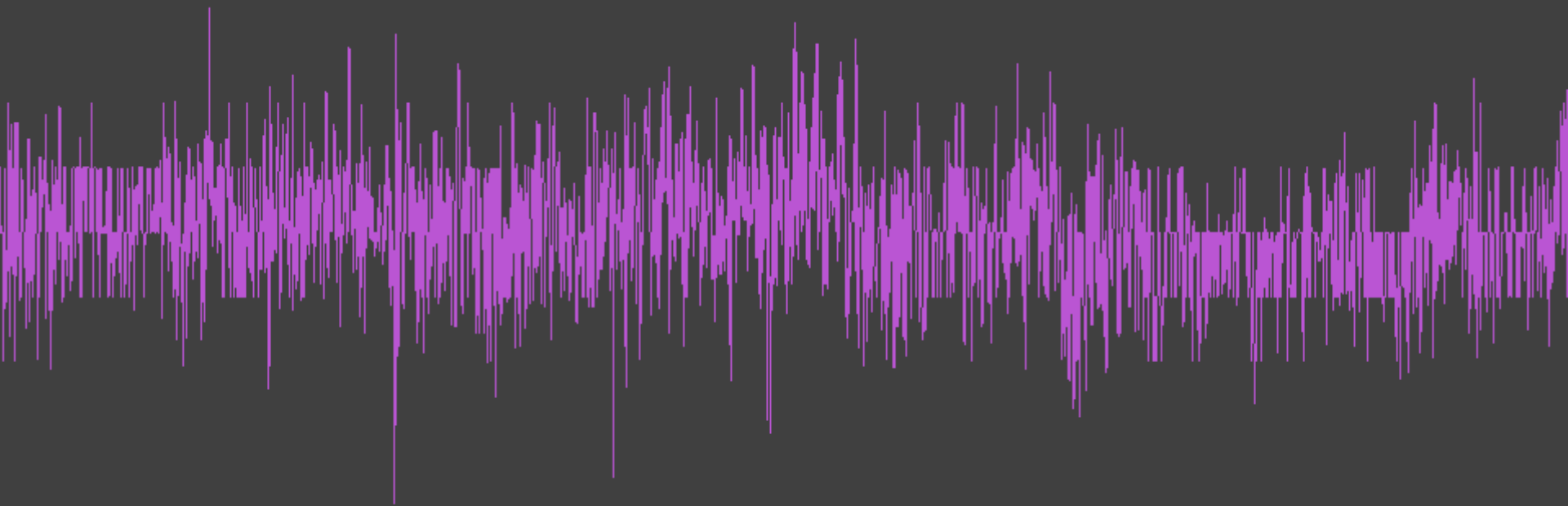
SpheriCAL®



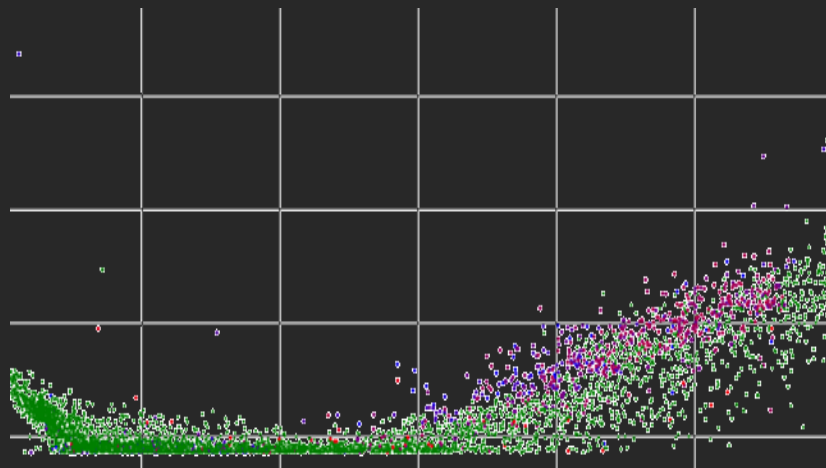
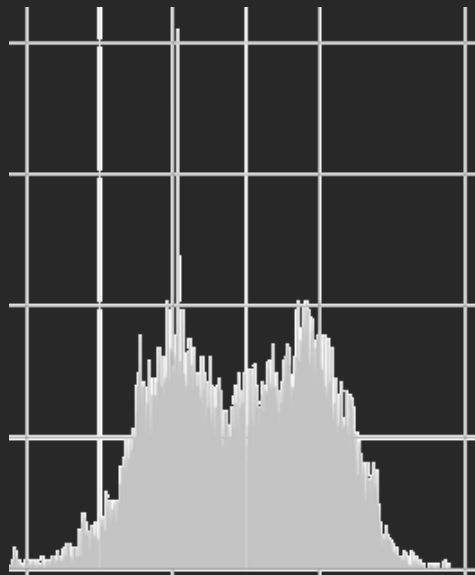
Universe™



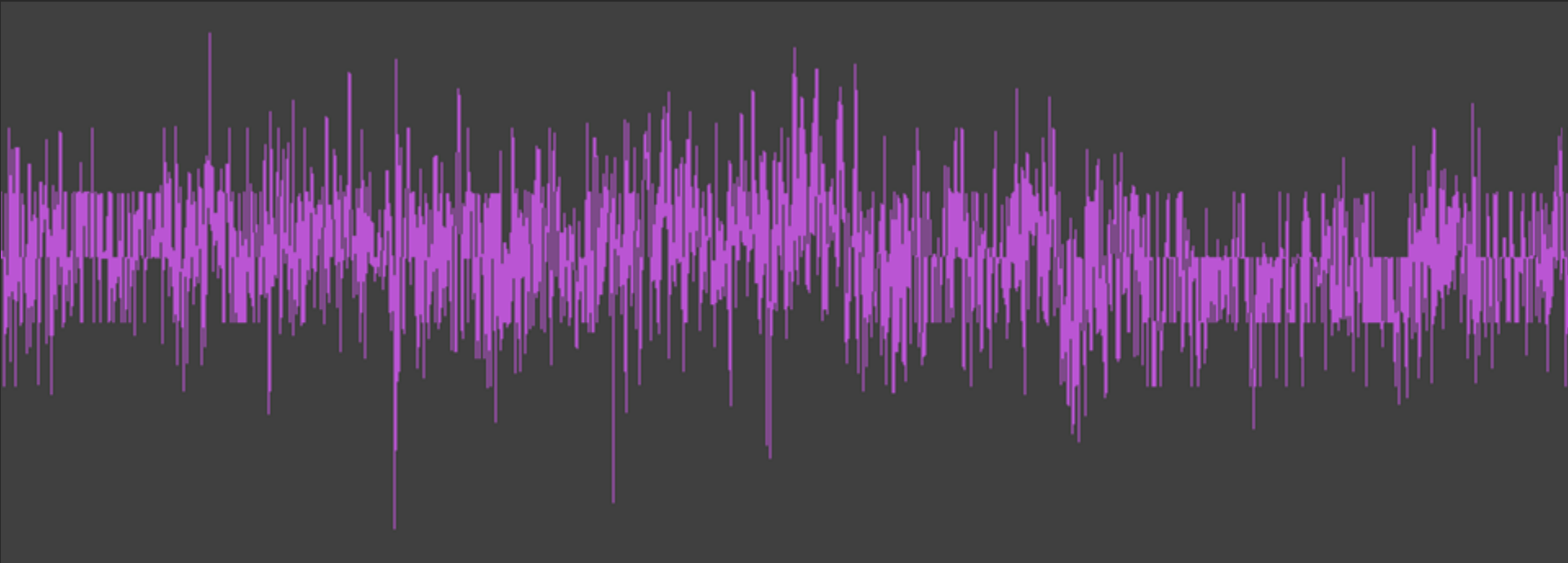
SpheriCAL VirtualAnalyst™

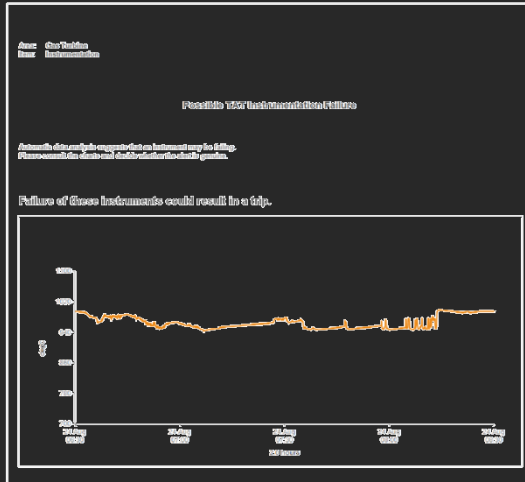


SpheriCAL VirtualAnalyst™



SpheriCAL VirtualAnalyst™

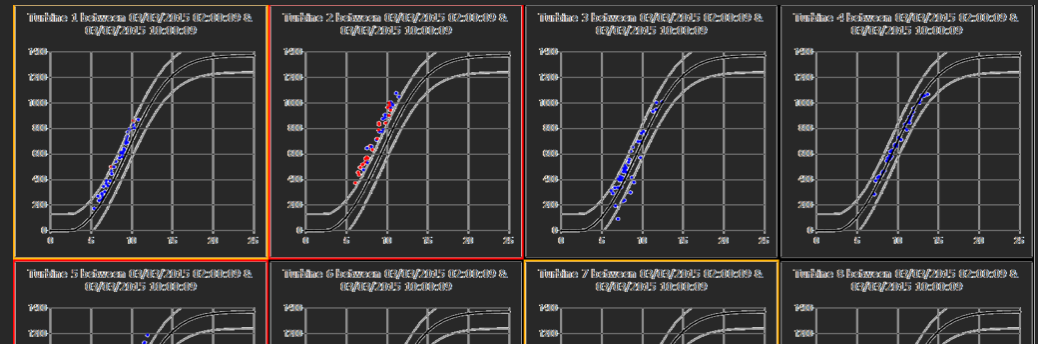




Identifying Alerts

- Red shaded area of change implies anomaly.
- Red arrows on the graph indicate the start of the operation.
- Blue arrows indicate the end of the operation.
- Green shaded area of change implies anomaly.
- Green shaded area of change implies anomaly.

SpheriCAL SMART SOLUTIONS™



Predictive models that get smarter as you do



uni per

Production
Solutions

Gas
Coal
Biomass
Onshore Wind
Offshore Wind
Hydro
Solar

Ty Burridge-Oakland

Ty.BurridgeOakland@uniper.energy
Product Manager,
Digital Innovations,
Production Solutions,
Uniper Technologies Ltd

