metroscope

Monitoring and diagnostics software, used by over 70 power generation units worldwide, to understand energy losses and system faults.

Power plants seek solutions to improve efficiency, reduce environmental impact, and reliably diagnose problems, ultimately lowering maintenance costs.

30%
energy losses recovered

450K GBP
gains per year per unit

70+ GW
monitored worldwide

How much can your plant save?

Our case studies relate to condition-based maintenance, performance management and early-stage detection. By automatically diagnosing and quantifying faults, as well as their impact on performance, operators can:

- Identify complex faults
- Speed up decision-making processes
- Prioritize and justify corrective actions
- Verify maintenance impact

These capabilities have proven to reduce system internal high-energy leaks up to 80%.

Payoff also includes organizational improvements, such as knowledge and skills management.

Diagnosis overview

Symptom
Remaining symptom

HX Tube rupture
Ventilation line leakage
Excessive water level

3W 3M 1Y All

Cycle 35 - Test 24
Feb 21, 2019, 10:18:32 AM

HX Tube rupture

Amplitude : 13.25 kg/s

35

Jan 16, 2019   Feb 4, 2019   Feb 20, 2019   Mar 8, 2019   Mar 26, 2019

Sept. 2016   Jul 1, 2017   May 1, 2018

Have You Met Your Digital Twin?

The technology leverages operating experience embedded in models to provide reliable diagnoses.

90% of diagnostic results are confirmed correct.
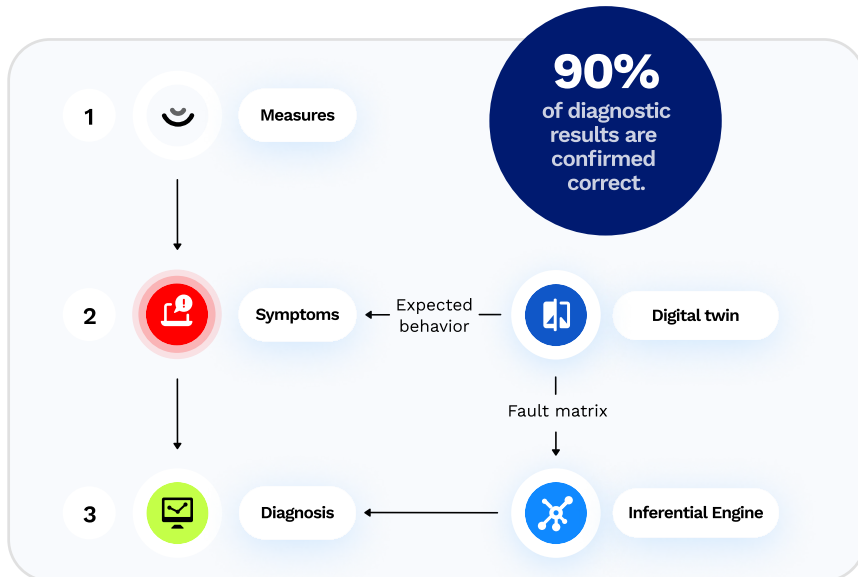
- Metroscope is **powered by a Digital Twin**, a numerical replica of your power plant.

- **Healthy and faulty systems** are both represented by the Digital Twin model.

- **Symptoms are detected** when the Digital Twin is compared with real-time process data.

- **The inferential engine finds** the most probable combination of faults to explain ongoing symptoms.

- Any emerging issue is **automatically located and quantified.**

A Cloud-Based Solution

The software offers multiple releases per year and maintains an availability rate of over 99.95%.

Our cybersecurity expertise, coupled with a strong Microsoft partnership, enables the delivery of a client-tailored, compliant, and secure Software as a Services (SaaS).

What do customers say about us?

Today, more than 400 users leverage Metroscope daily.

Designed for users with varying levels of expertise, its interactive design provides easy-to-understand overview of the plant's history and its current health status.

"Metroscope has made it possible to identify sources of efficiency losses, to explain slow equipment drifts and to help in the decision to initiate maintenance operations during the shutdown of our Combined Cycle Gas power plant in 2022."

Sébastien Duplan
EDF (Thermal Division, Blénod site)

"This 9 MW gain is a genuine collective success. Without the open-mindedness and collaboration of the Maintenance, Control, and IT teams, the AI analyses would remain on paper, without any tangible effect on the installations."

Sébastien Remacle
Electrabel (Reliability Engineer, Tihange 3 site)

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