



# QLEAP

POWERED BY **QUARTZ MATRIX**

Connecting devices, data & people

@qleap

[www.qleap.ai](http://www.qleap.ai)

# Why choose us

- 1 For our experience of over 29 years in developing custom made digital solutions
- 2 For 20+ authorizations in performing complex energy audits by the National Energy Regulatory Authority
- 3 For complete services: Consulting - Design - Implementation - Training - Maintenance – Service
- 4 For the 6000+ projects that have already been implemented and are working successfully
- 5 For custom made solutions in our Research&Development department
- 6 For innovation and experience in Industrial IoT and Industry 4.0



## Who are we

**Quartz Matrix** is a technology & services company that delivers sustainable digital business solutions since 1994. The company stepped into the business world as a hardware inputs reseller. Over time, we created our own Research & Development department that aims to create different software solutions for improving the efficiency of business processes.

## What is QLEAP

**QLEAP**, developed by Quartz Matrix is our IoT integrated solution that connects, collects and transforms data from various industrial sources into one unified platform.

Using our platform, companies can benefit from the advantage of getting a perspective on the energy efficiency and equipment performance processes.

3 solutions integrated in QLEAP:



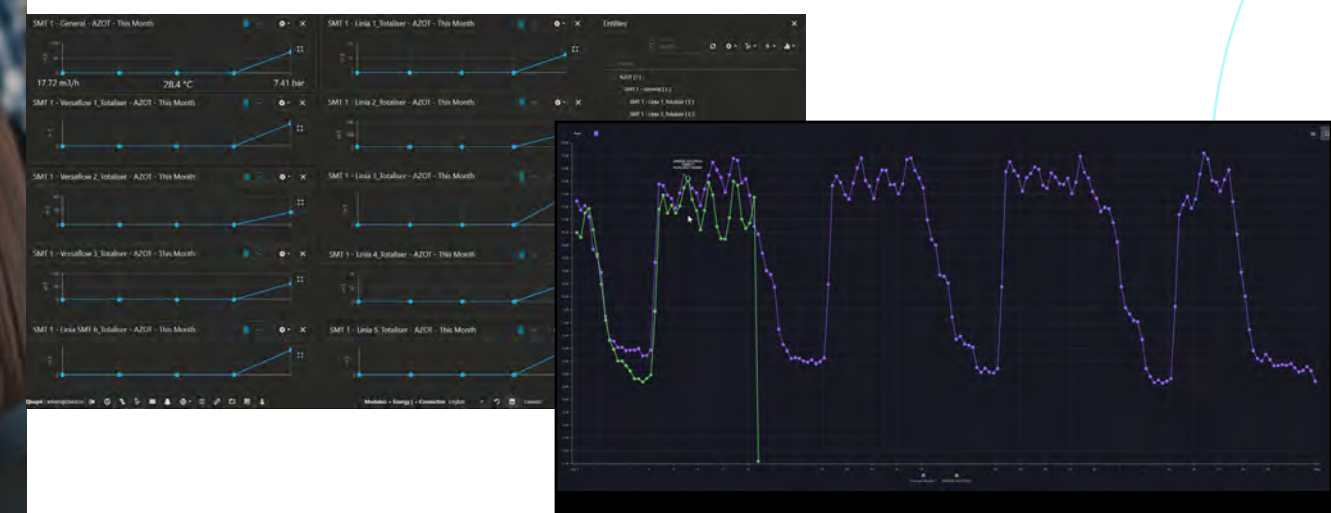
**QLEAP CONNECT** for Data Integration and Analytics



**QLEAP ENEF** for Energy Efficiency



**QLEAP KMR** for Equipment Performance







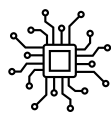
The core of the platform is the **CONNECT** solution. The integrated IoT sensors help business connect and collect data obtained from various sources to transform specific business processes.

**QLEAP CONNECT** compiles and analyzes all this data to improve productivity, avoid expensive downtime and significantly reduce costs.

Our solution offers a new level of visibility, insights and enhanced control.

**The main benefits consist in real time resources visibility, cost-effective operations and improved efficiency and valuable insights for quick decisions and forecasting.**

## How it works



Integration of sensors in all devices that will be monitored



Connecting devices with sensors



Integration in a processing server



Transformation into valuable information



Interpretation and reporting



Monitoring and control



**QLEAP ENEF** monitors in real time the consumption of: electricity, natural gas, compressed air, water, steam and thermal energy, as well as other cooling or heating thermal agents. The main goal of our **QLEAP ENEF** solution is to achieve operational energy efficiency by tracking the fit within the allocated consumption budgets.

**The main benefits of the QLEAP ENEF solution are:**

Cost-efficiency & energy efficiency

Reduced CO2 emissions

Price negotiation with utility services providers

**QLEAP ENEF for Energy Efficiency** is an important step in achieving an organization's environmental performance as it enhances the compliance with the ISO 50001:2018 standard for energy management, which is based on the efficiency cycle: Plan – Execute – Measure – Act.

## How it works



Measurement of the quantitative and qualitative parameters of the internal utility consumption and distribution



Transmission of the real time data to the collection point



Real time notifications



Displaying the quantities measured through the human-machine interface and taking over configurations and commands



Configurable reports for authorized user profiles



Interpretation and forecasting

**QLEAP KMR** represents a solution that performs digital maintenance management of the machinery and equipment in specific business environments.

**QLEAP KMR** it's a flexible solution, easy to implement and simple to use by both maintenance managers and maintenance technicians.

**Preventive maintenance allows you to:**

- Reduce downtime
- Improve sustainability
- Reduce costs

**QLEAP KMR** integrates IoT Technologies (Internet of Things) that automatically retrieve useful information from equipment and machinery for maintenance management: operating time, vibration, temperature level, flow and concentration.

The main benefits of **QLEAP KMR IoT** is the predictive maintenance feature. Instead of routine inspections based on the calendar, when a fault occurs and a part needs to be changed, for example, sensors embedded in the equipment are able to detect the anomaly and trigger an alarm. Thus effective predictive maintenance is achieved, when necessary, reducing labor costs allocated to planned checks.

## How it works



Planning of maintenance, works and interventions.



Real time alerts and notifications on exceeding the limits set in the system.



Allocation of work orders for technicians through the ticketing module



Monitoring the costs generated by equipment operational cycle, with consumables and maintenance labor.



Generating diversified reports on revisions, interventions, machines, materials, assigned work tasks



Planning of the preventive, predictive and corrective maintenance

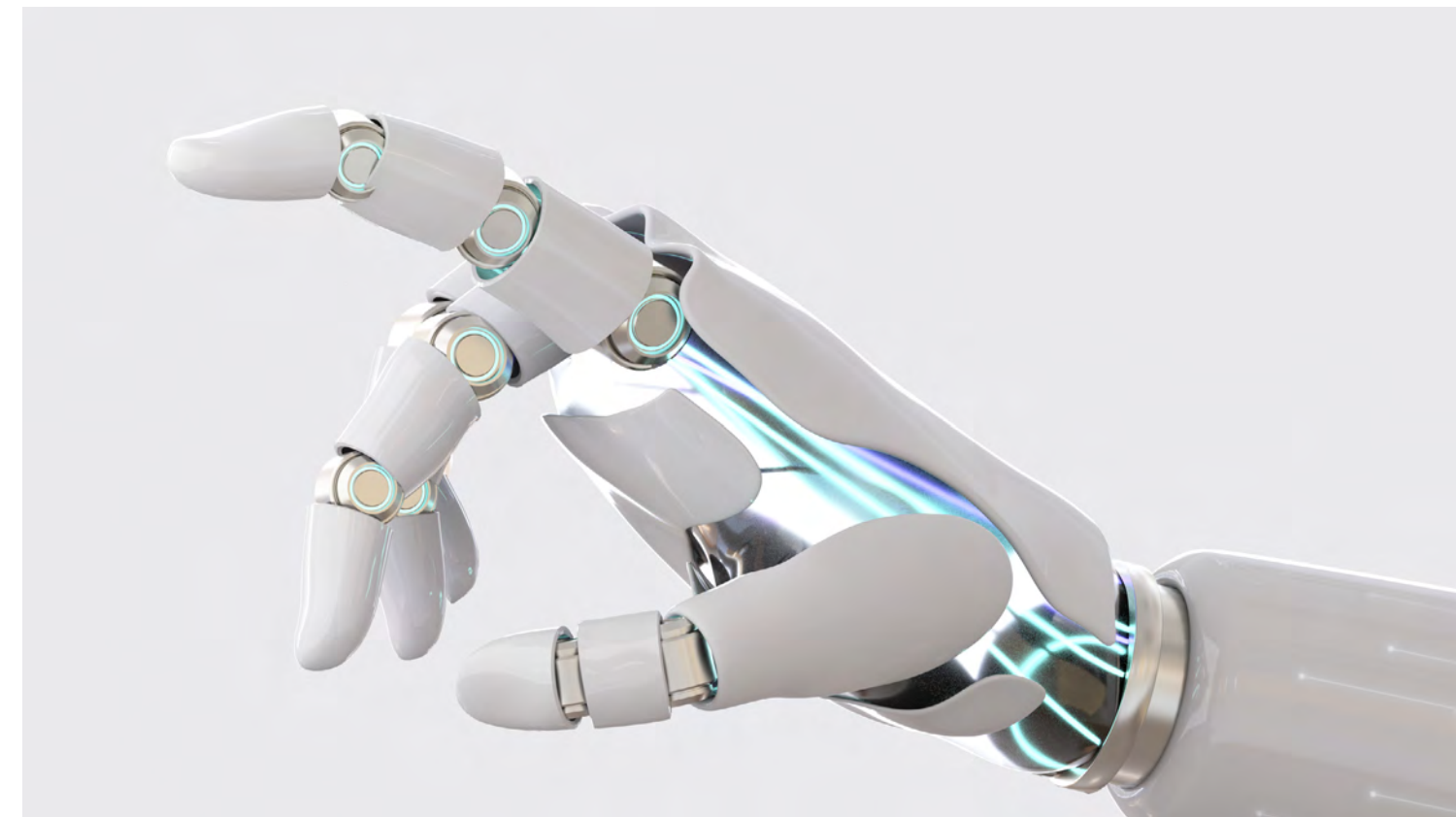
## Innovation of the QLEAP platform

The core of the QLEAP platform is the CONNECT solution that extracts data through specific communication protocols. However, these data would be useless without specific ways of interpretation.

Through specific modules functions, like Energy Efficiency and Maintenance Management, the end user gets to filter the information in order to make better decisions.

Through the consumption estimation function, based on AI/ML algorithms, as well as the specific monitoring and real time alarming, when the forecasted ceiling are exceeded, you can make radical decision regarding the efficiency of the entire production chain.

## Artificial Intelligence & Machine Learning



### The QLEAP platform uses Artificial Intelligence & Machine Learning and monitors:

•Energy efficiency through the QLEAP ENEF solution by identifying opportunities to save and conserve energy, creating trends and accurate forecasts of future energy needs.

•Maintenance Management through the QLEAP KMR solution for predictive maintenance by analyzing trends collected from "things".



# SUSTAINABILITY AND EFFICIENCY OF ALL RESOURCES

## Reduce the impact on the environment

The QLEAP platform helps companies to reduce their negative impact on the environment. Through the platform functionalities, we support responsible consumption and compliance with international standards regarding the carbon footprint.

The QLEAP platform ensures energy management performance in the context of law 121/2014 on energy efficiency and in support of the implementation of ISO 50001:2011 standard.



## Important benefits of the QLEAP platform:

### Resources:

1

- Minimize resources consumption.
- Quick identification of areas with increased consumption.
- Accountability and discipline of resources use.

### Costs and budget:

2

- Streamlines the use of operational resources by tracking compliance with allocated consumption budgets.
- Allows the calculation of operational costs, the supply of consumption and the allocation of profit centers.

### Equipment:

3

- Cost savings of maintenance processes through the monitoring function.
- Reduce equipment wear and enhance efficient and uniform operational cycle.
- Prevent downtime and ensure business continuity.



Companies that are using QLEAP



Boulevard Carol I, no.5D, 700506  
Iasi, Romania  
qleap@quartzmatrix.ro  
(+40)733 995 898