



OEM business strategy to reduce consumption and increase performance

Machine manufacturer Oleobi helps their customers to cut costs with new service contracts. Read their story and how their customer Fonderia Ghirlandina, specialised in the production of high quality grey iron castings, benefits from this.





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Cost of energy: how to maintain production?

The economic recovery of 2021 came up against raw material shortages, unstable international markets and out-of-control energy prices. In this challenging environment, companies in the manufacturing sector are struggling to maintain sustainable production due to exponentially rising costs.

A recent study by the Italian confederation of industry, Confindustria, quantified the increase in the cost of energy as ranging from 8 billion in 2019 to 37 billion in 2022. An increase of 462% in three years. The effects are particularly heavy for energy-intensive industries (steel, glass, ceramics and paper) and the entire supply chain is often forced to absorb the costs, witnessing a drastic reduction in profit margins. In the uncertainty of the current economic situation, companies in the manufacturing sector have to find new solutions in the short and medium term.

How to improve energy efficiency in the industrial sector?

In its Digital Energy Efficiency Report 2021 Politecnico, the Technical University of Milan, identifies hardware and software solutions as the two main drivers for energy efficiency in the industrial sector. Hardware solutions that enable the reduction of energy consumption and software solutions, such as sensors, IIoT platforms, MES, which enable the monitoring and management of machinery performance.

In the following pages we will take a closer look at the case of Oleobi, a manufacturer of hydraulic power plants for energy-intensive companies. We will look at the successful elements of their service strategy with Industrial IoT, and analyse and quantify the cost savings achieved by end customer Fonderia Ghirlandina.





Oleobi's case: results that matter to OEMs

Oleobi, a company of the Flodraulic Europe group, designs and manufactures integrated hydraulic systems for applications in the steel, energy, oil & gas, on-shore and off-shore sectors. The search for an enabling solution for power plant monitoring started from three main requirements related to the company's strategic business:

Objectives

Implementation of a platform for predictive diagnostics



Implementation of a shared and highly customisable working environment



Optimisation of the total cost of ownership of power plants



Given the technical complexity and the nature of the applications, it is essential for Oleobi to guarantee the stability and operational continuity of its HPU (hydraulic power units). In addition, the continuous improvement of the total **cost of ownership** is a fundamental service and an integral part of Oleobi's competitive advantage.

Given an average life of the HPUs of around 20 years and their application in energy-intensive industries, the manufacturer intends to provide a prior assessment of the total cost of ownership.

This makes it possible to clearly demonstrate the extent of operating costs over the entire life cycle, in addition to the initial purchase investment.

“The objective was to optimise the total cost of ownership of our power plants, which are supplied to energy-intensive industries and have an average lifespan of 20 years.”

Manuele Luppi

Automation & Electronic Manager at Flodraulic Europe



Industrial IoT as a business driver

The adoption of a solution for a data collection and management process capable of putting all the pieces together had - and still has - a central role in Oleobi's strategic planning.

The IXON Cloud solution was chosen for its simplicity, flexibility and scalability. These factors allowed the manufacturer to significantly reduce the time to market. As a result, the work of its own technicians and those of its customers was immediately more efficient.

The implementation of a service strategy based on predictive maintenance was possible thanks to the collection of historical and real-time data on the IXON Cloud platform. This was combined with the receipt of alarms and notifications related to critical parameters and thresholds identified by the manufacturer.

Discover the potential of the IXON Cloud platform

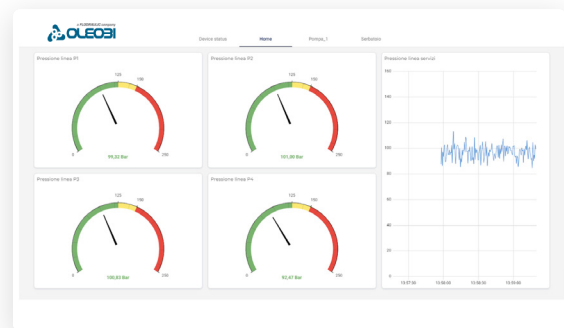
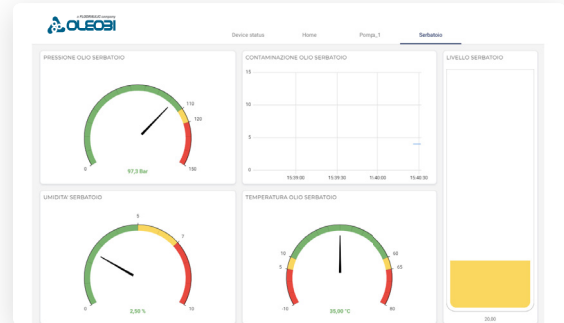
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Customisable platform

The possibility of using a customisable platform fits well with the company's technology proposition. Individual HPUs are designed and built according to customer specifications, thus requiring a high degree of flexibility. Especially in terms of setting parameters and visualising data in dashboards. All in a shared and recognisable environment, for the benefit of customer collaboration. This is how the O-Guardian monitoring portal was born.

The monitoring carried out by Oleobi's systems engineers is continuous. The operation and consumption of the plants are constantly optimised to ensure high performance and avoid energy waste.



Service contracts

The extension of the warranty and the level of monitoring activities are agreed with the customer through customised service contracts (silver, gold and platinum levels). These include preventive and predictive maintenance, monitoring of the wear status of critical components, monitoring of consumables (e.g. oil, filters), and ensuring their availability and regular replacement.



The next step is reporting: Oleobi exports data from IXON Cloud and shares it on a quarterly basis:

1. With customers, to maintain a constant and transparent relationship on activities;
2. With the internal service division, which then has information at its disposal for the preparation of targeted service contracts.



Results

- ✓ Guaranteed continuous efficiency
- ✓ Reduced power supply and operating costs
- ✓ Close collaboration with the customer
- ✓ High value-added service contracts
- ✓ Upgrading of new generation power plants

The storage of historical data also allows Oleobi to carry out important design improvement activities. In particular the analysis based on data from the first year of operation of the power plants. This can be used to build new optimised and even better performing units for continuous technological development.

Discover the applications of Industrial IoT

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Fonderia Ghirlandina case: reducing consumption

Fonderia Ghirlandina specialises in the production of grey iron castings for various mechanical engineering sectors, with a production capacity of 20,000 tonnes per year. Oleobi designed a new plant for the customer to replace two old plants (a moulding plant and a complementary handling plant).

Central moulding plant

The new power station was designed as part of a general reorganisation of the entire area for the expansion of manoeuvring and storage space.

Oleobi gained technological know-how and experience from operating data from power stations in the field.

This enabled the development of a single power station with a more compact design and higher performance with reduced consumption.

O-Guardian Platinum Diagnostics

The supply of the power plant is accompanied by a service contract with the O-Guardian Platinum diagnostic system. The acquisition of operation data and notifications allowed the manufacturer to collaborate with Fonderia Ghirlandina. They are constantly monitoring and continuously improving the operation of the power plant.



Central moulding plant with integrated diagnostic system developed by Oleobi for Fonderia Ghirlandina

“We have improved the reliability and continuity of the plant, with energy savings of 250,000 kwh per year”

Massimo Ansaloni

Plant Area Director of Fonderia Ghirlandina



Advantages



Environment and security

- Noise reduction
- Increased manoeuvring space for forklift trucks



Energy

- Reduction of about 120 kW of power
- Energy savings: 250,000 kWh/year



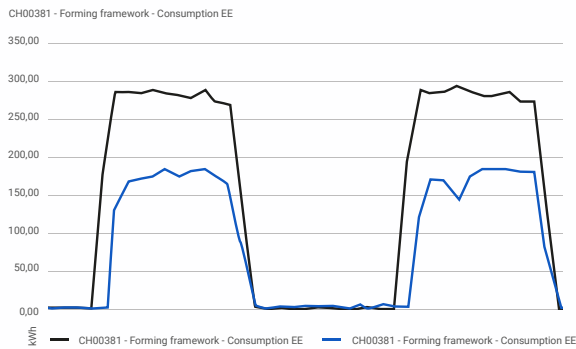
Logistics

- Reconstructed storage area, 50% reduction in procurement time
- Unification of hydraulic components in stock

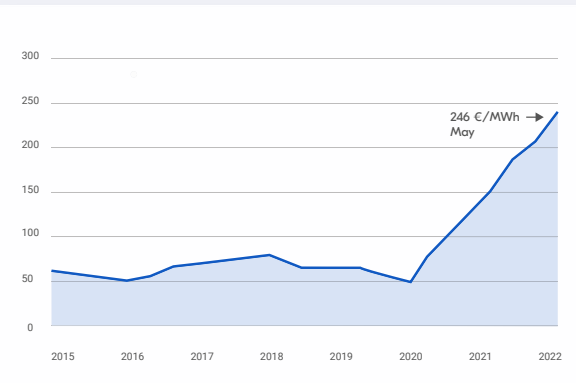


Reliability

- Oil temperature 30 - 50 °C R
- Uniform line pressure
- Progressive shaping



Power plant consumption



PUN Trend

PUN (€/MWh)

An analysis of historical data shows a drastic reduction in consumption with energy savings of 250,000kWh/year. Multiplying the saved kWh by the PUN (Single National Electricity Reference Price), which in May 2022 reached 246 euro/MWh, results in saving over 60,000 euro in the last year.

Savings

250.000 kWh/year savings
120 kW of power reduced

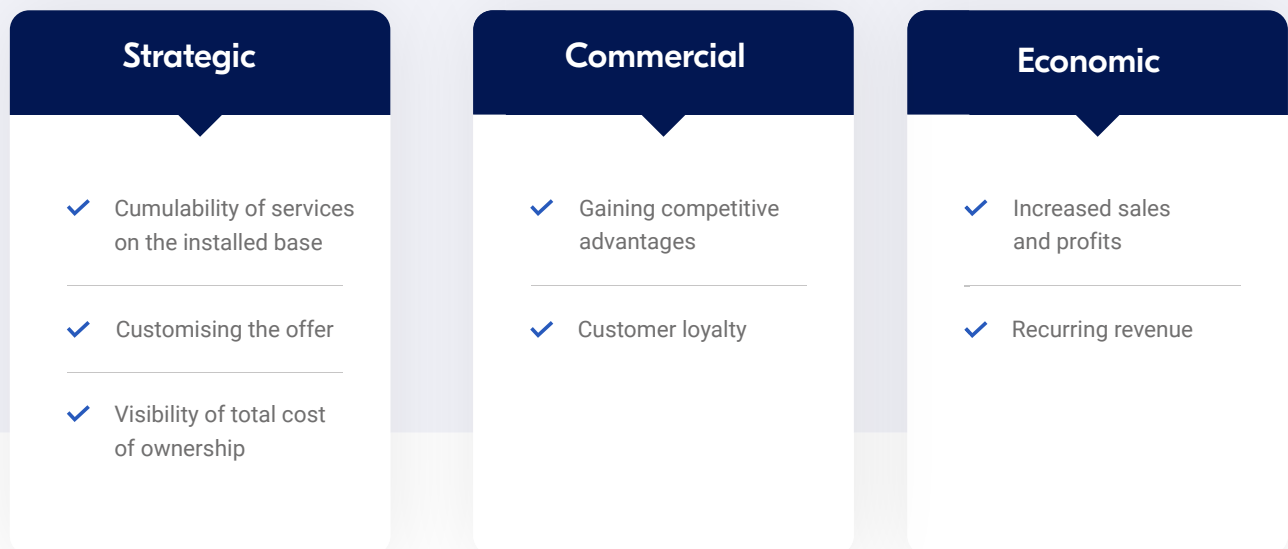
Over 60.000 €/year



A service strategy supporting ROI for manufacturers

The illustrated applications show the advantages of a structured service strategy.

The benefits of **servitization** for OEMs



The realisation of more efficient systems may require substantial investment and medium- to long-term development. However, the use of software solutions allows for rapid implementation, with high customisation possibilities and without interrupting production activities.



The Industrial IoT platform of IXON Cloud

IXON Cloud's Industrial IoT platform for industrial machine monitoring gives the manufacturer access to machine data, with tangible results on several fronts:

- ✓ Increased performance;
- ✓ Reduction in costs and consumption for the end customer;
- ✓ Information aimed at optimising the design costs of new machines.



Access to machines

The possibility of access to machines located at customers around the world gives manufacturers access to reliable, historical and real-time data. This creates the prerequisites for a data-driven business strategy. The manufacturer thus has the information needed to offer customers customised service contracts.

With the IXON Cloud platform, manufacturers have multiple possibilities to realise a rapid return on investment (ROI). This enables them to address and anticipate the economic and environmental challenges posed by the market.



IXON Cloud platform connectivity and security, complete with IXrouter with integrated firewall and compliant with the strictest ISO 27001 and IEC 62443 standards

Discover business models with Industrial IoT

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About IXON

With IXON Cloud you benefit from a reduced time-to-market and a future-proof solution. As an IoT partner at the complete service of machine builders, we actively help you move forward in your digital transformation process.

Not only with our IIoT solution, which offers easy-to-use remote access, logging and data monitoring tools, but also with our industry experts, who help you identify the digital strategy best suited to your needs. Which strategy do you want to adopt to increase customer satisfaction and generate recurring revenue through new service models?

Our experts are ready to evaluate your options.

[Book a call >](#)