



# BAGLIONI Srl

## CASE STUDY

Industrial refrigeration

- Industry 4.0
- Production optimization
- Remote monitoring
- Energy consumption reduction

[www.zerynth.com](http://www.zerynth.com)





ZERYNTH SUPPORTED BAGLIONI IN DEVELOPING AN IOT REFRIGERATION SYSTEM FOR REMOTE AND REAL-TIME MONITORING OF TEMPERATURE AND HUMIDITY PARAMETERS, SENDING ALERTS IN THE EVENT OF VALUES TOO HIGH OR TOO LOW.

**20**  
YEARS Machines' age to digitalize

**40%** Power consumption reduction

**4**  
MONTHS Return on IoT Investment

7

*What really impressed me about Zerynth is the fast deployment and the expertise of the team which allowed us to successfully meet our requirements. Now, we are able to analyze the energy efficiency of our refrigeration systems in real-time, in an easy and affordable way.*



**Emiliano Baglioni - Baglioni Srl, Technical Director**

**7 Industry**

Industrial Refrigeration

**7 Asset**

Refrigeration machines

## The Challenge

Nowadays, most businesses associated with commercial refrigeration, such as food service facilities, dairy stores, food warehouses, and restaurants are facing a vitally critical need to monitor temperatures in real-time.

Baglioni's main challenge was to cut down costs of scheduled maintenance and to remotely monitor and manage the refrigeration systems. Additional requirements were **to measure and control the energy consumption of their products**, to improve the efficiency of their systems, and to enhance their capabilities for preserving and maximizing the quality of the stored food in compliance with HACCP.

"This situation has been further complicated due to the legislation on fluorinated gases and the gradual disposal of refrigerants with a high level of environmental impact" said Emiliano Baglioni, Technical Director of Baglioni Srl. This meant that their refrigeration systems needed to be replaced with alternative refrigerants with the same efficiency level as the "old" ones; however, there was no such solution available on the market. So Baglioni needed to find a cost-effective tool that could **analyze the energy efficiency of their refrigeration** systems in real-time.



## The Solution

The Zerynth team provided Baglioni with Wi-Ref, an IoT-enabled **solution designed for real-time refrigeration monitoring**. Wi-Ref monitors parameters like temperature and humidity, and alerts the system if the values are too low or too high. This solution keeps perishable goods fresh and safe. Wi-Ref Solution is also capable of **monitoring and controlling both legacy and modern industrial refrigeration systems**. Wi-Ref Solution is easy to install on existing industrial environments without invasive interventions or component replacement.

Wi-Ref includes an analytics tool designed to continually improve the energy performance of refrigeration and air conditioning systems. The system allows you to extract/analyze data and send it to the cloud ensuring complete remote management with high security standards. Wi-Ref automatically generates reports, and continually monitors the selected values by comparing them with configurable thresholds, and sending alerts in real time. By monitoring the refrigeration system parameters, the algorithm created on the cloud portal allows you to **calculate in real-time the actual system performance**.



## The Results

### Increased Efficiency

5%-20% estimated reduction of maintenance costs and energy

### Improved Quality

24/7 real-time cold chain monitoring to ensure food maintains high quality

### Meet Compliance

Comply 100% with HACCP regulations

## Why Baglioni chose Zerynth?

Baglioni has successfully expanded their business offer by providing their customers with an IoT-enabled solution capable of recording and monitoring industrial refrigeration systems. In only 6 months, Zerynth implemented Wi-Ref and experienced a 60% increase in the installation of temperature monitoring systems and a 20% decrease in system downtime.

Wi-Ref automates the recording and reporting of fridge temperature processes completely without any manual activity, boosts efficiency thanks to predictive maintenance and failure notifications, and automatically generates reports to comply with food management norms and regulations.

## About Zerynth?

Zerynth supports manufacturing companies in streamlining production by increasing the value of interconnected industrial assets. Through the Zerynth Industrial IoT & AI Platform, it connects any industrial machinery in less than 3 hours, using a plug-and-play and non-invasive approach, enabling a complete 4.0 transformation with simplicity, speed, and security.

Founded in 2015, Zerynth counts a team of over 40 experienced IoT professionals, strategic partnerships with system integrators and technology providers such as SAP, as well as over 150 customers across diverse industries: discrete manufacturing, food & beverage, logistics, utilities, and machinery manufacturing. Headquartered in Pisa, Italy, Zerynth is actively pursuing an ambitious international expansion project.

### GET START WITH ZERYNTH

*Ready to see what Zerynth can do for your business?*

**LET'S TALK!**

