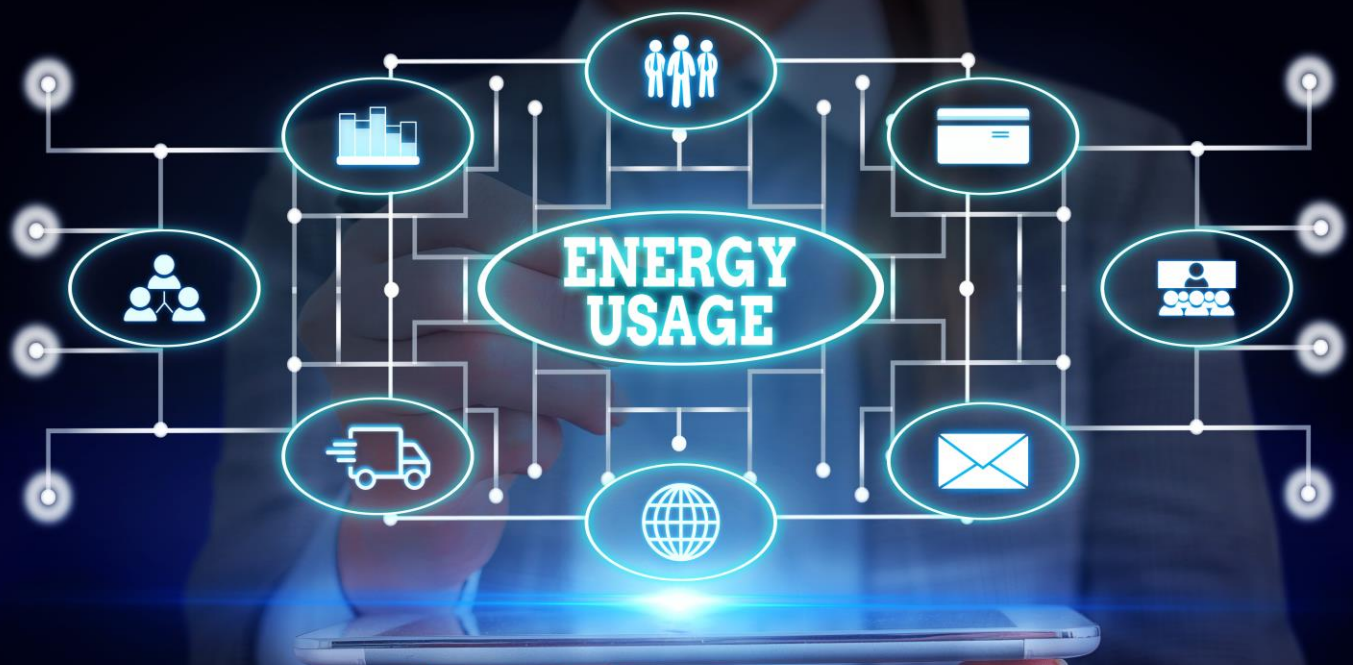


# IMST GmbH delivers Smart Metering for real-time data monitoring of energy consumption



## Introduction

IMST GmbH offers easy-to-integrate wireless radio modules for license-free frequency bands as well as smart IoT devices and comprehensive design services.

One of the most interesting and disruptive wireless technologies is LoRa®. With its long range transmissions and low power consumption, the decreasing cost of sensors allows smarter innovations in all kinds of areas, such as **energy monitoring**, lighting, waste management and many more.

The IoT market is predicted to continue growing at a compound annual growth rate of >10%. Certainly, the use of LoRa® is already transforming industries by simplifying hardware and software design with less infrastructure and costs.



## The Challenge

The well-known analog electricity meters are increasingly being replaced by intelligent measuring systems fitted with optical interface. Such modern meters give an up-to-the-minute overview of the energy consumption.

By using expensive infrastructures, only the distributor can record and receive the energy usage for billing purposes. However, utilities do not provide the gathered data or any consumption patterns in detail and therefore an efficient management of the facility is not possible.

All these missing value-added services (visualization of consumption data, proof of energy efficiency, etc.) are really helpful for **electric cars** owners when charging their vehicles at home or to **local energy communities** when managing a photovoltaic generator.



## The Solution

The *iOKE868 Smart Metering Kit* leverages the long range and low power of LoRa® to provide real-time data monitoring of energy consumption/generation and secure connectivity to a LoRaWAN® network. The optical reading unit can be attached magnetically to the smart meter to read out the infrared interface, extract the desired values and transfer those to the LoRaWAN® network with a period defined by the user.



A widely used LoRaWAN® network is that of the provider The Things Network (TTN). According to TTN, the LoRaWAN® network currently consists of over 19,000 gateways. The use for gateways and end devices is free of charge in the basic membership and the coverage can be improved if needed, either for personal use or to benefit others, by installing a gateway.

The TagoIO platform allows an easy management of devices, storage of data and detailed analytics of real time and past consumption.



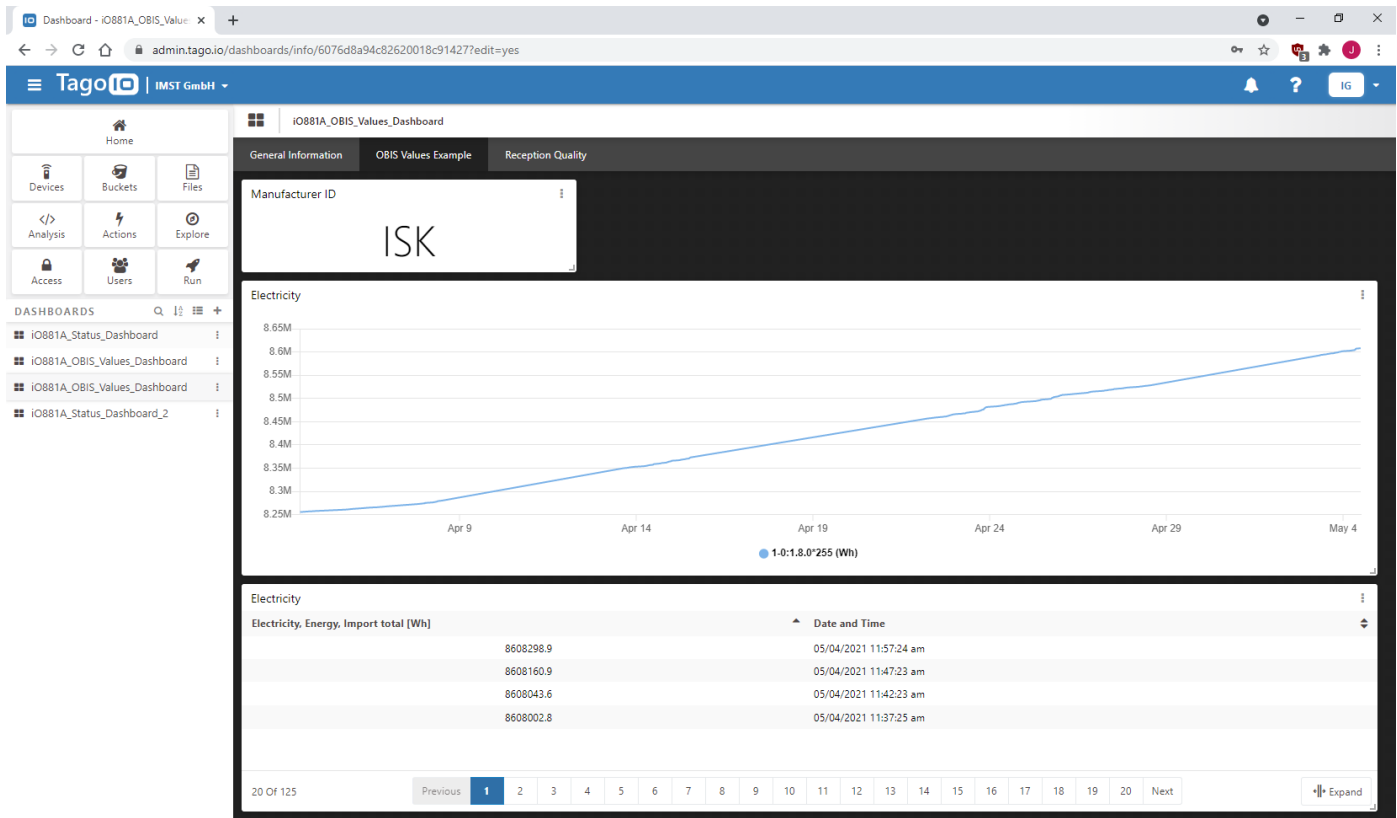
## The Results

Thanks to the LoRa® technology, the *iOKE868 Smart Metering Kit* offers a secure wireless connectivity even where networks using conventional mobile technologies are not available or in difficult RF environments.

The TagoIO platform makes the collected consumption data user-friendly and available everywhere and anytime via internet over a web interface/mobile app.

All these advantages result in a far more comprehensive and detailed feedback on energy consumption and enable a significant reduction of operational costs.

Consequently, the increasing electric vehicle charging loads on the local grid network can be better balanced and expensive grid infrastructure investments can be postponed or avoided.



Learn more about IMST solution in this address: <https://wireless-solutions.de/> or contact the team by email [sales@imst.de](mailto:sales@imst.de)

Learn more about TagoIO complete eco-system for IoT solutions by visiting <https://tago.io> or sending an e-mail to [contact@tago.io](mailto:contact@tago.io)



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