



Zoltán Kiss - export manager - Endrich Bauelemente Vertriebs GmbH

## **Endrich GmbH introduces the award winning E-IoT infrastructure on the International Plovdiv Technical Fair**

**I**n the previous issues of Engineering Review Magazine we have been talking a lot about the multi-award winning IoT Eco-System of Endrich GmbH, the E-IoT platform, which actually supports our major offering to our partners described by our 2022 year slogan "We MAKE YOUR DEVICE SMART". Smart features of devices support predictive maintenance, optimize energy consumption, and support remote monitoring. Our E-IoT eco-system helps to enter this industry by offering hardware and software service evaluation platform to developers of such IOT devices as well as offer ready solution to convert conventional into "smart" devices. Now in September 2022, we are going to bring this concept to Bulgaria by exhibiting on the International Technical Fair in Plovdiv, as the next stopover of our international E-IoT RoadShow '22.

Endrich GmbH - a leading electronics component distributor and design-in house - has developed an online sensor network infrastructure, where each hardware components belong to manufacturers represented by the company.

A series of technical writing published in Engineering Review Magazine is meant to give the readers a closer look at to Endrich's IoT platform and ecosystem, offering a possible cooperation between IoT developers and the leading component distributor on the field of "smart devices". We intended to talk to the Bulgarian professionals in order to see whether we can integrate our IoT services into national Bulgarian technical products, requiring predictive maintenance, being part of smart network or meeting requirements of Industry 4.0.

We do not only show the concept on our Booth at the Plovdiv Show, but also intend to exhibit a few of the finished product derivatives out of the concept, such as the Telemetry Module made for Air Purifiers (Grand Prix Award Winner of Industry Days'22 Expo in Hungary), the brand new Wireless Smart Sensor Network ( first exhibited in Embedded World'22 in Nurnberg and second in

Plovdiv), the newest family member, the Smart City Box, designed for monitoring air quality of urban area. This latest product will debut in Plovdiv, this is the first show where it is being promoted to the audience.

The E-IOT ecosystem is extremely popular in western Europe, the concept itself and the derived products have won by today several prizes, amongst others the 2022 German Innovation Award. We also felt necessary to weight it on the International Gold Medal and Diploma Competition of the Plovdiv International Technical Fair, and we are looking forward to the result.

The visitors are able to meet the Endrich professionals face to face, the engineers, who defined, created and maintain the E-IOT innovation concept. I am personally anxious to see and chat with the members of the Bulgarian engineering society, and looking forward to meet the readers of this magazine on our booth.

A short summary of the products being promoted

## **E-IOT Board**

The root of the platform, a RISC-V based single board computer with sensors and narrowband (GSM) communication functions integrated. The board is similar to a well known Arduino

or Raspberry Pi SBC, however due to the special functions on board acts as an independent IoT node.

## **Telemetry Module for Air Purifiers**

This SBC has been derived from the E-IoT board and offers special telemetry functions to UVC air cleaners, to support predictive maintenance by offering remote supervision of operating parameters and air quality. With this board in fact any conventional device can be converted to “Smart” device by replacing the special external sensors developed for Air Purifiers to dedicated sensors for Your device’s important operational parameters.

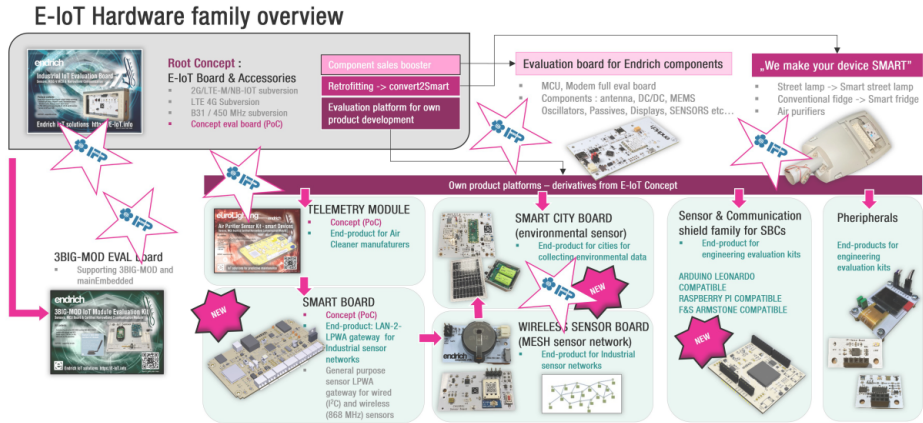
## **Gateway for local Mesh Sensor networks to go on live via GSM**

An external shield for the E-IoT board to offer a concentrator for MESH network of sensors operated on 868 MHz local wireless LAN. The board converts the E-IoT board to a gateway to the Internet.

## **City Box**

A solar panel driven single board computer with integrated air quality measurement sensors, such are air particle sensor, carbon dioxide, nitrogen oxide, humidity and temperature sensors as well as the possibility to connect external wired and/or wireless sensors.

The city box communicated to the Endrich Cloud via the Internet through 2G/ NarrowBand (NB-IoT or LTE-M) GSM channel.



1| The hardware elements of the E-IoT platform to be shown in Plovdiv International Technical Fair 2022

