

# S2: Managing Disruptive Digital Technologies: Artificial Intelligences, IoT, Blockchain, 5G

## Industrial IOT and SMEs

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The platform created was used by customers in order to manage:

- **quality areas,**
- **approval documents,**
- **manage production data.**

The basic problem in data management that was common to many manufacturing companies: **the data were only available**, very optimistically, **the next day** after a person entered them into the management system.

## Not possible to calculate Overall Equipment Effectiveness.

This is the product of three indices:

- **quality index,**
- **availability index,**
- **productivity index.**

There was no way to distinguish between stop and micro-stop.

This is the reason why approximately 8 years ago this company started working also on new hardware devices.

The first device was able to connect to PLC reading data, so it was finally possible to calculate the **Overall Equipment Effectiveness** in real time!

We started working on a **device able to read electrical signals.**

The milestone engineered is a new device: the iPoi 4.01.

Read data from PLC and electrical signals, interact with the operator recording stop reason, send data and documents and manage maintenance.

The most important goal achieved is that those sensors can be applied in 1 minute and, immediately afterwards, iPoi is able in real time to acquire data, which enables customers to:

- **know in real time the Overall Equipment Effectiveness** of each machining centre, and
- **allow the operator to work efficiently and safely.**

The IoT is continuously proving to enhance **accessibility, competitiveness, and resilience** of SMEs.

This is an effort to provide small businesses with a lightweight **presentation to adopting industrial IoT solutions to digitalise and improve their operations within a secure environment.**

Last but not least this solution is a good practice for the **sustainability for safe production** (continuous control) and **circular economy** (no spreco of materie prime).

**THANK YOU!**

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