

Our Mission: To minimise the adoption barrier to Industry 4.0 and Lean for manufacturing SMEs

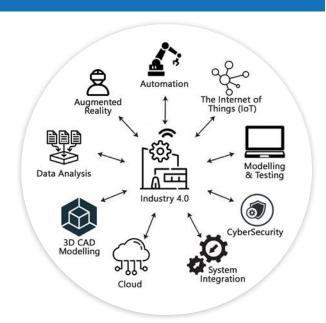
## What is Industry4.0 & Industrial IoT?

Industry4.0 or the "Fourth Industrial Revolution" involves the integration of machine-to-machine (M2M) communication and the Internet of Things (IoT) to increase automation, communication and Self-monitoring. Lean, Six Sigma and Quality Management systems such as ISO 9001/AS9100 require organisations to acquire and analyse key process (e.g. assembly, manufacturing) metrics, in order to enable evidence-based decision making.

Considering the amounts of data required to monitor the KPIs for various business processes, the implementation of automated data collection systems and is essential for adopting such practices.

Industrial IoT systems can benefit manufacturing organisations by:

- Driving product quality improvement
- Reducing time-to-decision
- Improve cost forecasting
- Improve transparency





## **Entry Barriers for SMEs**

The primary entry barriers to adopting the Industry4.0 / Industrial IoT approach are:

- Economic Implementation costs
- · Social Privacy concerns, threat of redundancy
- Organisational IT security concerns, workforce lack required skills and training

#### **How to Contact IoMech**



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manufacturing SMEs

### Who We Are

IoMech provides technical and business process consultancy services to SMEs and start-ups, in the space of manufacturing industries.

IoMech was formed by Dr Ioannis Michalakoudis, a Chartered Mechanical Engineer with an experience spanning from the Automotive and Marine system maintenance to the development and certification of Aerospace grade (AS9100) dampers and gas spring components.

Having spent several years in manufacturing SMEs, IoMech understands the constraints in adopting new best practices and has developed a set of methods and products to lower adoption barriers for such practices.



Dr Ioannis Michalakoudis

### How We Can Help

IoMech can help you to overcome common entry barriers:

- We utilise modern microcontrollers and single board computer systems to significantly reduce the cost of data acquisition and control
- We take the time to consult with your supervisors and staff to better understand their needs and discuss the benefits of the proposed updates
- We offer solutions which do not require access to your wireless network
- We offer employee training programs

# **How IoMech Approaches**

# Requirements Gathering

Identify the key indicators for your assembly/ manufacturing process using Value Stream Mapping and process flowcharts

Review the requirements with relevant stakeholders

### System Design

Develop a data collection and analysis plan to provide the necessary KPI data

Design a system to collect the necessary data from your existing equipment

Design new equipment if required

Design user interface and data analysis system

# Test & Implement

Review the system design with relevant stakeholders

Update your existing equipment to enable data collection

Develop new test and assembly automation equipment, if necessary

Develop user interface solutions to make data

# Train & Support

Update you existing equipment to enable data collection

Develop new test and assembly automation equipment, if necessary

Develop user interface solutions to make data available to the relevant people