JANUS Technologies

NUS National University of Singapore

Institute of Engineering Leadership
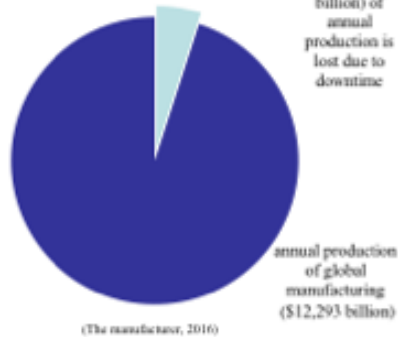**Faculty of Engineering**

Internet-of-Things (IoT) for predictive maintenance makes machines smarter and business better.
JANUS has a scalable, competitive and easy-to-implement IoT platform solution for predictive maintenance.
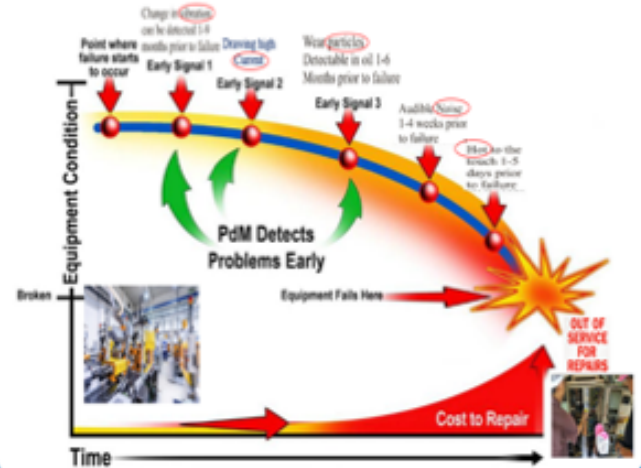
Problem

Machine Downtime

5% (or $647 billion) of annual production is lost due to downtime

annual production of global manufacturing ($12,293 billion)
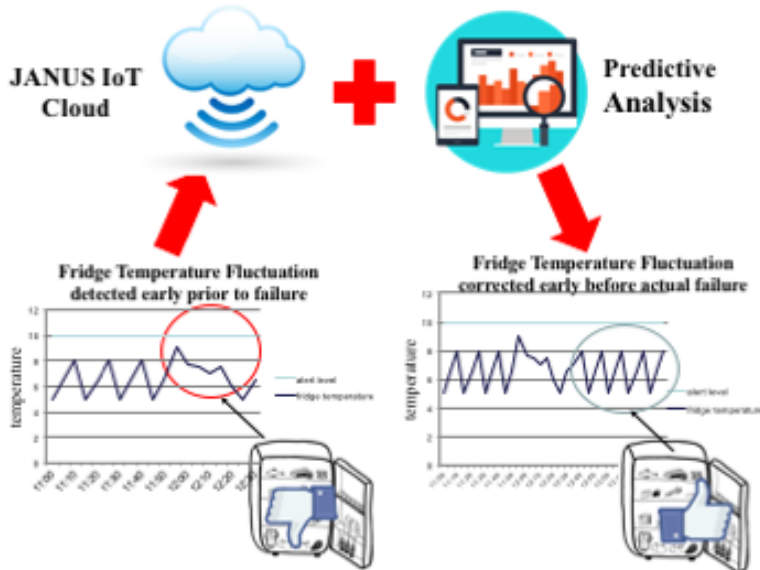
(The manufacturer, 2016)

Unforeseen in-service equipment breakdown can lead to significant loss of revenue, wastage of perishable food and high maintenance cost to manufacturing enterprises.

Solution

Predictive Maintenance

PdM Detects Problems Early

Technology

JANUS IoT Cloud + **Predictive Analysis**

Fridge Temperature Fluctuation detected early prior to failure

Fridge Temperature Fluctuation corrected early before actual failure
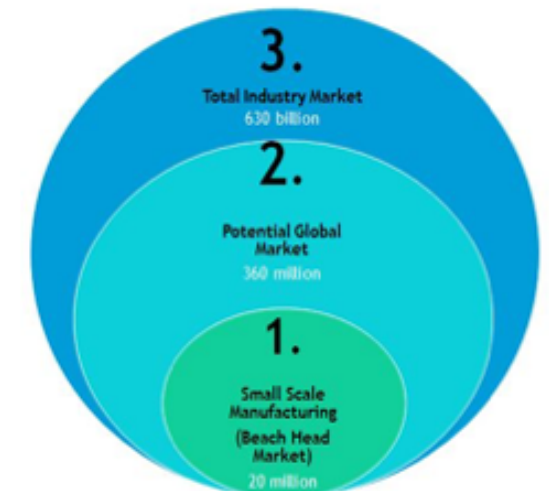
Through early detection of abnormal equipment behaviors, IoT helps enterprises eliminate unscheduled downtime and disruption by providing a platform to enable predictive maintenance through data analytics.

Market

3. Total Industry Market 630 billion

2. Potential Global Market 360 million

1. Small Scale Manufacturing (Beach Head Market) 20 million

1. SEA potential revenue
Small Scale Manufacturers with legacy machines

2. Worldwide potential revenue
Small Scale Manufacturers

3. Discrete Large Scale Manufacturers

Competitiveness

Easy integration and fast development

Data Management

- JANUS
- Axeda Machine
- Etherios™
- Gemalto
- Sierra-Wireless
- Cumulocity
- Everyware
- Aeris
- Ayla Networks
- Everything
- Yalar

Financials

Reference: The manufacturer. (2016, 06 06). 5 ways predictive maintenance cuts down on costly downtime. [Weblog]. Retrieved 5 April 2017, from http://www.themanufacturer.com/articles/5-ways-predictive-maintenance-cuts-down-on-costly-downtime/