# Cloud ()

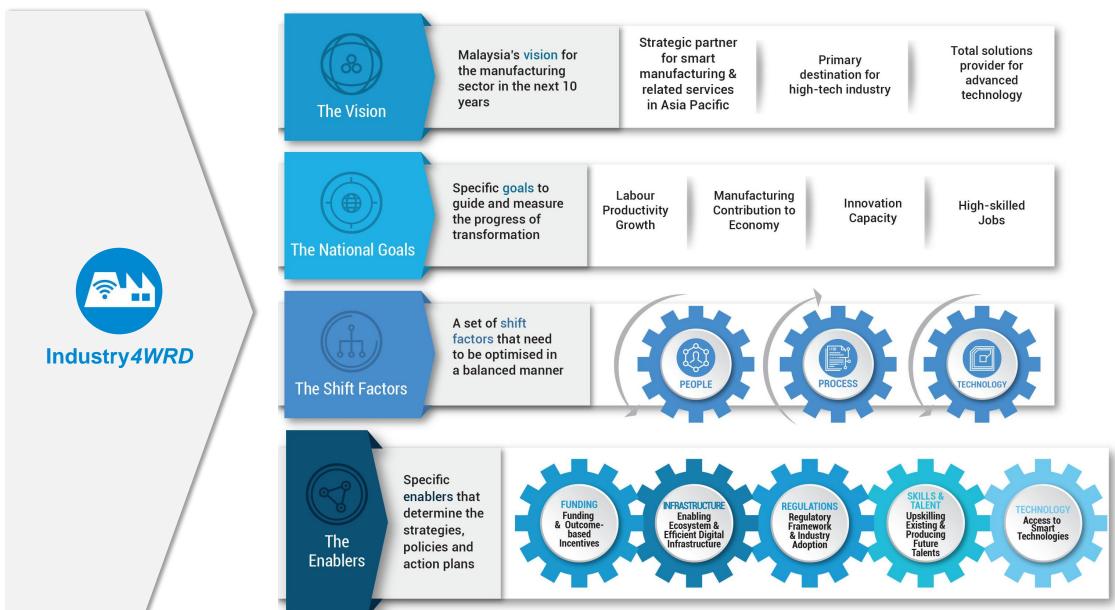


# Industry 4.0 Enabler of Digital Opportunities



# **Industry 4.0 – The Policy Framework**





# **Industry 4.0 – Driving Digital Transformation**



Digital transformation (DX) is a process of moving to a technology-enabled platform to positively change a business model while providing new revenue streams and after-sales opportunities.

The end objective of any DX is to bring in automation by digitalising every aspect of the manufacturing touchpoints through a digitalisation drive.

# **Smart Manufacturing**

Data driven processes that rely on asset performance metrics.

# **Digital Supply Chain**

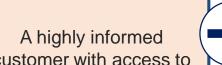
Working model depicting product journey before and after manufacturing.

# Connected Customer

A highly informed customer with access to real-time value chain data.

### Convergence

Linking the business imperatives with operational data.



























3

# **Smart Manufacturing Ecosystem**



- To have a communicating medium inter-machine and systems.
- Multiple point sensors for maximum data collections.

- System real-time health monitoring will help releasing dependencies on resources.
- Minimising possibilities of equipment's overused to increase machineries life span.

- Data collected and masseur to have a better insights on what's going on.
- Predictive analysis and Self-Learning Machine.





Connected

**Monitoring** 

**Analytics** 

**Smart Production Journey** 

**Digitalisation and Automations** 

Intelligence



- Full automation of productions.
- Digitalising ecosystem with tweaked data management to put high working efficiencies.



 Semi automations, self guard system and preventive alarm with the insight and detailed analysis on every details received.



# Challenges of Malaysia's Manufacturing Industry & Business Priorities



#### Manufacturing Industry Challenges



Declining Sales



Demand Variability



Increased Competition



Lack of Innovation



Increasing Internal Costs

#### **Business Priorities**



Improved Supply Chain Performance



Better Operational Excellence



Reduced Operational Risks



Increased Focus on Product Innovation



**Exploiting New Markets and Customer Segmentations** 

- Improved supply chain and equipment effectiveness will improve overall productivity level, providing opportunities for increased revenue.
- Reducing operational risks through streamline operations, total productivity management etc, allows manufacturer to address any value chain related challenges and brace themselves for future disruptions.



# **Manufacturing Technology Challenges**



**IT Security** 

Justify IT Budget on New Implementation

Infrastructure Constraints/
Scalability

Integrating
Disparate
Applications

**Growth of Shadow IT** 

Integrating
Suppliers'/
Vendors' Business
Processes

Managing of Outsourced Vendors for IT

Recruitment, Training and Retention of IT Talents

#### How TM ONE can help the Manufacturing Industry



#### Cloud Infra Addressing Data Residency & Security

Enterprise Grade Cloud Infra hosted in highly secured TM ONE Data Centre within Malaysia



#### **State of the Art Facilities with Sovereignty Compliance**

- Tier III Data Centre in Malaysia
- Data Residency, Sovereignty Compliance.
- Low latency of 4 millisecond round trip



#### **End to End Connectivity/ Cloud Solutions**

TM ONE Cloud Services provide end to end capabilities for Private Cloud, Hybrid Cloud, Multi Cloud and Public Cloud solutions that addresses various markets needs



#### **Cloud/ IT Professional Services Capabilities**

Comprehensive Cloud Professional services from Consultancy, Technology Consulting, Migration Assessment, Cloud Design Planning to enable customers on their cloud adoption journey



#### **Industry Solutions**

In House/ Partners' Industry Solutions



- 1

# **Our Products/ Solutions Offerings**



#### **Front-End Business Operations**

**Back-End Business Operations** 



**Digital** Transformation Solutions

ONE PASS **Digital Marketing** 

**Smart Retail** 

**VSaaS** eClassroom

Fleet Management System

**Smart Workforce** 

**Smart Helmet** 

**Document Management** as a Service

**Smart Forklift** 

Power BI (Business Intelligence)

**Smart Agriculture** 

Smart Genset

**Smart Manufacturing** 

**Smart Map** 

Analytics Starter Program



Device and Equipment

**Controllers** 

**Temperature Sensors** 

**Humidity Sensor** Pressure Sensor

**Speed Sensor** 

IoT Gateway Camera



Data Centre & Cloud



Connectivity



Professional Services

**Twin Core Data Centre** 

laaS **PaaS** SaaS

SDWAN

unifi Biz

**Enterprise WiFi** 

**IPVPN** 

Metro-E

**VSAT** 

Wireless

**Training** 

Consultancy

**Business Advisory & Project Management** 

**Virtual Private Cloud** 

**Contact Centre** 

**BPO** services



# Leveraging On Data Driven Analysis For Smart Manufacturing Implementation

#### **Company Background**



- Food manufacturing company with over 30 years of experience.
- Exports to more than 40 countries worldwide.



# **Challenges**

- Silo-ed business systems: order capture, production, warehouse.
- Getting visibility on sales distribution require high human effort.
- Most production machinery has no IT system capabilities hence data is recorded manually.



#### **Solutions**



 Geo-location product distribution analysis through integration with TM ONE Smart Map.



 Production dashboard through data capture from IoT sensors.



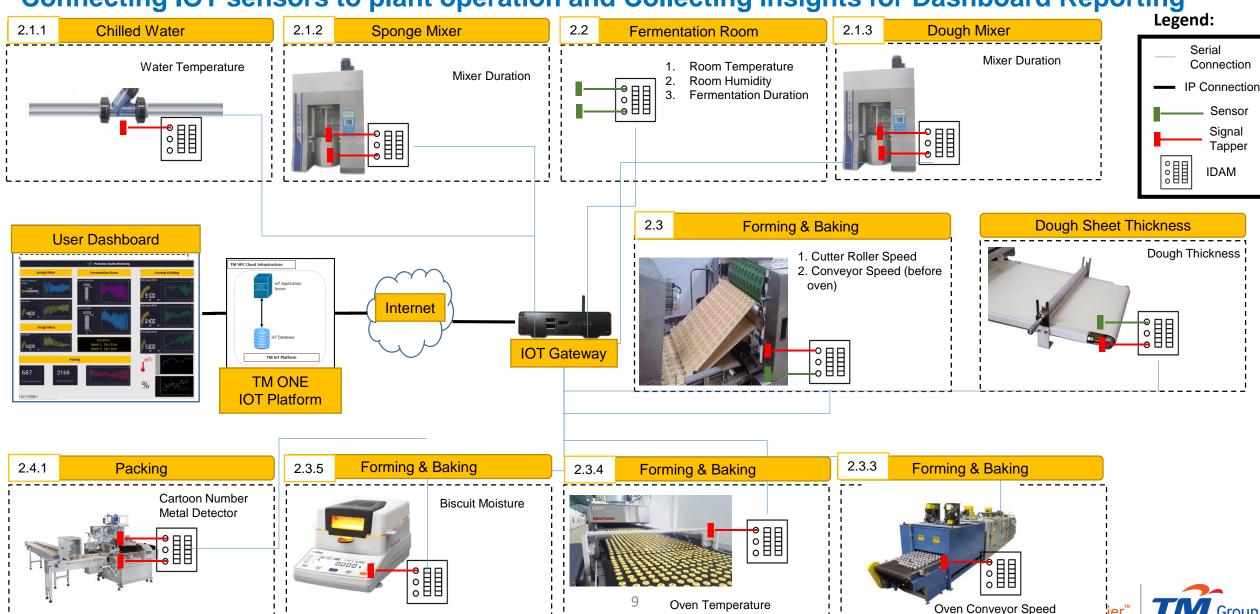
#### **Outcomes**

- Insights on product performance
- ✓ Increased visibility on production machinery: temperature, RPM



#### **Case Study**

# Connecting IOT sensors to plant operation and Collecting insights for Dashboard Reporting





# **Smart Forklift & Smart Gen-Set**

#### **Company Background**



- International presence in 7
   countries in the Asia Pacific
   Region
- One area of business is supply of forklifts and gen-set for industrial use
- Over 30 years of experience in gen-sets



# Challenges

- Unable to monitor the machines' health
- Time consuming and require number of people to perform health check at site.
- High maintenance due to unscheduled maintenance/repair



#### **Solutions**

# TM ONE Cloud & IOT Platform



TM ONE IOT Gateway





#### **Outcomes**



- Live monitoring of equipment
- ✓ Improved maintenance scheduling



# Thank you!

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