4IR

#Industry 4.0 was mainly used for manufacturing
#4th Industrial Revolution defines as fusion of the physical and digital worlds.

INTERNET OF THINGS(IOT)

@an extension of the internet and other network connections to different sensors and devices
@have the ability to gather and share data from their environment
@one of the most used IoT system is sensors which is fitness tracker and smartphone fingerprint

Example

IMPORTANT!

*SAVE ENERGY
*SAVE TIME
*INCREASE SAFETY
*INCREASE BONDING BETWEEN PATIENT AND DOCTOR
*MAKE LIFE MORE CONVENIENT
*DAILY COMMUTE


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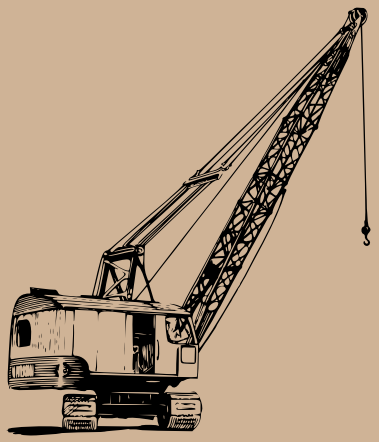
technology information system & 4th industrial revolution

by Dr.Nazri Edham

Introduction

First (1784)
Mecahnization,water power , steam power
Second (1870)
Mass production,assembly line,electricity
Third (1969)
Computer,electronic and production/automation
Forth (Today)
Cyber physical system.
IR 4.0 2011 (manufacturing)
4IR 2015 (All aspect of Human Life)



Content of talk

1. 4IR digital solution
2. Smart Water Integrated Management System (SWIMS)
3. Multiple approach in adopting smart services for smart cities
4.The difference between 5G and 4G
5. 5G use cases focus on job creation , talent development , safety and security
6. Enabling the 4IR journey
7. IR 4.0 connectivity infrastructure requires a state of the art network operating centre

Executive summary

1. Technology will allow a lot of positive/proactive enablement to the business but the question is how far the organizations are willing to explore it.

2. Data centre becomes much more important as there are more and more information that depends in terms of the cloud services as the services inside the organization's business.

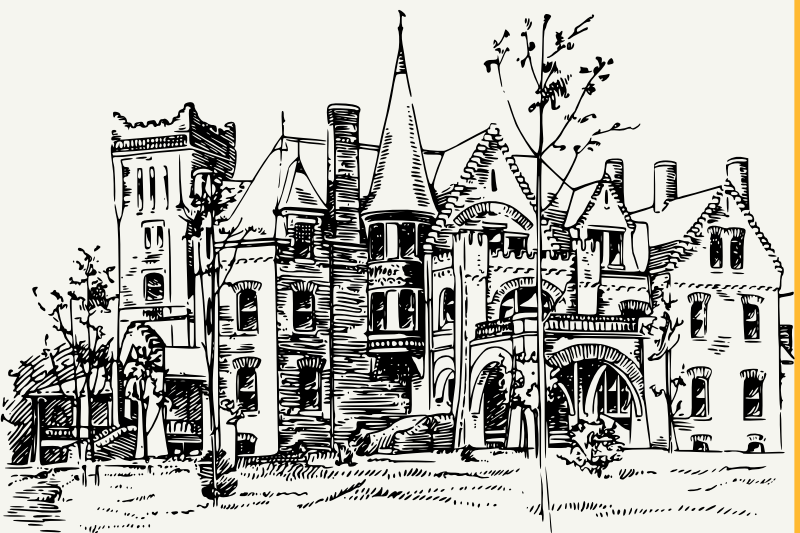
3. 5G is much more superior technology rather than 4G. 5G allows us to have more bigger capacity of it on wireless connectivity and mobility.

Way foward

1. Support the government initiative
2. emporwering and creating values for business through borderless digital possibilities
3. protecting nation's sovereignty and critical infrastructure from intrusion and disaster.

Reflection

Technology has becomes the backbone of today's industry as it brings a lot of benefits not only for the industry it self but also for the community/end-user . There are a lot of oppurtunities if people within an organization can understand how technology can enable a better business proposition moving forward . It is something that allow them to move faster against their competitor . Besides , i believe that 5G can bring huge transformation towards all sectors such as tourism , safety , transportation and even industry itself for the up coming year



IR4.0: A MALAYSIA PERSPECTIVE

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REFERENCE

http://www.miti.gov.my/miti/resources/National%20Policy%20on%20Industry%204.0/Industry4WRD_Final.pdf

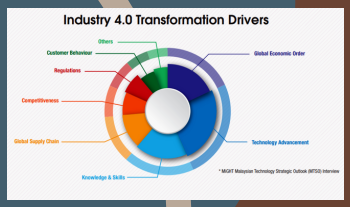
SUMMARY

Industry 4.0 was mentioned for the first time in 2011 in Germany, during the "Hannover Fair". Nowadays, most enterprises have began to adopt Industry 4.0 technology to improve the productivity and reduce the cost or reject rate. Industry 4.0 changes the global landscape of manufacturing competition, reducing the relative competitive advantage of low-cost regions that rely on cheap labour. Countries and manufacturing enterprises that take the lead in embracing Industry 4.0 technologies and processes will surpass global competitors. Hence, Malaysian Prime Minister Tun Dr. Mahathir bin Mohamad launched the Malaysian National Industry 4.0 Policy on October 31, 2018, referred to as "Industry 4.0(Industry4WRD)". This plan is the call of Malaysian government for the digital transformation of manufacturing and related service enterprises, aiming at promoting enterprises to achieve more systematic and comprehensive development in various fields such as manpower, process and technology, and to become smarter and stronger under the impetus of Industry 4.0.

INTRODUCTION

WHAT IS IR 4.0 ?

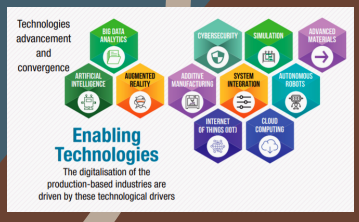
In recent decades, the manufacturing industry has experienced rapid development. From mass production by using intensive labor in the production line, to the use of robotics to increase efficiency, the manufacturing industry is constantly evolving with more and more infusion of automation.



HOW IR 4.0 ??

Advanced digitisation, Advanced technologies and Efficient resource utilisation

>>Higher value-added process



WHY IR 4.0 ???

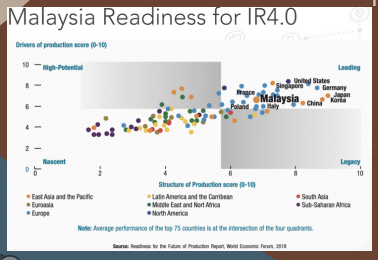
Enhanced efficiency

>> ultimately driving competitiveness

CASE FOR ACTION

WHY we need to embrace IR 4.0 ?

Our future of manufacturing in Malaysia is impacted by three major factors. The first factor is global value chains and geographies of production are continuing to shift, especially as China and other countries are relocating production to ASEAN. This opens up new opportunities for Malaysia. However, Malaysia will need to transform itself fast. Besides, the second factor is quality of labour and higher productivity, but not low labour cost. This will be the new source of competitive advantage. Although our labour productivity has grown at 3-4% over the last few years, the high-skilled labour have not moved forward. New technologies are disrupting and fostering a technology-based model of production. Barriers of adoption have come down with key Industry 4.0 technologies maturing and costs declining. Application of technologies to improve efficiency and product quality is becoming the new normal, requiring Malaysian manufacturing firms to innovate and invest in new technologies to remain competitive.

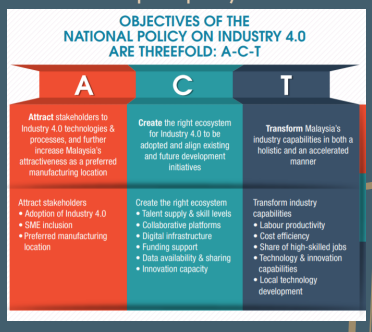


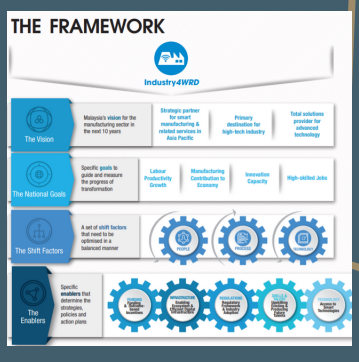
MALAYSIA'S ISSUES & CHALLENGES

MOVING FORWARD

ADDRESSING the Issues & Challenges

>> MITI developed a policy





REFLECTION

Today, we are welcoming an unprecedented era of technological change. In this historic period called Industry 4.0, we can feel the explosion of information and knowledge. From robotics and artificial intelligence to materials science and life science, in the coming decades, innovation will help us promote peace, protect our planet and solve the root causes of suffering all over the world. Our ability to interact through cyberspace has been significantly improved, which is of great benefit to maintaining and promoting extensive technological progress, and greatly increases our opportunities to share information and accumulate knowledge in an increasingly networked world. Due to different challenges in various fields, we need innovation to help us solve them, except of the aim of saving time, resources and costs, but also to help Malaysia to move forward to Industry 4.0 and remain competitive in the world. In order to advance towards Industry 4.0, the government and various private sectors should actively participate by provide special training to train knowledge people. Besides, as students, we should always progressive ourselves in this rapidly developing era, such as attending some training camps or programs or trying to develop some product ourselves. These actions are not only help ourselves, but also our country and the world.

MALAYSIA MOVING FORWARD

Upskilling and reskilling existing and future labour pool need to be at the heart of Malaysia's transformation

Inclusive involvement of SMEs is critical to power a holistic step up in labour productivity across the economy

Significant evolution in innovation capabilities and collaborative platforms is essential to foster the development of, and access to, cost-effective technologies that address specific sector needs

Focused funding support is needed to kickstart the adoption and complement private sector investments

Good digital infrastructure is required to enable reliable and secure Industry 4.0 operations