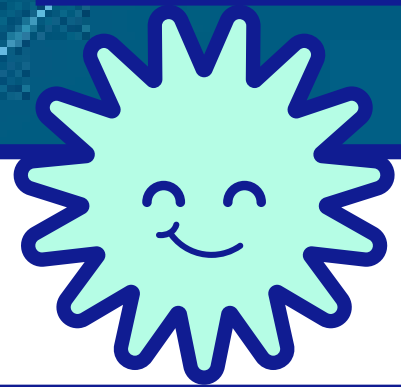


INDUSTRY REVOLUTION 4.0 (INTERNET OF THINGS)

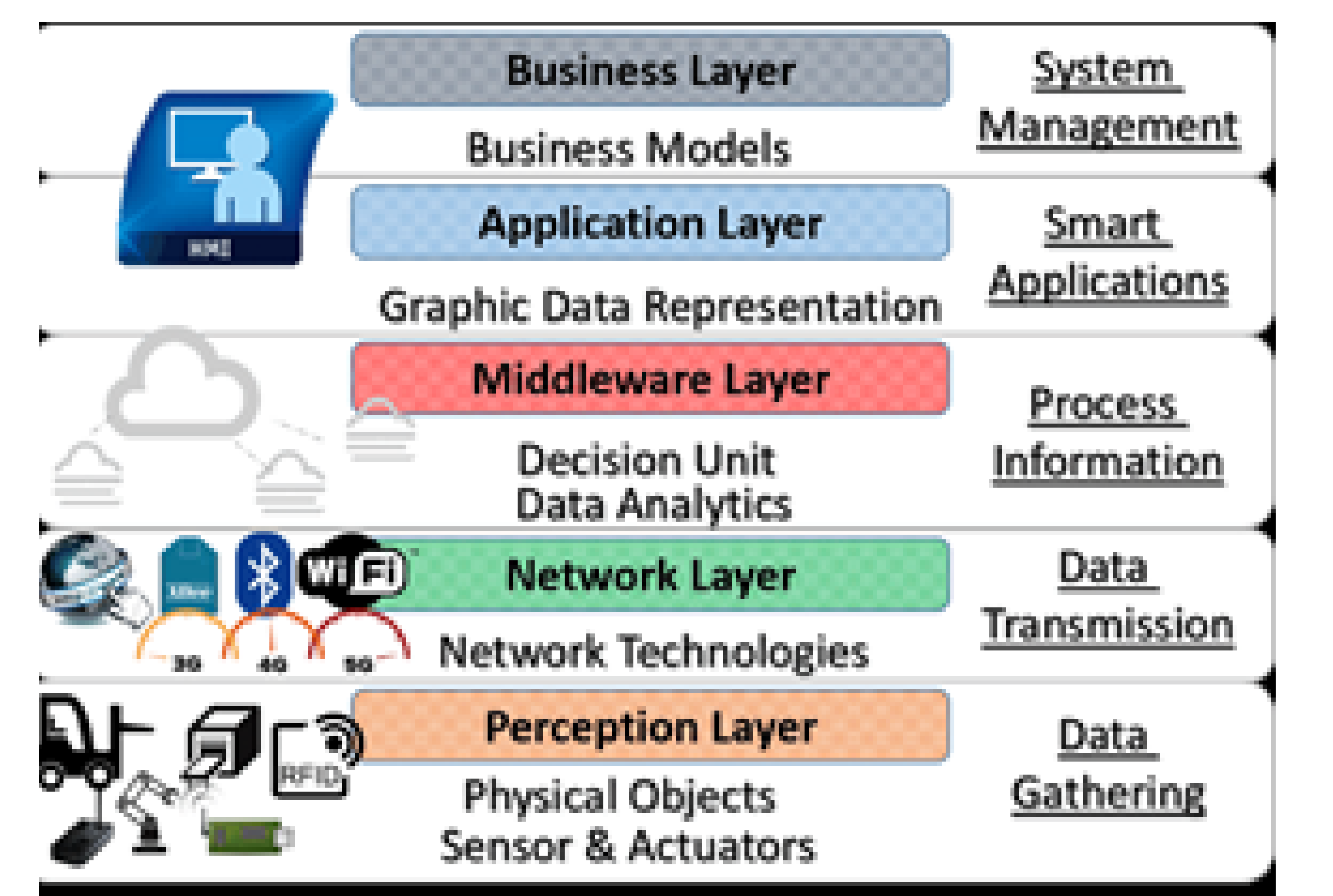


INTRODUCTION

The industrial revolution is the process of improving technology, especially in the manufacturing sector, and increasing the productivity. There are a lot of technologies in IR 4.0 which are Internet of Things, cloud computing, simulation, cybersecurity, and many more. Now let's narrow the scope of our discussion to Internet of Things. The Internet of Things (IoT) is an interconnected network of physical items such as computing devices, mechanical and digital machines, and items. It is also integrated with sensors, software and other technologies.

DESCRIPTION OF THE INTERNET OF THINGS

- IoT is a network that we use in our daily lives. It has its own benefits which are it can be platform for teams to communicate virtually, share, transfer and collect any kind of information or data with surrounding them, and it can be done without human-human or human-computer interaction and combine physical and digital components to develop new products.
- The purpose of IoT is to improve productivity's, having a device that can report itself in the real time and can show the important data or information on the surface faster compared to systems that rely on human intervention.



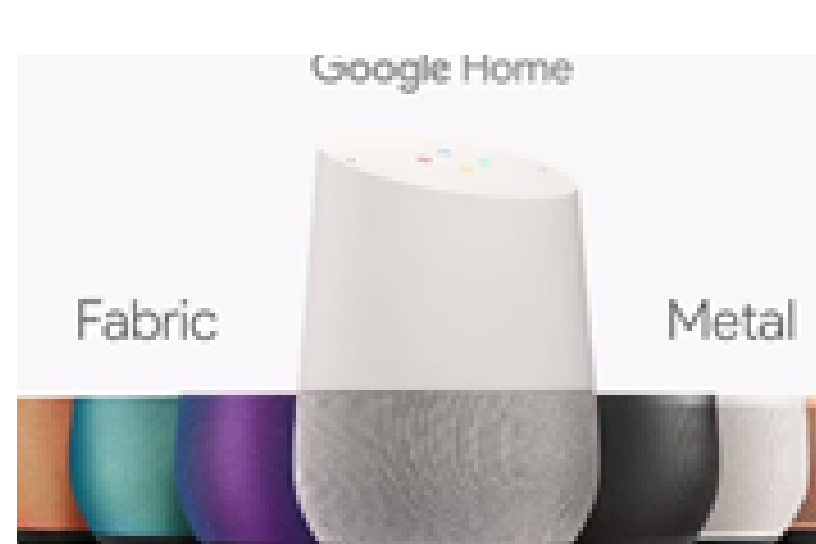
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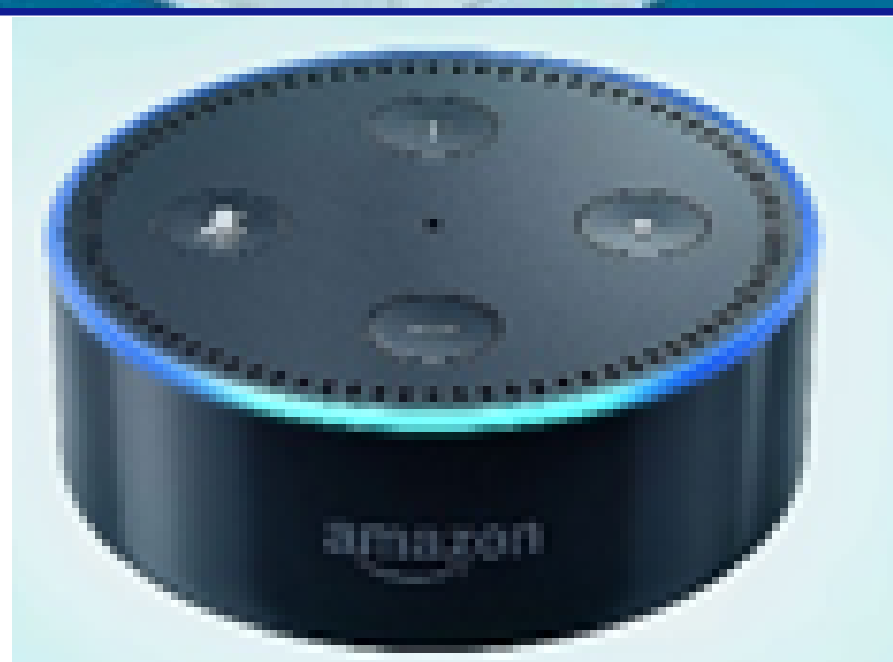
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EXAMPLE

- If you have a Google Home device at your home, you basically have participated in the IoT revolution where you use the technology that having IoT use in that devices or application. Not only Google Home but the face recognition is also part of the IoT which will recognize our relatives face and then the door will open automatically. The other IoT applications are Alexa, and Amazon. Those technologies and applications will lead to a smart home.
- The IoT also plays a major role in the health context. This is a device known as a smartwatch, like the Apple Watch. With this Apple Watch, you can detect heart rate, pulse, blood pressure, body temperature, respiratory rate, and blood sugar levels. Thus, if our body has unstable readings, we can be warned early on.

REFLECTION

Throughout the making of this poster, we realize that the Internet of Things technologies may help human life in a lot of aspects with the implementation of the technologies in physical objects. For example, in the smart home. With the IoT embedded into the house, it may increase the security of the house, perhaps with the face recognition system. The system may detect and record people who get in and out of the house. It also may save the energy usage of the house by automatically turning off the electricity when there are no people around. There are in fact a lot more. Thus, we believe that we need to help our nation with the 4IR journey. Perhaps by preparing ourselves with knowledge with the change that we are or may face



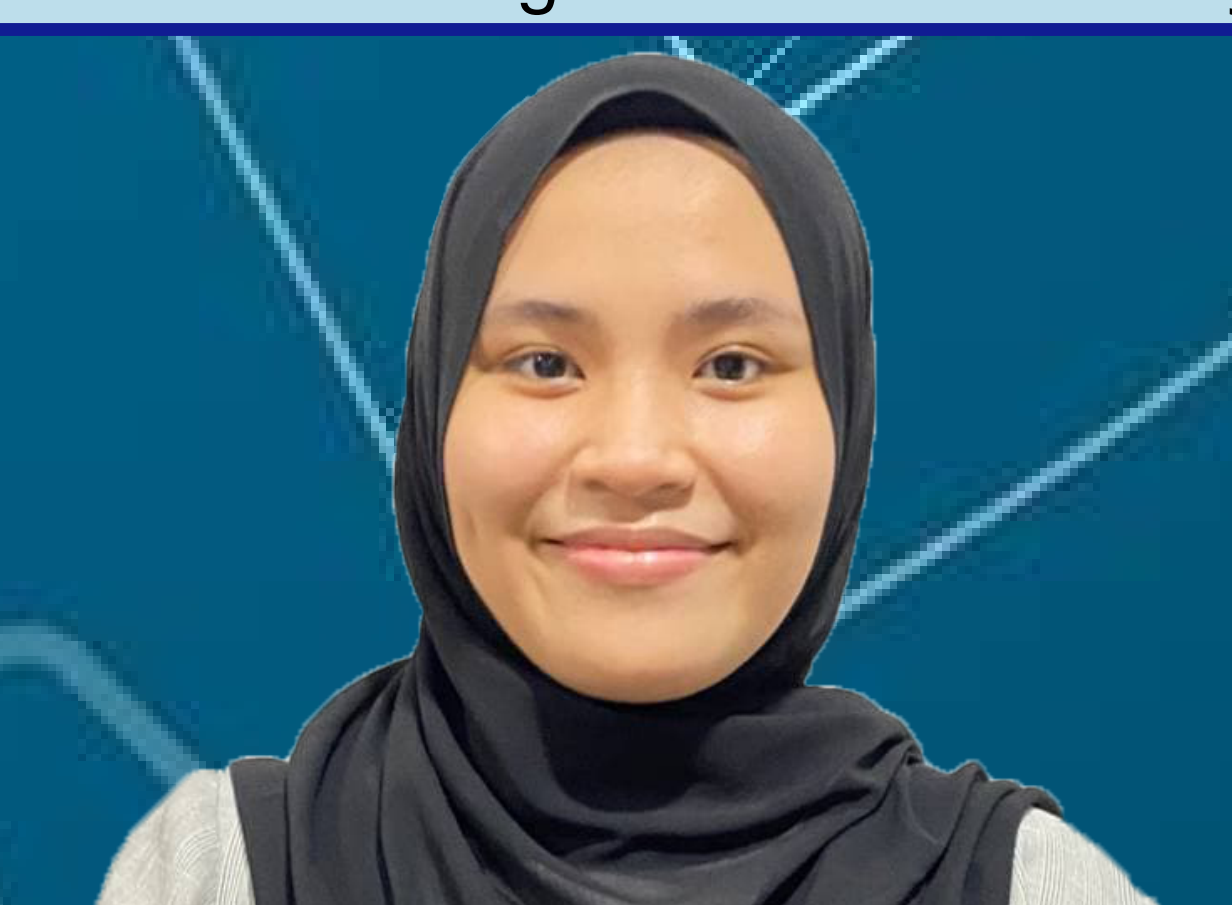
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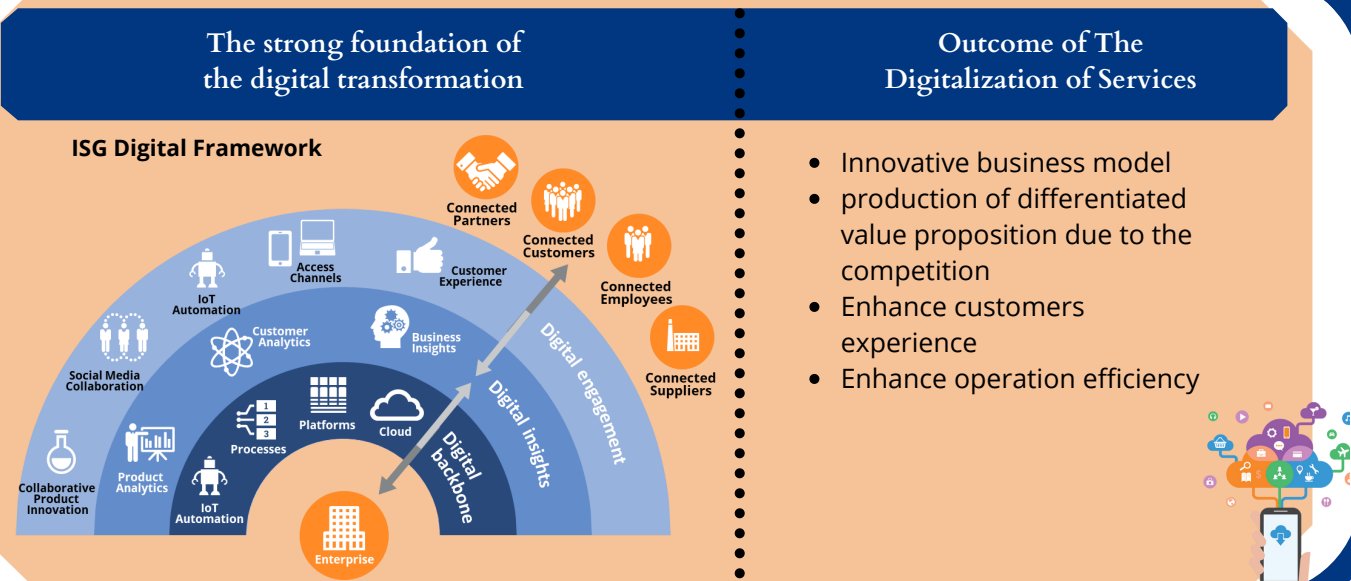


Industrial Talk by Dr. Nazri Edhan, Head of Product TM

The 4th Industrial Revolution, 4IR has brought a disruption towards many traditional sectors. However, it did bring opportunities with high potential to improve the well-being of the society if address properly. Here, Telekom Malaysia, TM is playing a big part in the journey to support the 4IR in Malaysia.

Executive Summary

DIGITAL / CLOUD



Cloud

Network Operating Centre

Data Centre

Customers Interaction

Call Centre

Live Chst

unifi self-help apps

email

Social Media

Diagram illustrating a Smart Fleet truck equipped with various sensors and connectivity features. The truck is shown with icons for: Rear camera, Temperature, GPS, Fuel, Driver behaviour, Panic button, Proximity codes, Front Camera, and Job dispatching. A person icon is also shown next to the truck.

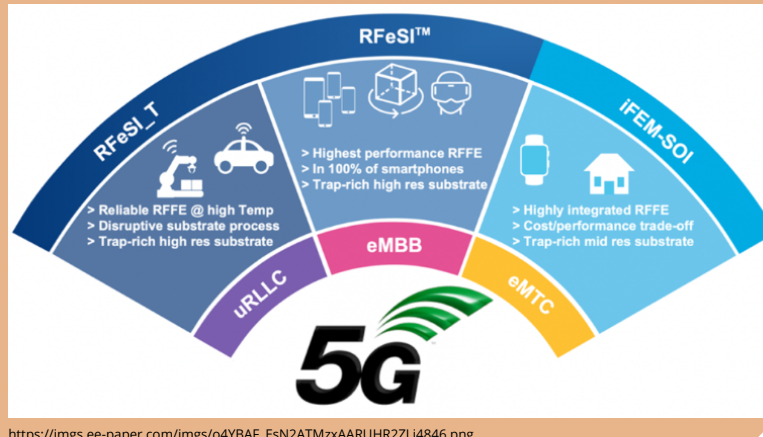
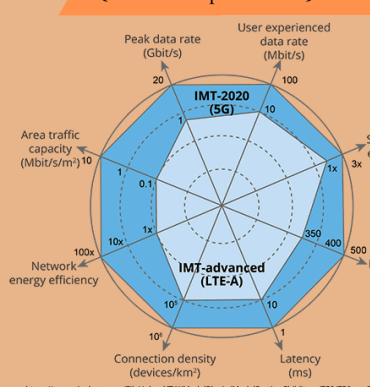
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Air Selangor teams up with TM R&D to create an 'Internet of Water'

SMART CITY

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Range of Use Cases

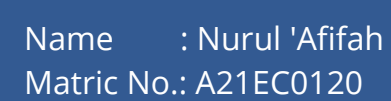
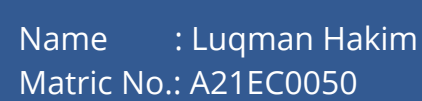
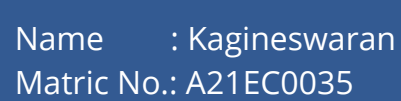
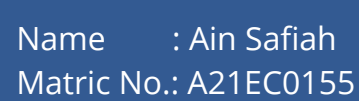


Technologies are advancing day by day, especially throughout the fourth industrial revolution. The government and the related sectors in Malaysia have already started planning and working on enabling the 4IR. Therefore, the citizens and related sectors need to be ready and aware of the current technologies related to the 4IR to bring our nation to a better condition. Not to be forgotten, the future generation such as the students. We as a student need to gain knowledge and find opportunities to get involved with these technologies. Perhaps, as a user or as a developer.

Way Forward

The talk has enlightened our group so much regarding the 4IR. The 4IR involves the cyber-physical system. It does not only improve the manufacturing sectors but all aspects of human life. We can see it through the advancement in network connection, data management, security aspects, and in fact throughout our daily life. The one that pick our interest the most is the Smart Water Integrated Management System, SWIMS. This innovation may help not only human life but also the environment. The system allows us to monitor the water movement and detect any leakage. With this, we can decrease the amount of water 'lost' before it reaches the customers.

Reflection



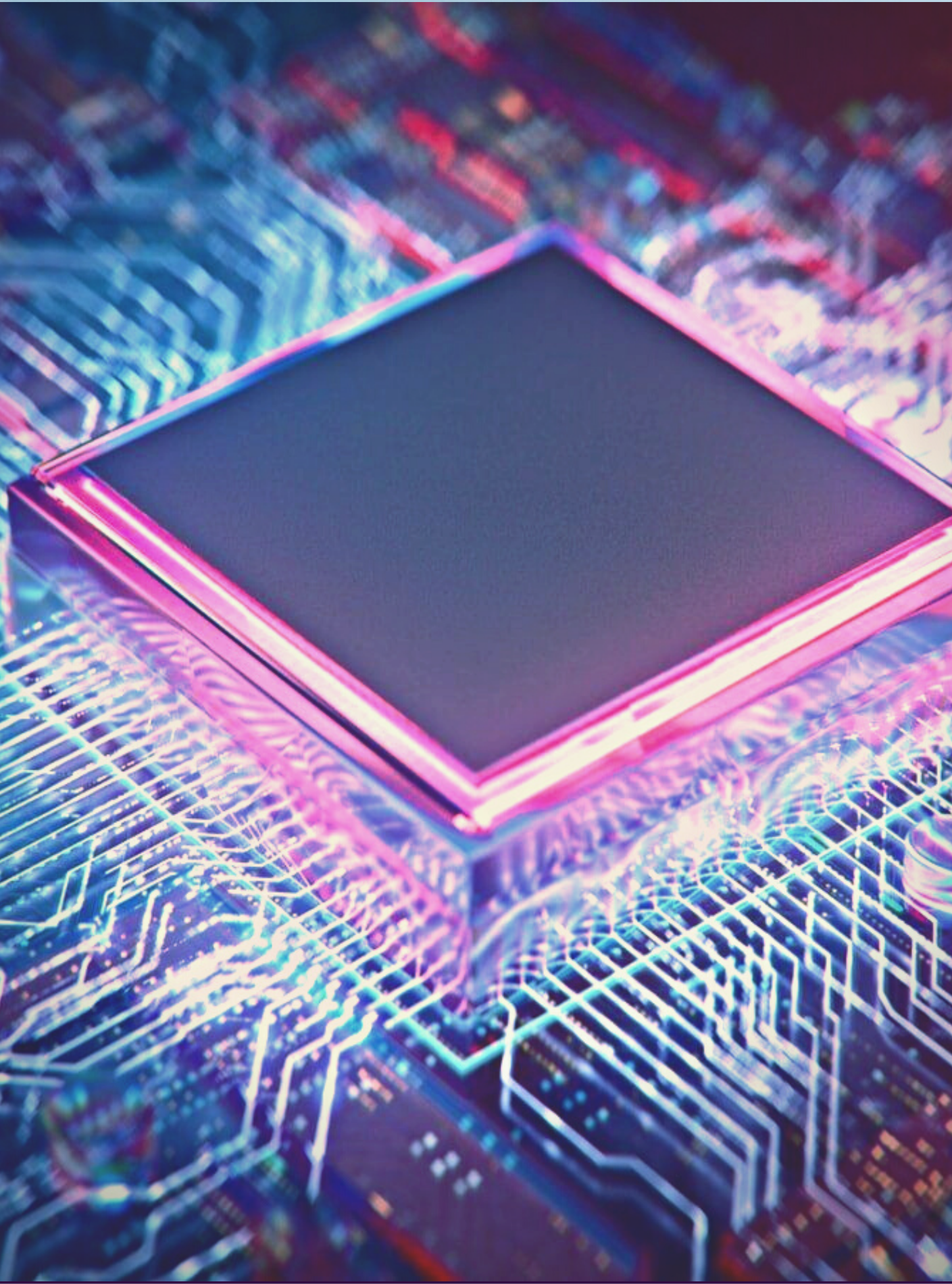
4IR-Technology Information System & Fourth Industrial Revolution

INTRODUCTION

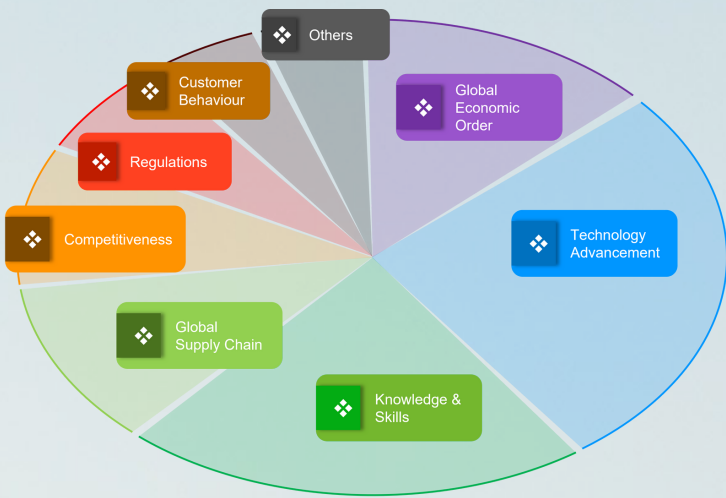
Fourth Industrial Revolution (4IR), also known as Industry 4.0 is the current and developing environment in which disruptive technologies and trends such as the **Internet of Things (IoT)**, **robotics**, **virtual reality (VR)**, and **artificial intelligence (AI)** are used to automate production. There are four design principles identified as integral to Industry 4.0 such as **interconnection**, **information transparency**, **technical assistance**, and **decentralized decisions**. CyberSecurity Malaysia has been involved in introducing 4IR to Malaysia and these are the approach and steps they took.

EXECUTIVE SUMMARY

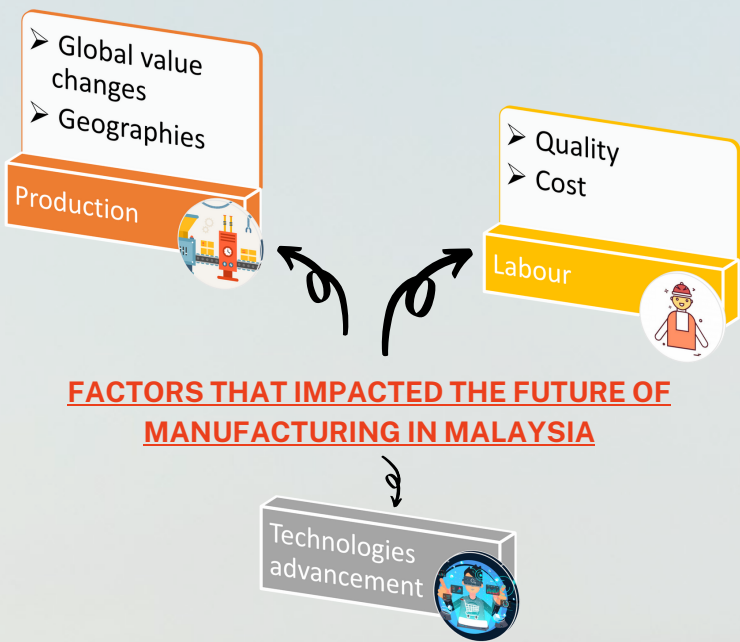
The talk presented by **Ms. Sarah Khadijah Taylor** was about how **CyberSecurity Malaysia** was one of the stepping stones for Malaysia to let Malaysia thrive in 4IR and the way they did it was through **Industry 4.0 Transformation Drivers** and by **enabling technologies**. Next, CyberSecurity Malaysia weighed in the **factors of future manufacturing in Malaysia**. Besides that, they also manage to find the **issues and challenges** such as demands and supplies that are faced by Malaysia. Furthermore, they managed to find solutions to **address the issues and challenges**. Lastly, CyberSecurity Malaysia has **mapped out the framework** to evolve Malaysia into a technologically advanced country.



TRANSFORMATION DRIVERS

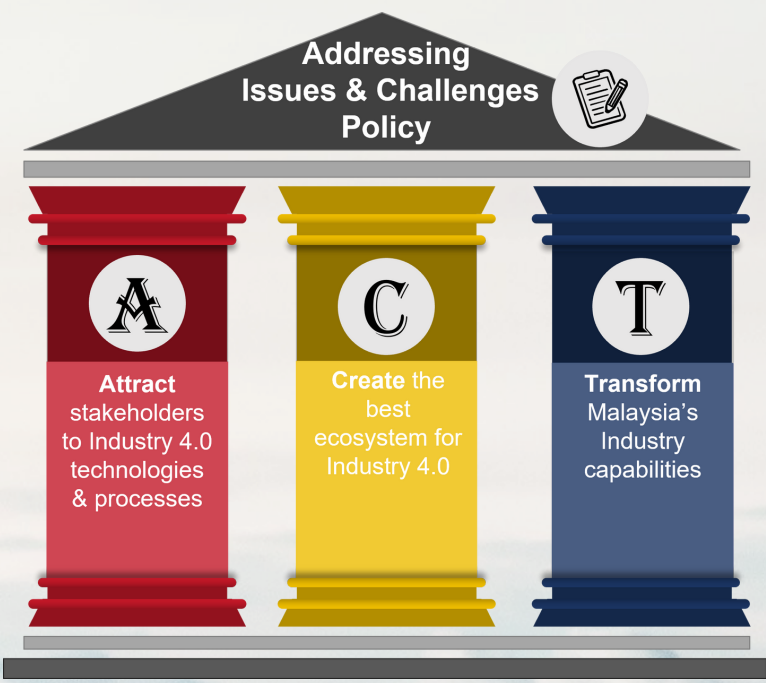


ENABLING TECHNOLOGIES



ISSUES & CHALLENGES

DEMAND	SUPPLY
Awareness	Governance
Best Practices	Ecosystem Support
High Cost of Investment	Funding & Incentive
Skill Enhancement	Training Providers
Digital Readiness & Connectivity	Infrastructure
Innovation	Standards & Digital Integration



FRAMEWORK



WAY FOWARD

Modern problems require modern solutions as well as the industrial revolution. To achieve the revolution, critical measures need to be implemented. Therefore, citizens especially those who are involved with industry sectors need to keep enhancing their skills while learning many other new skills. Small and medium-sized enterprises(SMEs) should also fulfill their role as the future nation's leading companies. Furthermore, the industry sectors need to focus on finding funding support like attracting many stakeholders and having a good digital infrastructure. If the steps are done correctly, people will be able to see the evolution in the innovation of industry and technologies in our nation. This will open up many more ways to help Malaysia achieve a greater feat.

REFLECTION

From the talk given, we realize that there are a lot of transformations that have driven Malaysia toward the 4IR. Throughout the journey, we face so many issues and challenges in enabling the revolution. However, there is nothing to be anxious about because our government and ministry have come up with a policy to address the challenges. There is a question. Was the innovation worth the effort? In this case, we would say yes. It did help us in many aspects like security and manufacturing aspects. There is a product called **"CAMUKA"** that may recognize people's faces with the help of AI technology. It may help the authorities to detect suspects' faces through the video or camera. It shortens the process compared to manually detect the suspect. Thus, I believe 4IR will continue to help human life in the future.



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