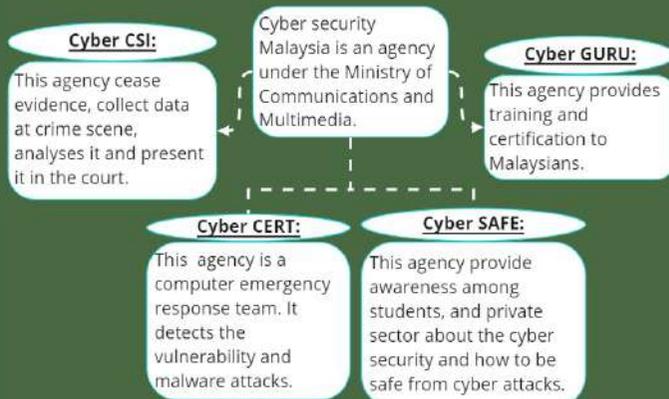


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### Executive summary



### Introduction to IR 4.0

In the past few years, the manufacturing sector has evolved greatly. Robots are being used in the industries to increase efficiency. Manufacturing industries are constantly evolving with more and more infusion of automation, Advanced digitisation. Efficiency is being enhanced by the use of advanced technologies.

#### Need of IR 4.0 :

We need to move forward to IR 4.0 because of:

- The shift in the global economic order.
- The rate of technology advancement and its convergence. We need to include technology changes and its application in industry to improve the efficiency.

Example: IOT, cloud computing

- Knowledge and skills
- Global supply chain
- Competitiveness
- Regulations
- Customer behaviour

These factor drive us to move forward to IR 4.0 .

#### The need to embrace:-

Future of manufacturing in Malaysia is impacted by three factors:

- Global value chains and geographies of production are shifting and relocating to ASEAN. This open opportunities for Malaysia.
- Quality of labor and higher productivity, but not low labor cost.
- Malaysian manufacturing firms need to invest in new technologies to remain competitive.

#### Enabling technology:-

The digitalization of production based industries are driven by the technological drivers which are now widely used nowadays. For example facial detection features are widely used in cyber security for detecting the face of the criminals at entry and exit point of country.

In the Business and manufacturing industries data analytics is important to predict the market trend.

These following technology drivers are widely used:-

- Artificial Intelligence
- Big data analytics
- Cyber security
- Augmented reality
- IOT
- Simulation
- Cloud computing
- Autonomous Robots
- System integration
- Additive manufacturing
- Advanced materials

### Malaysia Issues and Challenges

- There is need of awareness and innovation among workers and small industries
- When people use technology, they expose themselves to cybercrime
- Future skill, so they need skills enhancement
- New technology need high cost of investment and longer period of payback.
- Lack of easily accessible platform for relative skills enhancement and practices
- Lack of governance as each ministry has its own program
- Funding is under utilized
- Limited number of entrepreneurs
- Education syllabus is not matched with industry need
- Limited digitization of government agencies

#### Addressing the issues and challenges:-

Malaysia under the MITI has developed policy to address the issues and challenges. The overarching philosophy behind this policy is ACT, Attract, Create, Transform.

- Attract stakeholder to industry 4.0 technologies and process to further increase Malaysia's attractiveness as a preferred manufacturing location.
- Create the right ecosystem for IR 4.0
  - Talent supply and skill levels
  - Digital infrastructure
  - Collaborative platform
  - Funding support
  - Data Availability and sharing
  - innovation capacity
- Transform Malaysia's industry capabilities in both a holistic and an accelerated manner
  - Labor productivity
  - Cost efficiency
- Share of high skilled jobs
  - Local technology development

#### Cyber Security Malaysia:-

- Create knowledge people
- Awareness programs
- Develop process accepted by international standards
- Develop process method, SOP and guidelines
- To setup labs to create and test product
- Pilot project

### Reflection

This talk has given us some of the core information about the IR 4.0 and Cybersecurity Malaysia. Enabling IR 4.0 while retaining the nation's policy takes serious attempts and efforts. Its policy and philosophy will be the guideline for us, students, to prepare for the upcoming careers. If we can attain those requirements and tackle those issues, we'll be ready to be the next generation of workers.

#### References

[Industry 4.0 Wallpapers - Top Free Industry 4.0 Backgrounds - WallpaperAccess](#)  
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