

IR 4.0: A Malaysian perspective

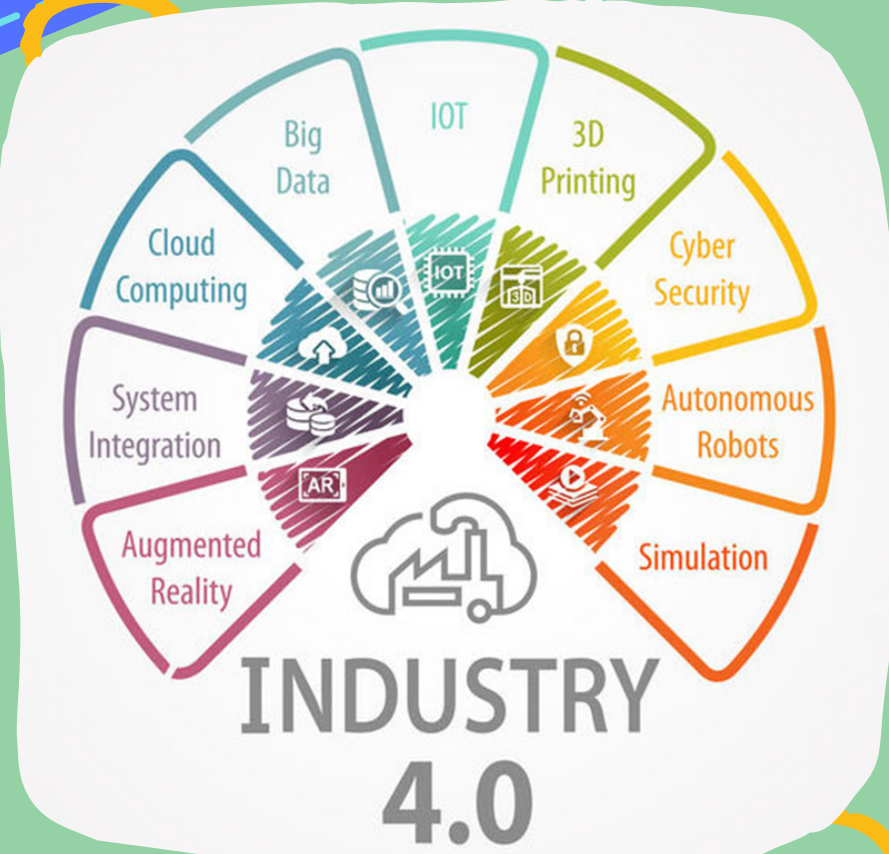
4th industrial revolution is the Infusion of automation to manufacturing sectors through advanced digitization and advanced technologies which allow efficiency in mass productions. The world trade axis of production is shifting to ASEAN because of the advances in technologies and their convergence which provides opportunities to enable higher economic growth. Malaysia is taking measures to cope up with challenges and grab the opportunity to help the country grow.

What drives Malaysia to move towards IR 4.0?

- Rapidly shifting economic order to ASEAN
- Technology advancement
- Use of skilled workforce which would go to waste otherwise
- Take advantage of globalization in trade to enter the global market
- Trade competition
- Regulation of product quality to meet international standards
- Customer personalization demands

Why product-based industries move towards digitization?

The technological advancement is high and there is convergence in technologies. Today, blockchain technology, internet of things (IoT), and artificial intelligence (AI) are recognized as innovations that have the potential to improve current business processes, create new business models, and disrupt whole industries. Take, for example, AI is used in biometric cyber security scanners which is becoming a demand for every established firm.



<https://smartcity.eletsonline.com/preparing-india-for-industry-4-0/amp/>

factors affect Malaysia's future of manufacturing

- Geographies of production continue to change.
 - Malaysia needs to act fast to keep up with the relocation of production to ASEAN.
- Quality of labour and higher productivity.
 - Labour productivity grows, but high-skilled labour needs to grow
- Technology-based model of production.
 - Malaysian firms need to innovate and invest in new technologies to compete.

Issues & challenges

Demand-side:

- Lack of awareness
- Lack of Innovation
- SMEs have low digital adoptability rate
- Labour force expertise
- Adopting technology is costly

Supply-side:

- No centralized governance of IR 4.0
- Under-utilized funding & incentives
- Limited Ecosystem support
- Shortage of Experts
- Standard & digital integration

1. Productivity of the manufacturing industry per person (from RM106,647 in 2016 to increase by 30% by 2025)

• To increase the level of productivity in the manufacturing sector

2. Contribution of manufacturing sector to national economy (from RM254 bill in 2016 to RM392 bill by 2025)

• To elevate the contribution of the manufacturing sector to the economy

3. Global innovation index (from #35 in 2016 to top 30 nations by 2025)

• To strengthen our innovation capacity and capability, reflected in the global innovation ranking

4. Number of skilled workers employed in the manufacturing sector (from 18% in 2016 to 30% by 2025)

• To increase the number of high-skilled workers employed in the manufacturing industry

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[https://www.cadcam.com.my/pdf/MIDA_ATRD-Industry_4.0\(270618\).pdf](https://www.cadcam.com.my/pdf/MIDA_ATRD-Industry_4.0(270618).pdf)

Reflection

Transformation of Malaysia's industrial sectors with the help of technological advancement would be a critical source of economic benefit as more revenue would be generated from export markets and locals would rely less on imported products because the locally produced products, with the same quality or better as the international standard, would be available for lower cost resulting in a lower expense of the consumer.

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