



MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY

Industry4WRD

NATIONAL POLICY ON INDUSTRY 4.0

Manufacturing Landscape in Malaysia

MANUFACTURERS



Source: DOSM, 2016

EMPLOYMENT



Source: DOSM, Q3 2018

GDP



Source: DOSM, Q1-Q3 2018

INVESTMENT



Source: MIDA, Jan-June 2018

EXPORTS



Source: MATRADE, Jan-Nov 2018

PRODUCTIVITY



Source: DOSM, 2017

Challenges for Malaysian Manufacturers



Industry 4.0

Also known as:

- Smart Industry
- Intelligent Industry
- Smart Manufacturing
- Smart Factory
- Industrial Internet of Things

A paradigm shift towards decentralised smart manufacturing & production made possible by technological advances & convergence into cyber-physical systems.

Source: GTAI

Industry4WRD: National Policy on Industry 4.0

DEVELOPED

by MITI in collaboration with relevant Ministries and agencies and with the objective of transforming the Malaysian manufacturing industry and its related services to be smart, systematic and resilient

LAUNCHED

on 31 October 2018 by
YAB Tun Dr. Mahathir Mohamad

Industry4WRD

“I believe that the Industry4WRD: National Policy on Industry 4.0 would enable the manufacturing sector to move into Industry 4.0 and along the way contribute to fulfilling Malaysia’s commitment to the United Nation’s Sustainable Development Goals (SDGs).”

*Tun Dr. Mahathir Mohamad
31 October 2018, MITI*



Industry4WRD Overview

OBJECTIVES



Attract



Create



Transform

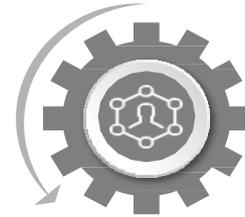
VISION

Strategic partner for smart manufacturing & related services in Asia Pacific

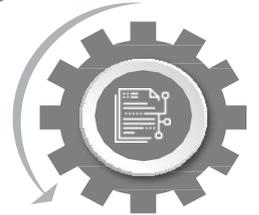
Primary destination for high-tech industry

Total solutions provider for advanced technology

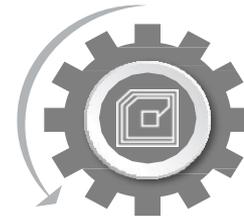
SHIFT FACTORS



People



Process



Technology

Focus Sectors

Electrical & Electronics



The leading industry in Malaysia's manufacturing Sector, contributing significantly to the country's exports and employment

Machinery & Equipment



One of the key areas for growth and development, focusing on high value-added and high technology industry

Chemical



One of the catalytic industries in the country with rapid growth due to the availability of oil and gas as feedstock

Medical Devices



Spans across an extremely wide range of industries from rubber and latex, plastics, machinery and engineering support and electronics

Aerospace



A strategic sector with high growth potential in the country's industrialisation and technological development programme

Other Sectors



- Automotive
- Transport
- Textiles
- Pharmaceutical
- Metal
- Food Processing
- Services

National Goals

Productivity

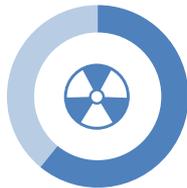


30%

Productivity of the manufacturing industry per person.

from **RM106,647**

GDP

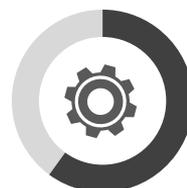


RM392 B

Absolute contribution (RM) from the manufacturing sector to the national economy

from **RM254.7 B**

Innovation



Top 30

Strengthen innovation capacity and capability: Global Innovation Index ranking

from **#35**

Employment



35%

Skilled workers employed in the manufacturing sector

from **18%**

Targets by 2025, developed from 2016 baseline figures

Industry4WRD Strategies

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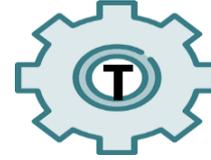
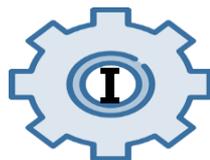
Strategic Enablers – F.I.R.S.T.

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Strategies

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Action Plans



Financing & Outcome-based Incentives

Enabling Ecosystem & Efficient Digital Infrastructure

Regulatory Framework & Industry Adoption

Upskilling Existing & Producing Future Talents

Access to Smart Technologies & Standards

Strategy F1:

Provide outcome based incentives, including tax incentives to encourage investments in, and adoption of, industry 4.0 technologies & processes.

Strategy F2:

Introduce dynamic and innovative financial products to encourage adoption of Industry 4.0 technologies and processes.

Strategy I1:

Strengthen the digital connectivity in and between industrial, education and training hubs to remove connectivity bottlenecks in adopting industry 4.0 technologies.

Strategy I2:

Enhance the digitalisation and integration of government processes and infrastructure along supply and manufacturing value chains.

Strategy I3:

Involve services providers for industry 4.0 and link them to manufacturing firms to help implement technologies, processes and skill development.

Strategy R1:

Increase awareness of the need, benefits and opportunities of Industry 4.0 technologies and business processes among manufacturing firms

Strategy R2:

Create a platform and mechanism to help manufacturing firms, especially SMEs, assess and develop their Industry 4.0 capabilities

Strategy R3:

Improve data integrity, standards, sharing, and security to facilitate seamless integration of manufacturing value chains and to support intra-ministerial coordination for effective Industry 4.0 programs.

Strategy S1:

Enhance the capabilities of the existing workforce through national development programmes specially designed for specific manufacturing sectors and support re-skilling and upskilling.

Strategy S2:

Ensure the availability of future talent by equipping students with the necessary skillsets to work in the Industry 4.0 environment

Strategy T1:

Establish digital/technology labs and collaborative platforms, especially public-private partnerships (PPP), to create awareness and understanding, foster the adoption of new technologies, and facilitate the transfer of knowledge

Strategy T2:

Establish and implement standards for interoperability, quality and safety for smart manufacturing and Industry 4.0 technologies.

Strategy T3:

Intensify Research, Innovation, Commercialisation and Entrepreneurship (RICE) programmes and activities in specific Industry 4.0 technologies and processes that support and advance priority sectors.

Funding & Outcome-based Incentives

F1

Provide Outcome-based Incentives

- Explore the realigning and leveraging of incentive packages
- Explore the provision of incentive packages to MNCs partnering with local firms

F2

Introduce dynamic and innovative financial products

- Explore the creation of Industry 4.0 development fund
- Create an enabling ecosystem for financial institutions to provide financing options
- Explore and align alternative and innovative financing

- **Industry4WRD Intervention Fund – RM30 mil**
- **Domestic Investment Strategic Fund – RM200 mil**
 - Matching grants of 60:40 or 50:50
- **High Impact Fund – RM150 mil**
 - Expanded to include modernisation
- **Business Loan Guarantee Scheme (SJPP) – RM2 bil**
 - Government guarantee up to 70%
- **Industry Digitalisation Transformation Fund (BPMB) – RM3 bil**
 - Interest rate subsidy of 2%

I nfrastructure

I1

Strengthen Digital Connectivity

- Explore the realigning and leveraging of incentive packages
- Explore the provision of incentive packages to MNCs partnering with local firms

I2

Enhance digitalisation and integration of government processes and infrastructure

- Assess priority Government-related processes and elements
- Support accelerated digitalisation and integration of these processes

I3

Involve service providers for Industry 4.0 and link them to manufacturing firms

- Develop and disseminate a catalogue of service providers
- Link service providers to manufacturing firms and SMEs
- Support digital adoption within the manufacturing value chain

➤ **Industry4WRD High Speed Broadband**

- Provision of last mile connectivity at high impact industrial areas and training hubs
- Matching grant of 50:50 to telcos (RM19 mil)

Regulatory Framework & Industry Adoption

R1

Increase stakeholder awareness

- Explore the realigning and leveraging of incentive packages
- Explore the provision of incentive packages to MNCs partnering with local firms

R2

Create a mechanism to assess industry readiness

- Assess priority Government-related processes and elements
- Support accelerated digitalisation and integration of these processes

R3

Improve data integrity, standards, sharing and security

- Develop and disseminate a catalogue of service providers
- Link service providers to manufacturing firms and SMEs
- Support digital adoption within the manufacturing value chain

➤ **Industry4WRD Readiness Assessment**

- Government-funded RA for 500 SMEs (RM15 mil)
- Tax incentive up to RM27,000 for other companies

Skills & Talent

S1

Enhance capabilities of existing workforce

- Create an Industry 4.0 Talent Competency & Technology Monitoring programmes
- Establish Industry 4.0 Skills Certification programmes
- Develop tailored training courses for reskilling
- Enhance modules for intensive upskilling programmes
- Enable data availability on Industry 4.0 talent and labour

S2

Ensure the availability of future talent

- Boost support for TVET and STEM programmes
- Integrate Industry 4.0 theory and practical into tertiary education, including structured industry placement
- Promote manufacturing as a preferred option for high-skilled jobs
- Enhance and increase the capacity and capability of educators, trainers and instructors

➤ National Dual Training Scheme

- Programme development (RM3 mil)
- Participating companies (double tax deduction)

➤ Facilities upgrade to host Competence Centre (RM11 mil)

➤ Train the Trainers (RM5 mil)

➤ Tax Deduction

- New I4.0 STEM modules by IPTS
- Contribution of machinery & equipment from industry

➤ Double Tax Deduction

- Structured Internship Programme

T echnologies & Standards

T1

Establish digital/technology labs and collaborative platforms

- Support industry leaders to establish digital/ technology labs
- Create PPPs and collaborative programmes for manufacturing activities
- Provide local firms with open access to smart manufacturing research, tools and technologies

T2

Establish and implement standards for smart manufacturing

- Establish an inventory of I4.0 standards and harmonise/ align with global standards
- Address interoperability barriers

T3

Intensify Research, Innovation, Commercialisation and Entrepreneurship (RICE) programmes and activities

- Prioritise I4.0 technology development programmes to strengthen RICE capacity
- Improve understanding by, and access for, manufacturing firms to research facilities and R&D
- Create technology development and experimentation labs for collaborative programme

➤ **Smart Partnership Collaborative Programme**

- Programme development (RM5 mil)
- Vendor Development Programme (double tax deduction for anchor companies)

➤ **Smart Manufacturing Intelligent Service Platform (RM10 mil)**

Industry4WRD Readiness Assessment

A comprehensive programme to help firms assess their capabilities and readiness to adopt Industry 4.0 technologies and processes, using a pre-determined set of indicators to understand their present capabilities and gaps

**The module for manufacturing related services (MRS) is expected to be included in RA by Q2 2019.*

Government
Incentives
(2019)

Government-funded Industry4WRD RA for 500 SMEs

Tax deduction on expenditure of Industry4WRD RA fee of up to RM27,000

What's next after Industry4WRD RA?



*Receive outcome report
from Assessing Body*



*Proposal by company on
Industry 4.0 adoption*



*Evaluation by Technical &
Steering Committees*



*Apply for
Intervention Fund**

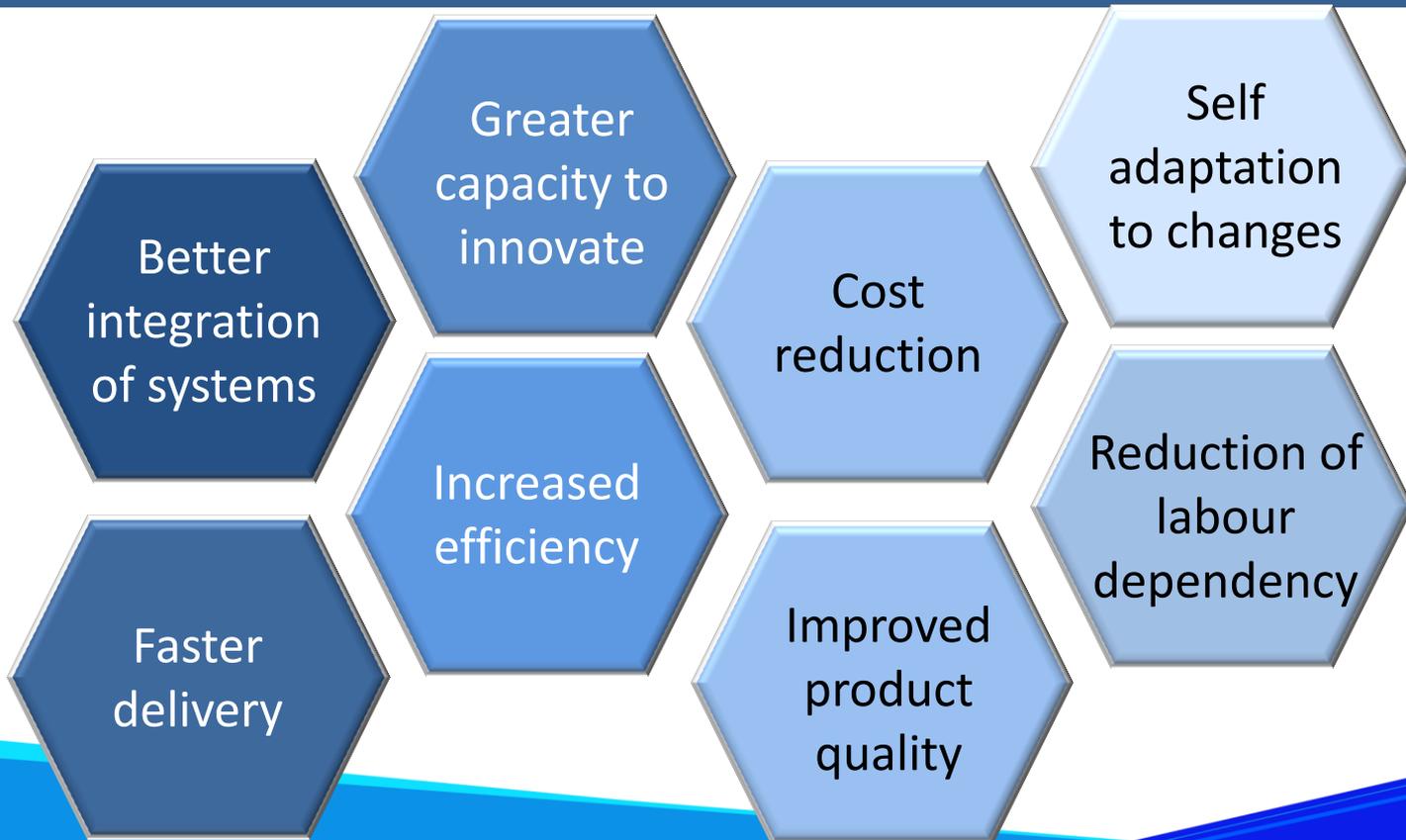


Approval granted



Implementation & Monitoring

Benefits of Industry 4.0 Adoption





MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY

THANK YOU

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