

LEMBAGA JURUTERA MALAYSIA
UNIVERSITI KEBANGSAAN MALAYSIA



Profesyen Kejuruteraan di Malaysia :

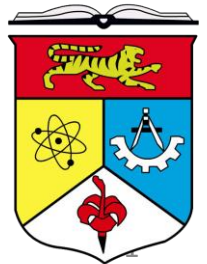
KE ARAH KECEMERLANGAN PERINGKAT DUNIA

Prof. Dato' Ir. Dr. Hassan Basri

PhD, MIEM, PEng, FSEEM, FAAET



Dato' Prof Ir Dr Hassan Basri



BOARD OF ENGINEERS MALAYSIA
UNIVERSITI KEBANGSAAN MALAYSIA



The Engineering Profession in Malaysia :

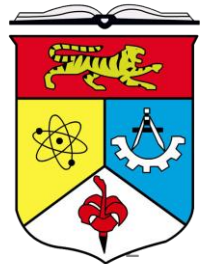
Towards International Excellence

Prof. Dato' Ir. Dr. Hassan Basri

PhD, MIEM, PEng, FSEEM, FAAET



Dato' Prof Ir Dr Hassan Basri





**BEM
&**



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The Engineering Profession in Malaysia

Backdrop

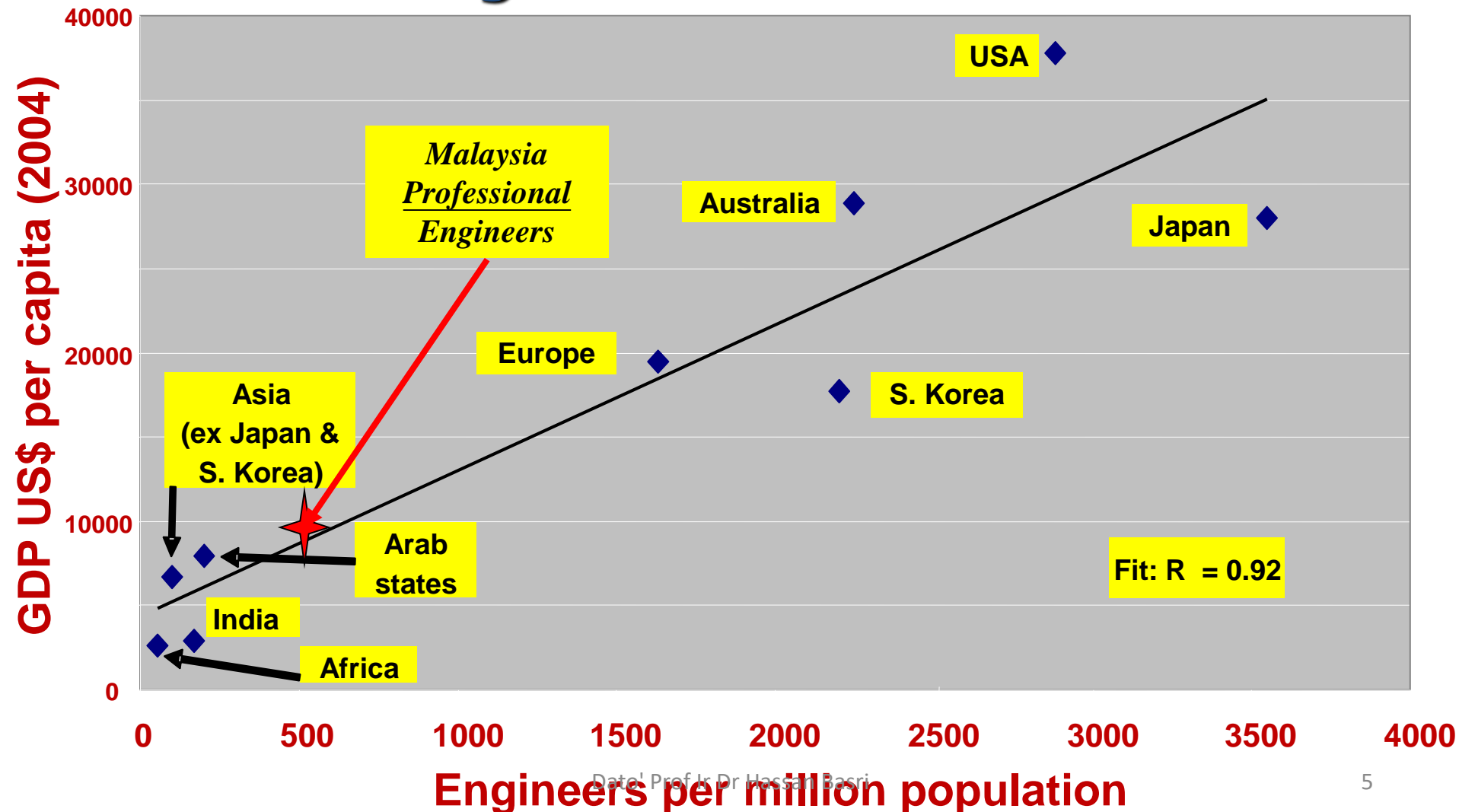
The increasing demand for engineers in developing countries

Case of Malaysia - typical



Why are Engineers Important?

Engineers and GDP



Engineer-Population ratios

	Population	Number of Registered Engineers	Engineer-Population ratio
Malaysia	32 million	146,000	1:218
Japan	127 million	2.8 million	1:45
Germany	82 million	1,000,000	1:82
Canada	30 million	250,000	1:120
United Kingdom	60 million	425,000	1:141

Data includes both engineers & engineering technologists

The engineering profession



**BOARD OF
ENGINEERS
MALAYSIA**

**THE INSTITUTION
OF ENGINEERS
MALAYSIA**



Board of Engineers Malaysia (BEM)

Facilitates the registration of engineers and regulates the professional conduct and practise of registered engineers in order to safeguard the safety and interest of the public.

Institution of Engineers Malaysia (IEM)

A learned institution for practicing engineers in Malaysia. It facilitates networking, technical learning among different groups. Most of its members are graduate and student members.



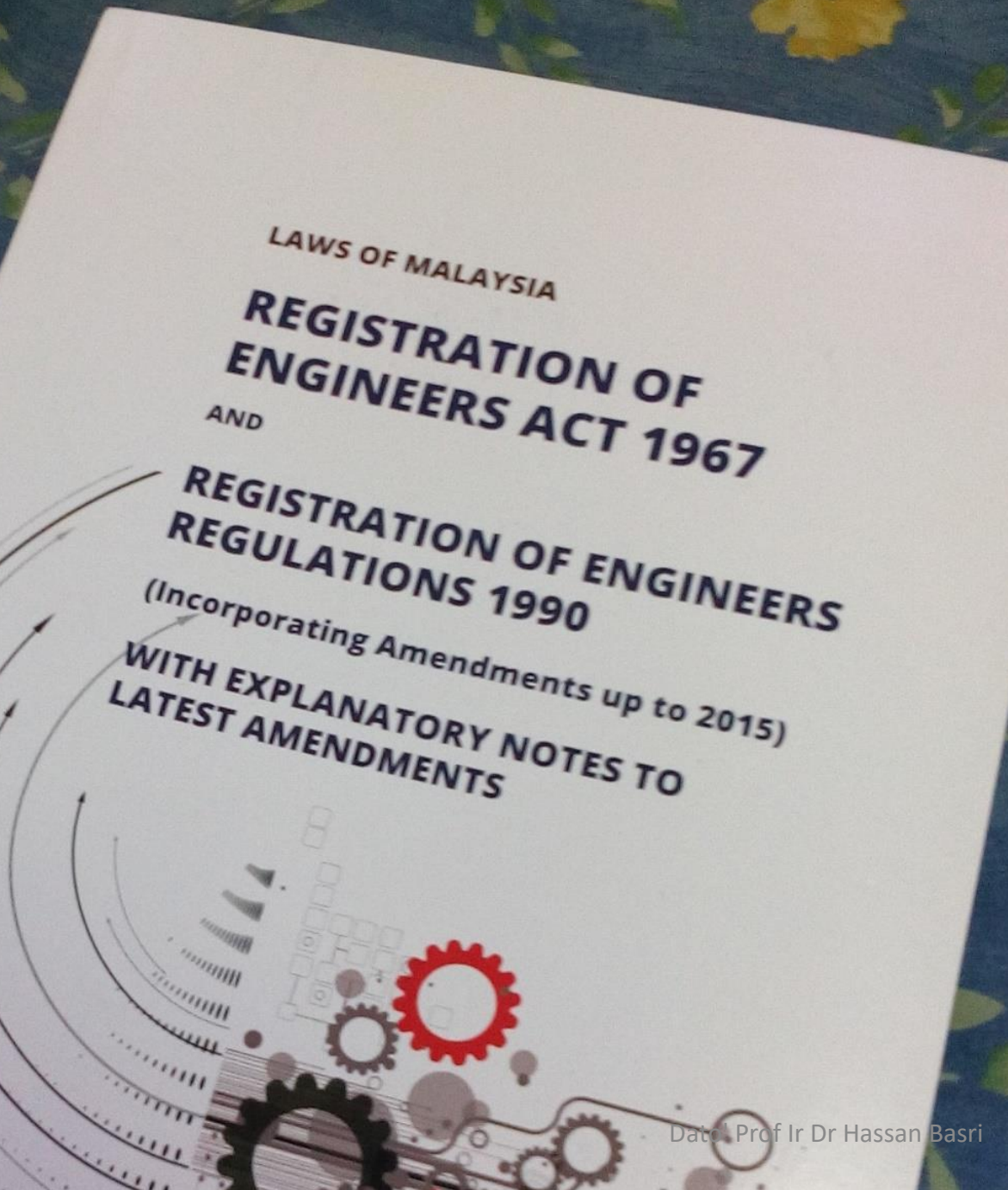
Board of Engineers Malaysia (BEM)

An independent statutory body by Act of Parliament



Board of Engineers Malaysia (BEM)

- formed in **1972**,
under the **Registration of Engineers Act 1967**.
- Latest Amendments enforced **31st July 2015**
- **BEM's primary role is to safeguard the safety and interest of the public:**
 - to facilitate the registration of Engineers, Engineering Technologists, Inspectors of Works, Engineering Consultancy Practices;
 - to regulate the professional conduct and practice of registered person.



Available online
at BEM website

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Board Of Engineers Malaysia X +


www.bem.org.my/web/guest/home

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 - Graduate Engineer
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 - E-Bulk Online Registration System
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www.bem.org.my/web/guest/services

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BEM website:
<http://www.bem.org.my/web/guest/home>

The Engineering Team



Registration of Engineers Act (1967) & its Regulations

- AMENDMENTS 2015

Registers & regulates

THE ENGINEERING TEAM:

1. Engineers
 2. Engineering Technologists
 3. Inspectors of Works (technicians)
- (new in red)*





Board of Engineers Malaysia

STATISTICS as at 27.06.2019

Registered Persons

122,834	Graduate Engineers
9,875	Professional Engineers (PE)
10,453	PEs with Practising Certificate
6,552	Engineering Technologists
6,644 63	Inspectors of Works (IOWs) IOWs (intern)

The mission of BEM & the nation is to increase the number of engineering professionals to reach 300k



INTERNATIONAL
ENGINEERING
ALLIANCE

(IEA)

Benchmarking Against the World's Best





INTERNATIONAL
ENGINEERING
ALLIANCE

Seven
constituent
agreements

International Professional Engineers Agreement

International Engineering Technologists Agreement

APEC Engineer Agreement

Agreement for International Engineering Technicians

Washington Accord

Sydney Accord

Dublin Accord

WASHINGTON ACCORD
(2009)

SYDNEY ACCORD
(2018)

DUBLIN ACCORD
(2018)

**A MULTINATIONAL AGREEMENT FOR THE MUTUAL
RECOGNITION OF ENGINEERING, ENGINEERING TECHNOLOGY
& ENGINEERING TECHNICIAN EDUCATION PROGRAMMES**

Among signatory countries:

- **substantial equivalency of accreditation systems**



THE ENGINEERING TEAM

- Entry level qualifications

1. Engineers

WASHINGTON
ACCORD
(2009)

2. Engineering
Technologists

SYDNEY ACCORD
(2018)

3. Inspectors of Works
(technicians)

Engineering TVET

DUBLIN ACCORD
(2018)



Board of Engineers Malaysia

- Accepted as a **Full Signatory of all three Accords** after rigorous peer review by other signatories

Implication:

Mutual recognition of academic programmes that underpin the educational base for **Engineering, Engineering Technologists and Engineering Technicians.**

- The qualifications accredited by signatories are recognized by each other as being **substantially equivalent** for the practice of engineering at the appropriate level within the engineering team.

SIGNIFICANCE OF ACCORD MEMBERSHIP

- an endorsement that the engineering education system has demonstrated a

strong, long-term commitment
to quality assurance

in producing engineers, engineering technologists & engineering technicians ready for industry practice in the international scene.



Constituent Agreements

Washington Accord
Sydney Accord
Dublin Accord

International Professional Engineers Agreement
International Engineering Technologists Agreement
APEC Engineer Agreement

Graduate Attributes and Professional Competencies

Version 3: 21 June 2013

This document is available through the IEA website: <http://www.ieagrements.org>.

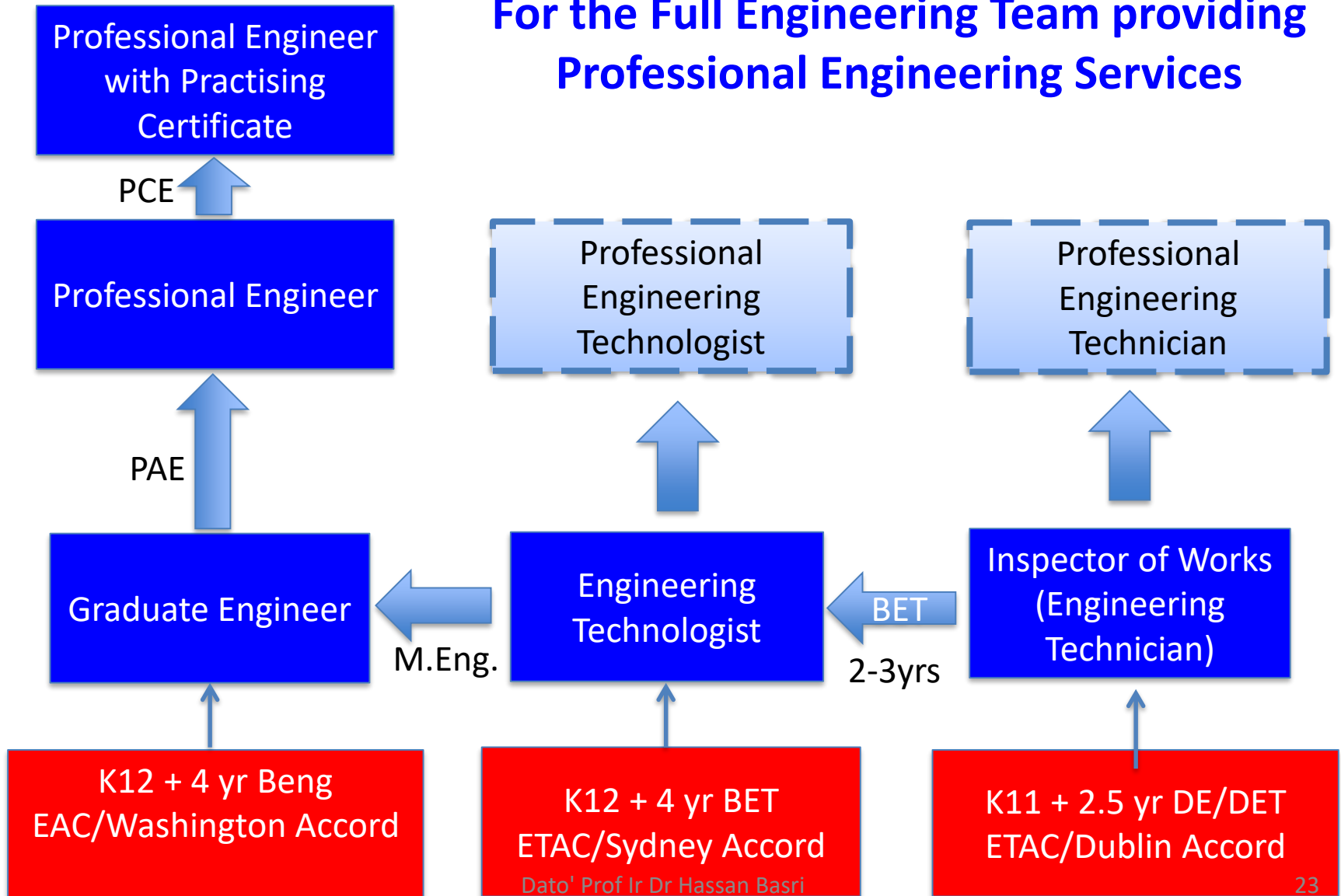


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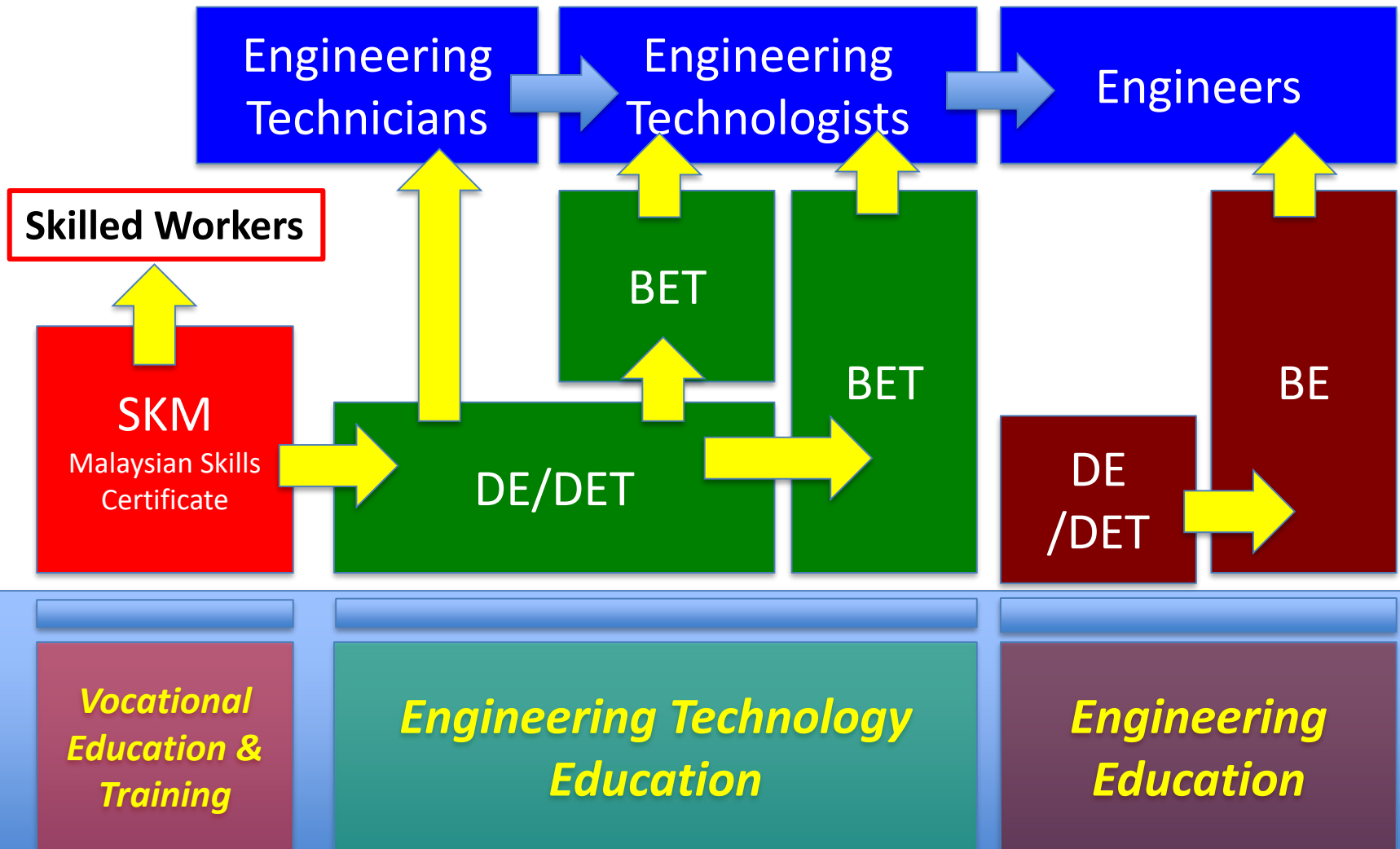
Educational & Professional Pathways

PROFESSIONAL PATHWAYS

For the Full Engineering Team providing
Professional Engineering Services



Engineering Team: *Education Pathways*



FINALLY....

**The Engineering Profession in Malaysia
is now recognised worldwide:**

***Benchmarked and Accredited with
the International Gold Standard***





**TERIMA
KASIH
*THANK YOU***

