BACKGROUND TO THE REGISTRATION OF ENGINEERS ACT 1967

What is the purpose …….. What is the point ……

Board of Engineers Malaysia (BEM)

CONTENTS

The Registration of Engineers Act

The history …….

Registration of Engineers Act 1967 (Act 138)
List of Amendments

Amending Law	Short Title	In Force From
Act A132	Registration of Engineers (Amendment) Act 1972	7.7.1972
Act A173	Registration of Engineers (Amendment) Act 1973	23.8.1972
Act A218	Registration of Engineers (Amendment) Act 1974	22.2.1974
Act A662	Registration of Engineers (Amendment) Act 1987	16.1.1987
Act A1158	Registration of Engineers (Amendment) Act 2002	1.12.2002
Act A1288	Registration of Engineers (Amendment) Act 2007	1.4.2007

The Registration of Engineers Act was enacted in 1967 as Act No.66 of 1967 over four decades ago ……..

Before 1967 there was no Engineers Act similar to the Laws in the UK (which until today there is no Engineers Act)

The Act was enacted in Malaysia due to a building failure in Kuala Lumpur in the 1960s.

Since then many other similar Acts related to the Construction/Building Industry were enacted

- **Street, Drainage & Building Act 133 1974**
- **Uniform Building By-Law 1984**

Apart from the Common Law (& laws related to professional services), other laws related to the Building & Construction Industry were enacted;

Town & Country Planning Act
Sewerage Services Act
Drainage Works Act
Local Government Act
Fire Services Act
CIDB Act
etc. etc. etc.

Occupational Safety & Health Act
Electricity Supply Act
Strata Title Act
Housing Development Act
Gas Supply Act
Water Supply Act
etc. etc. etc.

All laws enacted were to safeguard public interest & not the ……

Who is the Board of Engineer Malaysia

The Board exists because of the Act ……..

What is the Difference Between ACEM, BEM and IEM ?

BOARD OF ENGINEERS MALAYSIA (BEM)

The Board of Engineers Malaysia (BEM) is a statutory body constituted under the Registration of Engineers Act 1967. Its primary role is to regulate the practise of engineering under the Act. It registrars 15,000 Professional Engineers and 55,000 Graduate Engineers.

ASSOCIATION OF CONSULTING ENGINEERS MALAYSIA (ACEM)

A professional trade organisation registered under the Registrar of Companies comprising of 700 members who are Directors, CEOs, Chairmans or Owners of Engineering Consulting Practises employing 20,000 people in this knowledge-based industry.

INSITIUTION OF ENGINEERS MALAYSIA (IEM)

A professional & learned body registered under the Registrar of Society to promote science & profession of engineering in any of its disciplines, to facilitate the exchange of information & ideas related to engineering, and with a membership comprising of 32,000, inclusive of 12,000 students.

BOARD OF ENGINEERS MALAYSIA

Members of the Board are appointed by the Minister of Works

BEM → Permanent Staff

- President
  - Secretary & Registrar
  - 14 members who shall be Professional Engineers
  - 1 member from Board of Architect
  - 1 member from Board of Quantity Surveyor

Many functions of the Board is undertaken by the Standing Committees under the Board.

Working Groups under a Standing Committee are sometime formed to address specific issues in depth.

Members of Standing Committee & Working Groups are appointed by the Board

<u>Standing Committees of BEM</u>

- Examination & Qualification
- Quality
- Application
- Accredited Checkers
- Management
- Engineering Accreditation Council
- Scale of Fees
- Training & Education
- Engineers Act
- Information Technology
- National Monitoring
- Publications
- Professional Practice

The accreditation of the undergraduate engineering degree is under the purview of the BEM's Engineering Accreditation Council

The Professional Assessment Examination (PAE) is under the purview of BEM's Examination & Qualification Committee

What is the purpose of the Act ?

To protect ……

The Fundamental Issue for an Act's Existence

The registration of Engineers Act does not state the *raison d'etre* of its existence. It was not written in any official documents of BEM.

Do the public require such an Act ?
Why do engineers need such an Act ?
Was the purpose to "keep track" the nos. of engineers as Malaysia develops ?
Is it to look after the profession of engineering ?
Was it to ensure that engineers are protected from unscrupulous Clients ?
Or is it to ensure that engineers are "fairly" paid for their services ?
Can it be the engineering must be done by registered Engineers & no one-else ?
….. etc. etc.
….. etc. etc.
Or a sense of idealism to safeguard & protect the public ?
….. etc. etc.
….. etc. etc.

The Act has not clearly explained this fundamental issue of its existence.

Or have we lost sight why an Act should be enacted or exist ……

What is in the Legislation of Other Countries

United Kingdom	**There is no Engineers Act**
Australia (except Qsld)	**There is no Engineers Act**
Singapore	The Professional Engineers Board too, does not state its purpose. However it has issued a policy statement; "The mission of the Professional Engineers Board is to safeguard life, property and welfare of the public by setting and maintaining high standards for registering professional engineers and by regulating and advancing the practice of professional engineering."
Queensland, Australia	The Professional Engineers Act state the following objectives; (a) to protect the public by ensuring professional engineering services are provided by a registered professional engineer in a professional and competent way and; (b) to maintain public confidence in the standard of services provided by registered professional engineers; and (c) to uphold the standards of practice of registered professional engineers
Canada, Council of Professional Engineers	In its "Issues Policies" it has stated; Level 1 Policy Statement: In Canada, the protection of the public requires that the practice of engineering be regulated by the engineering profession. The public shall not be confused or misled by the misuse of the words "engineer" and "engineering".

The Purpose of the Engineers' Act

BEM's Working Group that reviewed the Act in 2007 recommends that the purpose of the Act be;

To protect the public by legislative control so that the practice of engineering, which has a bearing on public safety, health and welfare, can only be carried out by licensed professional engineers.

To create a regulatory body with mandate to carry out licensing of professional engineers and regulation of the profession;

To set regulations pertaining to the practice of engineering; qualifications for licensing; and code of professional conduct for registered engineers;

To maintain public confidence in the standard of services provided by licensed professional engineers; and

To designate the Board set-up under the Act as the authority to represent Malaysia in GATS classifications etc.

The above recommendations in 2007 are now embodied in the amended Engineers Act ……

Which Type of Engineering Services are Regulated

Or do it need to be regulated ? ……..

BEM Regulates Everything on Engineering

The Engineers Act states that;

"*No person shall, unless he is a Professional Engineer, practise, carry on business or take up employment which requires him to carry out or perform professional engineering services*," and

"professional engineering services means engineering services and advice in connection with any feasibility study, planning, survey, design, construction, commissioning, operation, maintenance and management of engineering works or projects and includes any other engineering services approved by the Board"

As a result the Board can act on almost any person whose work has anything that can be construed by the Board as engineering.

The Board of Engineer registers engineer in over 90 engineering disciplines; from aeronautical, agriculture, automotive, bioengineering, chemical, civil, structural, electrical, electronics, mechanical, environmental, geotechnical, highway, hydraulics, industrial, material, mechatronics, microelectronics, mining, nuclear, petroleum, natural gas, transport, water etc. etc. etc.

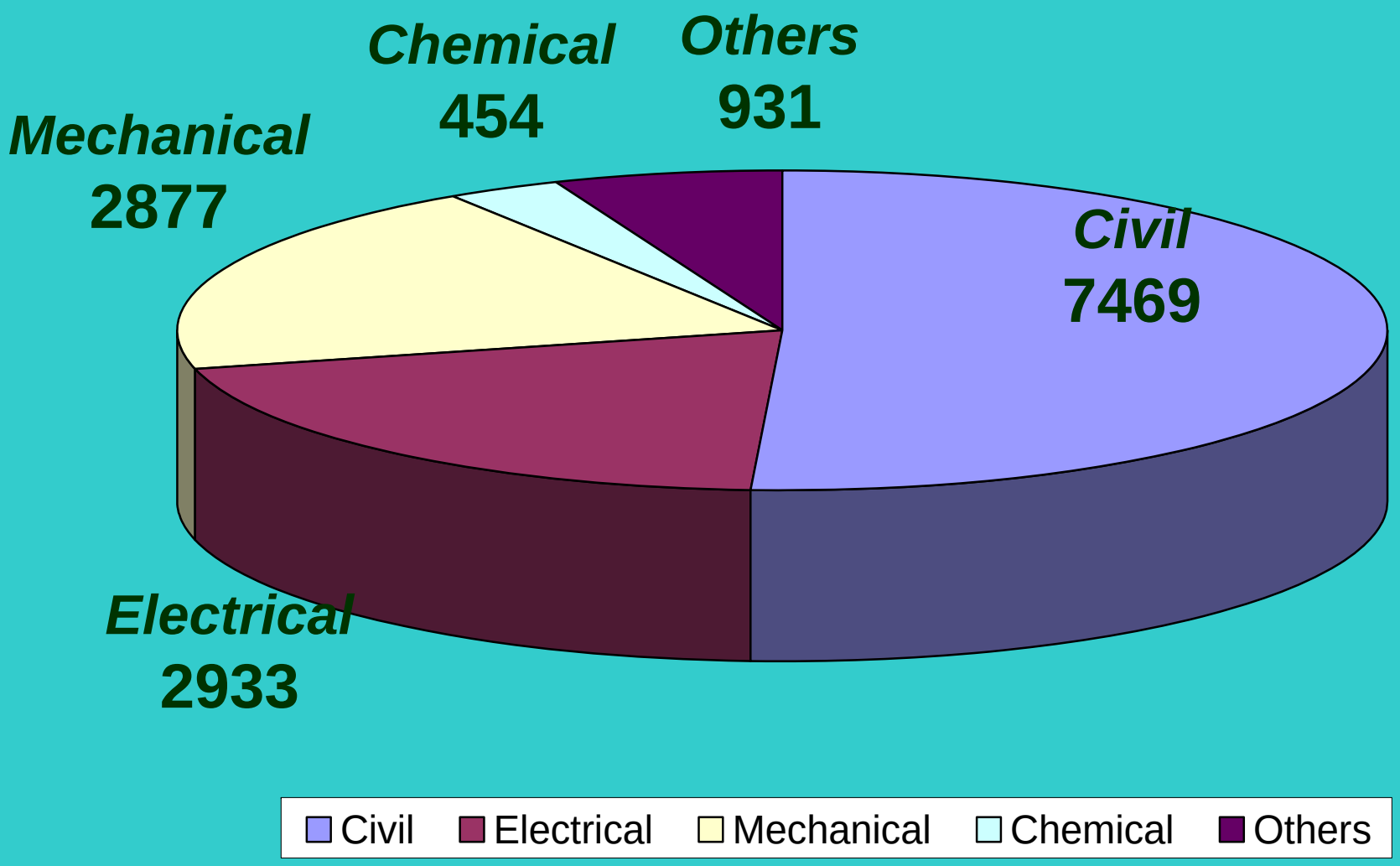
The engineering industry is so vast and wide …….

Engineers Registered with the BEM

CATEGORY (Individuals)	TOTAL NOS.
Graduate Engineers	54,787
Professional Engineers	14,661
Accredited Checkers	30
Temporary Engineers	10
TOTAL REGISTERED ENGINEERS	69,488
CATEGORY (Business Entity)	**TOTAL NOS.**
Sole Proprietorship	1057
Partnership	239
Body Corporate	1173
Multi disciplinary	33

Composition of Professional Engineers

Registered Professional Engineers By Discipline



Which Types of Engineering Services should be Regulated ?

The importance of the public is paramount to answer this question while at the same time does not stifle the engineering industry;

(a) the type and nature of work a Professional Engineer does and;
(b) how his work affects pubic safety, health and welfare

will determine on the type of professional services need to be regulated

Category 1 Products:	Produced in large numbers by manufacturing processes, sampled tested for quality and safety and governed by other legislation. Generally these are consumer goods and regulated by many other laws.
Category 2 Products:	Products that are uniquely designed and built for specific owner purposes and each being a prototype itself which cannot be sampled tested for “fitness for purpose”. These are generally fall into the construction/building industry and are critical to public safety.

Quote “One has to watch out for Engineers; they begin with the sewing machine and end-up with the atomic bomb” unquote

Over-regulation can stifle the engineering industry ……

Working Group of BEM Recommendations

The issue of regulating the profession was discussed in August 2005 and a number of recommendations were made as follows;

(a) that current and future registration of Professional Engineer be made a one-off permanent registration, without need for annual renewal, and this category of registration carries all entitlements of a Professional Engineer

(b) that the revamped Act introduces a yearly renewable Practice Certificate for those Professional Engineers who want to practise.

The above early concepts would have created of a two-tier registration of professional engineers;

Tier 1: Professional Engineers will still keep the title “Ir.”

Tier 2: Professional Engineers with the title “Ir.” with Practice Certificate renewable yearly based on Continuous Professional Development (CPD)

Part of the above recommendations in 2005 are now part of the amended Engineers Act ……

Is the Engineers' Act Over-regulating the Engineering Industry ?

That may stifle Malaysia's growth…

Is the Act Stifling the Engineering Industry ?

Repeal the Registration of Engineers Act. The UK, Australia & India for e.g. do not need to have an Engineers Act. The public in these countries are protected by other laws (and the justice system) in the country which is sufficient to safeguard & protect public interest.

Without any ACT it is an open market that does not restrict anyone calling themselves "Engineers". Anybody in these countries can call themselves "Engineers". In fact the tradesman are registered e.g. Plumbers and not Engineers. Yet the system functions.

Self-regulation and peer recognition appears to be working well. The Chartered Engineer status (equivalent to a P.E.) from the UK Institutions is highly regarded. For example M.Istruct Eng. is automatically recognise in Hong Kong & China by the local authorities.

The theory for open market is that consumers benefits i.e. it encourages competition & lower the costs of the services to be provided to the public.

Why not in Malaysia ? Is the public ready to accept self-regulation by Engineers ? Is our current Laws (and the justice system) sufficient to protect the public ?

The Engineers Act was in response to a building failure four decades ago. After more than 40 years of its existence; is Malaysia mature enough for self-regulation ?

And yet other countries such as Canada, USA & New Zealand consider that an Engineers Act is still ……

Finding the Right Balance between *Laissez-faire* and Over-regulation

Governments are responsible for protecting the public interest and the collective good. To accomplish these crucial roles, they create legislation & regulations to ensure that the public interest will be served.

Because of the important role engineers play, governments have set certain limits for the profession, defining standards & expectations for the qualification & ethical behaviour of professional engineers. To govern the profession of engineering in Canada …….

(1) Defines the range of activities which may be considered “engineering” including the scope of practice for engineers, and which professional activities are so critical to public safety and the public good that only a licensed engineer can undertake them;

(2) Creates or recognizes provincial or territorial engineering licensing bodies, describing how they are to be governed and mandating them to carry out tasks like licensing and regulating the profession;

(3) Outlines the regulations pertaining to the profession of engineering, such as who can use the term “engineer”, what academic qualifications are required to be a professional engineer and how professional misconduct should be handled.

“Canadian Council of Professional Engineers”

THE CURRENT ENGINEERS ACT IN SUMMARY
Registration of Natural Persons

Section 10(4) of the Act only allows BEM to register Graduate and Professional Engineers who are Malaysian citizens or a permanent residence

BEM

Citizenship reqds. for registration	Malaysian Graduate Engineer	**Qualification meets the Washington Accord reqds.**
Citizenship reqds. for registration	Malaysian Professional Engineer	**Sit and pass the Professional Assessment Examinations**

Takes 3 to 4 years of practical experience before a Graduate Engineer can qualify to sit for the Professional Assessment Examination.

The citizenship requirements was introduced in an amendment in 1987, foreign engineers can register only as "Temporary Engineer" ……

THE CURRENT ENGINEERS ACT IN SUMMARY
Commercial presence

Only Malaysian engineers can register with BEM under Section 10 & hence can set-up a business entity registered with BEM.

Registration with BEM as a Business Entity

- Sole Proprietorship
- Partnership
- Body Corporate
- Management of the Firm Board of Directors

Engineering Consultancy Practice (Section 7A)

- Must be a Malaysian Professional Engineer
- Partners must be Malaysian Professional Engineers
- Equity must be held by Malaysian Professional Engineers
  &
  Board of Directors must all be Malaysian Professional Engineers

Multi disciplinary practice registered under Section 7B

For multi disciplinary practice 30% of equity can be held by any other persons, 70% by Malaysian Professionals.

Board of Directors must all be Malaysian Professional Engineers, Architects and/or Quantity Surveyors.

The regulation of a business entity was introduced as an amendment in 1974, and subsequently in 1987 for multi disciplinary practice ……

Perceived Hidden Impediments for Foreign Engineering Professionals & Firms to Practice in Malaysia

1. Registration requirement of individuals where registration is linked to citizenship and residency requirements.
2. Local requirements relating to qualification and experience differ from foreign standards.
3. Mandatory requirement for membership of local professional institutions.
4. Registration of professional service corporate bodies, where Directors are required to be registered professionals.
5. Restrictive conditions on employment of expatriates, namely short and onerous visa conditions; restrictive work permit regulations; and limitation on the numbers as a percentage of workforce.
6. Government assistance to local professional services firms in terms of matching grants and soft loans
7. Restriction on formation of local subsidiaries
8. Restriction on foreign equity in local firms and joint ventures

Perceived Hidden Impediments for Foreign Engineering Professionals & Firms to Practice in Malaysia (Cont' d)

9. Regulations on setting-up the firms Board and management composition
10. Marketing and advertising restrictions for professional services providers
11. Competitive conditions, such as tender bidding, are biased against foreign firms
12. Pre-qualification (restrictive) requirements which are difficult for foreign firms to meet
13. Imposition of local content rules which favours local services providers
14. Design to local specifications and non-recognitions of foreign standards
15. Dispute regulation mechanism, such as local arbitration and legal proceedings, that favours local firms.

Such accusations leveled against Malaysia has its merits and demerits ……

At the same time Malaysia has signed-up on many International Agreements on Trade

Pull factor: Government has made international commitment in bilateral and multilateral agreements and after careful study indicate, on balance, more benefits will be generated to the country as a whole, since Malaysia is a trading nation (one of the top 20th largest trading nation in the world).

Push factor: It will create a competitive environment that provides improve quality, in line with international standards, accessibility to wider choice and more expertise and lead to more competitive pricing, which in the end benefits consumers and the Malaysia citizens in general.

Cabinet directive thorough the Ministry of Work's letter dated 4th. March 2010 to the Board of Architects, Board of Engineers and Board of Quantity Surveyors for foreign equity in companies shall be;

up to 70% by 2010 and
up to 100% by 2012

Why in Particular the Professional Engineering Services Sub-sector ?

This sub-sector is heavily regulated by an Act of Parliament, that not only regulate the profession but also on how the professional businesses are structured.

Based on latest studies commissioned by EPU and ETP reports, it shows that the professional engineering services have the greatest potential to contribute to higher GDP and GNI per capita due to the high knowledge intensive and human capital contribution to economic growth.

The sub-sector also have the competitive and comparative advantages in exporting their services vis-a-vis to other countries in the region.

The role of engineering is important to attract FDI in setting-up engineering design services in the emerging industries such as aerospace, automobile, green technology, environmental etc. which requires these companies to be financed by the private sector and owned by major corporations. Hence equity must be 'free' to allow such companies to invest and create employment of Malaysian engineers in these future high-tech companies.

Then came along the issue of liberalization & how does it benefit …..

THANK YOU