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Menara Felda, Platinum Park KLCC

ADDRESSING THE CHALLENGE: IMPROVING ENGINEERS' STARTING SALARY



By:
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Chairman, Task Force
"Engineers' Low Starting Salaries"



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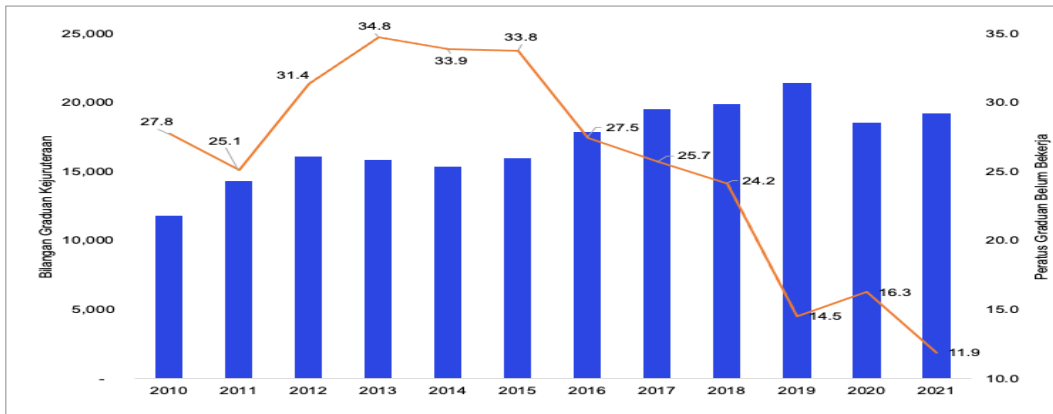
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CHALLENGES FACED BY ENGINEERING GRADUATES

CHALLENGES

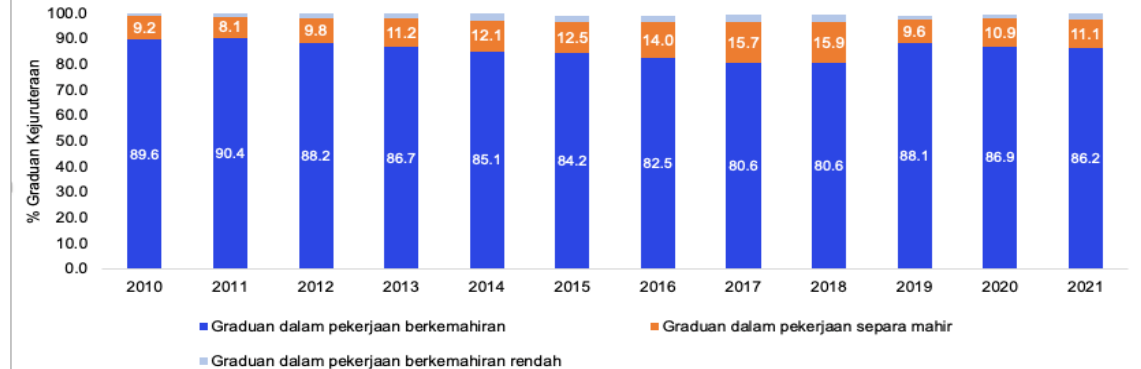
1. Competitive employment.



Ref: SKPG, MOHE

Unemployment rate among engineering graduates (2010 – 2021)

2. Difficulties in getting employment according to academic qualifications.



Ref: SKPG, MOHE

Mismatch of academic qualifications and employment of engineering graduates (2010 – 2021)

3. Mismatch of skill types according to the employer's demand/ requirements.

Soft skills: motivation, communication, interpersonal, critical thinking, problem-solving and entrepreneurial skills.

IMPACTS OF LOW SALARIES ON THE ENGINEERING PROFESSION AND ECONOMIC DEVELOPMENT

Pantau penghijrahan bakat tempatan

S.R. SUBRAMANIAM

SEPERTI kita sedia maklum, kebanyakan negara sedang mempergiatkan usaha pemuliharaan ekonomi mereka pascapandemik. Ini termasuk pelaburan ke atas bakat berkecuali tinggi sebagai persediaan untuk menarik pelaburan asing dalam sektor ekonomi berprestasi tinggi.



MEMUTU elektronik, elektronik dan semikonduktor di Malaysia berhadapan kekurangan pekerja berkecuali tinggi yang kritikal melibatkan jurutera dan jurutera.

Sejak ekonomi global kembali pulih dan dibuka secara beransur-ansur dalam tempoh dua tahun ini, kebanyakan negara dilihat agak agresif dalam usaha menarik bakat asing berkecuali tinggi sebagai strategi jangka pendek. Situasi ini menjadi semakin getir dengan kekurangan tenaga kerja ahli di peringkat global.

Firma perundingan antarabangsa, Korn Ferry memandangkan kekurangan bakat global boleh mencapai 85.3 juta orang menjelang 2026, menyumbang kerugian hampir RM11 trilion kepada ekonomi dunia.

Kedua-dua kolektif ini sebagai 'keperluan untuk menarik bakat' seperti dijumpai daripada kajian oleh firma perundingan global McKinsey pada 1997 yang mengesahkan peramalan bahawa bakat untuk menarik dan menarik bakat telah menjadi sesuatu yang penting. Ia menjadi lebih penting dari segi daya saing bagi daripada kebanyakan modal manusia.

Negara-negara di Asia Tenggara juga tidak terkecuali dalam persaingan untuk menarik dan mempertahankan bakat asing. Singapura baru-baru ini telah mengumumkan Pak Rancangan dan Keperluan Kuar Negara (GRT) untuk bakat asing dan pangsang mereka bagi tempoh lima tahun.

Thailand memperkenankan Visa Tempud Jangka Panjang (LTR) untuk tempoh 10 tahun bagi menarik bakat dan

memerlukan sekurang-kurangnya 45 peratus pekerja berkecuali tinggi untuk membolehkan mereka bersaing dengan negara-negara lain.

Pengarah Industri (PMI) baru-baru ini mengumumkan perubahan khususnya dalam sektor semikonduktor dan tenaga bekalan tenaga kerja berkecuali tinggi yang kritikal melibatkan jurutera dan jurutera.

Antara, inisiatif seperti mengambil jurutera Pendidikan Teknikal dan Latihan Vokasional (TVET) serta tenaga sains, teknologi, kejuruteraan dan matematik (STEM) diharapkan dapat mengurangkan kekurangan tenaga mahir.

Di antara usaha memulihkan ekonomi dari segi pekerjaan tempatan untuk memulihkan nilai tambah negara, memberi perhatian kepada ekonomi negara dalam tempoh pemulihan bakat tempatan juga penting.

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- Engineers conducted various jobs simultaneously - **reducing productivity** of the main job.
- Migrated** to economically stable countries and offered better salaries (brain-drain) - 1.8 of million Malaysians work in Singapore in various professions, and 20% work as professionals including engineers (BERNAMA).
- Decline in numbers of locally skilled engineers** in certain fields - **affected the country's ability to attract foreign investment.**
- Reduction in interest** among the young generation to **join the engineering profession** - empowerment of STEM education will not be achieved. Young generation more inclined to choose fields that offer promising salaries.

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Negara kekurangan 150,000 jurutera

Malaysia perlu 300,000 kepakatan capai tahap negara maju

Eksklusif

Setiap program kejuruteraan perlu dilaksanakan dengan dasar dan asas yang kuat supaya graduan dihasilkan itu mampu survive dan diterima industri.

Malaysia perlu 300,000 kepakatan capai tahap negara maju

Eksklusif

Setiap program kejuruteraan perlu dilaksanakan dengan dasar dan asas yang kuat supaya graduan dihasilkan itu mampu survive dan diterima industri.



CHRONOLOGY OF STUDY

“GAJI PERMULAAN JURUTERA YANG RENDAH”



2

22ND NOVEMBER 2021

Board of Engineers Malaysia (BEM) formed a **Task Force** to conduct a detailed study on “**GAJI PERMULAAN JURUTERA YANG RENDAH**”.

1

28TH OCTOBER 2021

Utusan Malaysia released an article “JURUTERA MISKIN”, which has created a lot of misunderstanding among registered persons and the public regarding BEM's roles and functions.

4

18TH SEPTEMBER 2022

BEM released a full report on the findings to the public.

3

20TH AUGUST 2022

YAB Dato' Sri Ismail Sabri Yaakob put his concerns on the “GAJI PERMULAAN JURUTERA YANG RENDAH” in his officiating speech during the BEM's 50th Anniversary Dinner.

● Gaji RM1,500-RM2,000 sebulan ● 20 tahun tidak berubah

Jurutera miskin

DAHULU SANGAT RENDAH dan **AMAT FAMILIAR** dalam kalangan masyarakat, gaji jurutera yang rendah telah menjadi isu yang hangat di kalangan masyarakat. Menurut Menteri Kanan Kerja, Tenaga dan Pertahanan, Datuk Seri Ismail Sabri Yaakob, gaji jurutera yang rendah telah menjadi isu yang hangat di kalangan masyarakat.

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THE TASK FORCE

“GAJI PERMULAAN JURUTERA YANG RENDAH”



CHAIRMAN

FIRST ADMIRAL (RTD.) DATO' Ir.
(Dr) HAJI AHMAD MURAD HAJI
OMAR



Ir. Dr. MEGAT ZUHAIRY
MEGAT TAJUDDIN



PROF. Ir. Dr. ABD. RAHIM
ABU TALIB



Ir. MOHD NORAMIL
MOHD DARIL



Ir. HAMZAH HASHIM



Ir. ABDUL RAZAK YAKOB



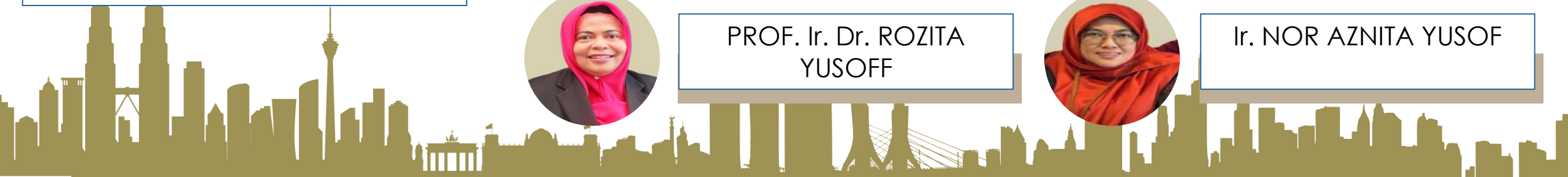
Ir. JANARI SEKELI



PROF. Ir. Dr. ROZITA
YUSOFF



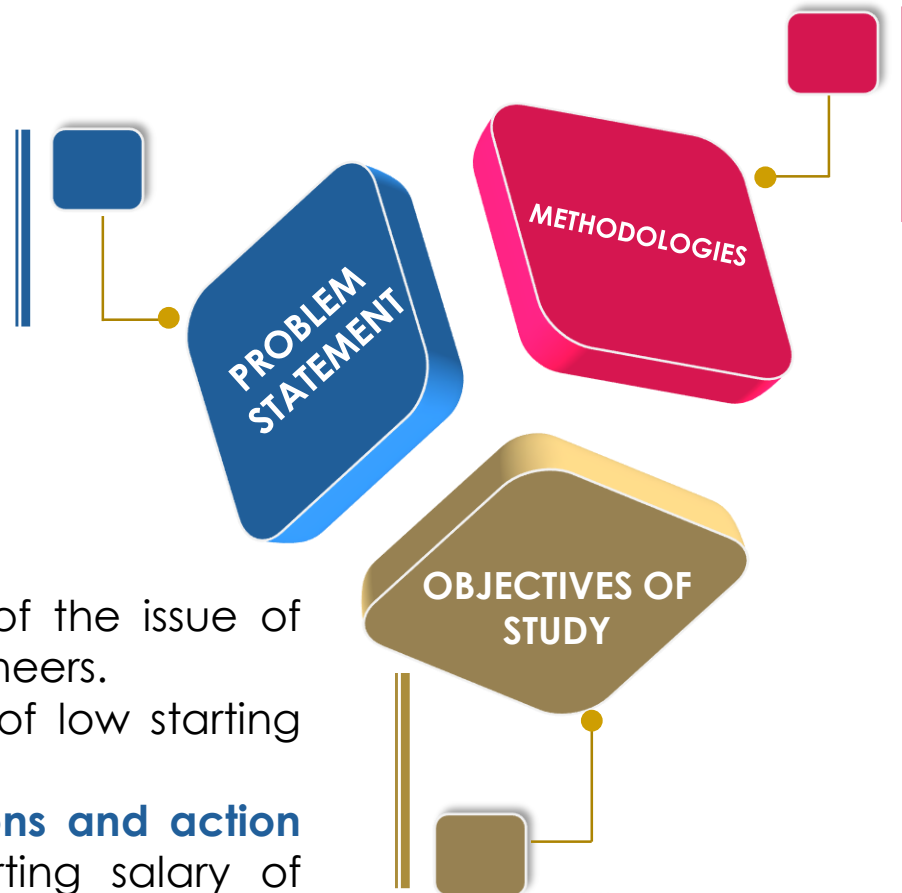
Ir. NOR AZNITA YUSOF



THE STUDY ON “GAJI PERMULAAN JURUTERA YANG RENDAH”

Fresh engineering graduates received **low starting salaries** in the **range of RM1,500 to RM2,000** for the **last 20 years**.

- **To identify the legitimacy** of the issue of low starting salaries for engineers.
- **To identify the root cause** of low starting salaries for engineers.
- **To provide recommendations and action plans** to improve the starting salary of engineers.



▪ Surveys

BEM, Engineering Organization, Engineering Consulting Association, HILs.

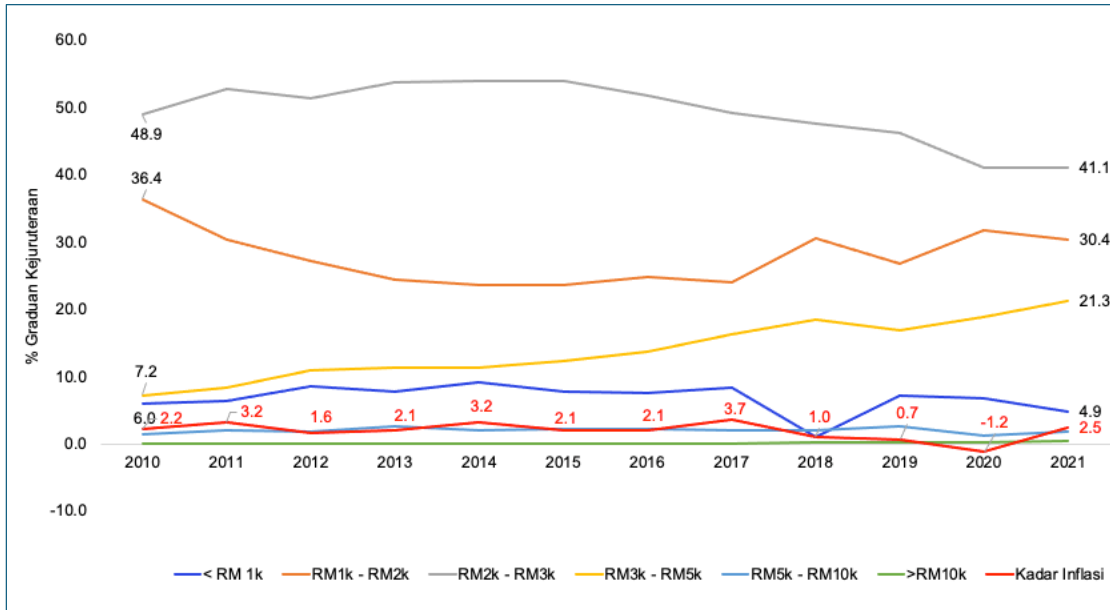
▪ Secondary Data

MOHE (SKPG), JPA, Statutory and Non-Statutory Bodies, Job Agencies.

▪ Brainstorming

Government Agencies, Engineering Associations/ Organizations.

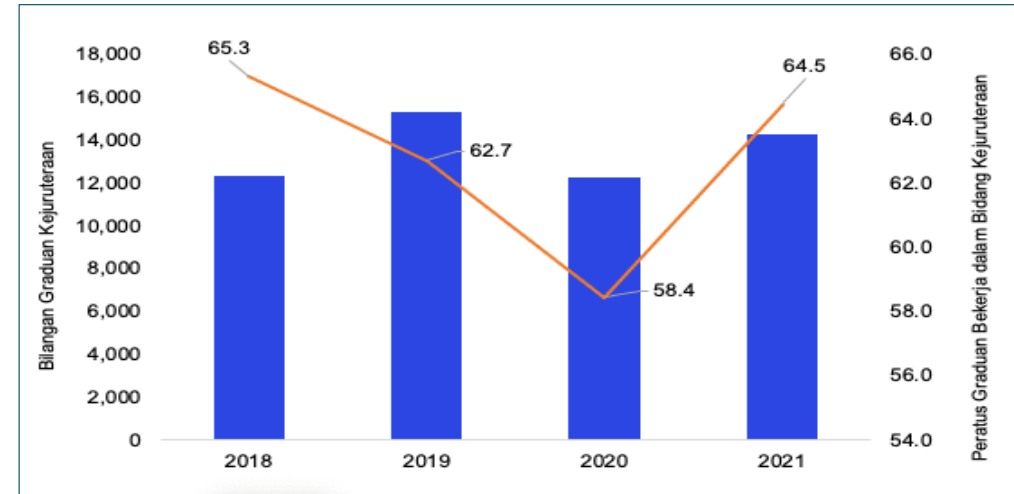
FINDINGS: ENGINEERS' STARTING SALARIES



Ref: SKPG, MOHE and DOSM

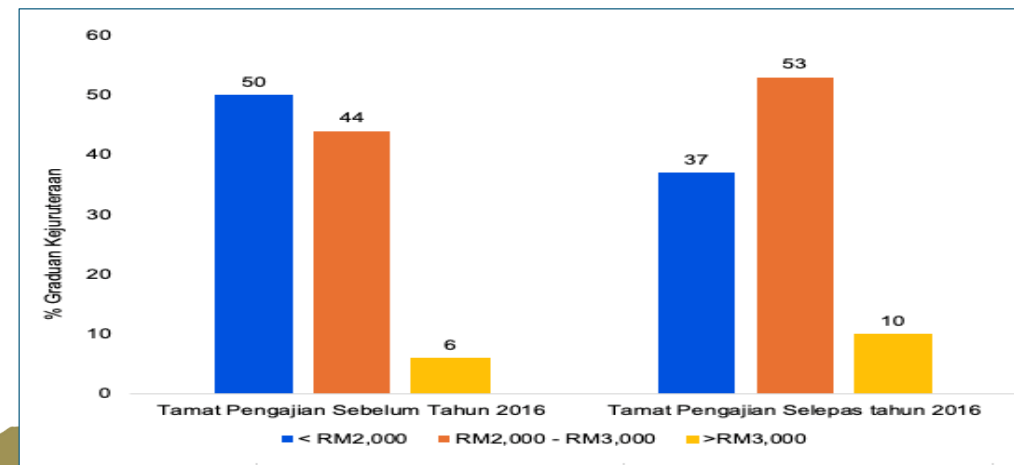
Range of starting salaries of engineering graduates (2010 – 2021)

- On average, **17,000** engineering students graduate from HIs yearly. About **63%** work as engineers.
- 37%** of them received starting salaries < RM2,000 after the year 2016 (a reduction of 13% as compared to previous years).



Ref: SKPG, MOHE

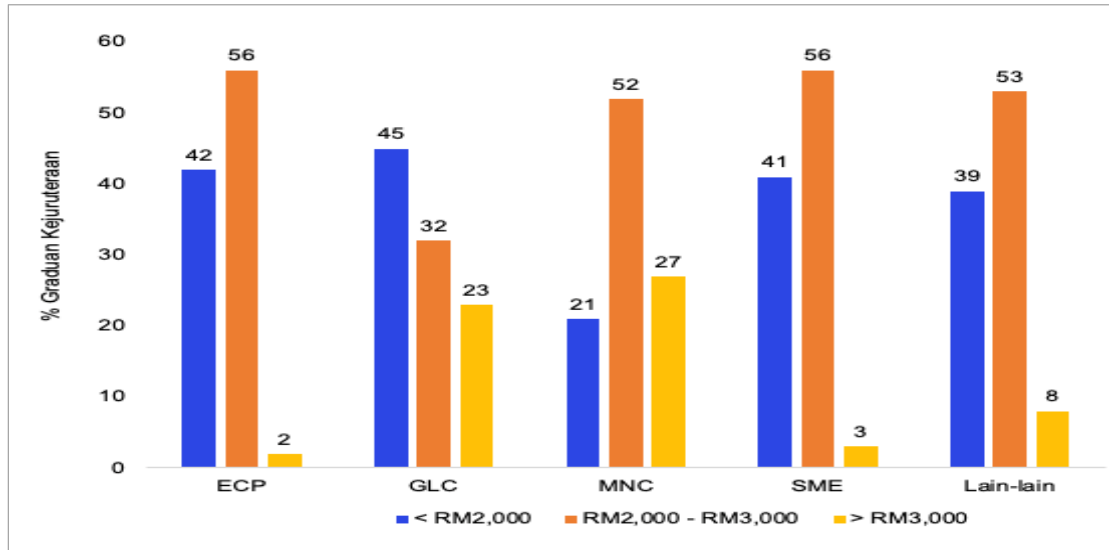
Engineering graduates working as engineers (2018 – 2021)



Ref: BEM Surveys

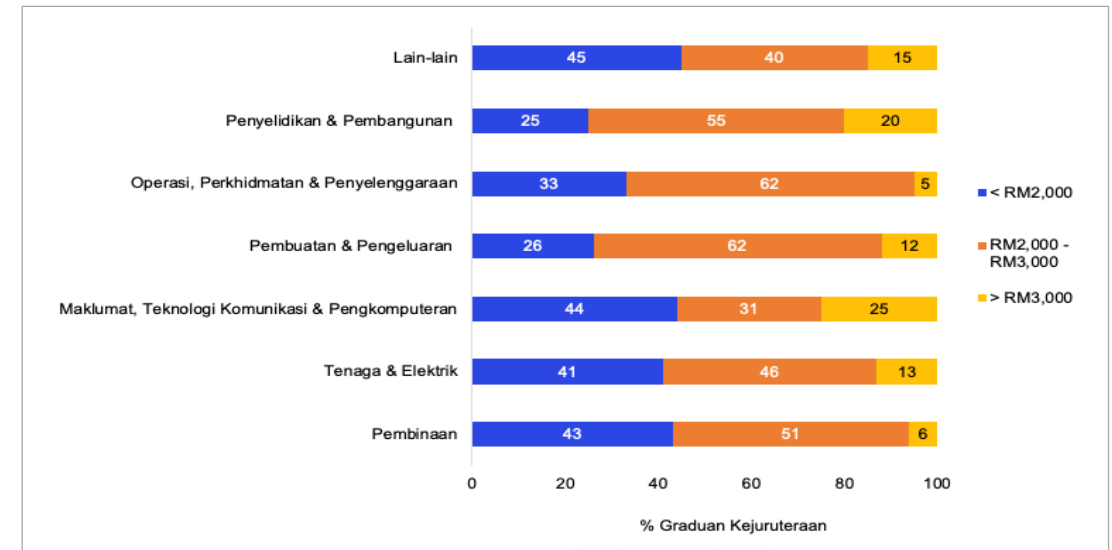
Comparison of starting salaries (before 2016 and after 2016)

ENGINEERS' STARTING SALARIES (CONT'D)



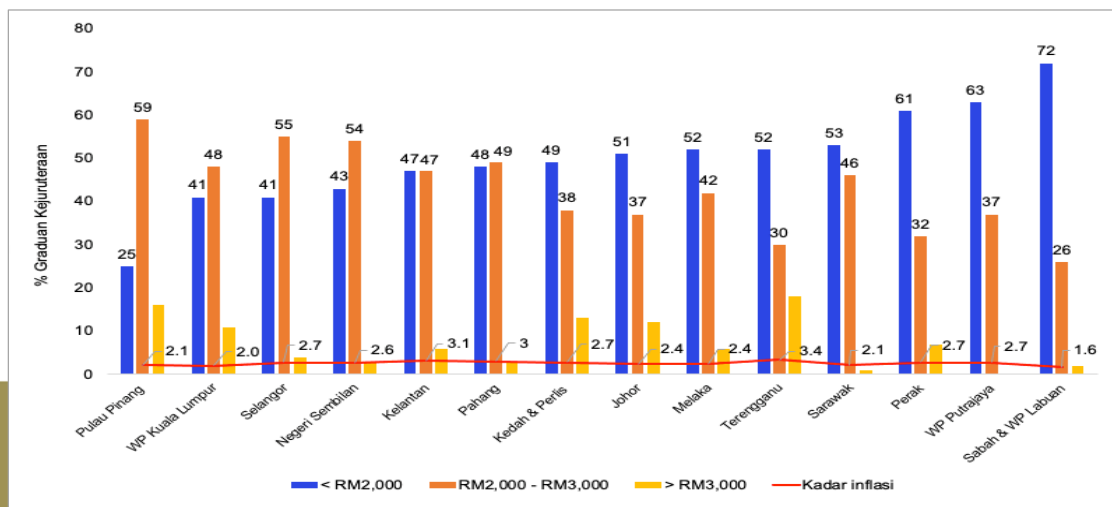
Ref: BEM Surveys

Range of starting salaries according to types of companies



Ref: BEM Surveys

Range of starting salaries according to industrial sectors



Ref: BEM Surveys, DOSM

Range of starting salaries according to working location

COMPARISON OF ENGINEERS' STARTING SALARIES GLOBALLY

COUNTRY	STARTING SALARIES	STARTING SALARIES (RM)
BANGLADESH	BDT17,000 – BDT45,000	700 – 1,800
INDIA	INR33,000 – IND67,000	1,800 – 3,800
VIETNAM	VND11M – VND12M	2,000 – 2,200
MALAYSIA		2,000 – 3,500
INDONESIA	IDR9M – IDR19M	2,600 – 5,600
THAILAND	THB25,000 – THB37,000	3,200 – 4,700
BRUNEI	BND2,000 – BND5,000	7,000 – 17,500
SINGAPORE	SGD3,000 – SGD5,500	10,500 – 19,200
JAPAN	JPY410,000 – JPY660,000	12,600 – 20,300
AUSTRALIA	AUD5,400 – AUD6,300	16,800 – 19,600
USA	USD4,500 – USD7,000	21,300 – 33,200
GERMANY	EUR4,500 – EUR7,000	22,800 – 35,600

Ref: Glassdoor. (2024). Graduate Engineers' Salaries



CURRENT STATUS OF ENGINEERS' STARTING SALARIES



- Dasar Gaji Progresif – starting salaries ranging from RM2,195 to RM3,600.
- Selangor's integrated circuit (IC) design park – offering fresh engineering graduates' salaries ranging from RM5,000 to RM6,000.



COMPARISON OF COMPENSATION OF EMPLOYEES (CE) GLOBALLY

COUNTRY	CE (%)
INDONESIA	14.6
THAILAND	20.7
PHILIPPINE	34.4
MALAYSIA	34.8
CAMBODIA	37.8
SINGAPORE	39.4
AUSTRALIA	47.7
CANADA	50.7
GERMANY	53.8

THE MAIN CAUSES OF LOW STARTING SALARIES

1. OVER SUPPLY

Oversupply of engineering graduates in certain industrial sectors - competition and exploitation by employers to reduce salaries.

2. AWARENESS

Lack of awareness of the scope of work of the engineering profession (Engineers, Engineering Technologists, and Technicians) - engineers take on the scope of work of technicians with low salaries.

3. COMPLIANCE

Employers offering engineer positions without the requirement of registration with the BEM in compliance with the Engineers Registration Act 1967 [Act 138] - resulted in no regulatory monitoring, lowering the value of the engineering profession.

4. BENCHMARK

Absence of benchmarks for engineers' starting salaries as a reference by the employers (at the time of the study).

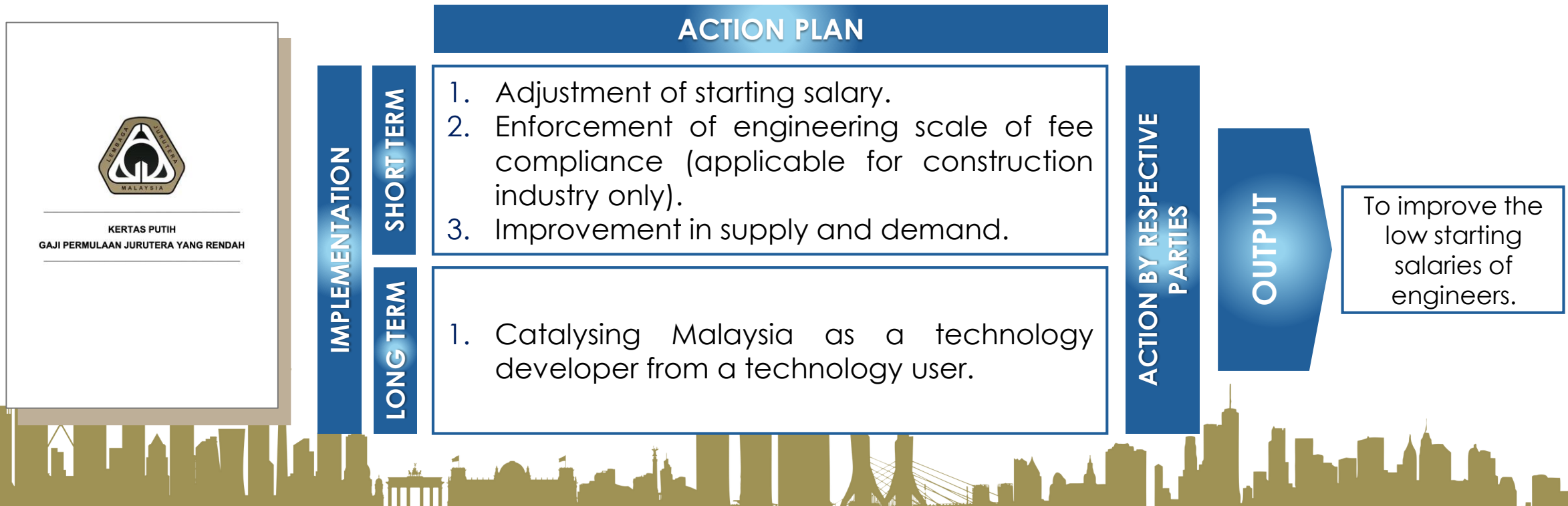
5. SCALE OF FEE (CONSTRUCTION INDUSTRY)

Financial constraints based on company size and market pressure not to use the engineering scale of fee - forced employers to offer low starting salaries.

**LOW
STARTING
SALARIES**

WHITE PAPER AS THE PLATFORM FOR IMPROVING ENGINEERS' STARTING SALARIES

- Consists of **five (5) chapters** on the findings of the study of “Gaji Jurutera yang Rendah” and recommendations to improve low starting salaries.
- Utilized/ cited various reliable data and references** (i.e. SKPG MOHE, BEM Annual Report, DOSM, Khazanah Research Institute, TalentCorp, etc.)
- Recommend **a total of 13 short-term action plans** and **long-term action plans**.



CHRONOLOGY OF THE DEVELOPMENT OF WHITE PAPER “GAJI PERMULAAN JURUTERA YANG RENDAH”



1

8TH DECEMBER 2021

BEM Forum and Workshop on “GAJI PERMULAAN JURUTERA YANG RENDAH & KEBOLEHPASARAN JURUTERA DI MALAYSIA”.

2

28TH OCTOBER 2022

BEM Convention and Workshop on “GAJI PERMULAAN JURUTERA YANG RENDAH”.

3

24TH AUGUST 2023

BEM Convention and Workshop on “GAJI PERMULAAN JURUTERA YANG RENDAH”.

4

8TH MARCH 2024

Action Plan Workshop on “GAJI PERMULAAN JURUTERA YANG RENDAH” with stakeholders and preparation of White Paper.

5

24TH APRIL 2024

Presentation of White Paper to BEM President.

6

27TH JUNE 2024

Presentation of White Paper to BEM Board Members.

7

8TH AUGUST 2024

Presentation of White Paper to Ministry of Works.



THANK YOU

BOARD OF ENGINEERS MALAYSIA

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