



1 & 2 October 2024
Menara Felda, Platinum Park KLCC

OBE Acculturation in Malaysia towards Global Competence

Preliminary Findings

WG under BEM Strategic Plan 2021 – 2025 | Theme 1

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Presentation Outline

1. The Project
2. The Team
3. Context: EAC Standard Transformation
4. Methodological Framework
5. Findings
6. Next Step

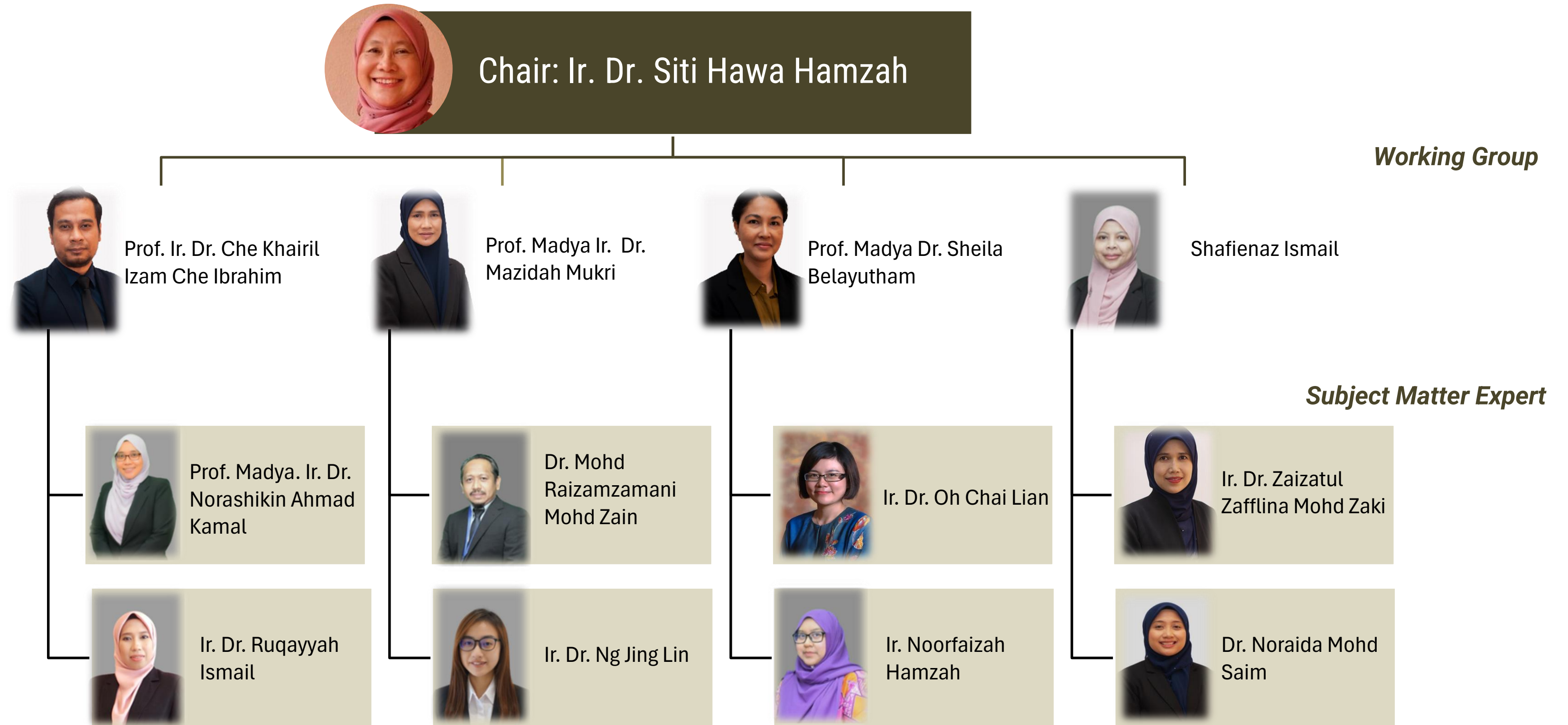


The Project

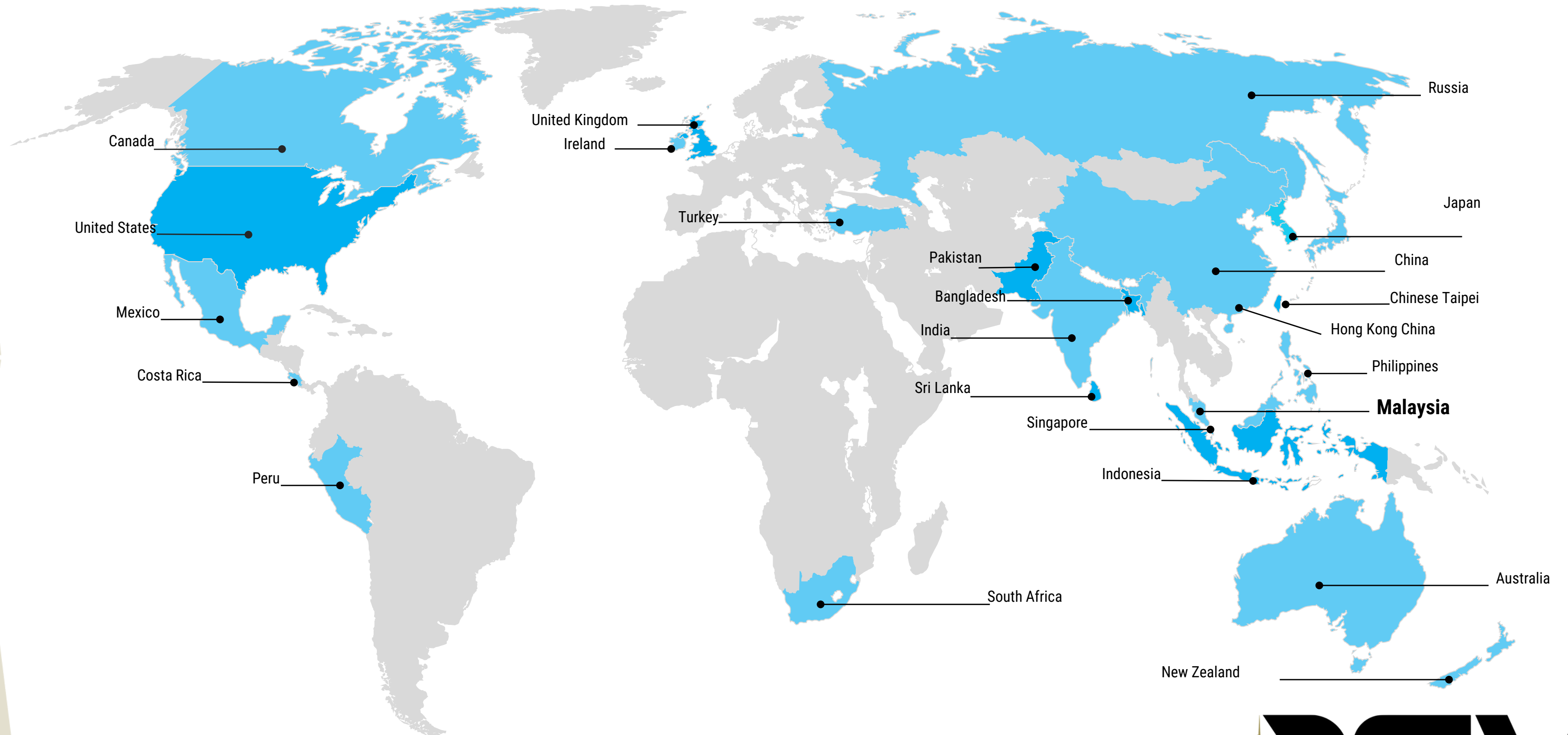
Aim: To study the impact of OBE implementation on the engineering programmes accredited by EAC in Malaysia

Timeline	Objectives	Scope of Works
July 2024 – June 2024 12 Months	<ol style="list-style-type: none">To relate the attainment of PEO in addressing the graduates' professional competenciesTo evaluate the PO attainment of graduate attributes under OBE implementationTo verify the impact of assessment method for PO measurement on the programme	<p>All Engineering Programmes</p> <p>Context: Seven (7) Accreditation Criteria</p> <ol style="list-style-type: none">PEOsPOsAcademic CurriculumStudentTeaching & Support StaffFacilitiesQuality Management Systems <p>OBE Impact covers:</p> <ol style="list-style-type: none">IHLEAC PanelStudent / GraduatesEmployer/Industry <p>OBE Way Forward : CQI - Improvement</p>

The TEAM



Washington Accord Signatories Countries

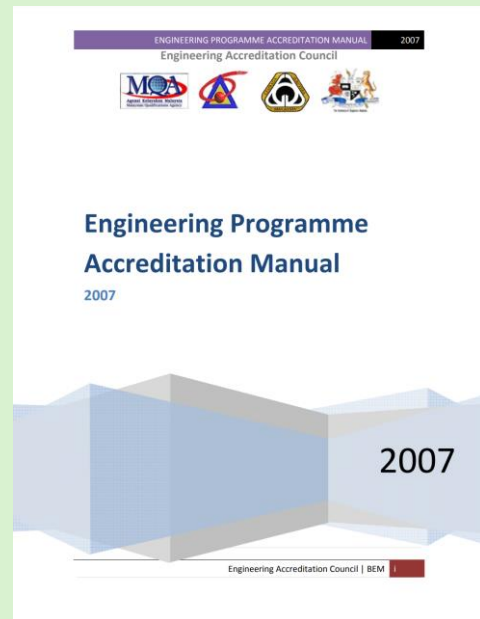


Signatories: 25 countries
Provisional Signatories: 6 countries

Ref: <https://www.internationalengineeringalliance.org/accords/washington/signatories>

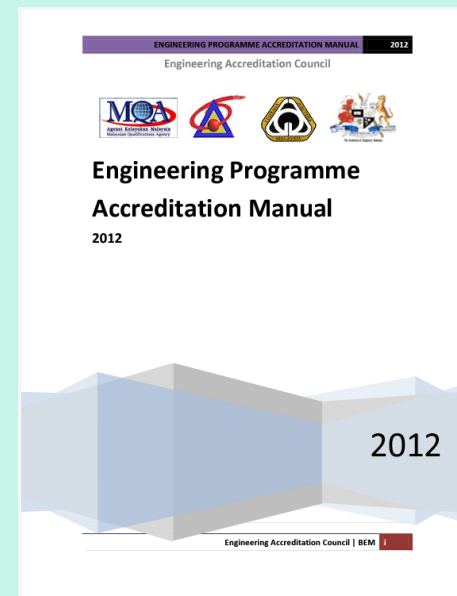


EAC Manual/Standard Transformation



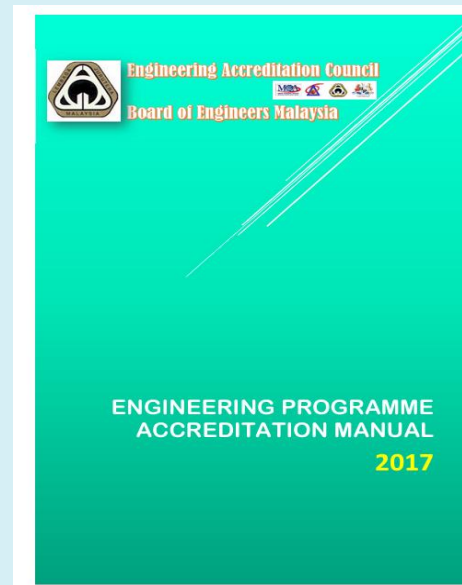
EAC MANUAL 2007

- **12** graduate attributes



EAC MANUAL 2012

- IEA GAPC Version 2, 2009
- **12** graduate attributes
- **5** complex engineering activities
- **8** complex problem solving
- **8** knowledge profile



EAC MANUAL 2017

- IEA GAPC Version 3, 2013
- **12** graduate attributes
- **5** complex engineering activities
- **7** complex problem solving
- **8** knowledge profile



EAC STANDARD 2020

- IEA GAPC Version 3, 2013
- **12** graduate attributes
- **5** complex engineering activities
- **7** complex problem solving
- **8** knowledge profile



EAC STANDARD 2024

- **IEA GAPC Version 4, 2021**
- **11** graduate attributes
- **5** complex engineering activities
- **7** complex problem solving
- **9** knowledge profile
- **17** SDGs

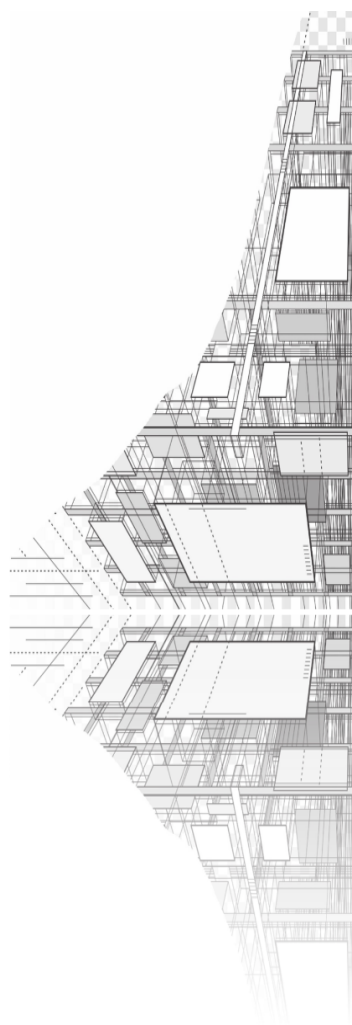
The Transformation of EAC Manual/Standard

Methodological Framework

Objectives	Method	Deliverables
1. To relate the attainment of PEO in addressing the graduates' professional competencies	Quantitative & Qualitative Documentation Accreditation Decision Meetings (ADM) reports (2000 – July 2024)	Data Entry Management System Database (1,2) Statistical Analysis Report on the Trend of Accreditation Outcomes for IHLs (1,2)
2. To evaluate the PO attainment of graduate attributes under OBE implementation	Questionnaire Survey Survey to IHL, Panel EAC, Employer / Industry	Report on IHLs, EAC Panel, and Industry Regarding Insights into OBE Acculturation Practices in EAC-Accredited Engineering Programmes (1,2,3)
3. To verify the impact of assessment method for PO measurement on the programme	Interview / Focus Group IHL representative OBE/Accreditation Employer / Industry	

Data Entry Management System Database

OBE Data Entry Management System



NO	SCOPE OF COVERAGE	YEAR	IHL
1	Demographic – IHLs No. of IHL = 56* *The total IHL is based on the scope of the study. The accredited IHL to date is 59 IHLs.	2010 – 2024 2000 – 2024	<ul style="list-style-type: none">• 50 IHLs• 6 IHLs* (UiTM, UM, UKM, UPM, USM, UTM) <small>*Six IHLs were chosen due to their long-standing establishment in engineering programmes (prior to 2010)</small>
2	Accredited Engineering Programmes – Discipline	21 Disciplines	
3	Outcome of Accreditation	Accreditation criteria	

<https://docs.google.com/spreadsheets/d/1wlg73tsXxD0UzYVZ6iSMcwkkwTHO5H2K/edit?gid=1891358784#gid=1891358784>



Data Entry Status

[illegible]

<https://docs.google.com/spreadsheets/d/1wlg73tsXxD0UzYVZ6iSMcwkkwTHO5H2K/edit?qid=1891358784#qid=1891358784>

Data Entry Status (*Status as of 28/9/2024*)

Total No. of Accreditation Visit = 1677

$$= 645 / 1677$$
$$= \underline{\underline{38.5\%}}$$

The Initial Findings – Demographic Status

Engineering Programme Accredited by EAC (1998 -2024)

No. of Institution of Higher Learning

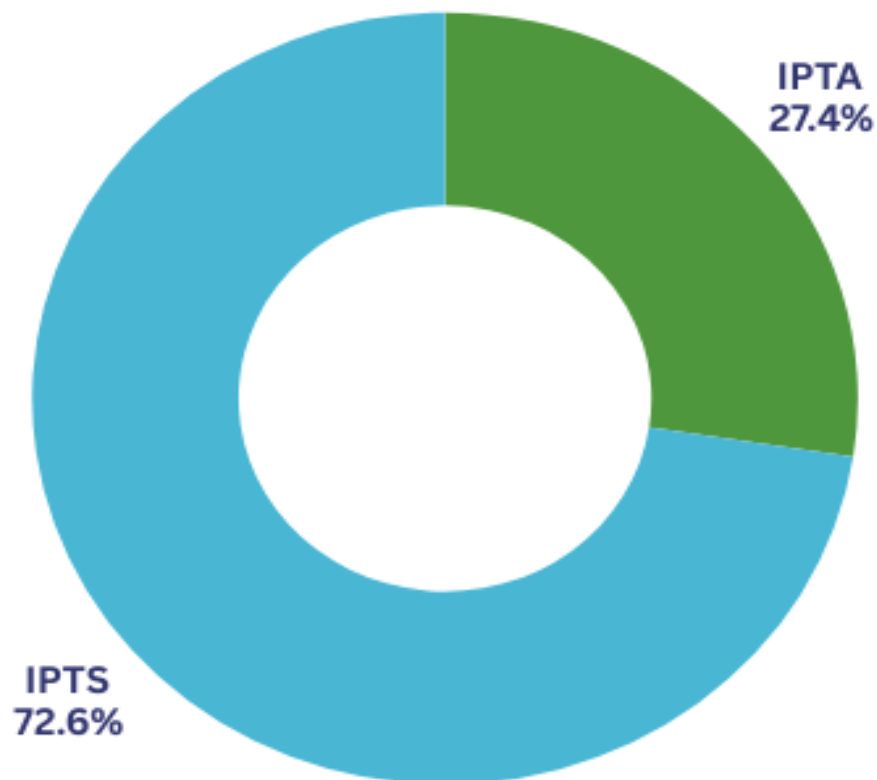
62*

IPTA

17

IPTS

45



Total Accredited Programme

374

IPTA

215

IPTS

159



*Source (as of August 2024): <https://eac.org.my/v2/list-of-accredited-engineering-programme-malaysia/>

The Initials Findings – Demographic Status

Active IHLs as August 2024

No. of Institution of Higher Learning

56*

IPTA

17

IPTS

39



13.3%

IPTS
48.4%



IPTA
51.6%

Total ACTIVE Accredited Programme

250

IPTS
48.4%



IPTA
51.6%

Total Phased-Out Programme

124

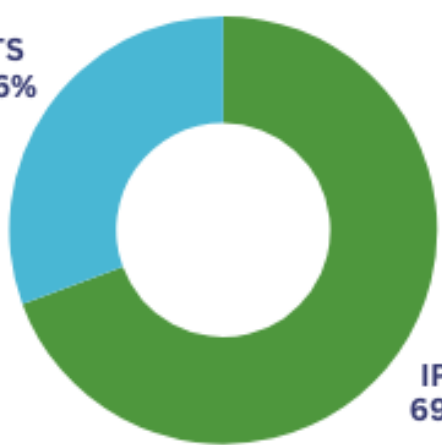
IPTA

86

IPTS

38

IPTS
30.6%



IPTA
69.4%

IPTA

129



40%

IPTS

121

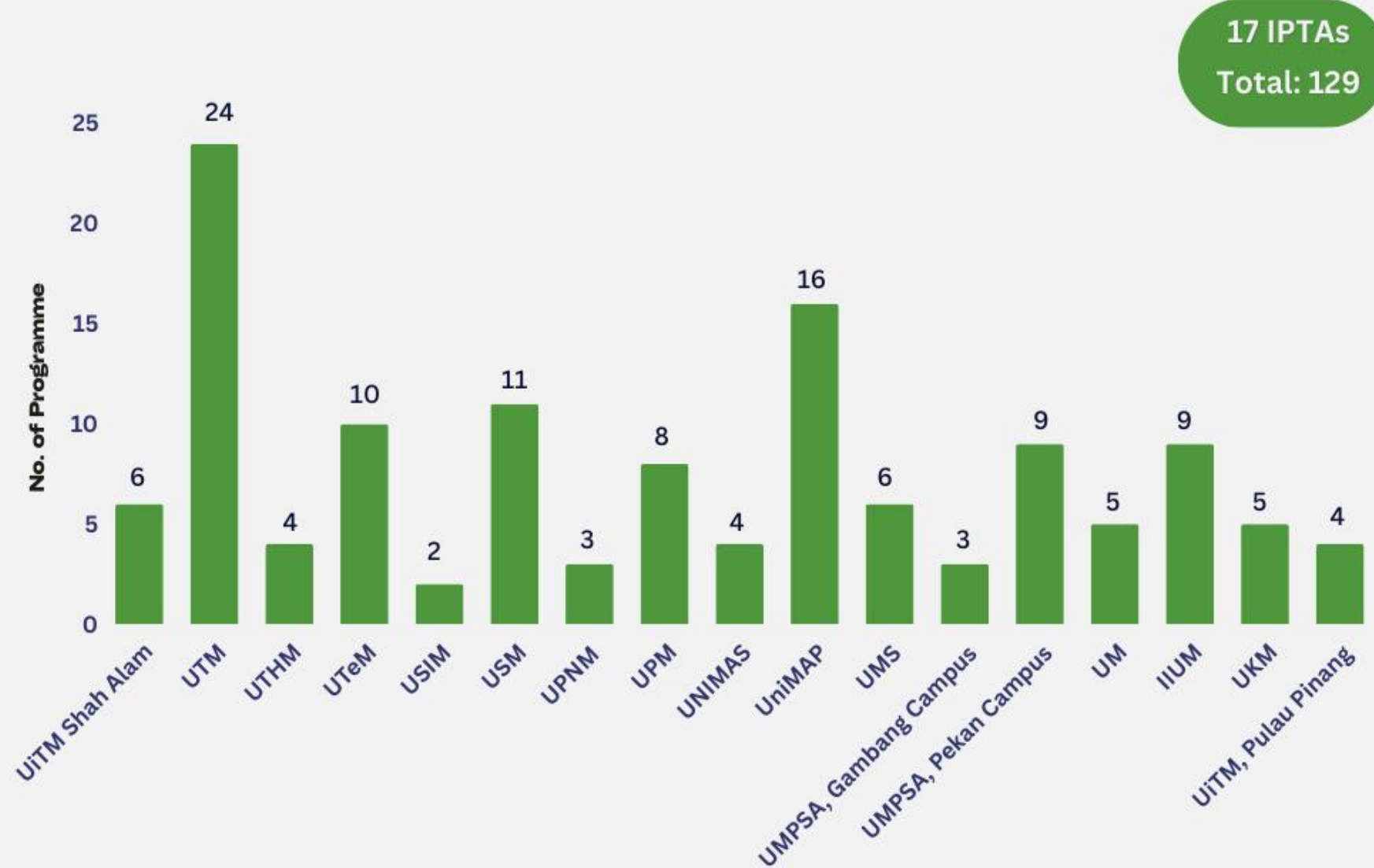


23.9%

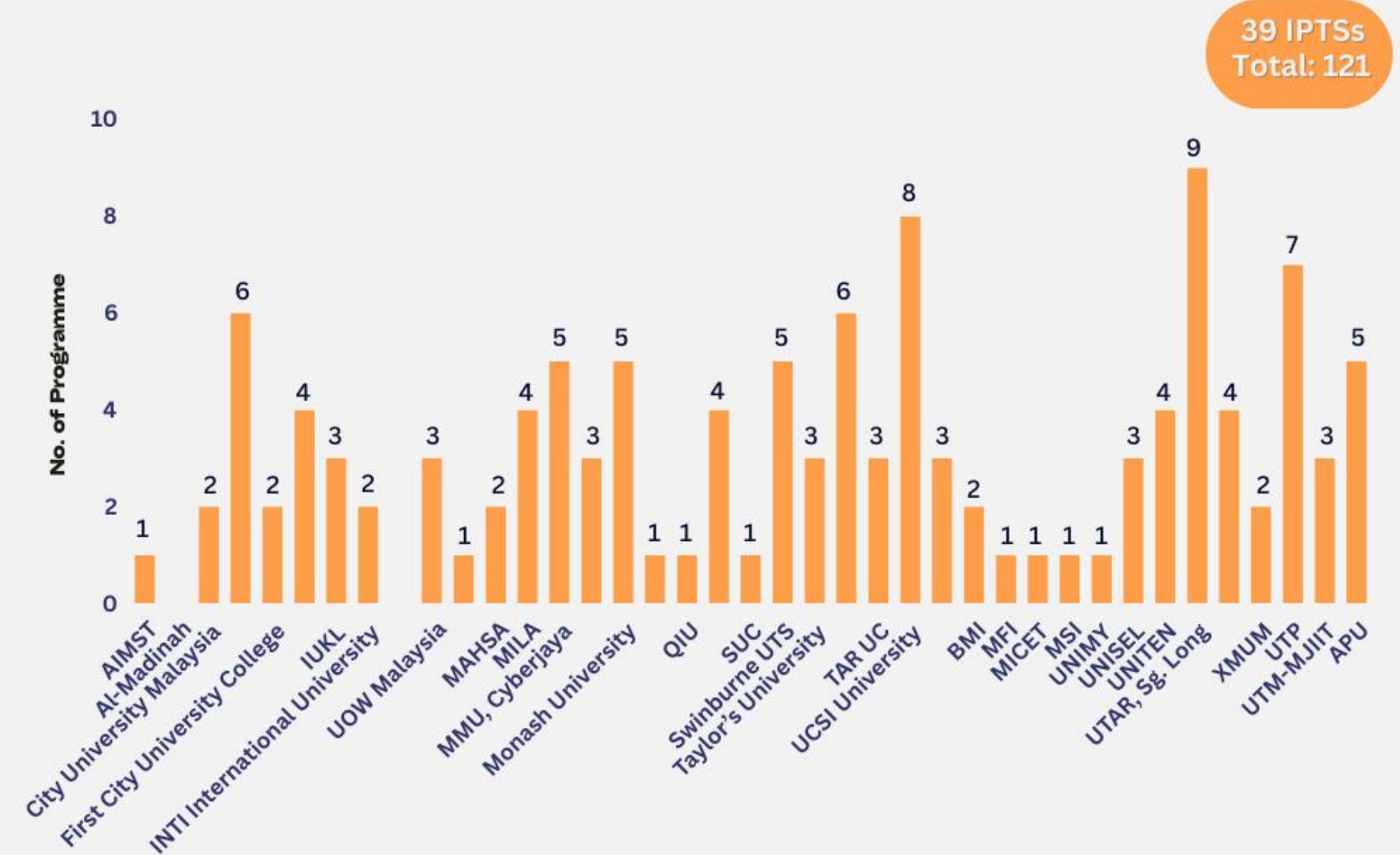
*The total IHL is based on the scope of the study.
The accredited IHL to date is 59 IHLs.

Active by Programme by IHL – IPTA/IPTS (N = 250)

ACTIVE PROGRAMME (IPTA)



ACTIVE PROGRAMME (IPTS)

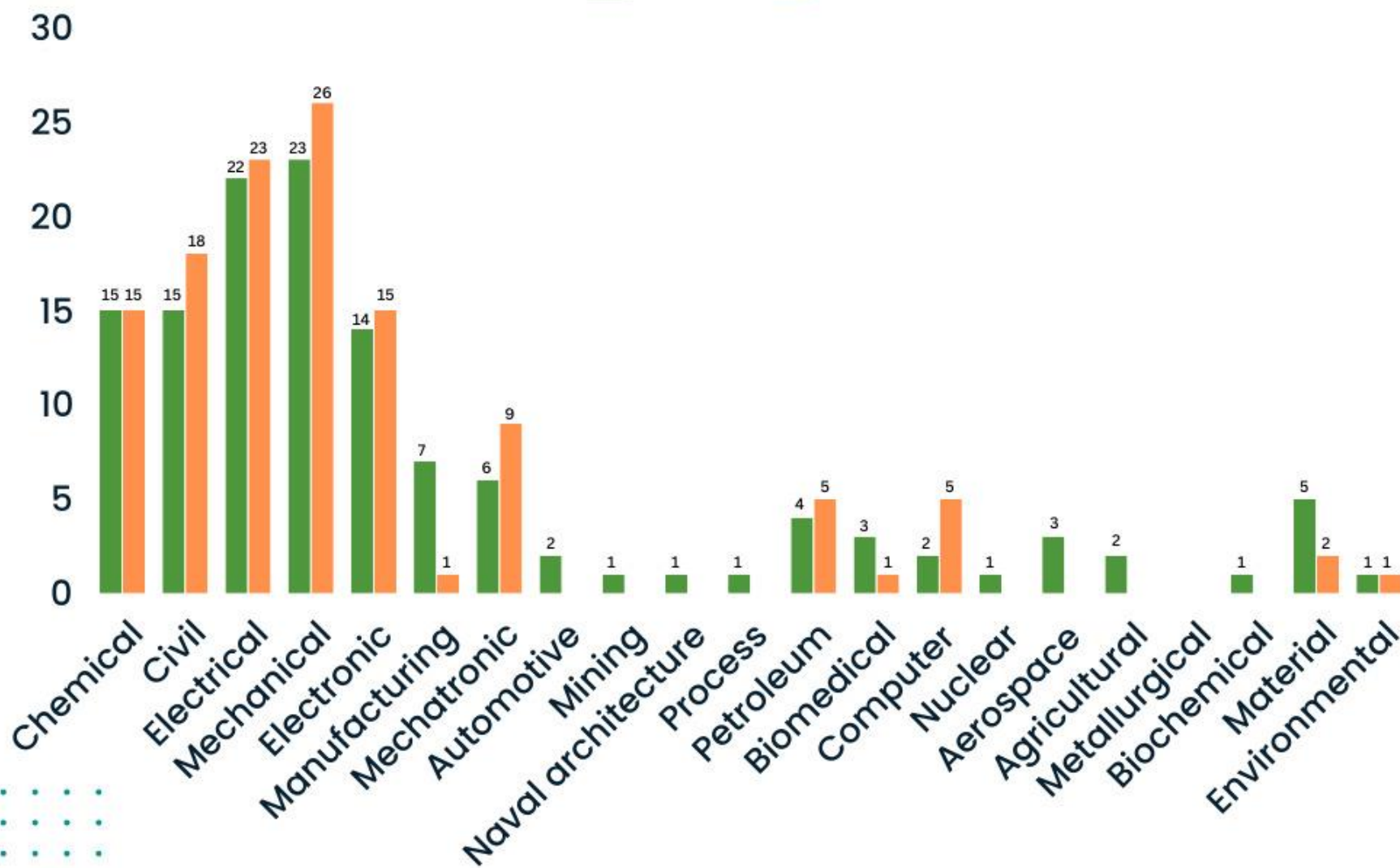


Active by Programme (Discipline) (N = 250)

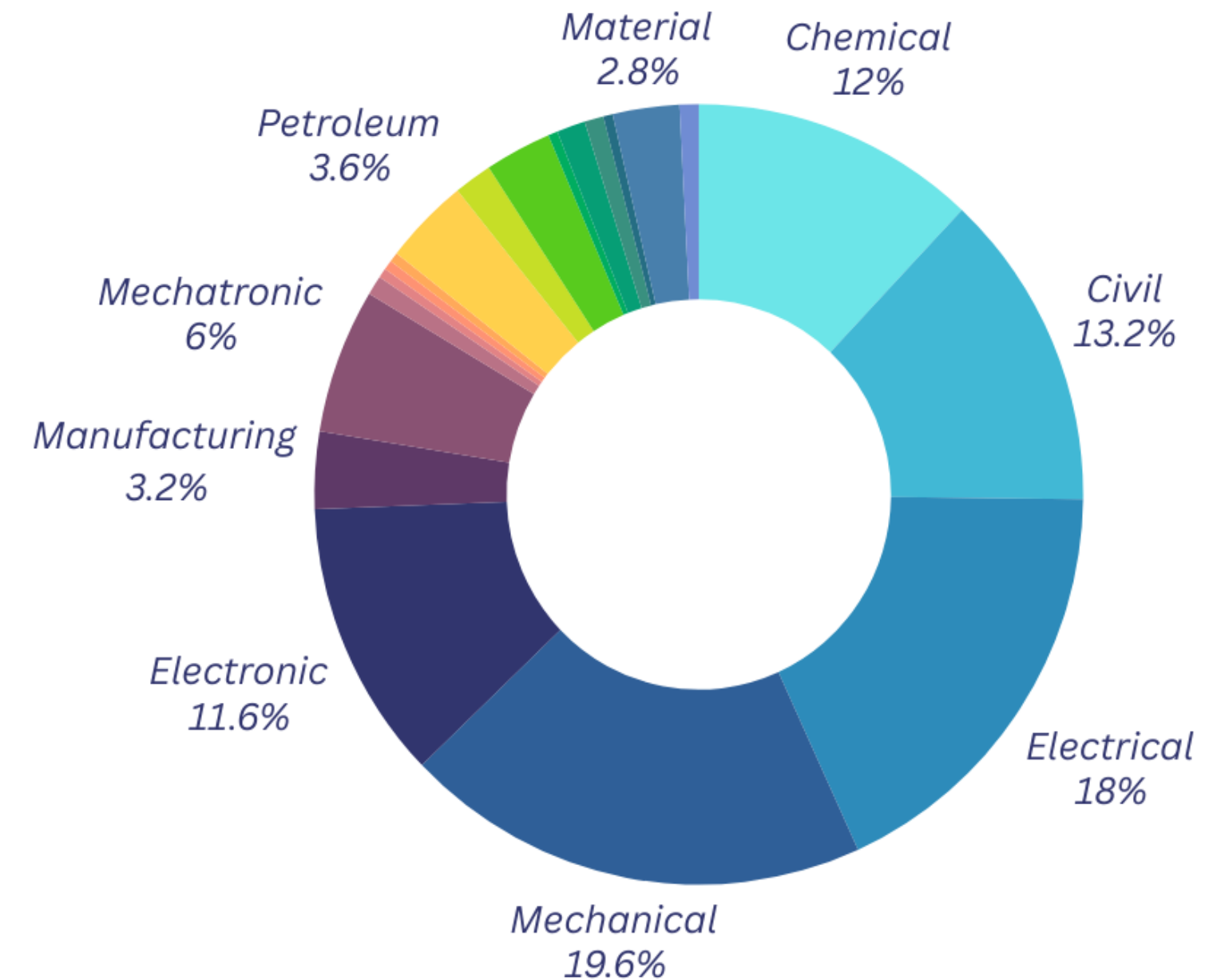
ACTIVE PROGRAMME (DISCIPLINE)

Total: 250

IPTA IPTS

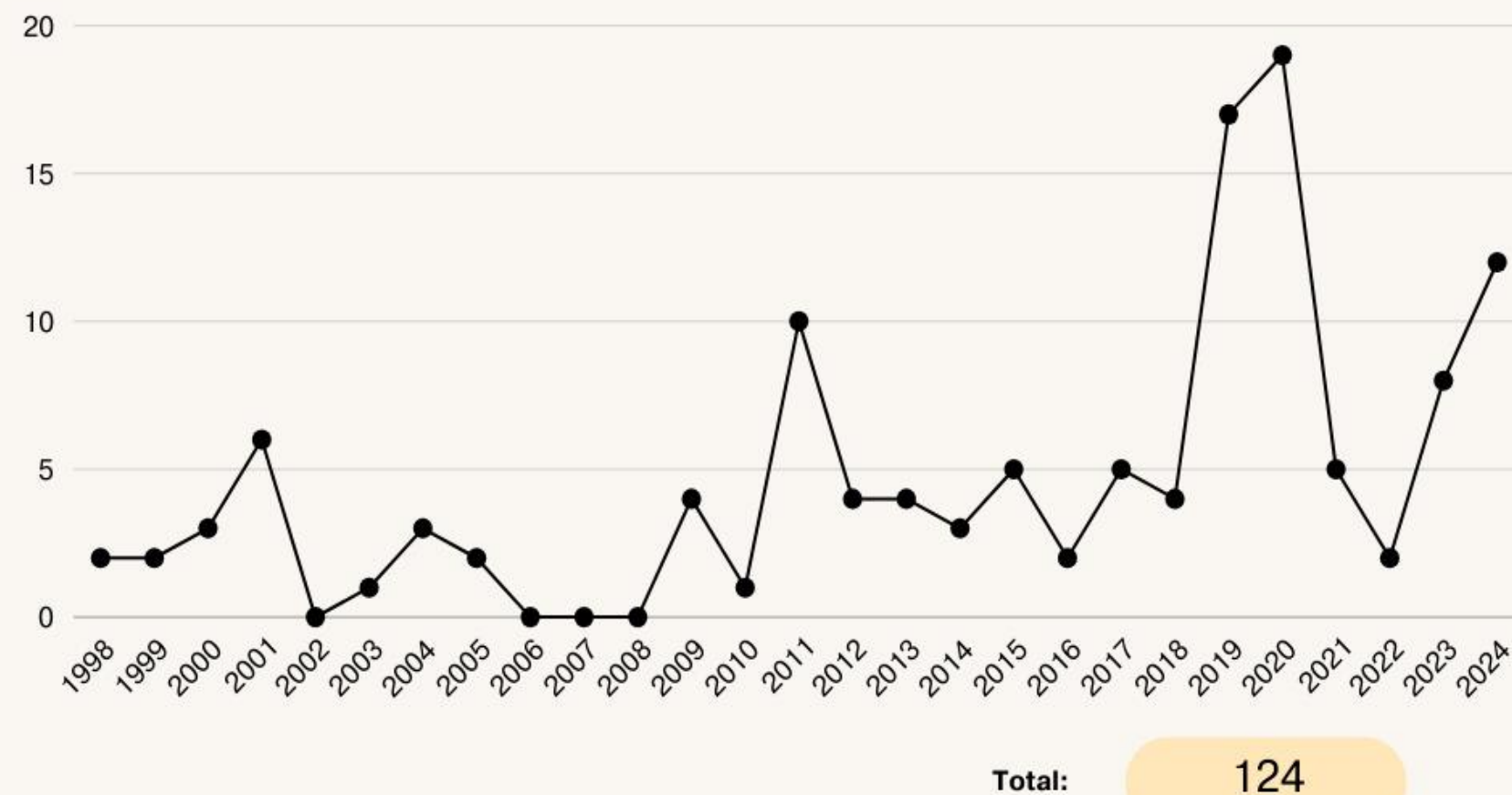


ACTIVE PROGRAMME (DISCIPLINES)



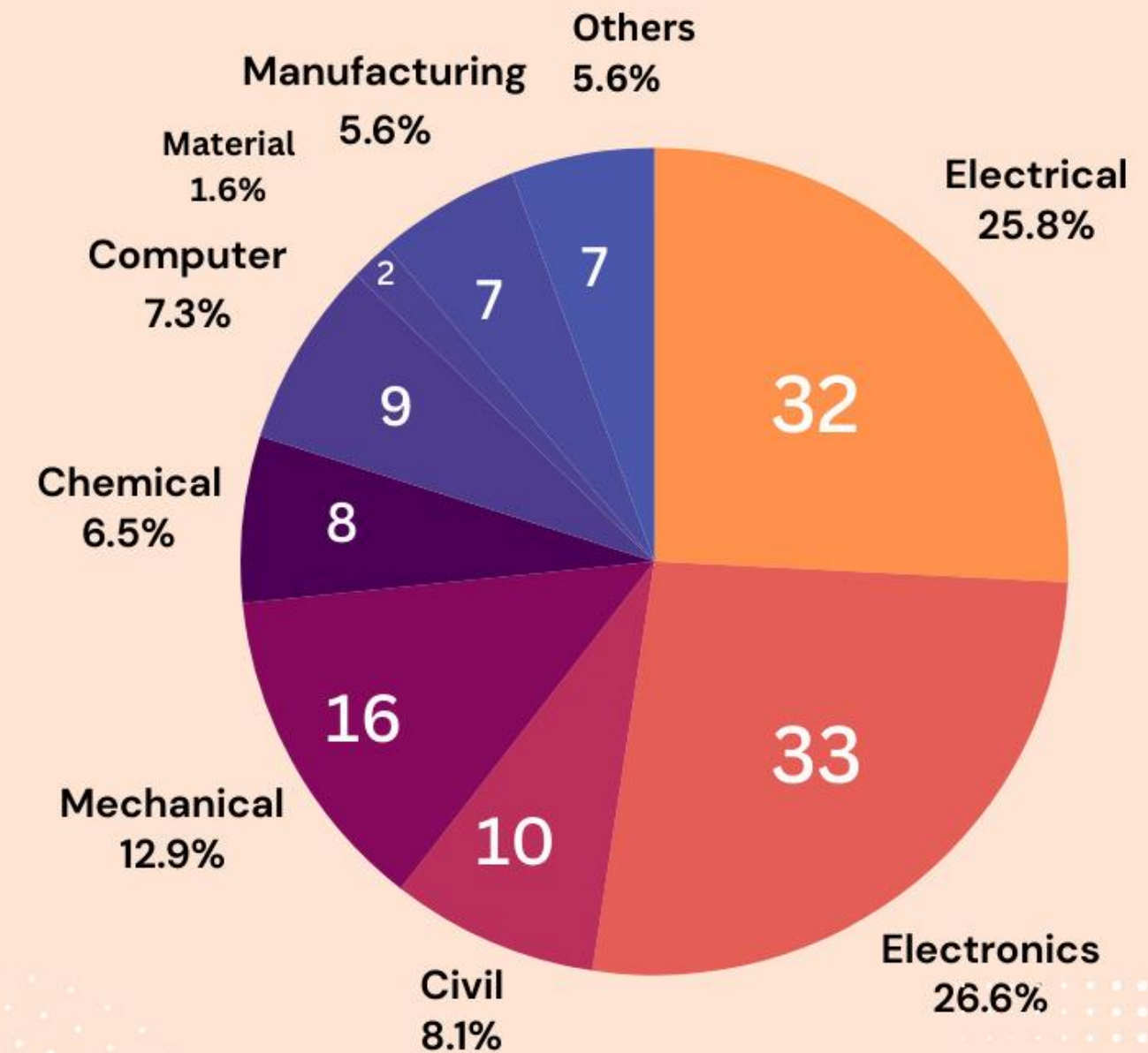
Phased-Out by Programme (Discipline) (N = 124)

Phased-out Programme (1998 - 2024)



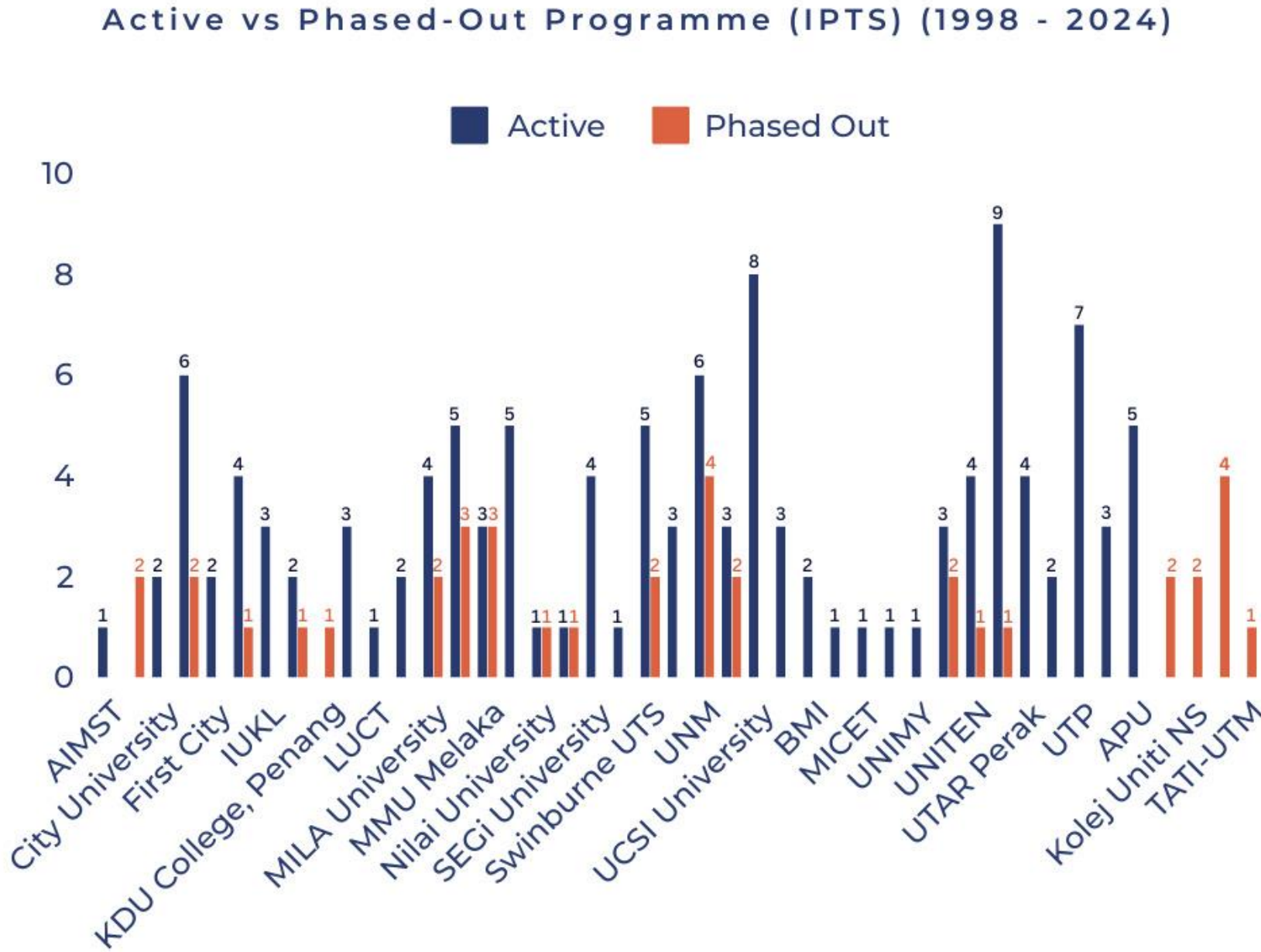
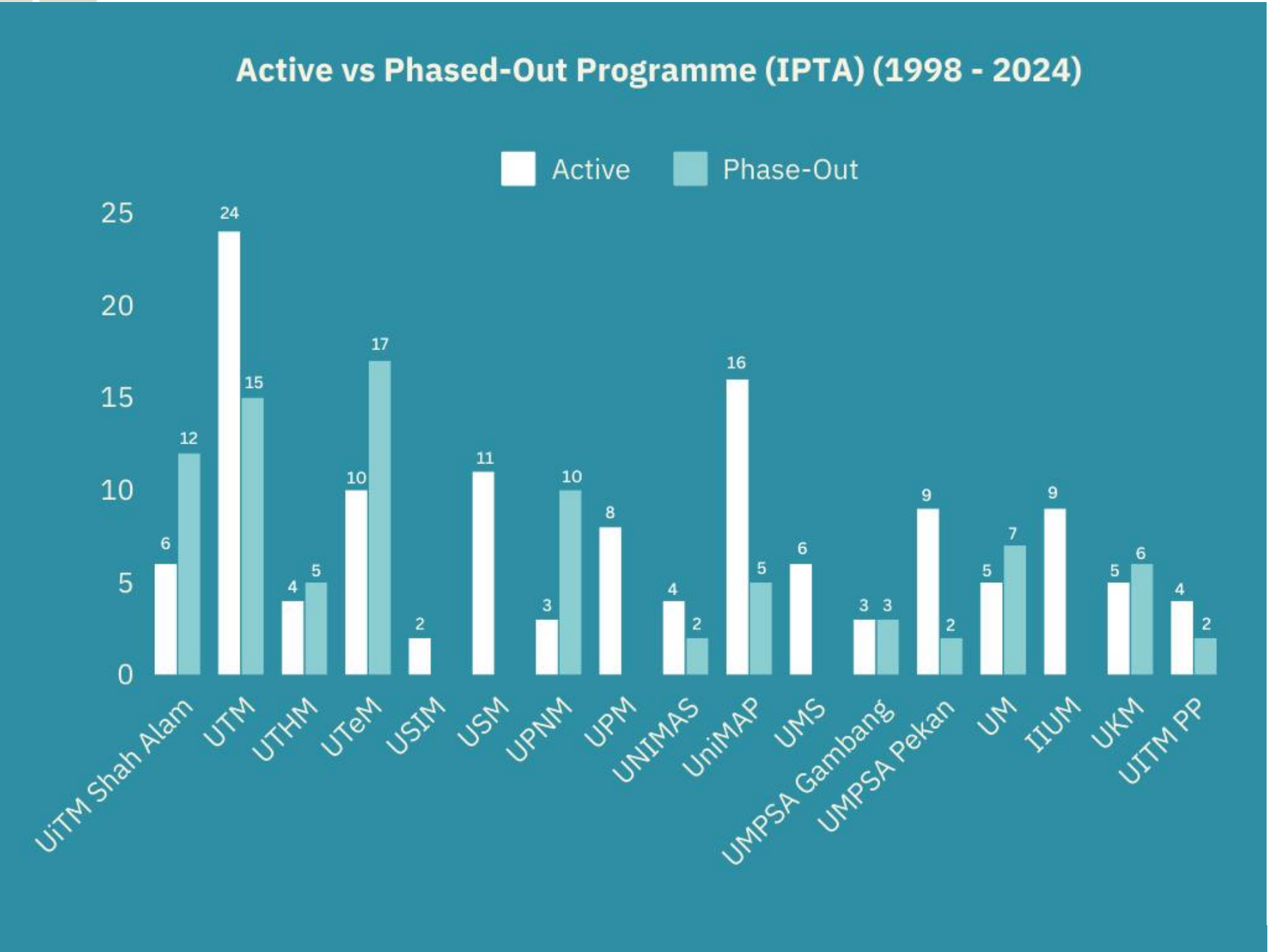
Note: Phase-out year is based on the year after the last accreditation

PHASED-OUT PROGRAMME (DISCIPLINE)



Active & Phased-Out by IHL – IPTA/IPTS

(1998-2024) (N = 374)

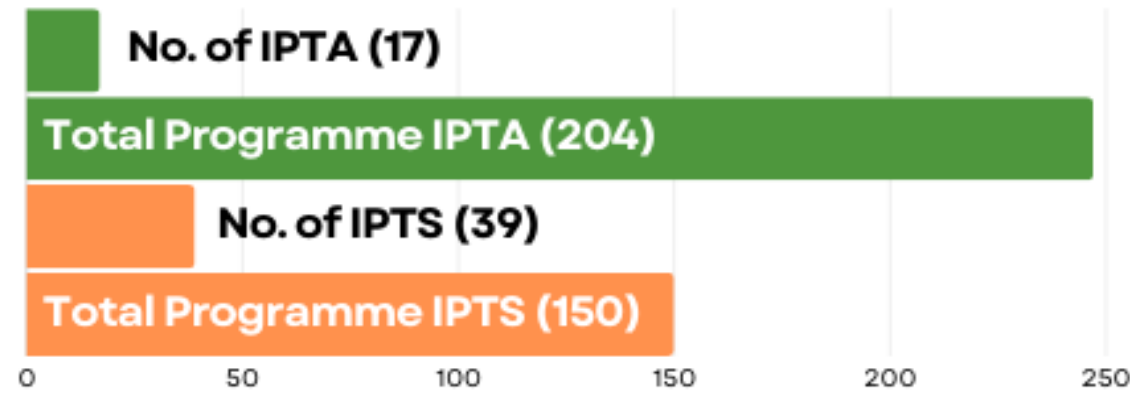


The Initials Findings – Data Analysis (Based on the SCOPE) (N = 354)

1. Divided based on Four different EAC Manual/Standards
 1. Standard 1 (S1) = 2007 – 2011
 2. Standard 2 (S2) = 2012 – 2016
 3. Standard 3 (S3) = 2017 – 2019
 4. Standard 4 (S4) = 2020 - 2024
2. IHL and its respective disciplines – Results of Accreditation
3. IHL and its respective disciplines – Accreditation Outcomes: Strength / Weaknesses / Concern / Opportunity / according to Timeline (i.e. Standards)
4. IHL and its respective disciplines – Accreditation Criteria Outcomes

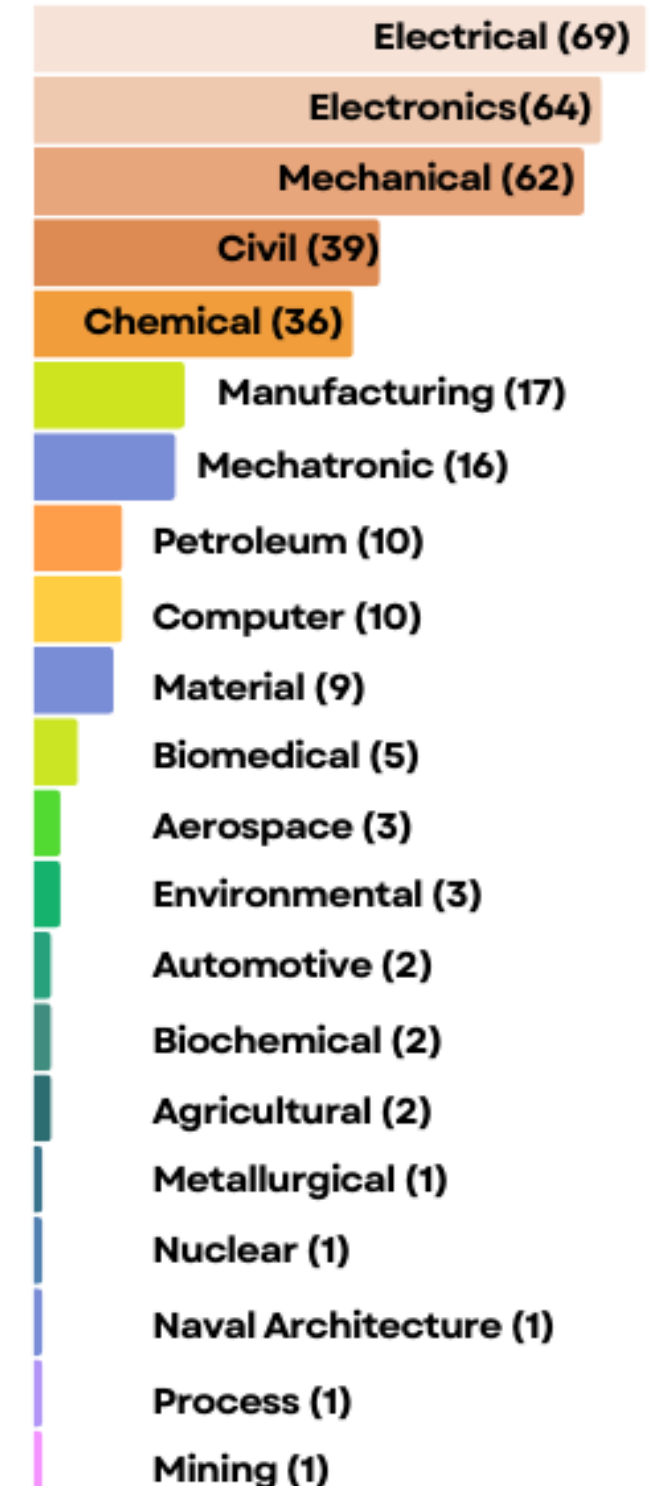
Demographic Findings (N = 354)

No. of Institution of Higher Learning

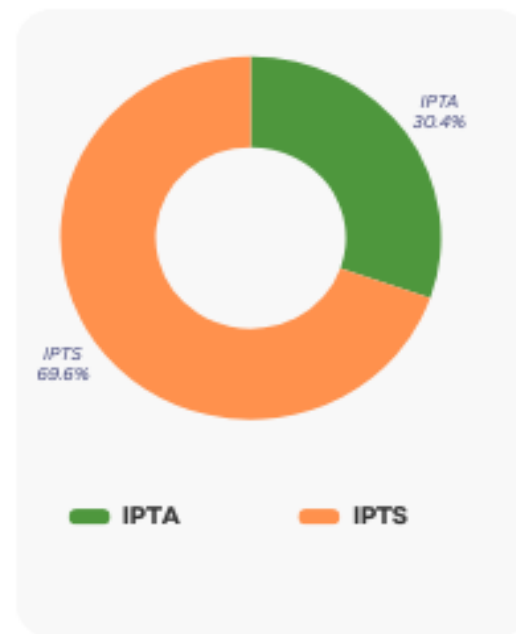


No. of IHL
56
No. of Programme
354
No. of Visit
1677

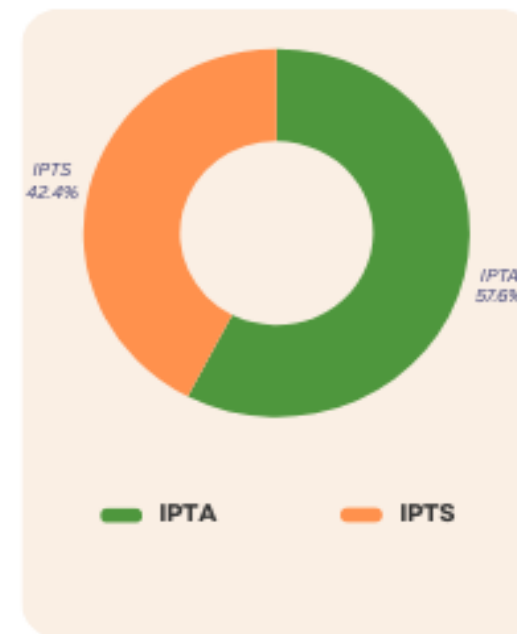
No. of Discipline (N = 21)



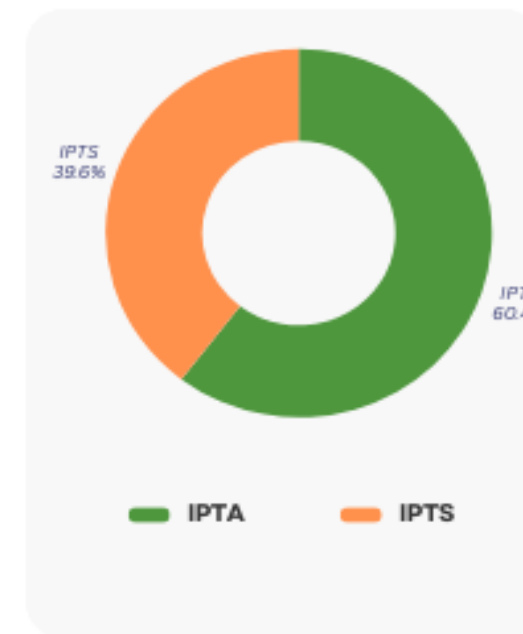
Total No. of IHL



Total Programme in IHL

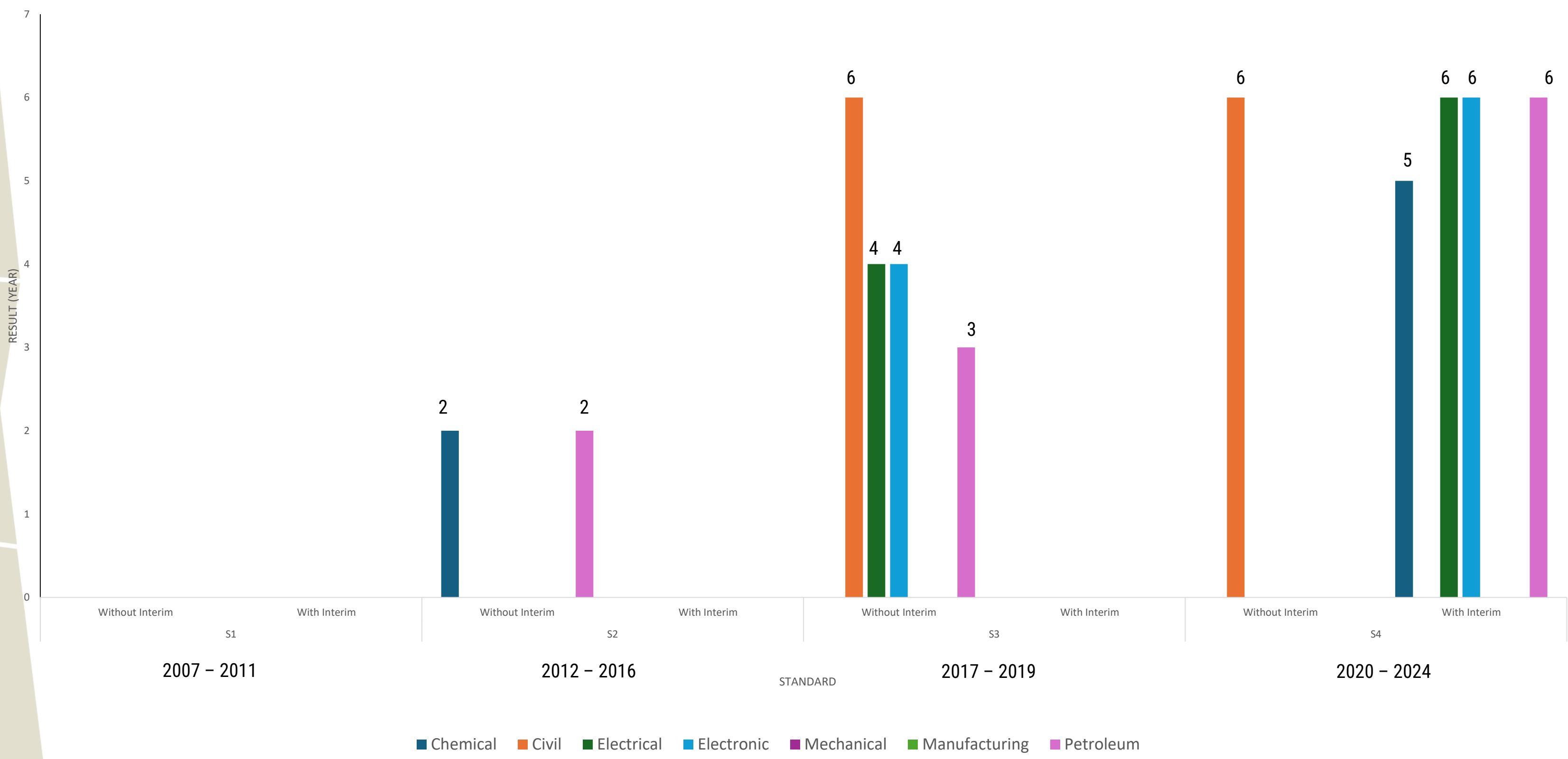


Total Accreditation visit

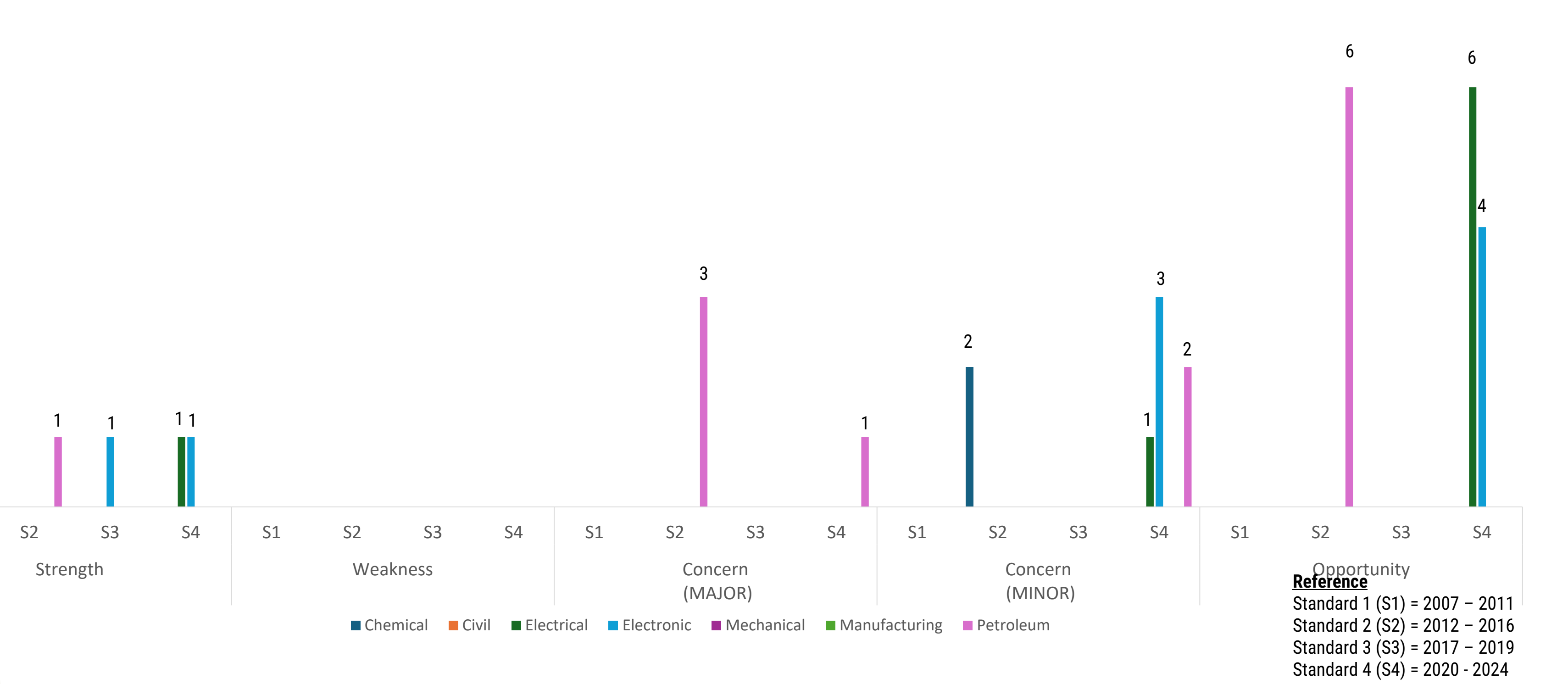
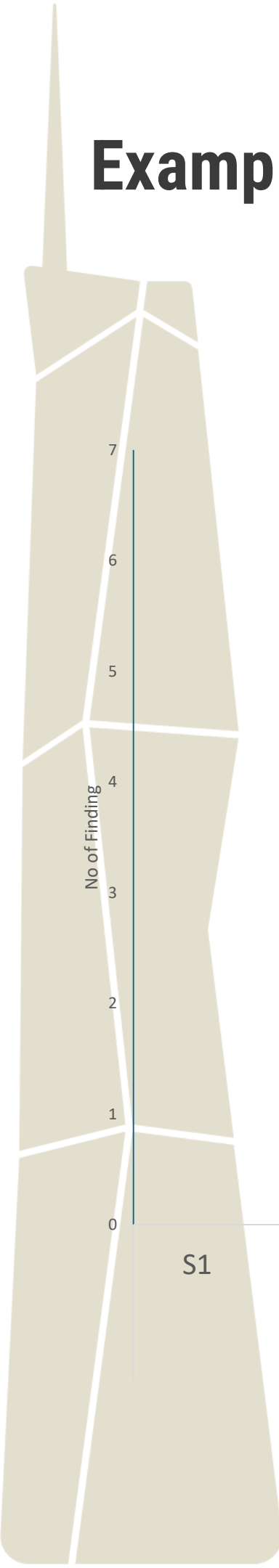


Example Data Analysis

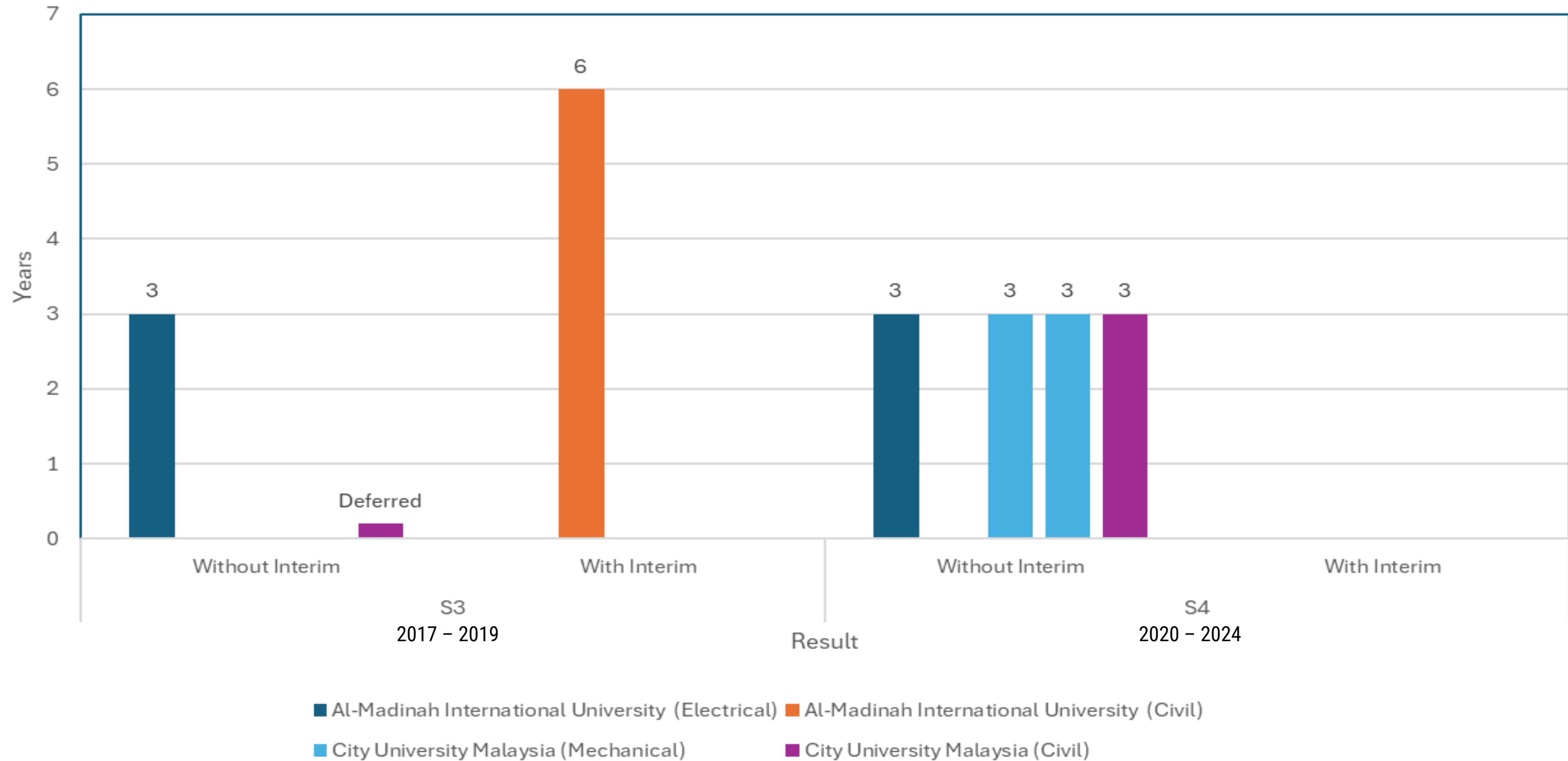
Results Accreditation – IHL (IPTA) UiTM Shah Alam



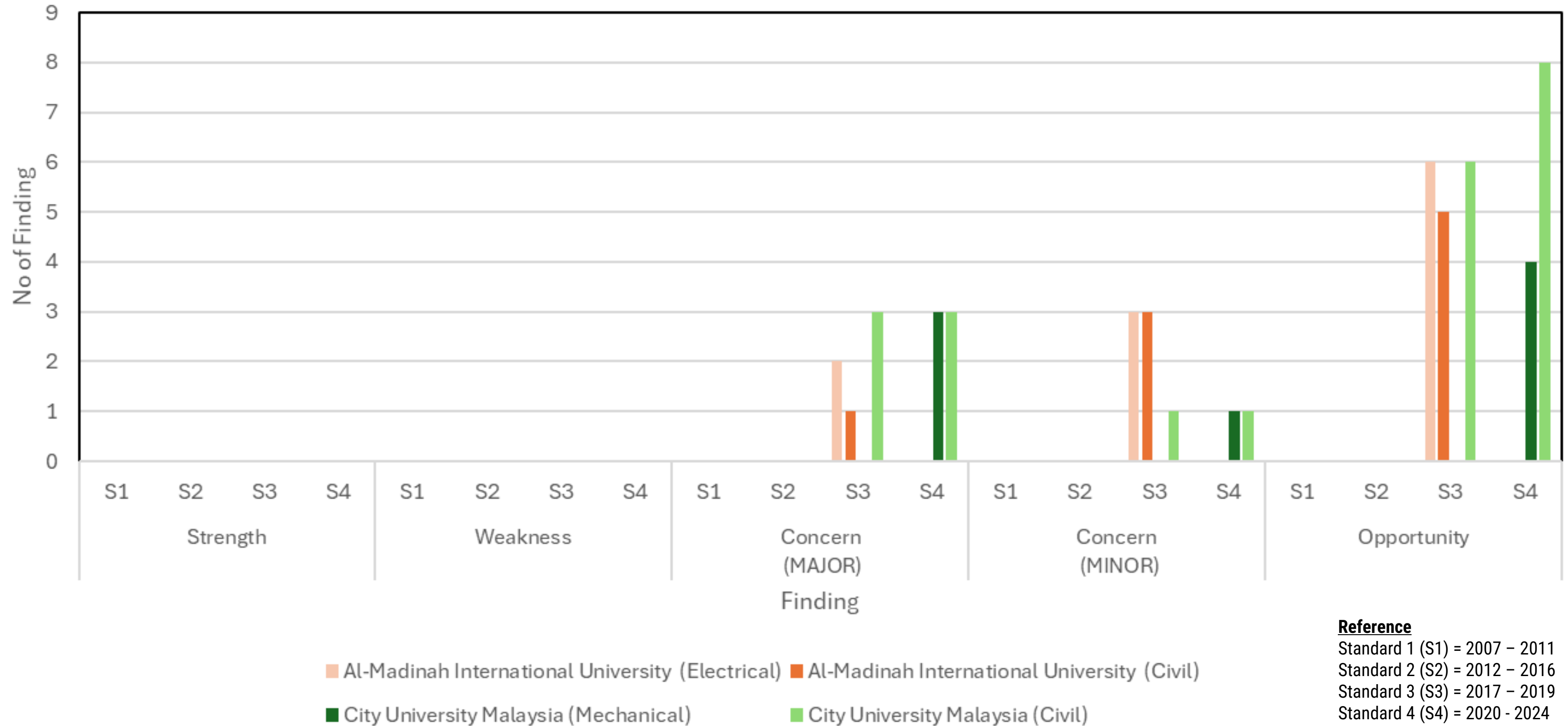
Example Data Analysis : Accreditation Outcomes (IHL) – UiTM Shah Alam



Example Data Analysis: Results Accreditation – IHL (IPTS)



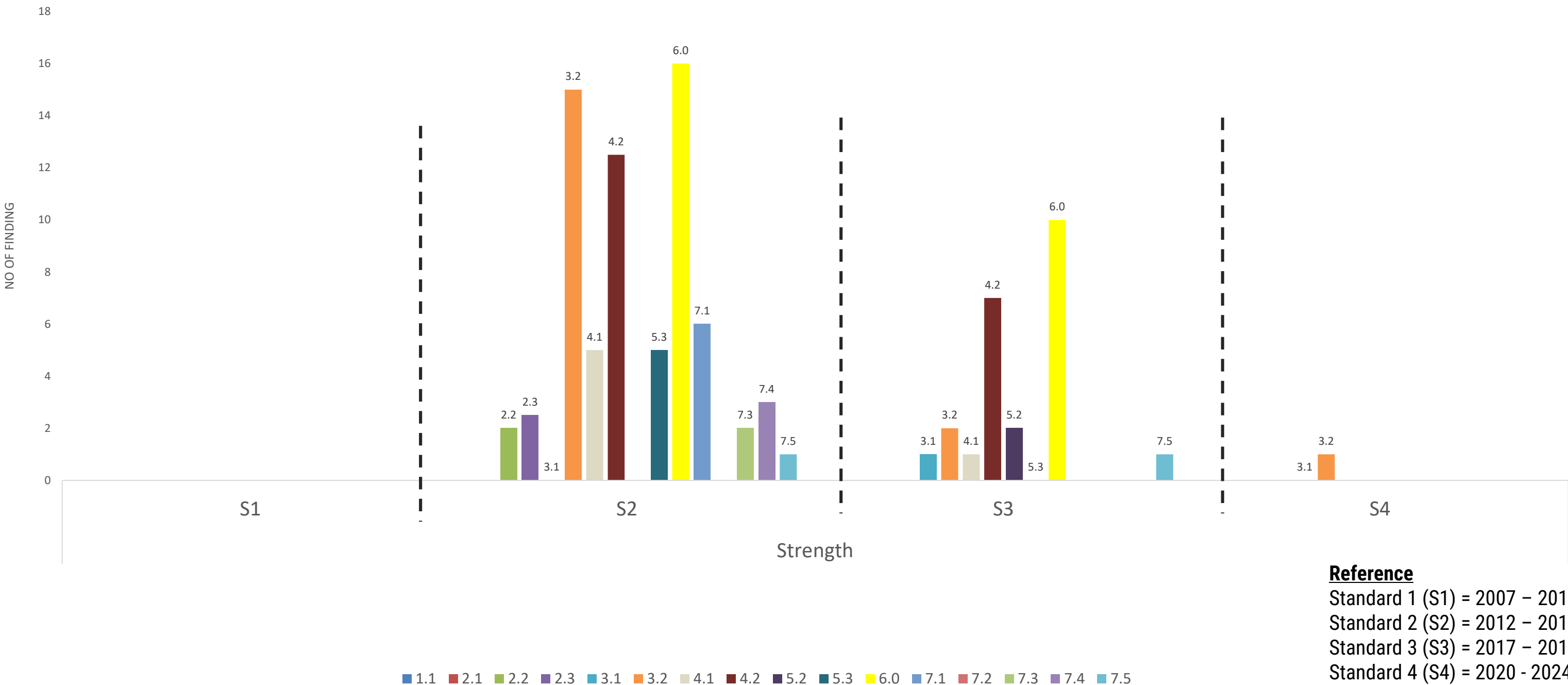
Example Data Analysis : Accreditation Outcomes (IHL) – IPTS



Accreditation Criteria

CRITERION 1: PROGRAMME EDUCATIONAL OBJECTIVES	General Observations	1.1
CRITERION 2: PROGRAMME OUTCOMES	Observation on Programme Outcomes	2.1
	Observation on Processes and Results	2.2
	Observation on Stakeholder Involvement	2.3
CRITERION 3 : ACADEMIC CURRICULUM	Credits	3.1
	The Curriculum (Programme Structure, Course Contents, and Balanced Curriculum, Programme Delivery and Assessment Methods, Laboratory, Integrated Design Project, FYP, Industrial Training, Exposure to Professional Engineering Practice)	3.2
CRITERION 4 : STUDENT	Student Admission	4.1
	Student Development	4.2
CRITERION 5 : TEACHING AND SUPPORT STAFF	Teaching Staff	5.1
	Support Staff (Laboratory and Administration)	5.2
	Development of Staff	5.3
CRITERION 6 : FACILITIES	Facilities	6.0
CRITERION 7 : QUALITY MANAGEMENT SYSTEMS	Institutional Support, Operating Environment, and Financial Resources	7.1
	Programme Quality Management and Planning	7.2
	External Assessment's Report and Advisory System	7.3
	Quality Assurance	7.4
	Safety, Health and Environment	7.5

Example Data Analysis: Accreditation Criteria Outcomes– (Strength) IHLs (5 IPTA & 4 IPTS)



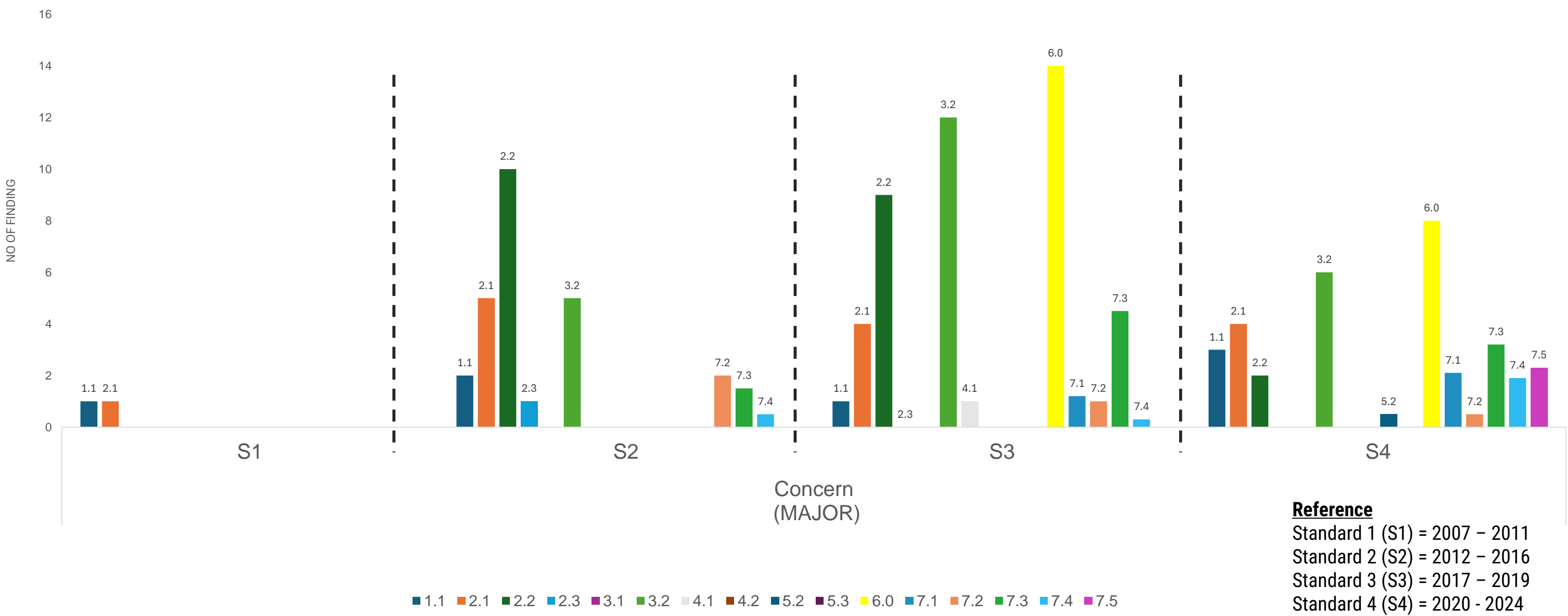
3.2 The Curriculum
4.2 Student Development
6.0 Facilities

Example Comments from ADM report: Strength



Period	IPTA	IPTS
S1 (2007 – 2011)	-	-
S2 (2012 – 2016)	<ol style="list-style-type: none">1. Staff is dedicated2. Good lab infrastructure3. The PO direct measurement of individual student has not been fully implemented.4. There are 3 projects running in the final year. This causes heavy loading upon the students.	<ol style="list-style-type: none">1. The exam system is very rigorous and tightly controlled by the Australian campus2. Two thirds of the academic staff holds PhD degrees and 30% of academic staff hold professional qualification3. Contemporary learning facilities, e.g. Distributed learning centre and smart tutorial rooms.
S3 (2017 – 2019)	<ol style="list-style-type: none">1. Good academic staff: student ratio (averaging over the last 6 years at 1:10)2. Good recreational and health facilities (including the availability of qualified counsellors based at the Faculty) available on campus for students and staffs.3. The system for managing and implementation of safety, health and environment are well in place4. The IHL involvement with the industry is good, as certain members of staff have received sizeable industry grants and there are also industrial FYP projects available.	<ol style="list-style-type: none">1. The IHL also has two (2) Distributed Learning Room (50 seats and 100 seats) equipped with technologies to enable joint and interactive lecture between two cross border campuses.2. Good student: staff ratio of 1:6.3. Under the GO GLOBAL programme students are given plenty of opportunity to experience cross-cultural environment either through short visit or academic exchange between the campuses in the UK and Dubai.4. The programme has acquired a wide range of software related to Petroleum Engineering, which enhances the quality of teaching and learning. Examples of these software are Petrel, Eclipse, PetroMod, TechLog, Dynel2D/3D, Merak, Pipesim, Simulation, Pipesim Engine, MEPO, DynaLift, PanSystem + Panmesh, WellFlo, Reo, Amarile, Questor, Crystal Ball.
S4 (2020 – 2024)	<ol style="list-style-type: none">1. The programme has a total of 26 full-time staff registered as a Professional Engineer with the Board of Engineers Malaysia, and 6 with CEng, IET. The staff-to-student ratio is 1: 7.79.2. The IHL provides competency courses for the students upon graduation.3. The IHL allocates RM6,000 one off payment to academic staff who have successfully completed the industrial attachment under the university's industrial attachment scheme.4. Professional Engineers with Practicing Certificate received RM 1000 monthly while those Professional Engineer without Practicing Certificate received RM 800 monthly.	-

Example Data Analysis: Accreditation Criteria Outcomes– (Major Concern) IHLs (5 IPTA & 4 IPTS)



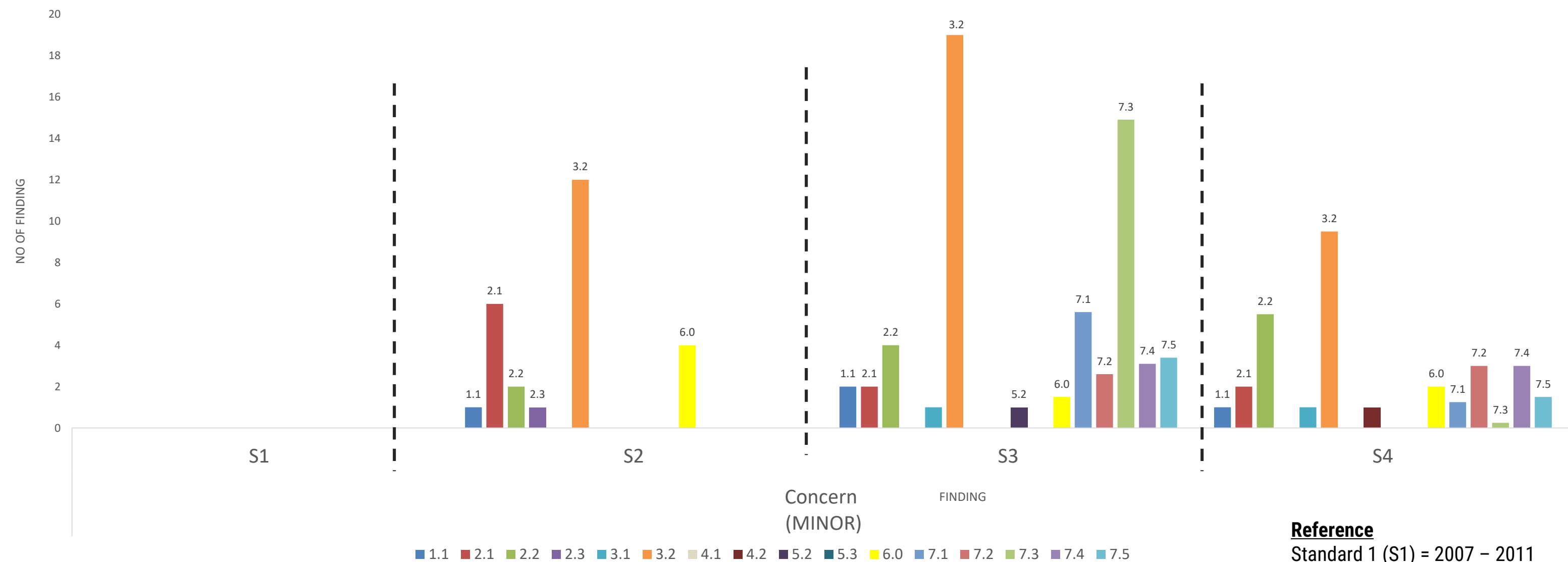
2.2 Observation on Processes and Results
3.2 The Curriculum
4.2 Student Development
6.0 Facilities
7.3 External Assessment's Report and Advisory System



Example Comments from ADM report: Major Concerns

Period	IPTA	IPTS
S1 (2007 – 2011)	-	-
S2 (2012 – 2016)	<ol style="list-style-type: none"> 1. Lack of Professional engineer 2. PO did not have element for project management and financial outcomes. 3. The PO direct measurement of individual student has not been fully implemented. 4. More varieties of delivery methods should be used. 	<ol style="list-style-type: none"> 1. The element of Design Project (capstone project) as stipulated in the EAC manual 2012 was insufficient. The curriculum should consider introducing Field Development Project as capstone Project 2. Students graduating in 2015 and 2016 lacked the Integrated Design Project Component. Programme to address this concern immediately 3. The programme has two CEng and concrete action or plan to fulfil the requirement of three PE or equivalent professional qualifications is not in place.
S3 (2017 – 2019)	<ol style="list-style-type: none"> 1. Most of the fire extinguishers in all laboratories and along corridors were found expired from the date of validity and requires immediate action to replace. 2. The OBE documentation as well as holistic implementation of its moderation and CQI processes must be improved 3. No mechanism is in place to evaluate PEOs achievement. Alumni and Employers Survey with the current PEOs was not visible by the SCEE to get feedback from the alumni and employers. 4. There is a inconsistency in CO-PO mapping mainly due to the PO statements covering keywords that do not suit the particular CO attainment. 	<ol style="list-style-type: none"> 1. The CO-PO mapping is not well-distributed as it was found that only one course is mapped to measure the PO for Environment and Sustainability. 2. The implementation of the laboratory exercises is still prescriptive in nature. The assessment tools using rubrics to assess group and individual works can be improved by addressing and assessing directly the relevant WPs for PO4. 3. Misalignment of CO-PO in terms of assessment tools used. Documented evidence based on 8 courses (20%) shows some misalignments, for example in IDP course, PO8 is not mapped to course, but the rubrics used are related to ethics, while PO9 is mapped to the course, but rubrics used was to measure presentation skills (instead on individual and teamwork skills). 4. FYP is lacking research elements such as problem statement and development of solutions to the identified problems. 5. The IHL claimed to have 8 full-time academic staff in the programme. However, based on the report submitted by IHL, clearly there are unbalanced teaching loads among the academic staff. The 3 PE's in the programme are teaching a combination of 6 subjects in an academic calendar.
S4 (2020 – 2024)	<ol style="list-style-type: none"> 1. It was observed that in many courses, a majority of students have failed the final examination, and were still able to pass the relevant course. 2. A non-emergency exit door labelled with emergency exit sign blocked by an obstacle in the Gas Engineering Lab. 3. There are 3 projects running in the final year. This causes heavy loading upon the students. 	<ol style="list-style-type: none"> 1. OBE implementation needs constructive alignment for example, the Complex Engineering Problems (WPs) 2. Complex Engineering Activities (EAs) characteristics for FYP, IDP and Industrial Internship have been found to be incorrectly mapped to relevant POs according to EAC Standard 2020; and this can lead to false indications of students' PO attainments.

Example Data Analysis: Accreditation Criteria Outcomes– (Minor Concern) IHLs (5 IPTA & 4 IPTS)



Reference
Standard 1 (S1) = 2007 – 2011
Standard 2 (S2) = 2012 – 2016
Standard 3 (S3) = 2017 – 2019
Standard 4 (S4) = 2020 - 2024

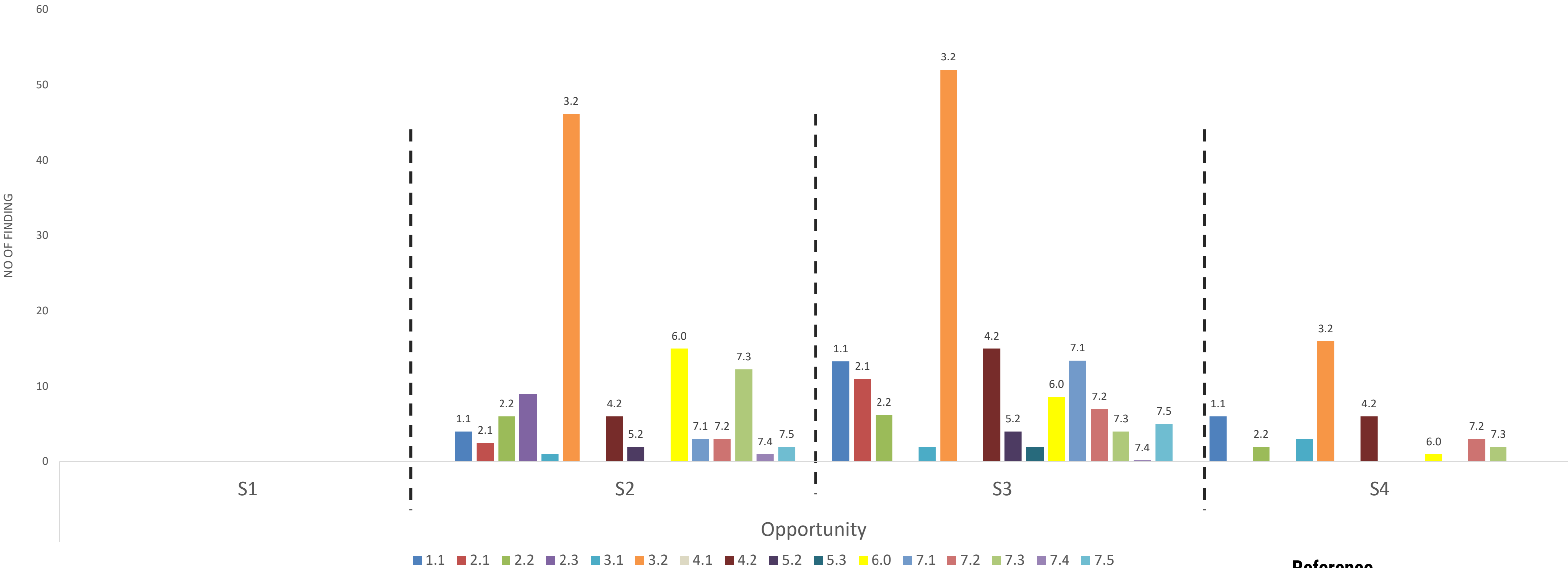
2.2 Observation on Processes and Results
3.2 The Curriculum
4.2 Student Development
6.0 Facilities
7.3 External Assessment's Report and Advisory System



Example Comments from ADM report: Minor Concerns

Period	IPTA	IPTS
S1 (2007 – 2011)	-	-
S2 (2012 – 2016)	<ol style="list-style-type: none"> 1. The academic staff professional development scheme needs to be put in place and implemented. 2. The minimum number of 3 PEng required for the programme is currently under way with the IHL and shows a good commitment to fulfil the requirement. 3. The direct explicit assessment of the 12 generic graduates attributes as stipulated in the EAC Manual 2012, especially on Project Management, and the harmonization of the POs to bring about a holistic programme improvement are not demonstrated clearly in the programme. 	<ol style="list-style-type: none"> 1. Proper ventilation for technician rooms/office in laboratories dealing with chemical. 2. Only two academic staff possesses professional engineer qualification. 3. The harmonisation of the POs to bring about a holistic programme improvement has yet to be demonstrated. 4. A systematic plan for stakeholders' involvement is not available. The involvement of stakeholders in the OBE system is rather late.
S3 (2017 – 2019)	<ol style="list-style-type: none"> 1. The areas of health and safety, sustainability as well as project management and finance are not adequately covered within the capstone and final year project despite being mapped to these POs 2. The compressors present in the laboratories (e.g. material science laboratory) did not have the relevant DOSH certificates. 3. It was noted that 8 out 22 academic staff with engineering background is yet to register with the BEM 4. The scope of the role of external examiner need to be in line with the scopes stipulated in the EAC manual appendix. 	<ol style="list-style-type: none"> 1. The computer labs and library are not in good condition and conducive 2. No IAP meeting was held in year 2017 as per requirements by EAC Manual 2017, where IAP meeting is to be held at least once in a year. 3. The issues raised by both External Examiners in particular IDP, taxonomy level and mapping; and OBE issues need to be properly addressed. 4. Workload of the academic staff is on the high side up to a maximum 18 hours per week not including FYP and intern's supervision.
S4 (2020 – 2024)	<ol style="list-style-type: none"> 1. Constructive alignment is required for the measurement of PO 12 (Life-long learning) in the Final Year Project. The rubric used in PO 12 is the same as the rubric used in assessing PO 9 (team work) in the Design Project. 2. QMS for electronic e-course filling system is incomplete. There are many missing files (marks, analysis, samples) in the online folder. 	<ol style="list-style-type: none"> 1. High turnover rate of academic staff, that all academic staff have been in the program only between 1 and 2 years. 2. No provision or policy in place to support academic staff in attaining PEng qualification and maintaining them. 3. The programme is required to revise its method of SLT calculations to reflect accurately the actual learning time spent by students. The basis of SLT calculations is not consistent.

Example Data Analysis: Accreditation Criteria Outcomes– (Opportunity) IHLs (5 IPTA & 4 IPTS)



Reference
Standard 1 (S1) = 2007 – 2011
Standard 2 (S2) = 2012 – 2016
Standard 3 (S3) = 2017 – 2019
Standard 4 (S4) = 2020 - 2024

2.2 Observation on Processes and Results
3.2 The Curriculum
4.2 Student Development
6.0 Facilities
7.3 External Assessment's Report and Advisory System

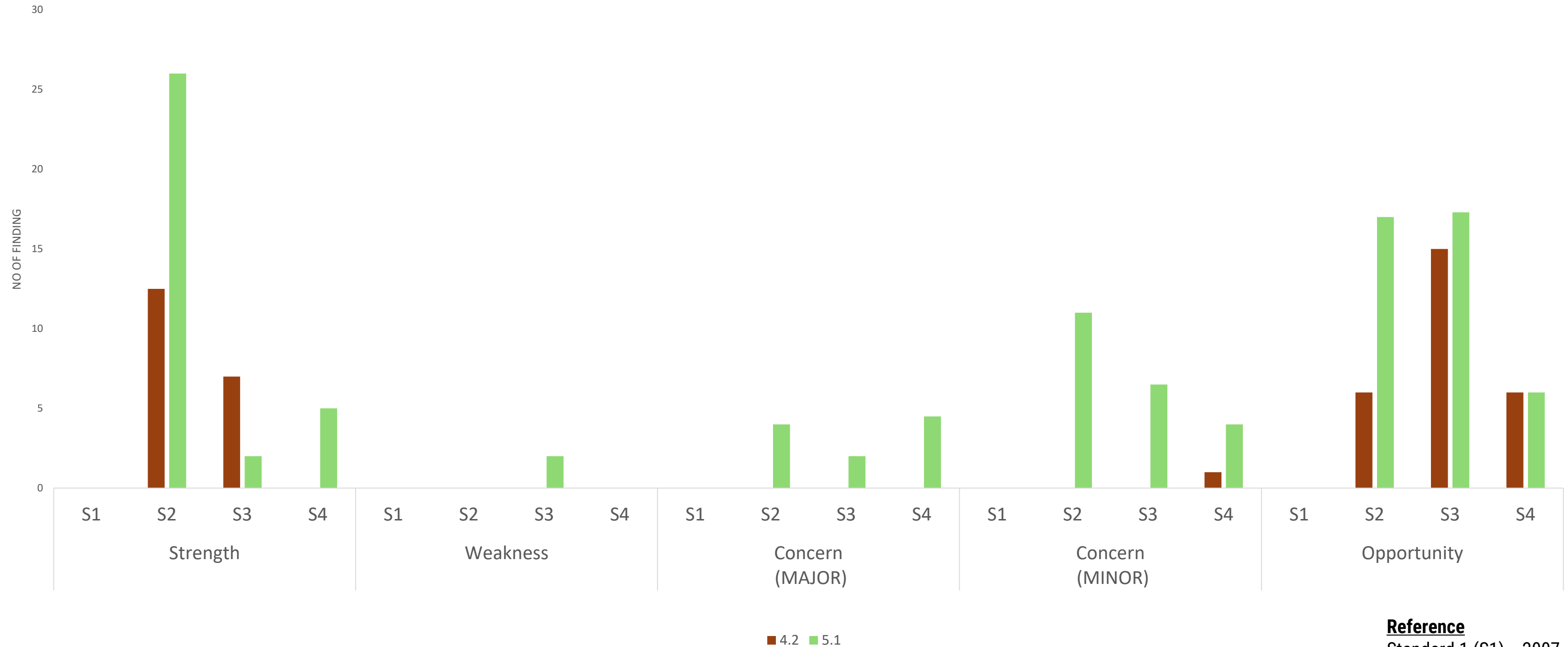


Example Comments from ADM report: Opportunities

Period	IPTA	IPTS
S1 (2007 – 2011)	-	-
S2 (2012 – 2016)	<ol style="list-style-type: none"> 1. The OBE process can be refined. 2. A PO with Project Management as required by EAC should be included. 	<ol style="list-style-type: none"> 1. The number of open ended lab activities can be increased through case study problems/mini projects as well as some pre-lab activities. 2. Explicit assessment of the EAC Manual 2012 12 POs may be looked into more seriously. 3. For FYP and IDP, the moderation process needs improvement, it was observed that maximum marks were awarded for all the performance criterion.
S3 (2017 – 2019)	<ol style="list-style-type: none"> 1. The faculty can further enhance the coverage of PO5 (psychomotor) in the laboratory courses. 2. To improve students' awareness on career development as a Professional Engineer and on the roles of professional bodies. 3. IHL is encouraged to inform the PO attainment to the students. 	<ol style="list-style-type: none"> 1. The mappings and alignments of PEOs to IHL & faculty missions could be improved and also it should not map to IHL & faculty vision directly. From Table 2.1, PEOs1 & 3 is mapped to the IHL & Faculty Vision while PEOs 2 & 3 are to IHL Mission, and only PEO2 was mapped to Faculty Mission. 2. PEO survey and assessment method is not ready, although it is a new programme, the IHL should start to plan and design the PEOs' target and performance indicator. 3. IHL should consider improving the research and development activities and its funding.
S4 (2020 – 2024)	<ol style="list-style-type: none"> 1. the total credit for Semester 3 is over 20, deemed unsatisfactory according to EAC Standard 2020. 2. The overall management and standardization of the e-course files need to be reviewed as some folders were not accessible while some folders lacked key information such as course outlines as well as assessment samples. 	<ol style="list-style-type: none"> 1. To increase the students' level of awareness on relevant professional bodies and to cultivate students' OBE understanding. 2. To address latest topics of interest such IR4.0 in the curriculum. 3. To improve QMS processes such as documentation, record keeping and workflow.

Example Data Analysis: Accreditation Criteria Outcomes– IHLs

Criterion 4.2: Student Development Criterion 5.1: Teaching Staff



Reference

Standard 1 (S1) = 2007 – 2011
Standard 2 (S2) = 2012 – 2016
Standard 3 (S3) = 2017 – 2019
Standard 4 (S4) = 2020 - 2024

Example Data Analysis: Accreditation Criteria Outcomes– IHLs

Criterion 4.2: Student Development

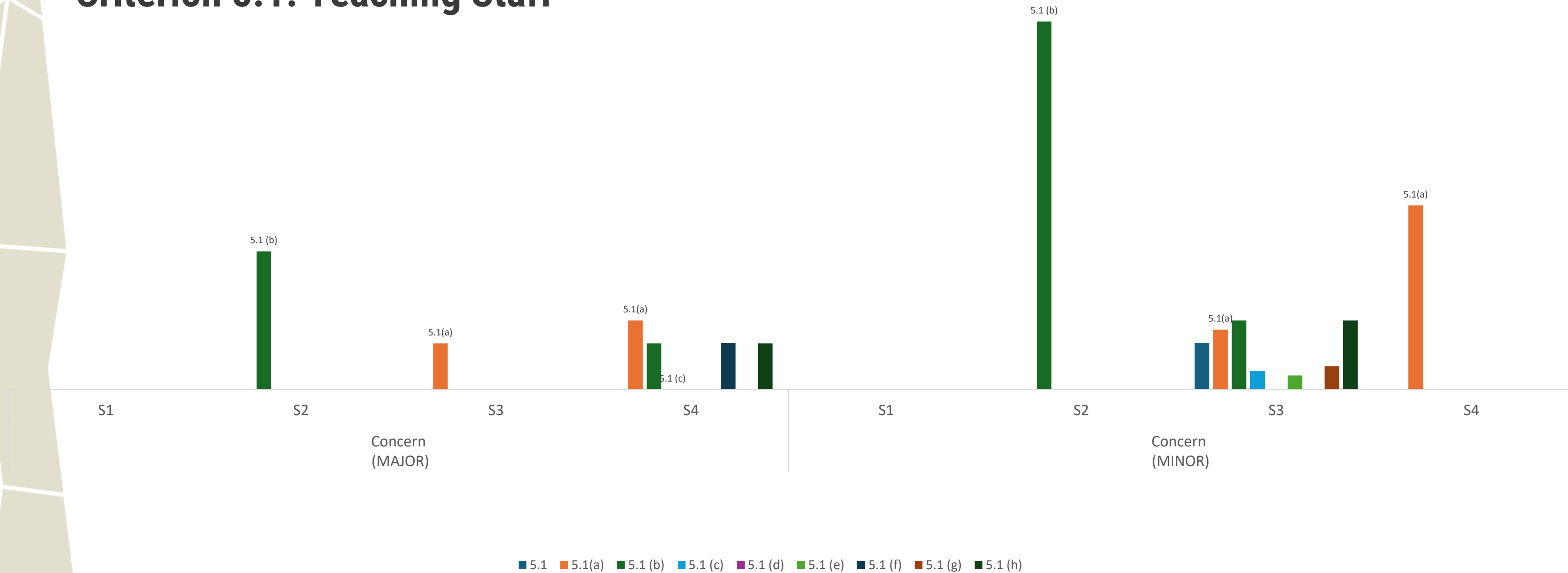


4.2 (c) Co-curricular activities
4.2 (e) Observed attainment of Programme Outcomes by students

Reference
Standard 1 (S1) = 2007 – 2011
Standard 2 (S2) = 2012 – 2016
Standard 3 (S3) = 2017 – 2019
Standard 4 (S4) = 2020 - 2024

Example Data Analysis: Accreditation Criteria Outcomes– IHLs

Criterion 5.1: Teaching Staff



5.1 (a) Number and Competency of Teaching staff
5.1 (b) Qualification, industrial experience & development
5.1 (c) Research/publication/consultancy

Reference

Standard 1 (S1) = 2007 – 2011
Standard 2 (S2) = 2012 – 2016
Standard 3 (S3) = 2017 – 2019
Standard 4 (S4) = 2020 - 2024

Example Comments from ADM report: Section 4.2 (Student Development) & Section 5.1 (Teaching Staff)



Period	IPTA		IPTS	
	4.2	5.1	4.2	5.1
S1 (2007 – 2011)	-	-	-	-
S2 (2012 – 2016)	<ol style="list-style-type: none"> Students are highly motivated and good communication abilities. Students are motivated, confident and happy. The leadership development may be encouraged to nurture future leaders in engineering industries. Provision to include Civil-SPACE students in support programmes (internship/study abroad) and the holistic graduate development module. 	<ol style="list-style-type: none"> Lack of Professional engineer There is only one professionally qualified staff. However, 2 are waiting for professional interview. Hopefully by end of 2013 they will be registered as professional or chartered engineer. The percentage of PhD holders should be increased. Hasten the staff PhD development plan. 	<ol style="list-style-type: none"> 1. Peer Assisted Study Sessions (PASS) organised by the Student Learning Centre (SLC) provides a platform for peer guided group study. Students are motivated, confident and happy. The programme should consider providing students with feedback about their PO attainment. 	<ol style="list-style-type: none"> Only two academic staff possesses professional engineer qualification. To revise and distribute teaching load fairly among academic staff The IHL should enhance the professional and industrial exposure of its academic staff.
S3 (2017 – 2019)	<ol style="list-style-type: none"> Students interviewed were found to be articulate, energetic and motivated. IHL is encouraged to inform the PO attainment to the students. Students are not well versed with the terms of open-ended lab and cornerstone projects. OFl4. The level of OBE awareness is low among students, which can be improved. 	<ol style="list-style-type: none"> Good academic staff: student ratio (averaging over the last 6 years at 1:10) The IHL support for staff development is commendable. It was noted that 8 out of 22 academic staff with engineering background is yet to register with the BEM From 49 full-time academic staff members, 38 has registered with BEM, 7 engineers who are qualified but yet to register as graduate members. 	<ol style="list-style-type: none"> To encourage students to participate in engineering competition in the near future. Improve awareness particularly of PLO and OBE in general by having posters in classroom, labs, library, faculty offices, and other area visible to students. To encourage students to participate in engineering competition in the near future. 	<ol style="list-style-type: none"> Academic staff turnover is very high where during some periods the number of academic staff was less than the minimum eight (8). One (1) academic staff with Bachelor of Science qualification teaching four (4) engineering subjects including Final Year Project requires attention from the programme on teaching assignment and staffing. There is a need for improvement on OBE understanding and guidance on implementation of PO attainment amongst the academic staff. IHL should consider improving the research and development activities and its funding. Lack of OBE culture & environment. Student & staff awareness on OBE implementation is low and this must be improved.
S4 (2020 – 2024)	<ol style="list-style-type: none"> The IHL can look into ways to encourage participation and improve engagement of students in co-curricular activities, especially those that provide them with better exposure to industry, engineering societies, career planning and professional association and registration (IEM, BEM, IET, IEEE). To improve students’ awareness on career development as a Professional Engineer and on the roles of professional bodies. IHL is encouraged to inform the PO attainment to the students. 	<ul style="list-style-type: none"> The programme has a total of 26 full-time staff registered as a Professional Engineer with the Board of Engineers Malaysia, and 6 with CEng, IET. The staff-to-student ratio is 1: 7.79. To fulfill the 30% requirement, six (6) P.Eng with Electronic Engineering background is transferred from the School of Electrical Engineering (just before the accreditation visit). 	-	<ol style="list-style-type: none"> The IHL claimed to have 8 full-time academic staff in the programme. However, based on the report submitted by IHL, clearly there are unbalanced teaching loads among the academic staff. To encourage academic staff to conduct more research, consultancy and publication activities, To place a clear promotion and career development policies

Next step.....

The Questionnaire Survey (IHLs)

Survey on OBE Acculturation Practices in EAC Accredited Engineering Programmes

We are conducting a survey to gather insights into the practices of Outcome-Based Education (OBE) acculturation in engineering programmes accredited by the Engineering Accreditation Council (EAC), Board of Engineers Malaysia (BEM). Your participation will provide valuable information to enhance the quality and effectiveness of engineering education in Malaysia. The survey consists of five sections:

Section A: Demographic Information

Section B: Information about Institution of Higher Learning (IHLs)

Section C: Understanding, Awareness and Implementation of OBE in Engineering Programme

Section D: Effectiveness and Challenges of OBE Implementation

Section E: Suggestions for Improvement

The survey will take approximately 10 minutes to complete. Your responses will be kept confidential and used solely for EAC purposes.

Thank you for your time and contribution.

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Main Objective:

to gather the insights of OBE acculturation practices in EAC accredited engineering programmes

5 Sections:

Section A : Demographic Info

Section B : Info about IHL

Section C : Understanding, Awareness &
Implementation of OBE in the Engineering
Programmes

Section D : Effectiveness and Challenges of OBE
Implementation

Section E : Suggestion for Improvement

https://docs.google.com/forms/d/e/1FAIpQLSe6f7YAYIsWt3q1DEpYterJW4_vt2meapsoB0DfuSuffGYQDA/view_form

The Questionnaire Survey (EAC Panel)

Section 1 of 5

Survey on OBE Acculturation Practices in EAC Accredited Engineering Programmes (EAC PANEL)

We are conducting a survey to gather insights into the practices of Outcome-Based Education (OBE) acculturation in engineering programmes accredited by the Engineering Accreditation Council (EAC), Board of Engineers Malaysia (BEM). Your participation will provide valuable information to enhance the quality and effectiveness of engineering education in Malaysia. The survey consists of five sections:

Section A: Demographic Information

Section B: Panel Perception on OBE to visited IHLs

Section C: Understanding, Awareness and Implementation of OBE in Engineering Programme

Section D: Effectiveness and Challenges of OBE Implementation

Section E: Suggestions for Improvement

The survey will take approximately 10 minutes to complete. Your responses will be kept confidential and used solely for EAC purposes.

Thank you for your time and contribution.

Task Force,
Study of Impact of OBE after a Decade,
EAC, BEM

Main Objective:

to gather the insights of OBE acculturation practices from the perspective of EAC Panel

5 Sections:

Section A : Demographic Info

Section B : Panel Perception on OBE to visited IHLs

Section C : Understanding, Awareness &
Implementation of OBE in the Engineering
Programmes

Section D : Effectiveness and Challenges of OBE
Implementation

Section E : Suggestion for Improvement

<https://docs.google.com/forms/d/1t0Uvmw-Sr9wKRqNEf2P2YmfGiWkN9EWnACjwuo4of6M/edit>



Thank You

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