

HKIE - TIME TO CHANGE ROADMAP

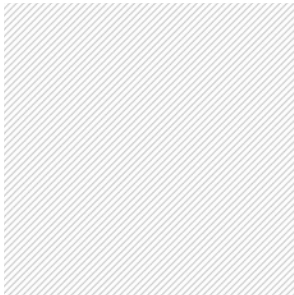
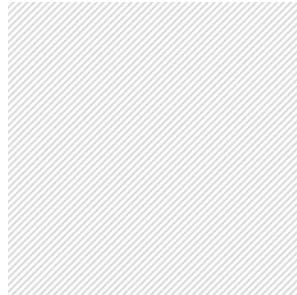




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Abbreviations

AAHK	Airport Authority Hong Kong
BIM	Building Information Modelling
CIC	Construction Industry Council
COVID-19	Coronavirus Disease (COVID-19)
CPD	Continuing Professional Development
CUHK	The Chinese University of Hong Kong
ECCP	Engineer Cadet Club Programme (HKIE)
EP Hub	Enginpreneurs Hub (HKIE)
GBA	Greater Bay Area
HCI	Hyperconverged Infrastructure
HKIC	Hong Kong Institute of Construction
HKIE	Hong Kong Institution of Engineers
HKIQEP	Hong Kong Institute of Qualified Environmental Professionals Limited
HKSAR	The Government of the Hong Kong Special Administrative Region of the People's Republic of China
HKSTP	Hong Kong Science and Technology Parks Corporation
HKU	University of Hong Kong
HKUST	Hong Kong University of Science and Technology
I&T	Innovation and Technology
ICE	Institution of Civil Engineers
IP	Intellectual Property
IT	Information Technology
MiC	Modular Integrated Construction
MoU	Memorandum of Understanding
MTRC	Mass Transit Railway Corporation
PPC	President's Protégés Club (HKIE)
Q&A	Question & Answer
Q&M	Qualification & Membership
SA	School Ambassadors (HKIE)
SAP	School Ambassadors Programme (HKIE)
STEM	Science, Technology, Engineering, and Mathematics
UNSDGs	United Nations Sustainable Development Goals
VHM	Virtual Hybrid Meeting
VMV	Vision, Mission and Values
VR	Virtual Reality
VTC	Vocational Training Council (Hong Kong)
YMC	Young Members Committee (HKIE)

MESSAGE FROM PRESIDENT



Ir Edwin CHUNG Kwok Fai
*President of The Hong Kong
Institution of Engineers*

As President of The Hong Kong Institution of Engineers for Session 2021/2022, I am pleased and honoured to kickstart The Hong Kong Institution of Engineers' journey of transformation and rejuvenation under the theme of "The HKIE – Time to Change" by presenting and launching the Time to Change Roadmap to our members, which includes clear milestones for the coming years.

Since its establishment in 1947, The Hong Kong Institution of Engineers has upheld its vision of "Sustained Excellence in the Engineering Profession". We have been leveraging our influence, knowledge and expertise to champion the role of engineering in our present and future society. Despite our significant contributions to Hong Kong's society and the engineering community at large, the Institution is currently being confronted with several challenges, both internally and externally, that have motivated us to pursue and embrace change. For instance, the COVID-19 pandemic has highlighted how we need to change the way we operate and adapt to a "new normal".

To proactively tackle these challenges and take on future opportunities, a vision for change needs to be articulated and embraced by the Institution. This Time to Change Roadmap has been developed through an extensive consultation exercise with members to ensure that our initiatives are built to address members' needs and changing preferences. With the support from our members and future leaders of the Institution, I believe this strategic roadmap will enable The Hong Kong Institution of Engineers to continue to prosper and sustain the next phase of growth for engineering as a profession.

Throughout the roadmap development, I have been truly humbled and inspired by the views and insights shared by our members during our engagement activities like Time to Change Strategy Day, Workshops, and Townhall Forum. I would like to take this opportunity to express my sincere gratitude to all members, our peers and industry stakeholders, who have contributed, shared feedback and worked with us as a team to shape the Institution's future. With the future direction of the Institution set out in this roadmap, I feel confident that we can make great changes together to build a promising future for the special city we call home.

MESSAGE FROM CHIEF EXECUTIVE AND SECRETARY



Ir HON Chi Keung

*Chief Executive and Secretary
of The Hong Kong Institution of
Engineers*

It is my belief that improvement is impossible without change. Arising from rising public expectation of the engineering profession, it has become evident that a transformation in various functional areas of The Hong Kong Institution of Engineers is inevitable.

To ensure that the Institution is well-equipped to meet the challenges facing us, we commenced a year-long process of developing a Time to Change Roadmap with meticulous planning, direction with milestones targeting beneficial change to our Institution and members.

In the past 12 months, we consulted with over 1,500 members, six overseas professional institutions, and 19 major industry stakeholders in various stakeholder engagement and benchmarking activities. With heartfelt gratitude to all the members, stakeholders and supporters who took the time to share their insightful feedback with us during this process, I take great pleasure to present this Time to Change Roadmap, which sets out The Hong Kong Institution of Engineers' transformation on the horizon, with a total of 45 prioritised initiatives responding to members' needs and ever-changing landscape under five key areas of focus, namely Pursuing Digitalisation, Enhancing Services to Members, Facilitating Innovation, Boosting Professionalism and Undertaking Governance Review.

Embarking on a change journey is never a simple task. I invite all our members to join hands in bringing change to the Institution for the years to come. A successful transformation cannot be realised without your support.

I look forward to seeing our Time to Change Roadmap come to life and fruition.



Executive Summary

Executive Summary

Introduction

As the only statutory professional engineering body in Hong Kong, The Hong Kong Institution of Engineers (HKIE) has made dedicated efforts towards pursuing sustained excellence in the engineering profession. Since its establishment, the HKIE has made significant contributions to Hong Kong's acclaimed development in the last seven decades. The HKIE community has continued to flourish and now comprises over 33,000 members spanning all engineering disciplines.

Despite its significant contributions to the engineering profession and society, the Institution today is confronted with several unprecedented challenges which have initiated the need for change. Under the theme for Session 2021/2022 "HKIE – Time to change", the HKIE has been taking a much more proactive approach to solving problems and nurturing a culture of change.

In this respect, through an extensive series of stakeholder consultations, engagement and conversations with members, a Time to Change Roadmap ("the Roadmap") was developed to guide the transformation and growth of the Institution for the years to come.

Key Challenges Facing the Institution

To ensure that the Institution will be well-equipped to meet the challenges of today and the future, the HKIE has identified some key challenges and issues faced by the Institution. Key challenges that are addressed by the Roadmap in this Publication include:

-  ---- Existing procedures and supporting IT systems are obsolete;
-  ---- Fragmented and limited online/ digital member services;
-  ---- Relatively low involvement of young members in institutional operations and activities;
-  ---- Moderate member satisfaction level pertaining to the HKIE's membership value;
-  ---- Stagnant membership growth and the need to enhance institutional image;
-  ---- Low involvement and interest in undertaking innovation related initiatives, such as Enginpreneurs Hub (EP Hub);
-  ---- Procedural impediments affecting different pathways of attaining qualification;
-  ---- Current image of the HKIE is perceived to be professional but also traditional, conservative, and old-fashioned;
-  ---- Perceived sluggishness of institutional undertakings and internal bureaucracy; and
-  ---- Post-COVID-19 preparedness.

Time to Change Roadmap

As a major initiative under Session 2021/2022, the HKIE has developed a Time to Change Roadmap with a number of initiatives and scheduled timelines for implementation for the next five years. These initiatives aim to address the key challenges and bring beneficial changes to the Institution in five major areas of focus, as outlined below.

A series of extensive stakeholder engagement exercises were conducted to inform the development of the Roadmap, such as a survey, a townhall forum, and a series of workshops. Further details of these activities can be found in Section titled Review & Consultation Process.

Pursuing Digitalisation



→ Current State

Current digital shared services and support functions may be out of date or obsolete, which may slow down daily operations of the Institution and limit services to members. Also, the current HKIE website does not align well with members' preferences, nor meet the operational needs of the HKIE.

→ Vision

The HKIE will adopt digital tools or solutions to align with the changing digital landscape and trends, as well as bring improved efficiency to various institutional undertakings.

Enhancing Services to Members



→ Current State

Current member services may not fully address members' needs and preferences, which may have contributed to the low levels of participation in institutional activities or affairs by certain membership grades, such as young members.

→ Vision

The HKIE will improve value-added services and enhance information delivery to members in order to encourage exchange and interaction among members. Activities that address the needs and preferences of members will also be organised in order to enhance member satisfaction.

Facilitating Innovation



→ Current State

The HKIE has actively placed efforts in fostering a culture of innovation amongst members. However, there has been a generally low involvement and interest in undertaking innovation related initiatives by members.

→ Vision

The HKIE will provide more opportunities to inspire engineers to bring their ideas to life and encourage a change of mindset towards innovation, which will ultimately contribute to the sustainable development of society and further economic growth.

Boosting Professionalism



→ Current State

Currently, the Institution's image is generally considered as "professional". There is still room for improvement in boosting the professional image of the HKIE, as a substantial proportion of members also perceive the HKIE's current image as "traditional, conservative, old fashioned".

→ Vision

The HKIE will proactively uplift the professional image of the Institution and enhance the professional presence of engineers in the industry and wider society through various initiatives and actions.

Undertaking Governance Review



→ Current State

The HKIE is currently challenged by the perceived sluggishness of institutional undertakings and internal bureaucracy. Several potential improvement areas identified by members include enhancing the transparency and fairness of the various selection processes and ensuring the Constitution is up-to-date and members are aware of its function.

→ Vision

The HKIE will take further steps to strive for best practice in governance structure and processes to ensure the smooth operation of the Institution in the future.

Time to Change Roadmap (continued)

The Roadmap in this Publication features a total of 45 prioritised and 20 future initiatives categorised under the five focus areas. A summary of the prioritised and future initiatives with their scheduled timelines is shown in Table 1 below.

Further details of the future initiatives can be found in Section titled Way Forward.

Focus Area	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	Ongoing	Subtotal by Focus Area	Future Considerations
 Pursuing Digitalisation	-	4	4	1	1	3	-	1	14	5
 Enhancing Services to Members	-	-	1	3	1	1	-	2	8	3
 Facilitating Innovation	3	-	1	2	-	-	-	3	9	2
 Boosting Professionalism	-	-	4	1	-	-	-	-	5	9
 Undertaking Governance Review	-	1	1	-	3	1	2	1	9	1
Subtotal by Year	3	5	11	7	5	5	2	7	45	20

Table 1 – Overview of prioritised and future initiatives under the Time to Change Roadmap



Introduction

Introduction

The Hong Kong Institution of Engineers is a learned society and a qualifying body of the engineering profession in Hong Kong. It was founded in 1947 and incorporated under the Hong Kong Institution of Engineers Ordinance, Chapter 1105 of the Laws of Hong Kong in 1975. Upholding the vision of “Sustained Excellence in the Engineering Profession”, the HKIE endeavours to raise the standing of professional engineers and strives to nurture the next generations of engineers. As a qualifying authority, it sets standards for the training and admission of engineers of 21 Engineering Disciplines. As a learned society, the 19 Divisions under the Institution regularly organise activities to keep members abreast of the latest engineering developments and provide continuing professional development (CPD) opportunities. As of 1 April 2022, the HKIE has 33,143 members.

To learn more about the HKIE, please visit <https://hkie.org.hk/en/>.



Vision

Sustained Excellence in the Engineering Profession

Mission



To promote the advancement of engineering and to facilitate the exchange of knowledge and ideas.



To provide a broad range of services to members, to assist them in developing their careers and to play their full role in contributing to society.



To maintain a high standard of the profession, and to raise the standing and visibility of engineers.

Core Values



Sustainability



Integrity



Professionalism



Excellence



Continuous Improvement

Key Challenges Facing the Institution

The HKIE has made significant contributions to Hong Kong’s acclaimed development in the last seven decades. Nevertheless, the Institution is currently facing several unprecedented challenges, both internally and externally, that has initiated the need for change.

Under the theme for Session 2021/2022 “The HKIE – Time to Change”, the HKIE has been taking a much more proactive approach to solving problems and nurturing a culture of change. Through an extensive series of stakeholder consultation, engagement and conversations with members, some key challenges and issues have been identified which point to a pressing need for rejuvenation of the Institution and a paradigm shift to embracing change, specifically:

- Perceived sluggishness of institutional undertakings and internal bureaucracy;
- Existing procedures and supporting IT systems are obsolete;
- Fragmented and limited online/ digital member services;
- Relatively low involvement of young members in institutional operations and activities;
- Moderate member satisfaction level pertaining to the HKIE’s membership value;
- Stagnant membership growth and the need to enhance institutional image;
- Current image of the HKIE is perceived to be professional but also traditional, conservative, and old-fashioned;
- Procedural impediments affecting different pathways of attaining qualification;
- Low involvement and interest in undertaking innovation related initiatives, such as the EP Hub; and
- Post-COVID-19 preparedness.

Time to Change Roadmap

In the spirit of pursuing excellence, the HKIE has devoted considerable effort to enhance the mission of the Institution, and certain positive effects were seen. However, these efforts were generally not well-coordinated and sustained on a longer-term basis. As one of the key initiatives under Session 2021/2022, the HKIE has developed a Time to Change Roadmap with meticulous planning, direction with scheduled milestones targeting beneficial change to the Institution for the years to come. The Roadmap comprises a set of initiatives with scheduled timelines for implementation that will ensure the Institution be well-equipped to meet challenges of today and the future.

Through a series of engagement activities involving different stakeholder groups, five main areas of focus have been identified as the key pursuits under the Roadmap, namely:



Pursuing Digitalisation

Offer digital tools or solutions to align with the changing digital landscape and trends, as well as update current system architecture for more efficient daily operations, along with high-level security protecting confidential or sensitive information and data; these tools will also provide a pertinent solution to the impact of COVID-19 on the operations of the Institution.



Enhancing Services to Members

Increase members' satisfaction and membership value by improving value-added services, enhancing information delivery to members, as well as encouraging exchange among members to establish cohesion and enrich their sense of belonging.



Facilitating Innovation

Foster a culture of innovation amongst members and inspire engineers to bring their ideas to life through applications of innovative approaches or technologies that can help drive productivity, efficiency and enhanced project delivery outcomes.



Boosting Professionalism

Uplift the professional status of the HKIE and engineers in society at large through intellectual exchange and policy advocacy initiatives, as well as explore further opportunities for training and development collaboration.



Undertaking Governance Review

Revamp the HKIE's governance to adapt to changing demands and new circumstances.

Review & Consultation Process

With the aim of developing a strategic roadmap that will effectively translate ideas into a concrete journey for successful change in the HKIE spanning multiple years, the HKIE conducted an extensive review and consultation process from May 2021 to May 2022 in three main stages, as illustrated in Figure 1.



Figure 1 - Overview of 3-staged review & consultation process

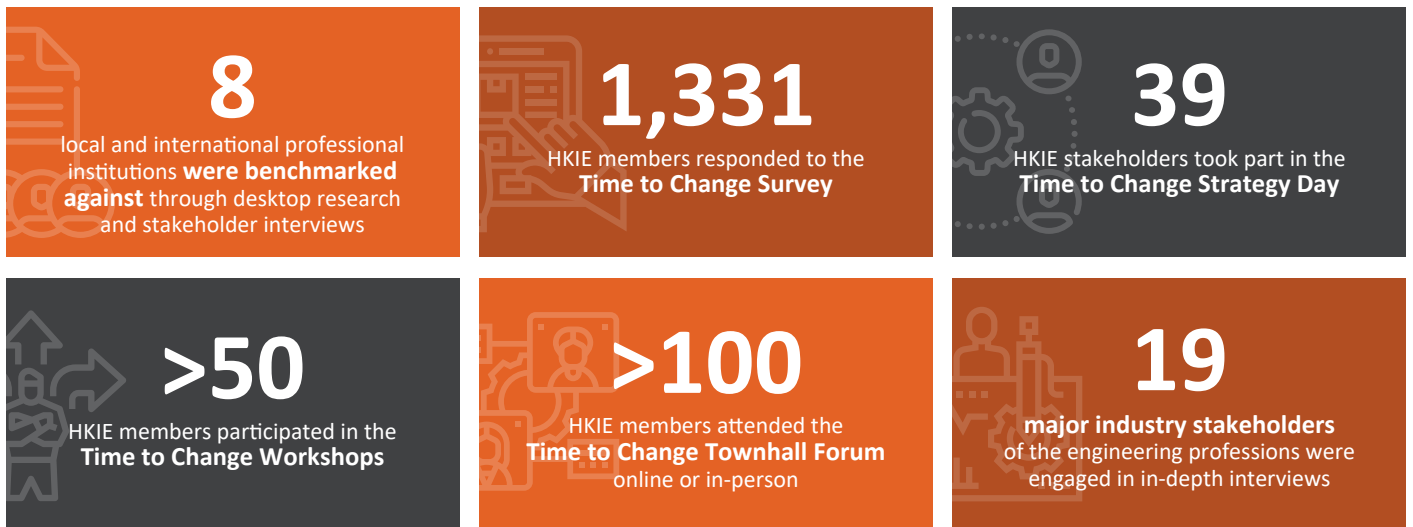
Extensive stakeholder engagement activities with the HKIE members and major industry stakeholders of the engineering professions were carried out throughout the process to ensure that the transformation of the Institution was envisioned together with the members. Through the active participation from members in the stakeholder engagement exercises, views and insights were collected and used to inform a roadmap to sustain the next phase of growth for the HKIE as well as the engineering profession in the society.

Review & Stakeholder Consultation Activities

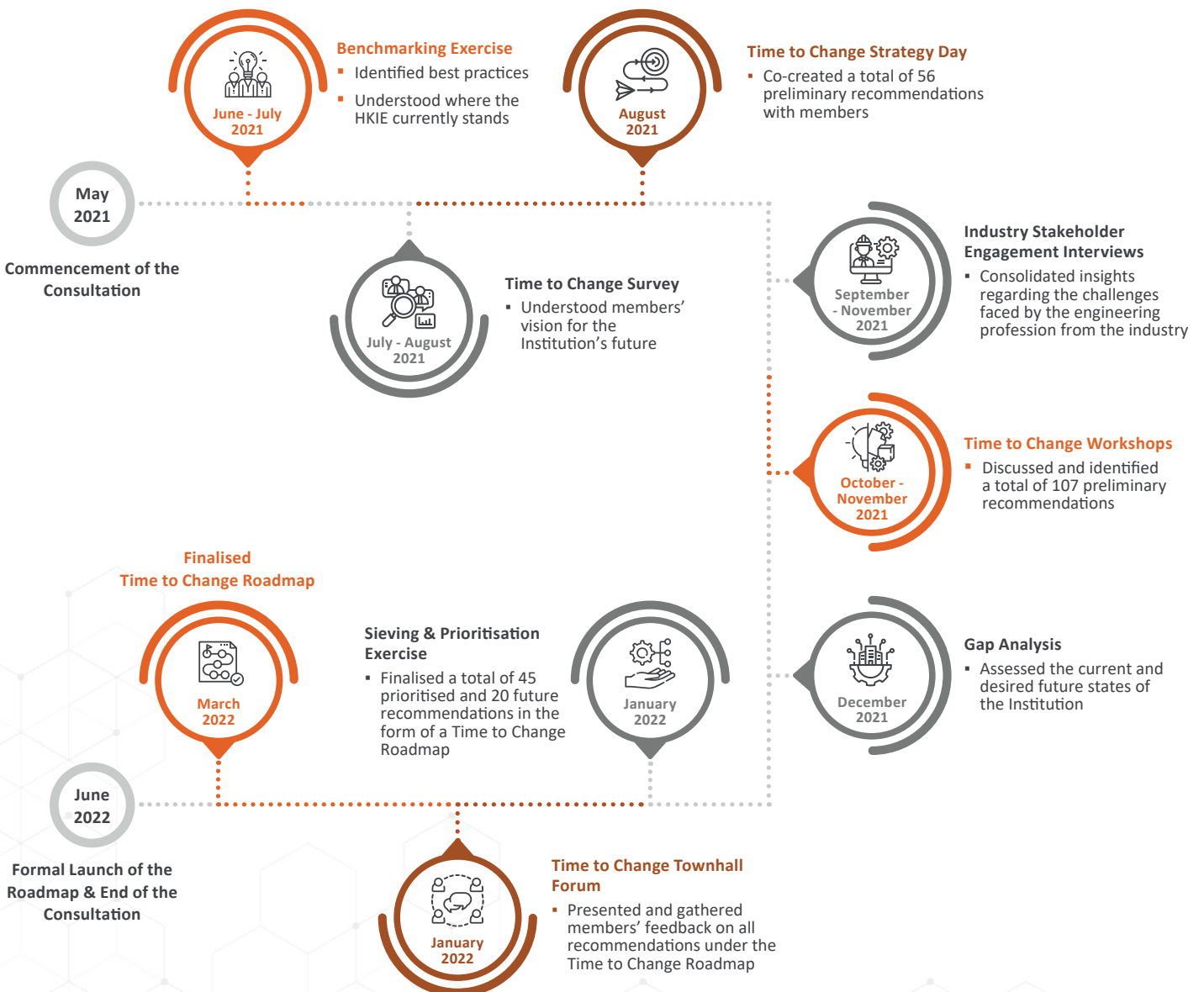
- **A systematic review of key documents and/or past studies by the HKIE, namely**
 - 2019 Study on Training and Development Needs of Engineers in Hong Kong
 - 2018 Report of HKIE Strategy & Development Day
 - 2010 Members' Survey Report
 - The HKIE's annual plans
- **A comprehensive benchmarking exercise with similar local and overseas professional institutions to identify best practices, including**
 - The Hong Kong Institute of Architects
 - The Chartered Institution of Building Services Engineers
 - The Institution of Engineers, Singapore
 - The Institution of Mechanical Engineers
 - The Hong Kong Institute of Surveyors
 - The Institution of Civil Engineers
 - The Institution of Engineering and Technology
 - The Royal Institution of Chartered Surveyors
- **A Time to Change Survey**, which received 1,331 responses and provided insights on how the HKIE is currently performing and members' priorities for preliminary initiatives to address some of the key challenges the Institution is facing;
- **A Time to Change Strategy Day** – an interactive, design-thinking workshop with 39 members across different positions, Divisions and membership classes of the HKIE to identify preliminary recommendations for the HKIE;
- **A series of Time to Change Workshops** with over 50 members participating. They were split up into five discussion groups to gather feedback on the current performance of the HKIE and preliminary recommendations identified;
- **A comprehensive analysis of the insights and views consolidated from the interviews with a total of 19 major industry stakeholders by the HKIE**, ranging from government departments, education institutions, utilities, to other professional associations or institutions;
- **A Gap Analysis** to assess the current and desired future states of the Institution under the five focus areas. The results of the analysis contributed to the set of recommendations in the Time to Change Roadmap; and
- **A Time to Change Townhall Forum** – a hybrid webinar and face-to-face event to present and gather feedback from over 100 members on the Time to Change Roadmap, which comprised of 45 prioritised and 20 future recommendations across the five focus areas.

Overview of the Review & Consultation Process

At a Glance



Key Milestones of the Review & Consultation Process



Highlights of the Review & Consultation Process

Time to Change Strategy Day



Highlights of the Review & Consultation Process (continued)

Time to Change Townhall Forum



Time to Change Workshops





Time to Change Roadmap



Pursuing Digitalisation

Current Status

Current digital shared services and support functions may be out of date or obsolete, which may slow down daily operations of the Institution and limit services to members. Also, the current HKIE website does not align well with members' preferences, nor meet the operational needs of the HKIE.

Vision

The HKIE will adopt digital tools or solutions to align with the changing digital landscape and trends, as well as bring improved efficiency to various institutional undertakings.



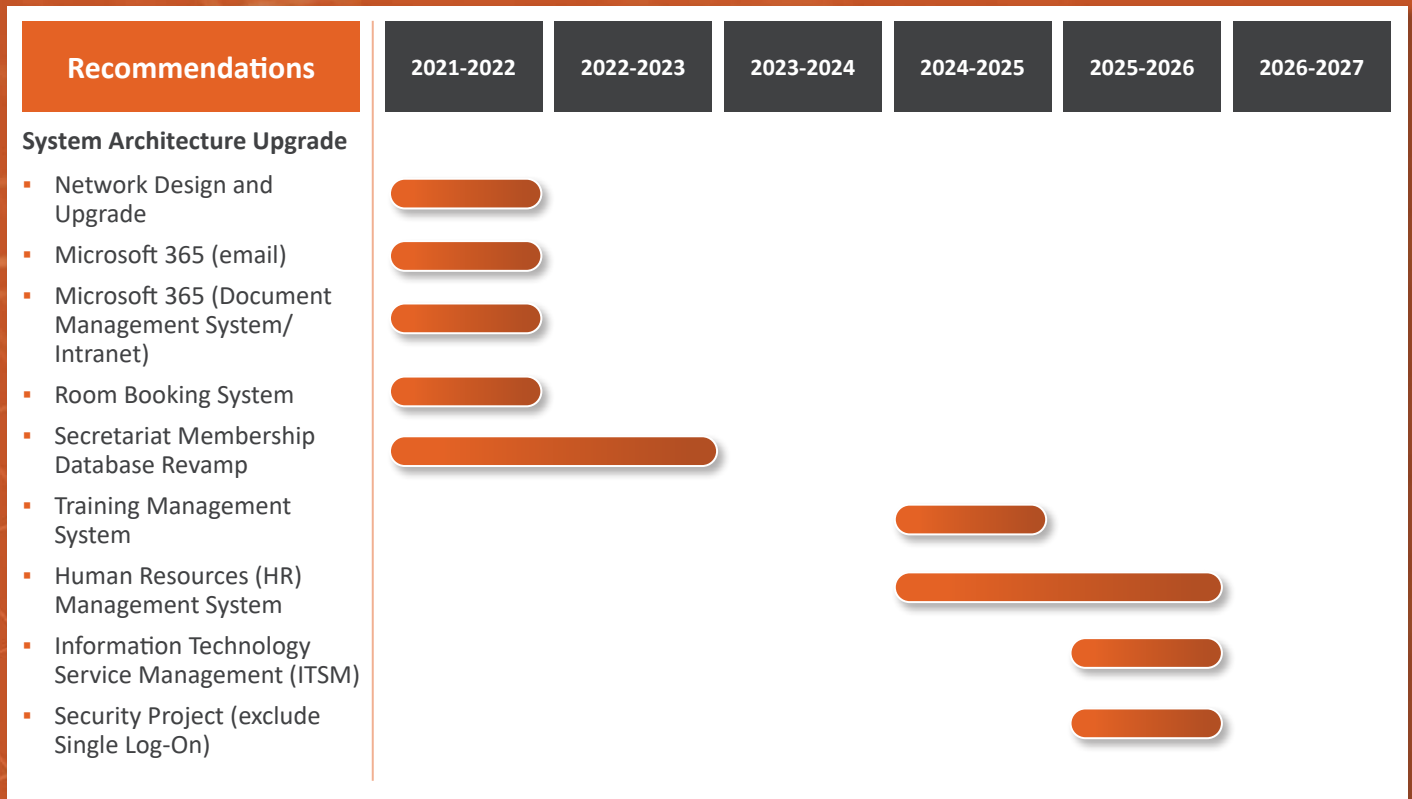
Overview of Implementation Roadmap for 'Pursuing Digitalisation'

Recommendations	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
<p>Website and Content Management Revamp</p> <ul style="list-style-type: none"> Enhance the user interface of the website with new features to make it more user-friendly, convenient, and informative for members Revamp Members Login Area with new features 						
<p>Membership Application Process</p> <ul style="list-style-type: none"> Digitalise the membership application process 						
<p>Mobile Application Development</p> <ul style="list-style-type: none"> Provide a new mobile application with features for member services Digitalise the payment system for events, membership/examination fee, CPD activities, etc. 						
<p>Social Media and Other New Channels for Communication</p> <ul style="list-style-type: none"> Use social media platforms to enhance member engagement and interaction with option to limit comments and responses from members on certain social media posts to reduce abuse Use single official social media account to create alignment on information and communications with members between Divisions 						
<p>Ongoing review of the digitalisation strategy every 2-3 years to align with digital landscape</p>						
						Ongoing

Remark:

The above bars illustrate the duration of the activity. The starting point of the bars denote the commencement of the related procurement, planning or development works of the recommendations, while the end of the bars mark the launch of the recommendations, which will be implemented on an ongoing basis.

Overview of Implementation Roadmap for 'Pursuing Digitalisation' (continued)



Remark:

The above bars illustrate the duration of the activity. The starting point of the bars denote the commencement of the related procurement, planning or development works of the recommendations, while the end of the bars mark the launch of the recommendations, which will be implemented on an ongoing basis.

Initiatives to be undertaken for ‘Pursuing Digitalisation’

As one of the five focus areas of the roadmap, ‘Pursuing Digitalisation’ focuses on adopting digital tools and solutions to enhance the existing processes and offer new and improved services to the HKIE members.

Below are further details to some of the key initiatives planned under this focus area:

Website and Content Management Revamp



Currently, the HKIE website is a major means of disseminating institutional information to the general public and its members, ranging from press releases, publications, routes to attaining membership, and professional qualification requirements, to an exclusive login page (i.e. Members Login Area) for the HKIE members only.

The Time to Change Survey (“the Survey”) asked members’ views and satisfaction levels with the current website. 21% of members expressed their lack of satisfaction with the user-friendliness, visual appeal and informative aspects of the website, indicating that there is room for the HKIE to improve upon (see Figure 2).

Moreover, during the 2018 HKIE Strategy and Development Day, members indicated that the HKIE website provided limited services to address the needs of its members and that services were not easily found in a centralised location.

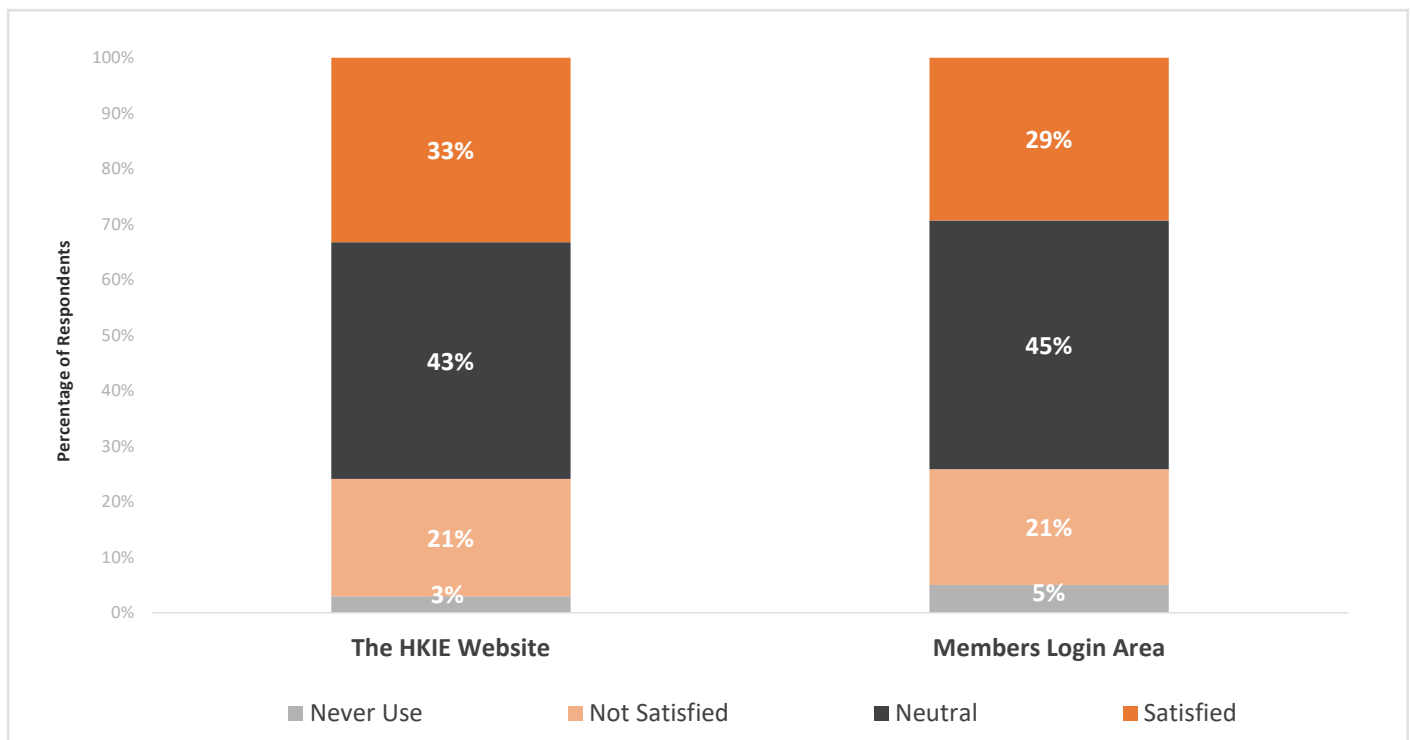


Figure 2 – Member satisfaction levels with the current HKIE website and Members Login Area in terms of user-friendliness, being informative and visual appeal (Source: Time to Change Survey)

Based on the feedback gathered from the members, the current website should be enhanced to provide the desired services and functionalities to the HKIE members. The revamped website should bring a potential increase in member engagement for both existing and new members, and facilitate greater collaboration and interaction amongst members.



Proposed Recommendation(s)

- ✓ Enhance the user interface of the website with new features to make it more user-friendly, convenient, and informative for members, such as digital payment, event registration, and revamp Members Login Area with new features including CPD login, digital library, discussion forums, virtual tutor/mentorship programme (chat box).

Membership Application Process



The current HKIE membership application process typically requires physical and hardcopy submission of the original forms. Only a scanned copy of student membership application can be submitted online. Payment is completed by providing credit card details to the hardcopy application form or providing cheque attachments. The applicant will be notified by email or telephone for missing documents.

The Survey asked members to rate their satisfaction levels (from 1 to 5, with 1 being 'very dissatisfied' and 5 being 'very satisfied') with various dimensions of the HKIE membership application process including fairness, customer service, efficiency, transparency, and counselling support. Among the five dimensions, 'fairness' scored the highest with a score of 3.41 out of 5, while members felt there was room for improvement in the overall application process in terms of 'efficiency' and 'transparency' – both scored 3.12 out of 5. Furthermore, the most frequently cited suggestion for improving the application process was to digitalise the entire process. This echoes the suggestion made by members previously at the 2018 HKIE Strategy and Development Day that digital tools should be offered to improve the HKIE's operational efficiency and enhance members' experience.

Hence, digitalising the application system can effectively streamline the application process as well as enhance member satisfaction with improved membership application experience, such as a more transparent and expedited processing time.



Proposed Recommendation(s)

- ✓ Digitalise the membership application process

Mobile Application Development



The HKIE has previously developed a mobile application to improve communication with its members, however, it is not commonly used and generated limited downloads. This mobile application aimed at facilitating mobile access to the latest information about the HKIE such as news, events, and journals.

The results of the Survey revealed that a mobile application was the third preferred communication method among all members and the second preferred method among Graduate and Student Members. The Survey also asked about features members would like to see on a new HKIE Mobile App, of which the top four features were:

- Event information and registration,
- An E-membership card,
- Receiving CPD certificates, automatic CPD log and post-event feedback survey, and
- Centralised online fee payment (e.g. events, seminars, site visits).

Moreover, when discussing the topic of "Electronic Membership Card" at the 2021 Time to Change Workshops ("the Workshops"), members suggested that the HKIE could use the mobile application as an e-membership card, instead of issuing a physical membership card to members.

As part of the digitalisation and transformation of the HKIE, developing a new mobile application could generate several key operational benefits to the HKIE, such as streamlined registration process for the HKIE events, centralised management of registration information and data, gather useful insight and monitor member engagement through push notifications.

Hence, by introducing a new mobile application, members will be provided with easier and quicker access to event information and registration functions, and thus encourage greater member engagement with the Institution.



Proposed Recommendation(s)

- ✓ Provide a new mobile application with features including push notifications, event registration, digital payment, CPD login, and "e-wallet" as e-membership card
- ✓ Digitalise payment system for events, membership/examination fee, CPD, etc.



Social Media and Other New Channels for Communication



The HKIE has been using multiple communication channels to deliver messages and information to its members. Some of the common channels are e-Newsletter, email, Facebook and the HKIE website.

The Survey revealed that members were generally satisfied with the frequency of the communications from the HKIE, with 79% of members considering that they currently received “just enough” communications.

However, with regards to the communication method, members suggested that the HKIE should “enhance social media presence and welcome digitalisation” to enhance young members’ involvement in Institutional affairs and activities. Members also pointed out that different communication tools could be adopted to improve communications with young members. Specifically, the Survey revealed that Facebook was the most preferred social media channel among all members, while Instagram was more preferred among the younger members (i.e. Graduate and Student Members).

Members at the Workshops were also supportive of using social media platforms to communicate with members and the general public. The discussion also highlighted the need to effectively manage and deal with any unfavourable or negative feedback/comments on social media platforms by introducing an option to limit comments and responses.

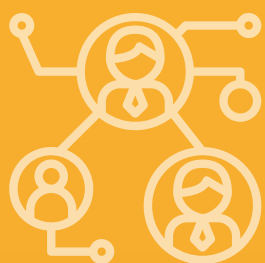
Feedback from the members highlighted the importance for the HKIE to develop a social media communication strategy with initiatives that improve the communication with all members. This would also provide members with greater convenience to stay up-to-date with the institutional news, events, and important announcements based on their personal preferences and interests.

Proposed Recommendation(s)



- ✓ Use social media platforms to enhance member engagement and interaction (e.g. dissemination of information, promote events/activities) with option to limit comments and responses with members on certain social media posts to reduce abuse
- ✓ Use single official social media account to create alignment on information and communications with members between Divisions

In addition to the digital initiatives outlined above, the HKIE is currently undergoing a series of system architecture upgrades (such as Network Design and Upgrade, Secretariat Membership Database Revamp, and HR Management System). It is also important to note that with the ever-changing digital landscape in the industry, the HKIE will conduct regular review of the entire digitalisation strategy every 2-3 years to align with the digital landscape, shifting trends and changing needs of members.



Enhancing Services to Members

Current Status

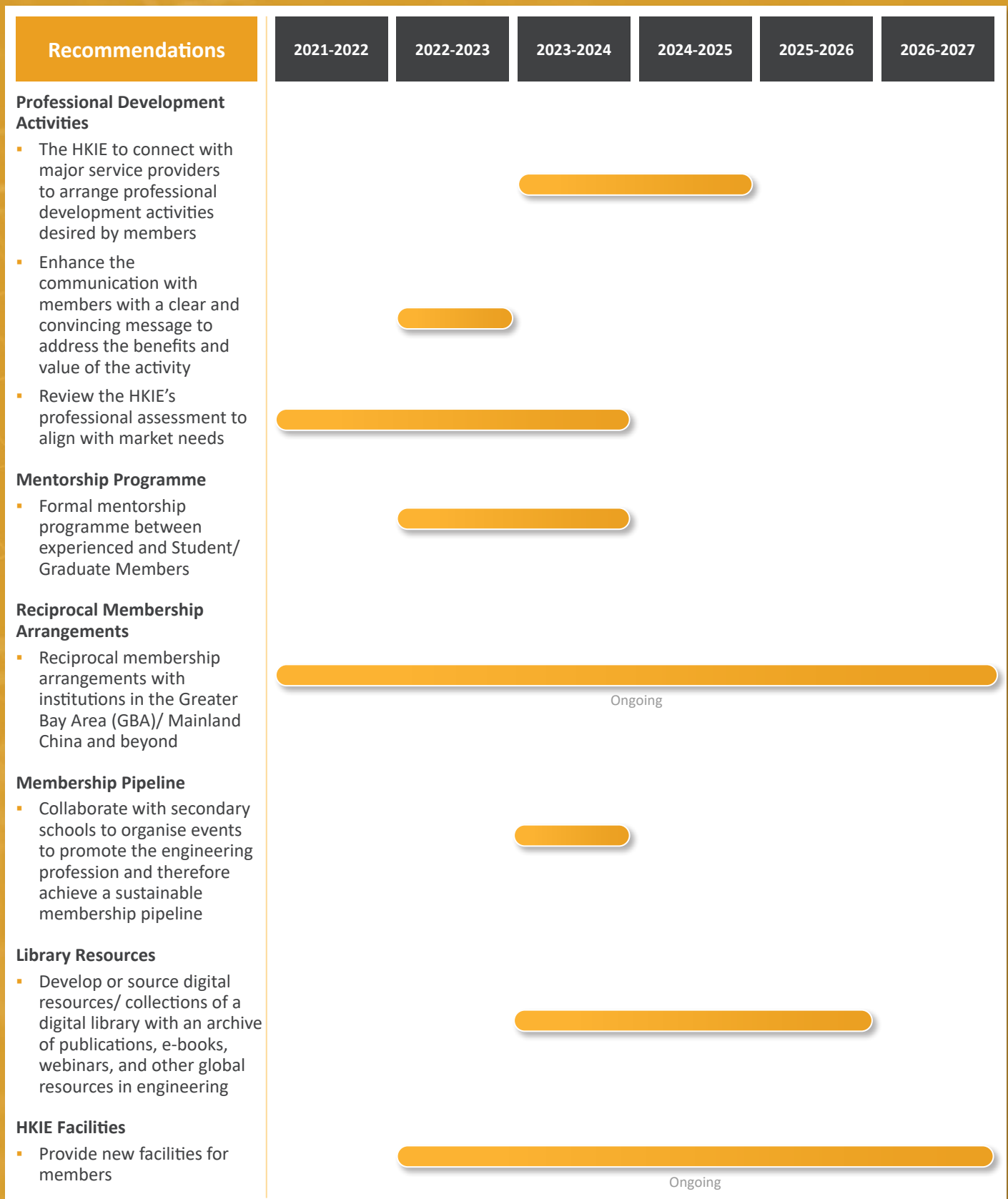
Current member services may not fully address members' needs and preferences, which may have contributed to the low levels of participation in institutional activities or affairs by certain membership grades, such as young members.

Vision

The HKIE will improve value-added services and enhance information delivery to members in order to encourage exchange and interaction among members. Activities that address the needs and preferences of members will also be organised in order to enhance member satisfaction.



Overview of Implementation Roadmap for 'Enhancing Services to Members'



Remark:

The above bars illustrate the duration of the activity. The starting point of the bars denote the commencement of the related procurement, planning or development works of the recommendations, while the end of the bars mark the launch of the recommendations, which will be implemented on an ongoing basis.

Initiatives to be undertaken for ‘Enhancing Services to Members’

‘Enhancing Services to Members’ as the second focus area of the roadmap focuses on increasing members’ satisfaction and membership value through service quality enhancement and user experience enrichment.

Below are further details to some of the key initiatives planned under this focus area:

Professional Development Activities



As a learned society, the HKIE has been providing quality learning opportunities and activities such as seminars, visits and conferences to its members with great success over the years.

As indicated by the feedback received from the Survey, the HKIE could explore improvement opportunities and allocate more resources in the areas of “knowledge sharing” (average score of 3.50 out of 5, where 1 is ‘HKIE is not doing enough’ and 5 is ‘HKIE is doing a lot’) and “supporting professional development and nurturing engineers” (average score of 3.26 out of 5). Specifically, members were relatively satisfied with seminar/webinars and technical visits but believed there was room for improvement in conferences and social/networking functions in terms of their relevance, quality and attractiveness.

Based on feedback from members, the top three aspects that would further increase members’ likelihood of joining a HKIE-organised training or professional development activity include:

- “organise events with topics that are more aligned with member preferences”,
- “flexible ways of joining (e.g. option for playback seminar video)”, and
- “collaboration with other parties”.

Furthermore, the Study on Training and Development Needs of Engineers in Hong Kong conducted by the HKIE in 2019 demonstrated a need to enhance the effectiveness of certain aspects of the professional development activities provided by the HKIE Divisions/Committees, e.g., professional and technical matters such as engineering software/design tools. When members were asked for their reasons for not enrolling in professional development activities, the top four reasons were:

- “too busy”,
- “expensive activity fee”,
- “activities did not match with job requirements/personal interests”, and
- “inconvenient activity venue”.

Given all of the points above, the HKIE will proactively take action to organise professional development activities with topics and content that match members’ interests and needs. These activities would contribute to enhancing members’ satisfaction with their membership value and potentially attract new members to join the HKIE.

Proposed Recommendation(s)

- ✓ The HKIE to connect with major service providers to arrange professional development activities desired by members, such as Building Information Modelling (BIM) training courses by the Hong Kong Institute of Construction (HKIC), webinar/seminar by the Modular Integrated Construction (MiC) Resources Centre/Construction Industry Council (CIC), and pre-qualification training programme
- ✓ Review the HKIE’s professional assessment to align with market needs (e.g. understanding on United Nations Sustainable Development Goals (UNSDGs) as this is currently incorporated in the academic curriculum; risk management is a key skill engineers currently lack; innovation and sustainability as essential factors in the industry)
- ✓ Enhance the communication with members with a clear and convincing message to address the benefits and value of the activity



Mentorship Programme



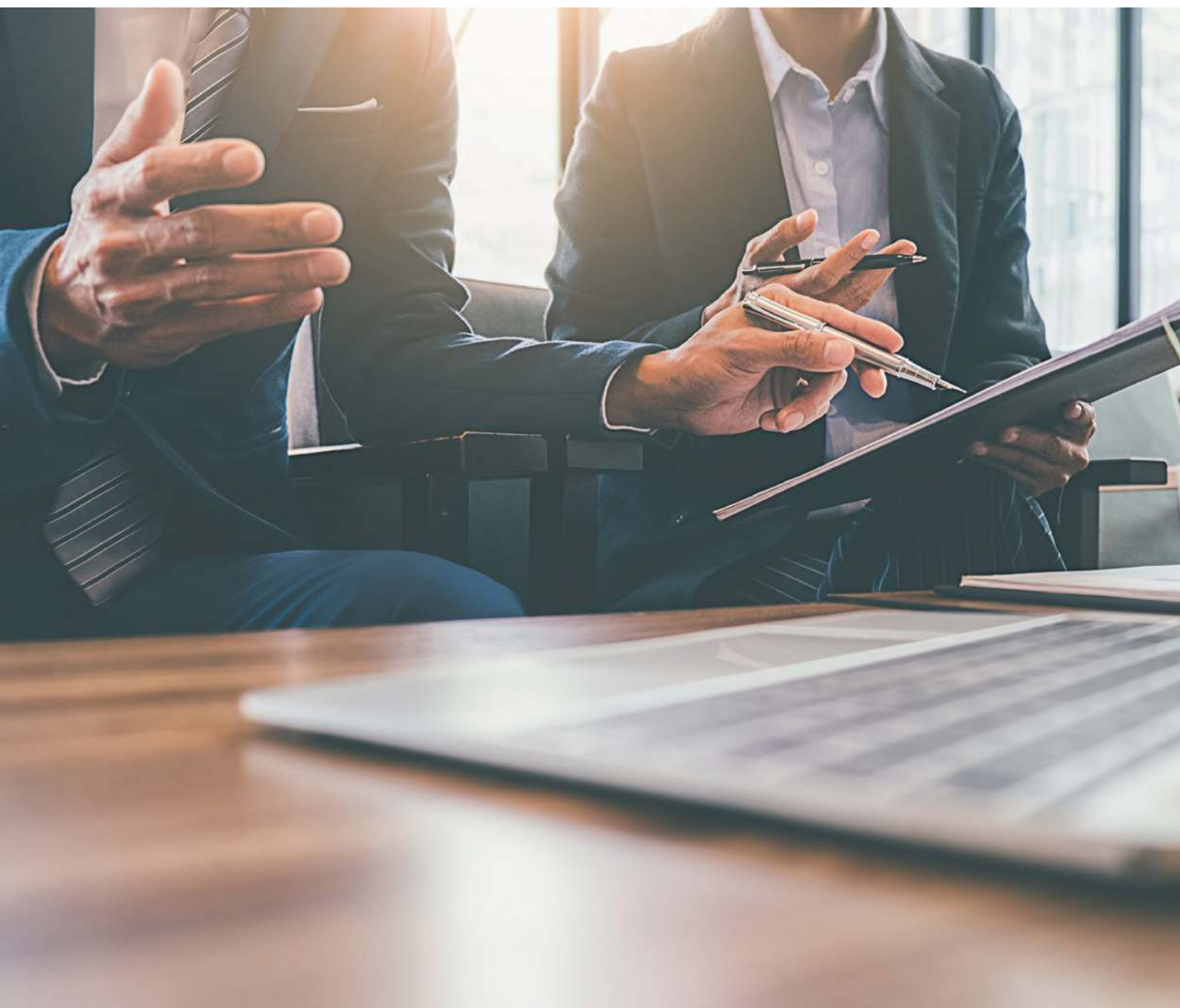
At present, there is an absence of a formal mentoring programme in the HKIE. From the stakeholder engagement exercises, it was observed that members would like more support in their careers through advice, networking and professional development activities. For instance, in the Survey, “counselling support” was identified as the area with the most potential for improvement in terms of the HKIE membership application. Moreover, at the 2018 HKIE Strategy & Development Day, members called for more opportunities for knowledge transfer and networking amongst members, such as experience-sharing sessions and mentorship programme.

The HKIE will develop a structured mentorship programme to enable a mentoring culture centred on learning and sharing ideas and create a shared vision amongst members. This programme will also provide Student/Graduate Members with support on competence development and career progression, as well as opportunities to expand their professional networks.



Proposed Recommendation(s)

- ✓ Formal mentorship programme between experienced and Student/Graduate Members





Reciprocal Membership Arrangements



For many years, the Institution has established and maintained close relationships with other engineering institutions globally. The HKIE has signed agreements for reciprocal recognition of professional qualifications with 24 engineering institutions/authorities, such as the Chartered Institution of Building Services Engineers, Engineers Canada, China Association for Science and Technology, and the Society of Operations Engineers, etc.

However, based on members' feedback, it was recognised that there was a need for more mutual recognition. For instance, "lack of mutual recognition with other professional institutions or difficulty in attaining the professional qualification" was identified as the second most cited reason for members considering leaving the HKIE membership. Members at the Workshops also agreed that the HKIE should introduce more reciprocal membership arrangements as it could attract a larger membership database and help further enhance the HKIE's image in the industry.

Reciprocal membership agreements enable members to gain credentials outside of Hong Kong and wider exposure in the industry. Hence, the HKIE will place more efforts in establishing more reciprocal membership arrangements to enhance member satisfaction with the HKIE membership value, which will potentially contribute to the retention of existing members.



Proposed Recommendation(s)

- ✓ Reciprocal membership arrangements with institutions in the GBA/ Mainland China and beyond

Membership Pipeline



While the HKIE membership seemed robust on the surface in recent years, the underlying trends are concerning. Despite continuous increase in the number of Fellow Members, Members and Graduate Members, the Institution seems to have lost touch with the Associate Members and Student Members, which have been on a declining trend, as detailed in Figure 3.

In particular, the Survey asked members to rate their satisfaction level with young members' involvement in Institutional affairs and activities, which resulted in an average score of 3.24 out of 5 (with 1 being 'very dissatisfied' and 5 being 'very satisfied'). This suggests that members felt more could be done to enhance young members' involvement. Also, the most frequent suggestion made by members in the Survey was to "increase interaction with local universities to raise interest from engineering students".

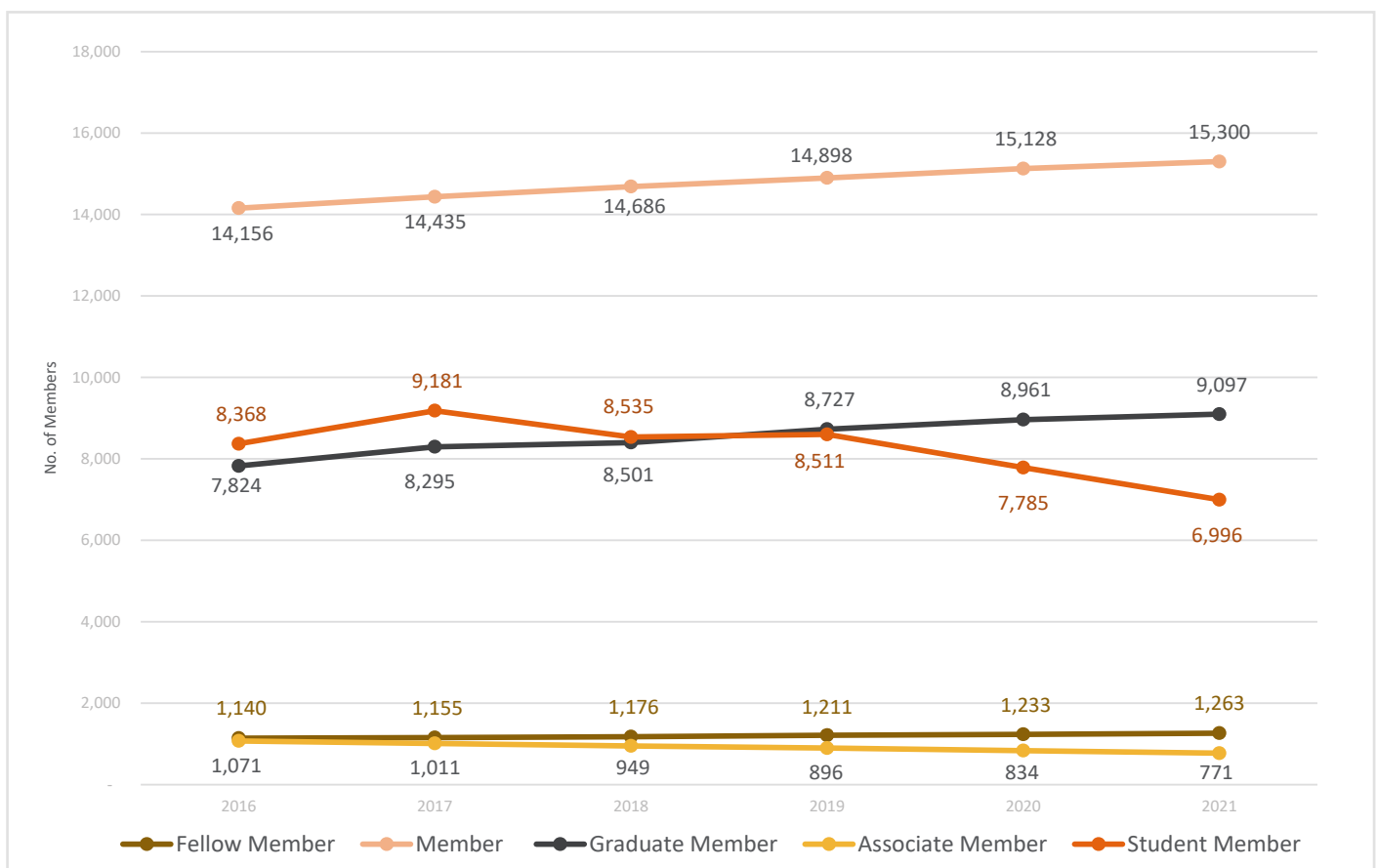


Figure 3 – Number of the HKIE Fellow Members, Members, Graduate Members, Associate Members, and Student Members from 2016 to 2021 (Source: The HKIE Session 2020-2021 Annual Report)

Furthermore, feedback from the industry stakeholder engagement interviews revealed that one factor resulting in stagnant young membership growth was the lack of knowledge of the route to HKIE membership amongst local higher education institutions and their students.

In view of developing a sustainable membership pipeline, the HKIE plans to further collaborate with secondary schools to organise events, such as competitions and career talks, to help nurture and arouse the interest of students in engineering. These collaborative programmes will also provide students with career support or advice as well as greater exposure to the subject of engineering, which will in turn facilitate their decision in becoming an engineer.



Proposed Recommendation(s)

- ✓ Collaborate with secondary schools to organise events to promote the engineering profession and therefore achieve a sustainable membership pipeline

Library Resources



In 2013, the HKIE established an eBookshelf in the Member Login area of the HKIE website. The objectives of the HKIE eBookshelf are to facilitate knowledge and idea exchange among members and promote the advancement of science, technology and engineering. A Sub-group for Selection was set up to vet submissions for uploading to the eBookshelf. The HKIE also created a collection of PowerPoint presentations of lectures and talks, proceedings of conferences and symposia, annual reports and journals of the Institution since 2015. The HKIE also stated that more materials and resources would be introduced over time to expand the collection of the eBookshelf.

The Survey asked members about their views on whether the HKIE was doing enough in specific areas upon rating from 1 to 5, where 1 was 'HKIE is not doing enough at all' and 5 was 'HKIE is doing a lot'. Members have reflected areas that require further improvements are "knowledge sharing" (average score of 3.50 out of 5) and "supporting professional development and nurturing engineers" (average score of 3.26 out of 5). More importantly, members highlighted the significance of an e-library system to their professional development. Around 77% of members demonstrated their preference for using digital learning tools and services to enhance their professional development, such as recorded seminars and links to useful guidelines and standards.

The current eBookshelf has laid a good foundation for the HKIE to develop a more comprehensive digital library with an archive of publications, e-books, webinars, and other global resources in engineering. With a centralised digital platform of resources and publications in the form an eLibrary, this will facilitate the HKIE in enabling better knowledge management. In addition, such digital platform would expand members' access to a wider range of resources to support their learning activities and professional development.



Proposed Recommendation(s)

- ✓ Develop or source digital resources/ collections of a digital library with an archive of publications, e-books, webinars, and other global resources in engineering





HKIE Facilities



According to the 2010 Members' Survey Report, there was a low usage/appreciation for certain facilities of the HKIE premises. For instance, few members reported their appreciation of the availability of the "board room" at the HKIE Headquarters.

Since then, changes have been made to enhance services to members. For instance, in view of the rising demand for venues to accommodate CPD events as well as meetings organised by Divisions and Committees, the HKIE secured an additional floor in Island Beverley, the Headquarters of HKIE, in 2014. With donations from members, additional meeting facilities, sofas and a coffee corner were also set up in 2015.

At the Time to Change Strategy Day event ("the Strategy Day") in 2021, members called for more facilities for member interaction and collaboration. To address that, the HKIE aims to provide new or improved facilities in an ongoing effort to enhance members' engagement and deliver greater value to membership.



Proposed Recommendation(s)

- ✓ Provide new facilities for members, such as cybercafé and co-working space



Facilitating Innovation

Current Status

The HKIE has actively placed efforts in fostering a culture of innovation amongst members. However, there has been a generally low involvement and interest in undertaking innovation related initiatives by members.

Vision

The HKIE will provide more opportunities to inspire engineers to bring their ideas to life and encourage a change of mindset towards innovation, which will ultimately contribute to the sustainable development of society and further economic growth.



Overview of Implementation Roadmap for 'Facilitating Innovation'

Recommendations	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
Professional Development Activities <ul style="list-style-type: none"> Provide systematic training programmes focusing on innovation 	Ongoing						
HKIE Enginpreneurs Hub <ul style="list-style-type: none"> Seminars/ webinars on the HKIE EP Hub to promote greater member involvement (in the EP Hub) To establish a sustainable EP Hub in the form of a club To invite the HKIE President's Protégés Club (PPC) / Young Members Committee (YMC) members to assist in research work with a scope defined on the basis of the steps in the Innovation Roadmap 	Ongoing						
Partnership with other Professional Bodies on Innovation <ul style="list-style-type: none"> Explore ways to collaborate with other professional bodies, universities, and corporates to facilitate innovation programmes and nurture an innovation mindset amongst members 	Ongoing						
Promotion Strategy for Innovation Initiatives <ul style="list-style-type: none"> Increase marketing campaigns to promote the HKIE's innovation initiatives Encourage member participation in the HKIE EP Hub with success stories 							
Organise Events with Education Institutions <ul style="list-style-type: none"> Organise innovation-related events with schools/education institutions for students 							
Leverage Connection with Mainland China for Innovation <ul style="list-style-type: none"> Leverage the connection and platform with institutions in GBA and explore if more memorandum of understanding (MoU) can be arranged to share data/information and facilitate innovation initiatives 							
Innovation Facilities <ul style="list-style-type: none"> The HKIE to serve as a facilitator in arranging and liaising with other resource providers to facilitate the members' innovations 							

Remark:

The above bars illustrate the duration of the activity. The starting point of the bars denote the commencement of the related procurement, planning or development works of the recommendations, while the end of the bars mark the launch of the recommendations, which will be implemented on an ongoing basis.

Initiatives being or to be undertaken for ‘Facilitating Innovation’

‘Facilitating Innovation’ as another focus area of the Roadmap aims to take further steps towards fostering a culture of innovation within the Institution. Under the Session 2020/2021, a number of changes have been introduced for the purpose of creating an environment where engineers are empowered to take forward their good ideas and innovate. For instance, the HKIE has established the EP Hub to support engineers in their pursuit of innovation. Striving for continuous improvement, the HKIE will introduce more innovation initiatives in the coming years.

Below are further details to some of the key initiatives that have been introduced or planned under this focus area:

Professional Development Activities



In the same spirit of the Government’s policy in promoting innovation and transforming the city into a leading global hub for entrepreneurship and innovation, the HKIE has been devoted to taking on a significant role in supporting engineers to embrace innovation to enhance their own capabilities and meet new challenges in the profession. Specifically, during the Session 2020/2021, the HKIE launched a series of webinars delivered by innovation experts, entrepreneurs and investors on topics ranging from innovation methodologies, IP (Intellectual Property) protection, venture capital, to the potential of the GBA.

Feedback gathered from the Survey showed the significance of professional development activities to members in enhancing their knowledge and skills. “Organise events with topics that are more aligned with member preferences” (396 out of 1,331 respondents) was regarded as one of the most important aspects in increasing members’ likelihood of joining a training or professional development activity.

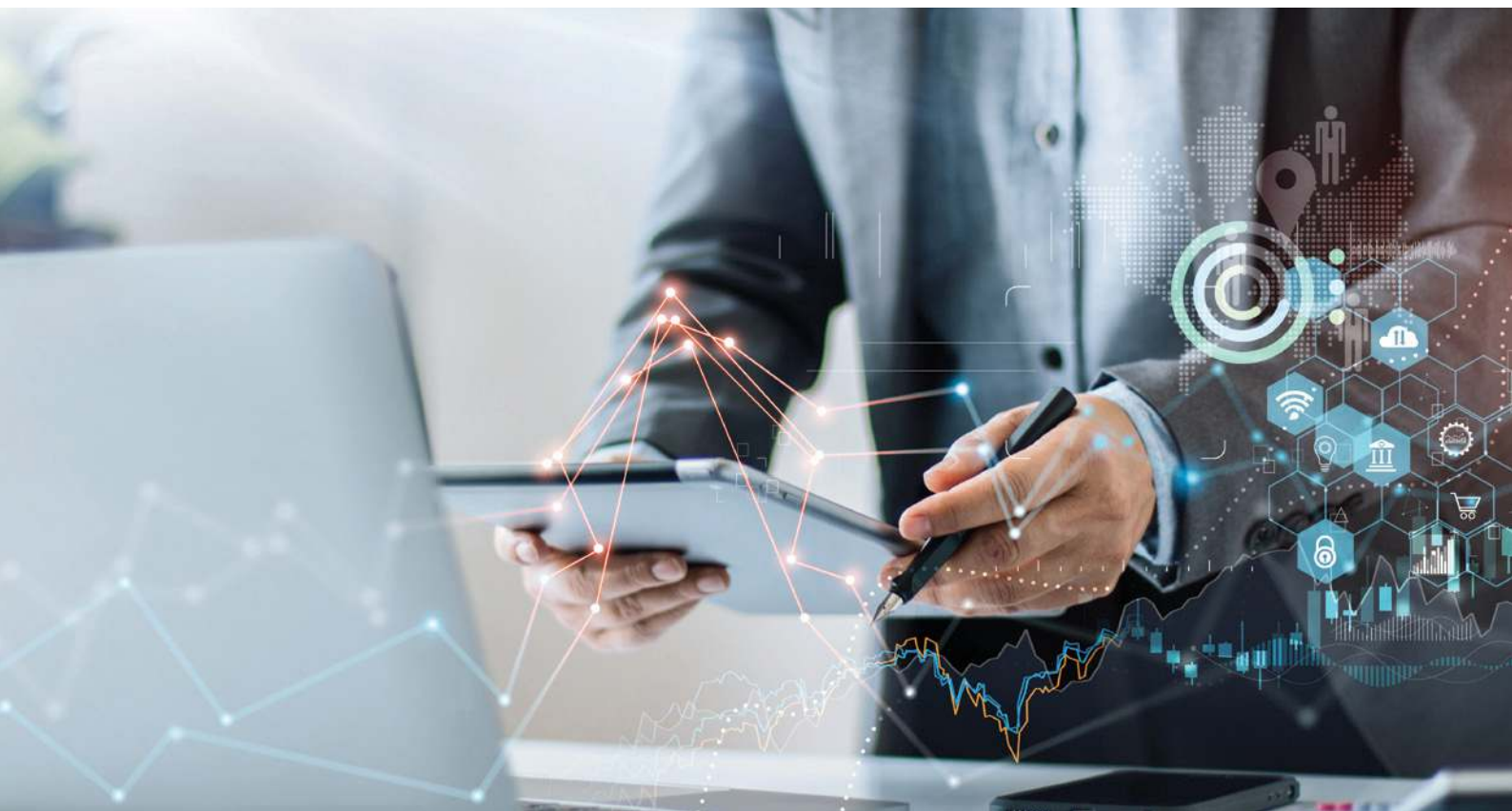
Moreover, members during the 2018 Strategy & Development Day and the Workshops conveyed similar expectations for the HKIE to provide more learning opportunities to members (e.g. innovation training programmes) to broaden their innovative mindsets and boost their creative performance.

Going forward, the HKIE will enhance the professional development by providing systematic innovation training programmes for members. These innovation training programmes will help the HKIE to inspire members to develop innovative ideas as well as provide members with the suitable knowledge and skills for their innovation endeavours.



Proposed Recommendation(s)

- ✓ Provide systematic training programmes focusing on innovation



HKIE Engpreneurs Hub



The EP Hub was formed as a key initiative of the Institution under the Presidential Theme of Session 2020/2021. The EP Hub seeks to draw on the combined talents and experience of the HKIE members to identify support, assistance and funding opportunities to make innovative ideas a reality. The EP Hub is currently equipped with three core programmes, namely:

- A programme for developing member skill sets;
- A programme for identifying innovation and technology (I&T) problems and finding possible solutions for matching expertise; and
- An enabling programme to create an environment to help nurture budding ideas into reality.

Under the EP Hub, an “Innovation Roadmap for Engineers”, prepared by a group of experienced engineering innovators, has been introduced to assist members in their entrepreneurial and innovation journey, from conception, patent application, prototyping to production and commercialisation.

However, feedback from the Survey revealed a lack of awareness and active involvement of members in the EP Hub, specifically:

- Only 22% of respondents said they have heard of it, of which majority of them are skewed towards older members (i.e. out of the 22% of respondents, 48% belong to age groups of 56 – 65 and over 65);
- Majority of the young members have not heard of the EP Hub (i.e. only 7% of those aged 18 – 25 have heard of it); and
- Among members that know of the EP Hub, 80% of them are currently not involved in it or have no intention of being involved, 12% have interest in being involved in it, while 8% are currently involved.

The Survey also indicated that of the members that have participated in the EP Hub, their involvement was typically “attending webinars from the EP Hub”. Meanwhile, among the members that intended to be involved or were currently involved in EP Hub, the top two features they would like to see in the EP Hub were “more knowledge exchange opportunities” and “strategic collaboration with external parties”.

Based on feedback from members, the HKIE plans to introduce initiatives or activities to increase the awareness and involvement of members in the EP Hub. Relevant materials and communications will be introduced to enhance members’ knowledge and understanding of the benefits of being involved in the EP Hub.

Proposed Recommendation(s)



- ✓ Seminars/webinars on the EP Hub to promote greater member involvement (in the EP Hub)
- ✓ To establish a sustainable EP Hub in the form of a club
- ✓ To invite the HKIE PPC/YMC members to assist in research work with a scope defined on the basis of the steps in the Innovation Roadmap (e.g. funding sources)



Promotion Strategy for Innovation Initiatives



With the implementation of innovation initiatives, the HKIE has also been placing significant effort in building its innovative profile and image to members and the public. Efforts taken in promoting the innovation initiatives include kick-off ceremony, virtual expo/exhibition, competitions for members or primary/secondary/tertiary students, webinars on innovation-related topics, the creation of EP Hub website, etc., which aim to arouse interest and promote awareness in innovation amongst members and the public.

However, given the lack of awareness of the EP Hub amongst members as discussed in the previous page, there is a need to adopt more promotion strategies and marketing campaigns to promote the HKIE's innovation initiatives. It was observed that members were eager to know more about the ongoing innovation initiatives in the HKIE. For instance, during the Time to Change Townhall Forum ("the Forum"), a member asked for information about the "Innovation Roadmap for Engineers". Similar interests were also observed at the Workshops where members suggested that the HKIE launches more marketing campaigns to strengthen the institutional image on innovation and technology, and emphasises on the benefits of the innovative initiatives to the Institution and its members.

Hence, the HKIE will explore more promotion strategies and marketing campaigns to promote the ongoing innovation initiatives and demonstrate a strong commitment to innovation to the public. Through greater awareness of the HKIE's innovative initiatives, members will be provided with more opportunities to get expert advice and support with their innovation pursuits.



Proposed Recommendation(s)

- ✓ Increase marketing campaigns to promote the HKIE's innovation initiatives
- ✓ Encourage member participation in the EP Hub with success stories

Partnership with other Professional Bodies on Innovation



At the 2018 HKIE Strategy & Development Day, members noted that there was a lack of interaction and coordination in innovation and knowledge transfer opportunities/efforts between universities, industry, and other professional bodies. Through the establishment of the EP Hub, the HKIE has established and maintained close relationships with various professional bodies, universities, incubation parks and other relevant organisations to create cross-disciplinary information sharing and networking opportunities for engineering innovators.

Responses from the Survey reflected that "more knowledge exchange opportunities" and "strategic collaboration with external parties" were desired by members with the view of nurturing a stronger culture of innovation.

With strong exposure to and collaboration with other professional institutions or organisations and industries, the HKIE will be provided with a platform to foster innovation-related thought leadership and knowledge sharing for members. Members will also be equipped with more intersectoral learning related to innovation and networking opportunities.



Proposed Recommendation(s)

- ✓ Explore ways to collaborate with other professional bodies, universities, and corporates to facilitate innovation programmes and nurture an innovation mindset amongst members (e.g. Hong Kong Science and Technology Parks Corporation (HKSTP), Vocational Training Council (VTC), HK Cyberport, the Chinese University of Hong Kong (CUHK))

Organise Events with Education Institutions



With a view to inspire the current generation of engineering talents, the HKIE has been dedicated in arranging innovation-themed activities for students of different ages. For primary students, the HKIE held the “Engineers of Our Next Generation” video competition to enhance their awareness of the important engineering projects around them and the new technologies deployed in these projects. The HKIE PPC organised the “Smart Health” Workshops and Prototype Design Competition for secondary students to facilitate their involvement in public health issues and offer them first-hand experience in solving real-life problems with engineering knowledge. Moreover, “The HKIE Enginpreneurs Award 2021 – Young Innovators” was organised for tertiary students to demonstrate their innovative ideas in engineering which have the potential of transforming into reality.

Responses from the Survey emphasised the importance of innovation-related challenges and competitions to facilitate innovation and entrepreneurship. For instance, “organise innovation-related challenges/ competitions” was selected as one of the top three features that members would like to see on the EP Hub. Members at the Workshops also supported the idea of organising innovation competitions for students and suggested that the attractiveness of awards could be enhanced. For instance, the HKIE could consider creating or re-designing international prestigious competitions for university-or-above-level participants. The winners of the competition will have an opportunity to transform their ideas into a real product.

In order to attract more young talents and achieve a sustainable membership talent pipeline, the Institution will collaborate with education institutions in organising innovation-related events for students. Moreover, these events will provide student members with wider exposure to the Institution and more opportunities to connect, learn, and level-up.



Proposed Recommendation(s)

- ✓ Organise innovation-related events with schools/education institutions for students such as competitions, tours, site visits

Leverage Connection with Mainland China for Innovation



The HKIE has recognised the vast opportunities brought by the “Greater Bay Area Development” and “One Belt, One Road” policy initiatives to its members in terms of knowledge exchange, multidisciplinary and cross-boundary cooperation. Particularly, the Innovation Expo (‘the Expo’) organised by the HKIE in 2021 aimed to strengthen the network between the engineering industry and innovation ecosystem within Hong Kong and the GBA. At the Opening Ceremony of the Expo, the HKIE signed MoU with 13 incubator centres in the GBA for the purpose of establishing long-term I&T cooperation, promoting the development of the local I&T ecosystem, and fostering closer regional cooperation with the Mainland.

At the Strategy Day, ‘connection with Mainland China’ was identified as a topic under the focus area ‘Facilitating Innovation’ and members suggested that by leveraging the network with the GBA, more MoU could be arranged to share data/information and facilitate innovation. This suggestion was also discussed and generally supported by members at the Workshops.

It is no doubt that with a stronger connection with the GBA/Mainland China, members will have greater exposure and access to wider networks in the industry and beyond. This will also contribute to enhancing member engagement and retaining existing members for the HKIE.



Proposed Recommendation(s)

- ✓ Leverage the connection and platform with institutions in the GBA and explore if more MoU can be arranged to share data/information and facilitate innovation initiatives



Innovation Facilities



The 2010 HKIE Members' Survey indicated a low usage/appreciation for certain HKIE facilities. For instance, "free Wi-Fi service" had the lowest usage rate, with only 4% of the members using it before. The survey findings also indicated that many members were not aware of other facilities available at the HKIE Headquarters such as board room, seminar room, and bar. The lack of awareness by members of these facilities ranged from 13% to 37%.

The HKIE's role in innovation is to provide guidance and assistance to members in tackling and solving their practical difficulties in their innovation process as well as help members access the relevant expertise, specialist support, innovation facilities and more. This was discussed and supported by members in the Workshops.

As part of the HKIE's strong commitment to entrepreneurship and innovation, the Institution will provide members with access to facilities that support them with their ongoing pursuit of innovation, such as idea exchange, coordination and collaboration.



Proposed Recommendation(s)

- ✓ The HKIE to serve as a facilitator in arranging and liaising with other resource providers to facilitate the members' innovations (e.g. assist members to book laboratory venues for innovation testing)



Boosting Professionalism

Current Status

Currently, the Institution's image is generally considered as "professional". There is still room for improvement in boosting the professional image of the HKIE, as a substantial proportion of members also perceive the HKIE's current image as "traditional, conservative, old fashioned".

Vision

The HKIE will proactively uplift the professional image of the Institution and enhance the professional presence of engineers in the industry and wider society through various initiatives and actions.



Overview of Implementation Roadmap for ‘Boosting Professionalism’

Recommendations	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
<p>Public Image and Awareness</p> <ul style="list-style-type: none"> A spokesperson representing the HKIE to the general public Provide timely response to events or incidents which may have a social impact and require expert engineering advice Produce short videos to promote engineering profession to the general public 						
<p>High Impact and Influential Reports</p> <ul style="list-style-type: none"> Develop publications and reports on specific societal topics that have high impact and can influence and shape policymaking Collaborate with academic institutions in setting up an “Expert Panel” to conduct long term vision study and drawing up different viewpoints for the government and/or the society Line up with media to publish engineering articles on a regular basis with contribution from Divisions, Committees, or members of the PPC 						
<p>Outreach Programmes to Nurture Future Engineers</p> <ul style="list-style-type: none"> Migrate the HKIE Engineer Cadet Club Programme (ECCP) into the HKIE School Ambassadors Programme (SAP) to organise activities with STEM-related materials/ tools, and provide career advice and related action plans from School Ambassadors (SAs) according to the specific needs from the school Promote general understanding and enjoyment of engineering professionalism amongst students Provide advice to the government in promoting engineering disciplines in secondary schools and universities, as well as reviewing the academic curriculum and requirements on additional maths, physics, and programming courses for engineering major in university 						
<p>External Corporate Communications</p> <ul style="list-style-type: none"> Organise regular meetings with the media, government departments, private sector and other major stakeholders for opinion sharing on engineering-related initiatives 						

Remark:

The above bars illustrate the duration of the activity. The starting point of the bars denote the commencement of the related procurement, planning or development works of the recommendations, while the end of the bars mark the launch of the recommendations, which will be implemented on an ongoing basis.

Initiatives to be undertaken for ‘Boosting Professionalism’

The focus area of ‘**Boosting Professionalism**’ refers to the continued efforts to enhance the professional image and presence of engineers in the industry and public, as well as promote the value of the Institution as a professional body to the wider society.

Below are further details to some of the key initiatives that have been planned under this focus area:

Public Image and Awareness



The Institution’s image has slightly shifted over the last ten years. The HKIE 2010 Members’ Survey asked members to describe the existing image of the HKIE. The results indicated that majority of the members considered the HKIE to be “professional”. However, the 2021 HKIE Time to Change Survey revealed that 44% of the members perceive the HKIE’s current image as “traditional, conservative, old fashioned”, while 40% perceive it as “professional”, and 7% consider the HKIE as “up to date, modern”, as detailed in Figure 4.

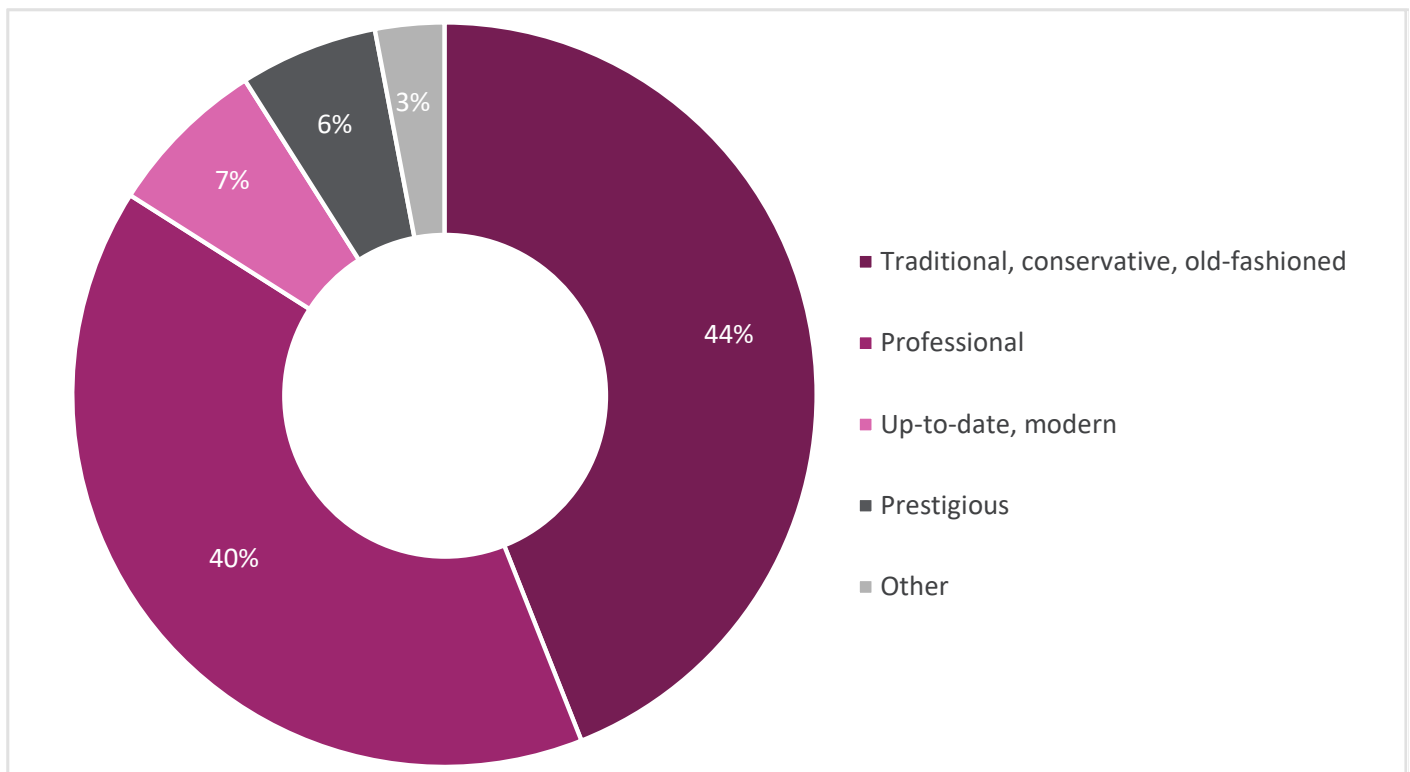


Figure 4 – Members’ views of the HKIE’s current image (Source: Time to Change Survey)

The 2021 HKIE Time to Change Survey asked members to suggest ideas on how to enhance the institutional image. The first recurring theme was to engage and increase interaction with the public as well as promote the engineering field and the Institution. To achieve that, members at the Workshops noted that having a spokesperson could be instrumental in conveying the professional image of the HKIE to its members and the general public. Members also recommended that the HKIE provide timely responses, such as within three hours, to general enquires from the public and media. Reference can be made to the media response mechanism of other professions, such as healthcare providers.

Based on members’ feedback, the HKIE plans to implement a series of initiatives to boost the professional image and status of the Institution and its members in the industry and society.



Proposed Recommendation(s)

- ✓ A spokesperson representing the HKIE to the general public
- ✓ Provide timely response to events or incidents which may have a social impact and require expert engineering advice
- ✓ Produce short videos to promote engineering profession to the general public



High Impact and Influential Reports



As a professional body in the engineering field in Hong Kong, the HKIE has published HKIE Transactions on a quarterly basis since 1994 to provide a platform for engineers to discuss various aspects of engineering from both theoretical and practical perspectives. The HKIE Transactions welcome submissions in the form of research papers, literature reviews, engineering case studies, technical notes or articles and written discussions involving advanced technology. The HKIE also publishes the monthly magazine Hong Kong Engineer, the Institution Yearbook and the Annual Report.

The Survey asked members about their views on whether the HKIE is doing enough in various areas. It was found that there was potential room for improvement by the HKIE in areas of:

- “promoting the HKIE’s professional image and engineering profession to the public”,
- “driving government policy”, and
- “knowledge sharing”.

Many members pointed out that “social interest” should be the key focus of the type of professional engineering advice provided by the HKIE to the public in order to enhance its institutional image. Such advice could be delivered through reports on the short- to long-term planning and development of Hong Kong from engineering perspectives. Reference can also be made to global best practices, such as the policy reports issued by the Institution of Civil Engineers (ICE) in the United Kingdom, as suggested by members during the Workshops.

With the view of promoting engineers’ participation in public affairs and enabling members to stay up-to-date with the latest industry trends, the HKIE plans to produce high-impact and influential reports. Topics covered in the reports will demonstrate the HKIE’s strong thought leadership as well as enhance the Institution’s influence in policy-making and raise awareness of the engineering profession.

Proposed Recommendation(s)



- ✓ Develop publications and reports (e.g. articles and thought leadership pieces) on specific societal topics that have high impact and can influence and shape policymaking
- ✓ Collaborate with academic institutions in setting up an “Expert Panel” to conduct long term vision study and drawing up different viewpoints for the government and/or the society
- ✓ Line up with media to publish engineering articles on a regular basis with contribution from Divisions, Committees, or members of the PPC (e.g. Tendering System Study). Articles can also be shared on social media platforms

Outreach Programmes to Nurture Future Engineers



As a facilitator and promoter of the engineering profession in Hong Kong, the HKIE is committed to transferring knowledge in a way that inspires the next generation. One of the outreach initiatives implemented by the HKIE is the HKIE ECCP. Since its launch in 2018, the Programme has organised a wide range of activities to promote STEM education to secondary students and arouse their interest in STEM learning. A set of STEM Education Kits featuring PowerPoint presentations, teaching guidebooks, education workbooks, a comic and animation, and a STEM webpage have been developed for both primary and secondary school students.

According to the feedback collected from the Survey, members perceived there was room for improvement by the HKIE in the areas of “supporting professional development and nurturing engineers”, as indicated by an average score of 2.87 out of 5 (where 1 is ‘HKIE is not doing enough’ and 5 is ‘HKIE is doing a lot’) based on a total of 1,331 responses received.

During the industry stakeholder engagement interviews, several education institutions pointed out there is generally a lack of understanding of the engineering profession amongst the general public as well as parents and students. Members at the Workshops shared a similar view and suggested that more outreach activities can be organised, which should include both students and parents in shaping their career and even their choice of major before starting university. Members also recommended the HKIE to produce educational videos about the engineering profession for the general public.

In addition, a key concern observed in the industry stakeholder interviews was the declining quality of engineering students. Key reasons include lowered university admission requirements/standards for engineering and little emphasis on the importance of Mathematics and Physics in secondary education curriculum. It was suggested that more could be done to enable students to have a wider exposure to STEM, such as through fun immersive learning and the emphasis of STEM in the high school curriculum.

Based on members’ feedback, the HKIE will place more focus in organising outreach programmes with education institutions. These programmes will aim to inspire students to discover and explore the exciting fields of engineering and potentially contribute to building a sustainable membership talent pipeline for the HKIE.

Proposed Recommendation(s)

- ✓ Migrate the HKIE ECCP into HKIE SAP to organise activities with STEM-related materials/tools, and provide career advice and related action plans from SAs according to the specific needs from the school
- ✓ Promote general understanding and enjoyment of engineering professionalism amongst students (e.g. videos, webinars)
- ✓ Provide advice to the government (e.g. Education Bureau) in promoting engineering disciplines in secondary schools and universities, as well as reviewing the academic curriculum and requirements on additional maths, physics, and programming courses for engineering major in university





External Corporate Communications



The HKIE has adopted multiple channels for external communication with its industry stakeholders, the media and the public, such as press releases, publications, social media, website, and exchanges with other organisations, etc. In addition, the Institution has been making increasing efforts in responding to media enquiries over the past few years. During the Session 2020/2021, the HKIE dealt with 132 enquires from media, publishing and broadcasting on matters such as sanitary system design, indoor ventilation and hospital facilities.

Members who attended the HKIE Strategy & Development Day in 2018 expressed their concerns regarding the perceived fragmentation and inefficiency of HKIE's corporate communication and suggested a need for proactive and consistent communication with external parties and the general public. Moreover, the Survey indicated that there was still room for improvement in the areas of "promoting the HKIE's professional image and the engineering profession to the public" (average score of 2.87 out of 5, where 1 'HKIE is not doing enough at all' and 5 is 'HKIE is doing a lot'). In terms of boosting professionalism, the top recurring theme identified in members' suggestions was to enhance the HKIE's institutional image by engaging and increasing interaction with the public to promote the engineering field and the Institution.

Based on members' feedback, it is observed that there is a need for more proactive and consistent external corporate communications to enhance the professional image and reputation of the HKIE. Such communication will also facilitate the HKIE in building strong public relations with key industry stakeholders and the media. This will also enable members to have more networking opportunities and wider exposure in the industry.



Proposed Recommendation(s)

- ✓ Organise regular meetings (e.g. tea party) with the media, government departments, private sector and other major stakeholders (e.g. Mass Transit Railway Corporation (MTRC) and Airport Authority Hong Kong (AAHK)) for opinion sharing on engineering-related initiatives



Undertaking Governance Review

Current Status

The HKIE is currently challenged by the perceived sluggishness of institutional undertakings and internal bureaucracy. Several potential improvement areas identified by members include enhancing the transparency and fairness of the various selection processes and ensuring the Constitution is up-to-date and members are aware of its function.

Vision

The HKIE will take further steps to strive for best practice in governance structure and processes to ensure the smooth operation of the Institution in the future.



Overview of Implementation Roadmap for ‘Undertaking Governance Review’

Recommendations	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027
<p>Governance Review</p> <ul style="list-style-type: none"> Enhance the two-way communication channel between the HKIE and Committees/Divisions Review the governance structure in areas of empowerment and accountability Encourage inclusiveness and participation by all genders in the future governance on an ongoing basis 						
<p>Strategic Review of the HKIE’s Objectives to Support Professionalism</p> <ul style="list-style-type: none"> Review the Constitution, HKIE Ordinance, Vision, Mission and Values (VMV), and/or Objectives of the HKIE (including review the Constitution for the possibility of e-Voting and Virtual Hybrid Meeting (VHM) under special circumstances)¹ Review the existing engineering disciplines and whether new disciplines are needed to cater for current industry needs and trends for enhanced relevancy 						
<p>Communication with Members</p> <ul style="list-style-type: none"> Enhance communications to raise awareness and understanding of the Constitution of members as well as the functions of various Committees Become more transparent about the division billboard (black box) Raise awareness on opportunities and routes for members to express their interest in appointments and understanding of the key requirements 						
<p>Succession Planning for the HKIE’s Governance Structure</p> <ul style="list-style-type: none"> Potentially consider implementing succession planning for critical positions in the Governance Structure 						

¹ The HKIE Constitution will also be reviewed in a timely manner and on an ongoing basis in case of any special circumstances.

Remark:

The above bars illustrate the duration of the activity. The starting point of the bars denote the commencement of the related procurement, planning or development works of the recommendations, while the end of the bars mark the launch of the recommendations, which will be implemented on an ongoing basis.

Initiatives to be undertaken for ‘Undertaking Governance Review’

‘Undertaking Governance Review’ as a focus area of the Roadmap seeks to assess the current governance framework against best practice to identify possible improvements.

Below are further details to some of the key initiatives that have been planned under this focus area:

Governance Review



According to the 2018 Report of HKIE Strategy & Development Day, the current governance structure of the HKIE may need to be revamped and redesigned to respond and adapt to the changing demands of members and the new cultural, technological, demographic and competitive realities.

Based on the findings and observations identified throughout the consultation process, the Institution today is facing a challenge of perceived sluggishness of institutional undertakings and internal bureaucracy. Feedback from the Survey indicated that the members’ top three most important aspects related to the HKIE’s governance were fairness (average score of 3.8 out of 5, with 1 being ‘very dissatisfied’ and 5 being ‘very satisfied’), accountability (average score of 3.76 out of 5), and leadership (average score of 3.74 out of 5).

While the Survey demonstrated that majority of the members are aware of the HKIE’s selection processes, it was observed members believed there was room for improvement in the Institution’s governance in terms of the transparency and fairness of its various selection processes (including council elections, boards/committee appointments, and other external appointments).

During the Workshops, members pointed out that some difficulties have been encountered in publicising the committee appointment information (including vacancies and duties) among the Divisions, as only some Divisions are eager to participate in boards/committee appointments and become board/committee members.

The HKIE recognises that a strong governance framework is key to facilitating better decision making by the Institution, Committees, and Divisions, and enhancing the overall transparency in the HKIE selection/appointment processes. This will also enable greater member involvement in the HKIE governance and enhance overall member satisfaction with the Institution.



Proposed Recommendation(s)

- ✓ Enhance the two-way communication channel between the HKIE and Committees/Divisions
- ✓ Review the governance structure in areas of empowerment and accountability
- ✓ Encourage inclusiveness and participation by all genders in the future governance on an ongoing basis



Strategic Review of the HKIE's Objectives to Support Professionalism



Currently, the operations of the HKIE is guided by the Constitution (the 2015 Revision) and the Ordinance (Chapter 1105 of the Laws of Hong Kong). The VMV of the HKIE define the institutional purpose and primary goals, as well as the standards of how the Institution should be operated. They help guide decision making, inform members about what the Institution stands for and what they can expect as a member, and demonstrate the value of the membership.

Feedback gathered from the Workshops suggested that some of these documents or statements might need to be reviewed and updated to support the boost in professional image of the Institution, and align with the changing trends in the engineering industry.

A revamped future strategic direction for the Institution needs to be guided by a Constitution that is up-to-date with current trends. For instance, due to the COVID-19 pandemic, stringent social distancing measures have been in place and impacted the feasibility of holding Division Annual General Meetings physically. Therefore, the HKIE has started to review the Constitution to provide the possibility of adopting e-Voting and VHM under special circumstances in response to rising needs.



Proposed Recommendation(s)

- ✓ Review the Constitution, HKIE Ordinance, VMV, and/or Objectives of the HKIE (including review the Constitution for the possibility of e-Voting and VHM under special circumstances)
- ✓ Review the engineering disciplines and whether new disciplines are needed to cater for current industry needs and trends (e.g. lift and escalator industry) for enhanced relevancy

Communication with Members



The HKIE has adopted multiple communication channels to keep its members updated and engaged, such as meetings (i.e. Annual General Meetings), publications (i.e. HKIE Transactions, Hong Kong Engineer), emails (i.e. e-Newsletters), and social media (i.e. the HKIE Facebook page, the HKIE Instagram page). Findings from the consultation process indicated there is room for improvement in the management of communications with the HKIE members.

The Survey asked members for their views on the sufficiency of feedback opportunities with the HKIE. 30% of members perceived there were currently insufficient opportunities to provide feedback to the HKIE and that they would like to see improvements in this area to enable more open feedback and conversations across membership grades and age groups. Two common suggestions made by members were for the HKIE to establish “open forums for the President, Executive and Council Members to collect opinions and feedback from members” and “adding an anonymous feedback section on the HKIE website”. Furthermore, during the Workshops, members expressed a need to put more effort into advertising or promoting the usage of the HKIE's communication channels with its members, such as the HKIE Facebook page, the HKIE Instagram page, and publications.

With the aim of enhancing members' satisfaction, the HKIE will place more emphasis on effective communications to ensure members are connected and to openly share feedback with the Institution and its leadership.



Proposed Recommendation(s)

- ✓ Enhance communications to raise awareness and understanding of the Constitution of members (e.g. understanding of what it comprises of, used for, etc.) as well as the functions of various Committees
- ✓ Become more transparent about the division billboard (black box)
- ✓ Raise awareness on opportunities and routes for members to express their interest in appointments (e.g. committee members, Q&M Board positions) and understanding of the key requirements (e.g. through open recruitment day event, email)



Succession Planning for the HKIE's Governance Structure



Relatively little attention has been paid to leadership pipeline and succession planning in the HKIE. At the Strategy Day, members pointed out that a smooth leadership transition would strengthen the overall capability and growth of the Institution. Yet, the effect could be limited when there is a lack of forward planning or a defined succession plan is not in place. Moreover, during the Workshops, members expressed that succession planning may be more applicable to standing committee members rather than all committees.

A well-defined succession plan contributes to a strong governance structure in the long-term. Based on members' feedback, the HKIE will place more efforts in succession planning, which will help minimise the impact to members and the daily operations of the Institution when changes are being made to the governance structure.



Proposed Recommendation(s)

- ✓ Potentially consider implementing succession planning for critical positions in the Governance Structure (e.g. standing committee members)



**Way
Forward**

Way Forward

This report highlights a series of prioritised initiatives under the Roadmap that will ensure the HKIE is well-equipped to meet the challenges of today and the future. With scheduled timelines, these recommendations aim to generate beneficial change to the Institution in the next five years. However, to ensure the sustainability of the Institution and its ongoing position as a leading professional body in the engineering field in Hong Kong and worldwide, there is still much more to do.

In this respect, to stimulate further growth and the ongoing transformation of the Institution, below are a series of other proposed recommendations and initiatives across the five focus areas for future consideration.



Pursuing Digitalisation

- Use of latest technology in events (e.g. Virtual Reality (VR)) to enhance public awareness and understanding of routine works of Engineers (e.g. safety aspects)
- Use drones to organise real-time virtual technical visits
- The HKIE to explore the use of big data to analyse the demographics and interested webinar topics of the HKIE committee and members, and recommend the suitable learning events and webinars based on personal preferences
- Hyperconverged infrastructure (HCI) for production IT infrastructure
- HCI for backup IT infrastructure



Enhancing Services to Members

- Work with local education institutions to encourage students to explore possibilities in the GBA and beyond (e.g. organising visits to GBA)
- Provide members with access to other international university's libraries
- Explore the possibility of allowing members to hire the HKIE venue for networking, social gatherings and events



Facilitating Innovation

- Create an innovative corner/ portal ("Innovative Moments") on the HKIE website to share the innovative ideas/difficulties encountered by members
- Provide a platform to disseminate information on possible ways to collaborate with organisations and experts from other professional industries or fields on innovation initiatives



Boosting Professionalism

Policy Advocacy

- Establish channels and formal ways of communication, such as forums, to leverage expertise and industry knowledge from members/different disciplines in the HKIE (e.g. discussion on waste management, waste reduction at source and feasibility of Hydrogen energy source)

High Impact and Influential Reports

- To enhance promotion of engineering and the profession through inviting engineering firms to share their projects on the Hong Kong Engineering Archive

Outreach Programmes to Nurture Future Engineers

- Promote local universities to review the university admission requirements and standards to ensure prospective engineers acquire adequate engineering capabilities and skills (e.g. risk management)
- Promote secondary schools to review their syllabus for Liberal Studies to include Engineering Professionalism in order to provide students with a fundamental understanding of engineering prior to university

Professional Assessment Approach

- Work with government departments to promote the HKIE membership amongst government employees (e.g. consideration of professional qualification during staff promotion; routes to obtaining qualification from engineering and non-engineering background (e.g. HKIE vs. Hong Kong Institute of Qualified Environmental Professionals Limited (HKIQEP)); enhance technical capabilities of government staff)
- Promote the government to review the current scope and requirements of CPD for engineers in Hong Kong to enhance overall quality in the industry (e.g. provide CPD based on knowledge and skills that engineers currently lack in, such as identified from performance appraisals)
- Promote universities to review status of Associate Degree under the overall University hierarchy framework and their linkage to the HKIE and engineering profession

Themed Events by Joint Divisions/Committees

- Place more focus on ethics in the CPD guidelines
- Design and provide in-depth courses of CoP (Code of Practices) for young members



Undertaking Governance Review

- Establish a member feedback channel with leadership members on the HKIE website with option to be anonymous



Steering Committee on HKIE Time-to-Change Project

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Ir Aaron BOK Kwok Ming
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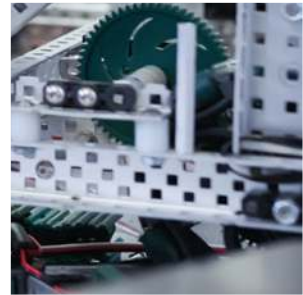
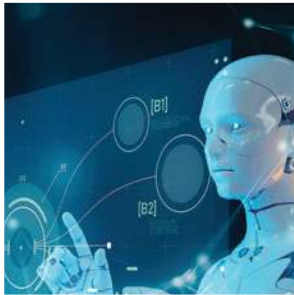
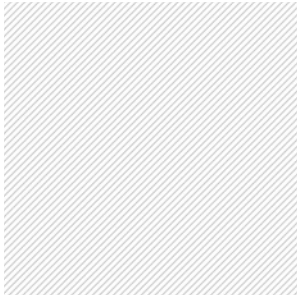
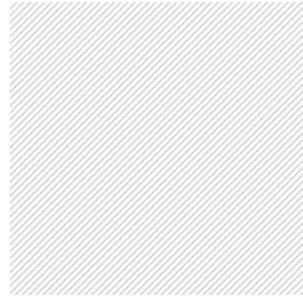
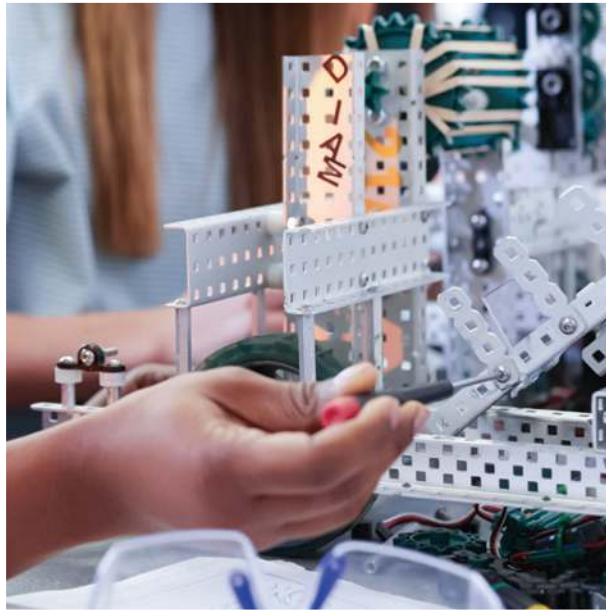
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