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INDUSTRY - COMMUNITY ENGAGEMENT

A University Framework

Second Edition



MINISTRY OF HIGHER EDUCATION



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SECOND EDITION

Office of the Deputy Vice-Chancellor
(Industry & Community Relations)
Universiti Putra Malaysia



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The responsibility
to eradicate social
problems within
our midst is not the
government's alone; all
Malaysians have a role
to play.

FOREWORD

As Malaysia moves steadily towards the realization of Vision 2020, various initiatives have been put in place to ensure that our goal to be a developed and high income nation is realised.

In this respect, the people of Malaysia are our precious human resources and it is they who determine the success or failure of a nation.

As we continue to progress as a nation, let us not forget the social and economic realities that are the inevitable companions of progress and development – the social problems that exist and which affect certain segments of our society.

The responsibility to eradicate social problems within our midst is not the government's alone; all Malaysians have a role to play. In this context I am pleased that Universiti Putra Malaysia has taken the initiative to develop this blueprint "Industrial and Community Engagement: A University Framework" as a catalyst for collaboration with both industry and the community at large in addressing these social problems.

It is hoped that this UPM initiative will be both well received and strongly supported by other universities in the country, by industry and by various communities. Let us, as true, caring Malaysians reach out and work together for an even better Malaysia.

Thank you.

1Malaysia "People First, Performance Now"



DATO' SRI MOHD NAJIB BIN TUN ABDUL RAZAK
PRIME MINISTER OF MALAYSIA





In this regard, I am happy to note that Universiti Putra Malaysia is a leading public university that has worked well with both Industry and Community to achieve the development goals of the nation.

MESSAGE

Higher education will play a vital role as Malaysia looks towards achieving developed nation status by the year 2020. In this regard, the higher education delivery process must be advanced in line with the 11th Malaysia Plan in order to achieve this.

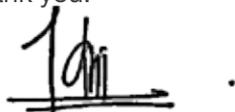
Public universities, as much as private universities, have a significant role to play in this process. As mentioned in the first edition of the “Industry-Community Engagement: A University Framework”, pragmatic approaches will be applied to ensure that benefits are gained not only by the academic community but also by members of the society.

I am happy to note that Universiti Putra Malaysia (UPM), a leading public university, has worked well with both industry and community to achieve the development goals of the nation. In line with the Malaysia Education Blueprint 2015-2025 (Higher Education) which aims to create an innovative ecosystem as well as transform higher education delivery, UPM’s efforts are commendable as the role of the university in bridging the industry-community gap is positively displayed.

As communities face more complex challenges, be it socially, economically, environmentally or beyond, I believe that academics and students at UPM can play an important role by contributing their knowledge, expertise, skills and time to this worthwhile project. Such efforts will no doubt make an impact and assist in addressing and coming up with solutions to various challenges faced.

I congratulate UPM for the publishing of this second edition of the “Industry-Community Engagement: A University Framework”. I hope and encourage other Institutions of Higher Learning to follow suit. In this way, universities can make a big impact in the effort to create a better society and nation.

Thank you.



DATO' SERI IDRIS JUSOH
MINISTER OF HIGHER EDUCATION MALAYSIA





This new edition of
University Putra Malaysia's
framework indicates
the commitment of the
University, its staff and
students towards making
more steps forward
to addressing social
problems

MESSAGE

This second edition of the “Industry-Community Engagement – A University Framework” indicates the important roles that Malaysian IHLs play in the development process of the nation. The Ministry has directed the Committee of Deputy Vice Chancellors to adopt the new Quadruple Helix ecosystem that demands a perpetual commitment from the government, academia, industry and community which emphasizes three aspects: increasing productivity, empowering innovation and encouraging creativity to achieve the national vision.

This new edition of University Putra Malaysia’s framework indicates the commitment of the University, its staff and students towards making more steps forward to addressing social problems.

It is once again an excellent example of how academia can contribute to the betterment of society and therefore, the nation. Furthermore, it shows the path that Universiti Putra Malaysia has adopted to realize the aims and goals of its outreach programmes.

With commitment, the results at the journey’s end will be worth the effort always.

TAN SRI DR. NOORUL AINUR MOHD. NUR
SECRETARY GENERAL
MINISTRY OF HIGHER EDUCATION MALAYSIA





Universiti Putra
Malaysia (UPM) has
always endeavoured
to live by its motto:
“With knowledge we
serve”, the key words
being “knowledge” and
“serve”.

MESSAGE



Universiti Putra Malaysia (UPM) has always endeavoured to live by its motto: “With knowledge we serve”, the key words being “knowledge” and “serve”. With a history that goes back more than eight decades to the early 1930s in the last millennium, we have been richly endowed with a legacy of knowledge that has enabled us to contribute positively to social and economic development and national progress over the years.

This “Industry - Community Engagement: A University Framework” is our latest effort to play an active role, together with our partners in industry and the community to identify the country’s social problems and develop meaningful and effective interventions to address them. It is another way to serve with the knowledge we have been privileged to have and continue the proud UPM tradition. The demands and stresses of modern lifestyles and rapidly changing social environments and expectations have given rise to social ills that affect the quality of life, not only in Malaysia but globally, which cannot be ignored.

Those tasked with the preparation of this framework have done much research, engaged in hours of soul-searching discussions, motivated by the belief that this is an opportunity for them as academics, industry players and members of the community to play a meaningful role in the transformation of Malaysian society of which they are a part.

This is a university framework for industry and community engagement in which UPM serves as project leader and facilitator to emphasise the significant role that IHLs in this country can play, in reaching out and making a positive difference in the lives of those affected by social ills, for there is nothing more noble than giving a helping hand to our fellow human beings.

PROF. DATIN PADUKA DR. AINI IDERIS
VICE-CHANCELLOR
UNIVERSITI PUTRA MALAYSIA





The task facing the participants will be massive and challenging but we are driven by full commitment and a desire to play our part as responsible corporate citizens.

PREFACE

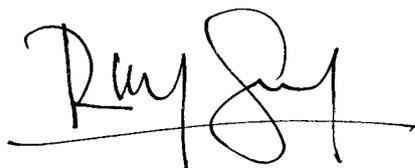
A nation's human resources are its most precious assets; yet ironically, they can also be a source of concern, for within any society, in history and in contemporary times, there have been and will always be those who do not toe the line, break laws, engage in undesirable practices and exhibit deviant and even violent conduct against individuals and society and in general, create social problems. There are others too, who, through circumstances of their own making or who unwittingly succumb to the high pressures of modern living end up as yet another source of social problems. While it may be convenient for many to dismiss social problems as an inevitability of life, blinkered by an irresponsible dismissal of such problems as someone else's concern, moral duty and a sense of civic consciousness demand that those who can intervene and are in a position to make a difference, no matter how small, should step forward and do so.



Universiti Putra Malaysia as one of the country's premier universities has the expertise and more importantly, the desire and will to do whatever it can and make some difference in alleviating the many social problems that have been identified by our sociologists, psychologists and counsellors.

Based on the concept of collaboration and cooperation with people of like mind among industry and the community at large, we have developed this framework, which provides a road map for the participants to work towards alleviating some though not all of the social problems identified.

The task facing the participants will be massive and challenging but we are driven by full commitment and a desire to play our part as responsible corporate citizens. With the close cooperation and support of industry and the community, we are confident that collectively as a committed team, we can and will make some significant difference and in so doing, contribute to the well-being of Malaysian society. We will also show some hapless individuals that there is a light at the end of the tunnel and make them believe there is hope for them to change their lives for the better.



PROF. DR. -ING. IR. RENUGANTH VARATHARAJOO
DEPUTY VICE-CHANCELLOR
(INDUSTRY & COMMUNITY RELATIONS)
UNIVERSITI PUTRA MALAYSIA

INDUSTRY - COMMUNITY ENGAGEMENT

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1.0 INTRODUCTION

1.1 CARRYING OUT THE TASK

As Malaysia steadily progresses towards the aspired goal of being a developed and high-income nation by 2020, numerous efforts have been made to further boost the nation's economy.

Strategic economic development plans and various other activities involving countless government and non-government agencies representing the different economic sectors as well as education, research, social and many others have been translated into action in the nation's agenda to develop the required infrastructure and human capital to achieve this goal. Apart from these, many government policies have been appropriately reviewed to allow more financial assistance and incentives to be offered to local and foreign investors. SMEs/SMIs as well as large corporations, both local and foreign, have benefited from these policy enhancements.

Furthermore, the implementation of the Economic Transformation Plan (ETP), the National Education Blueprint (2011) and the National Graduate Employability Blueprint (2012) are among other initiatives taken by the government to address issues and challenges in realising the nation's vision.

However, despite the measures currently in place, there are social problems that need to be addressed as they have been identified as one of the factors that could hinder the nation's progress. Poverty, racial tension, petty and serious crimes, sexual misdemeanours and environmental issues are some of the social problems that have reared their ugly heads and are cause for concern. While some of these social ills may currently affect only some individuals or certain segments of society, some others have wider negative impacts but all have the potential to seriously threaten the well-being of Malaysian society and derail the government's vision to be a fully-developed nation by 2020. It is therefore imperative that the root causes of these social problems are identified and appropriate interventions urgently implemented.

Although several government and government-related agencies and non-government organisations (NGOs) have implemented or are

implementing counter-measures through programmes such as Rakan Muda (first introduced in 1994) to tackle issues related to youth; *Tak Nak* campaign (first introduced in 2004) to discourage smoking and possibly substance abuse; Gerakan 1Azam (2010) to eradicate poverty and improve the lives of the hard-core poor; besides numerous other campaigns on environmental awareness, road safety, HIV & Aids and other social issues, Malaysian IHLs in general have not been seen to be centrally involved in any concerted effort as major players to address the issue of social problems in the country. In this particular context, there needs to be a paradigm shift.

We are constantly reminded that the majority of university students are youths, who are also the future leaders and workforce of the nation's future. In light of this, IHLs have a key role to play in dealing with social problems, directly and indirectly. Without adequate knowledge and proper guidance, students' involvement in unhealthy activities and deviant behaviour are predictors of future social problems that could negatively impact the quality of the nation's human resources and threaten the satisfactory social and economic progress and development of the country. Thus, it is crucial that IHLs should have the will and commitment to assume the role of prime movers in collaboration with partners from industry and the community in an engagement to identify and investigate the root causes of our social problems, develop appropriate interventions and implement them to ensure a better Malaysia as shown in Figure 1.1.

Industry-Community Engagement: A University Framework

Provides guidelines on how universities can mobilise industry and community to address social problems

A more organised collaboration between university-industry-community

Social problems are reduced/eliminated through appropriate interventions

Achieve Vision 2020 to be a Developed/High-Income Nation

Figure 1.1: University Framework through Industry-Community Engagement to Achieve Vision 2020 and Developed and High-income Nation Status

1.2 PROCESS TOWARDS THE DEVELOPMENT OF AN INDUSTRY– COMMUNITY FRAMEWORK

The process of preparing this framework began in early 2013 with a series of brainstorming sessions involving sociologists, psychologists and counsellors from Universiti Putra Malaysia, followed by workshop sessions to discuss and determine the intensity and seriousness of social problems as shown in Figure 1.2.

When the compilation of a comprehensive list of the social problems was completed, a consolidation meeting was held to cluster the identified social problems and develop a structured approach for the eventual design and development of appropriate intervention programmes. Following this, the writing of the framework commenced in July 2013.



Figure 1.2: Process towards the Development of the “Industry-Community Engagement: A University Framework”

1.3 CORE COMPONENTS OF THE “INDUSTRY-COMMUNITY ENGAGEMENT: A UNIVERSITY FRAMEWORK”

The “Industry-Community Engagement: A University Framework” involves three main parties, namely, the university, industry and community. A university has the required resources (academics with the knowledge and expertise in sociology to provide the valuable inputs for the design and development of appropriate and effective interventions to address social problems). The university, as host

and manager will provide its human resources of academics, students, instructors and researchers. In the case of a research university such as Universiti Putra Malaysia and other Malaysian research universities, there is the added advantage of ongoing research that can feed and update ongoing interventions for greater impact and more satisfying outcomes in both the short and long terms.

Upon graduation, university graduates become a part of industry and the community; thus, involving industry and the community in moulding these students into knowledgeable, committed and responsible individuals imbued with a sense of social awareness and civic consciousness will provide a pool of desirable citizens of the future who will continue to contribute in a multiplicity of ways to enhance the social health of the nation.

The relationship between all three entities is symbiotic in nature; actions taken by one party influence the outcomes of actions taken by the others. Therefore, even though the university in this tripartite symbiosis in Figure 1.3 plays the role of host and manager, no entity should act in isolation. The university, industry and the community must work as informed and equal partners to be able to successfully address the social problems faced by the nation.

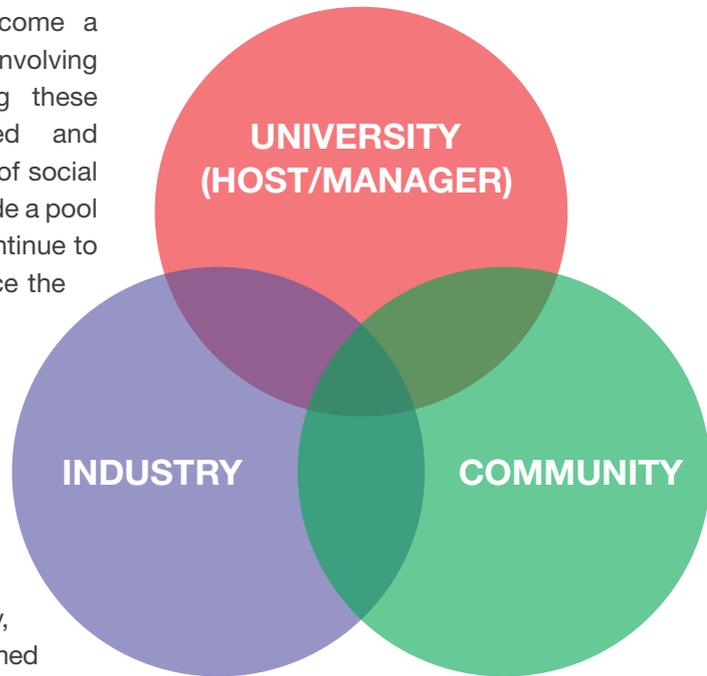


Figure 1.3: A Symbiotic Relationship between University, Industry and Community (Adapted from the Triple-helix Model)

1.4 DEFINITION OF KEY TERMS

In order to truly grasp the concept of university-industry-community engagement, it is important to define the key terms used in the context of 'University-Industry-Community Engagement'.

i. What is 'Engagement'?

The term 'Engagement' can be defined in many ways. It can be used to refer to consultation, extension, communication, education, public participation, participative democracy or working in partnership. For the purpose of this framework, 'engagement' will be defined as:

'An act of working in partnership or formation of a relevant and impactful collaboration (in any form) with other parties (internal or external) to achieve a common goal that benefits all'.

ii. What is 'University-Industry-Community Engagement'?

By linking the term 'engagement' to university, industry and community, the scope of the definition is further clarified. It lists all the parties involved in the engagement. Thus, 'University-Industry-Community Engagement' simply means:

'Partnership or relevant and impactful collaboration (in any form) between a university, industry and the community to achieve a common goal that benefits all parties'.

It stipulates the importance of all the three parties working hand-in-hand to design, organise and execute interventions that address the country's social problems.

2.0 NATIONAL NEEDS FOR UNIVERSITY-INDUSTRY-COMMUNITY ENGAGEMENT

In a national context, such engagement could effectively be in three ways: university-industry; university-community, and university-industry-community.

2.1 ISSUES AND CHALLENGES: INDUSTRY ENGAGEMENT

University-industry linkages in the form of partnerships have become increasingly important as strategic actors in national economic development. The expectations of the economic pay-off from research and development outcomes put to the market call for the need to collaborate with industry partners. The role of the university is to transfer technology and knowledge to enhance commercial value thereby fostering economic progress besides its traditional role of producing skilled manpower. Industry could be roped in to be directly involved in nurturing and supporting a knowledgeable, trained and competitive workforce. From the view point of industry, such collaboration would create and develop new value-added products and services and contribute to wealth creation.

In the case of UPM, for example, the university has recognised industry and community engagement as one of the three main functions of a university, besides research, and teaching and learning. Key performance indices and strategic goals of industry engagement are constantly being developed, monitored and evaluated. The main key performance indices of industry engagement are industry penetration, community penetration, income generation, high impact industry

engagement, and staff involvement.

The mission of industry engagement of a university is to ensure impactful linkages between the institution of higher learning and industry through the building of a strategic relationship. Thus, the university will collaborate with identified strategic partner industries and the linkages will mutually benefit both parties. Industry collaboration is vital to the university because through its impactful linkages the main activities of the university, including contract research and commercialisation, consultancy, student activities (scholarship, internship and mobility), graduate employability, and professional development will be further strengthened.

Industry engagement will also benefit the industries, as the university can provide value-added programmes to the development of industry, in particular, the SMEs, in line with the NKEA. Results of research and development produced by the university could be shared with industry through joint commercialisation of research and product development. Industry in turn would be recognised for its Corporate Social Responsibility (CSR) initiatives and transparency. Industry could

also provide investment to the university either in the form of cash or in kind in response to welfare and community-related programmes. Many large corporations will undertake this investment to earn top CSR-socially responsible investment indices of the world, for example, the cooperation between UPM and Mitsubishi Corporation.

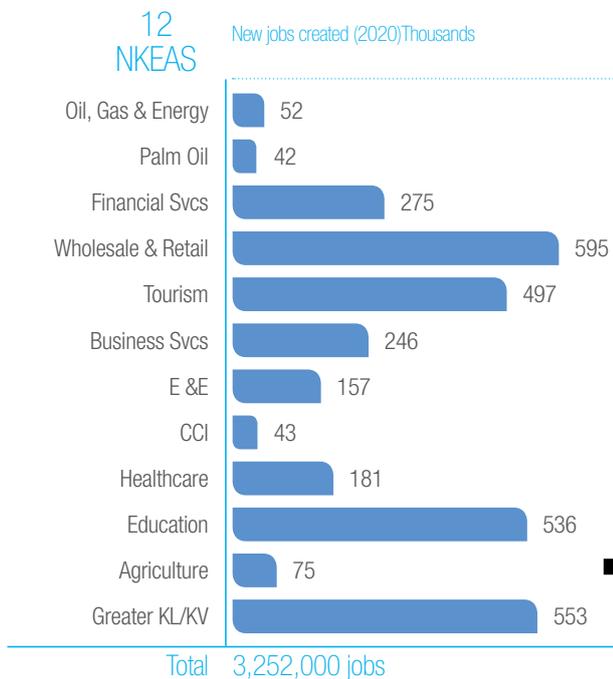
To the university, industry means all entities other than universities. This includes private companies, government agencies and non-profit or non-governmental organisations.

2.1.1 Scope of Industry Engagement

University-industry linkages cover a range of diverse economic areas. It becomes imperative that industry play a more impactful role in spearheading national development following the onset of National Key Economic Areas as a national agenda. Close collaboration between university and industry partners is expected to lead the development of the

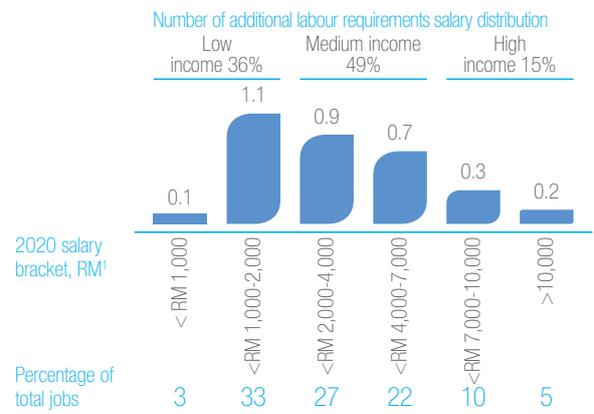
12 NKEAs identified, as shown in Figure 2.1 aimed at the nation achieving a high income status by 2020, which is characterised by high income, sustainability and inclusiveness to the nation. The development of NKEAs will be led by the private sector.

New Jobs Creation from 12 NKEAs in 2020



Source : Economic Transformation Programme, 2010

2020 additional labour requirements salary distribution



¹ Salary brackets reflects 2020 nominal RM



Number of qualifications needed in 2020 for new jobs, millions

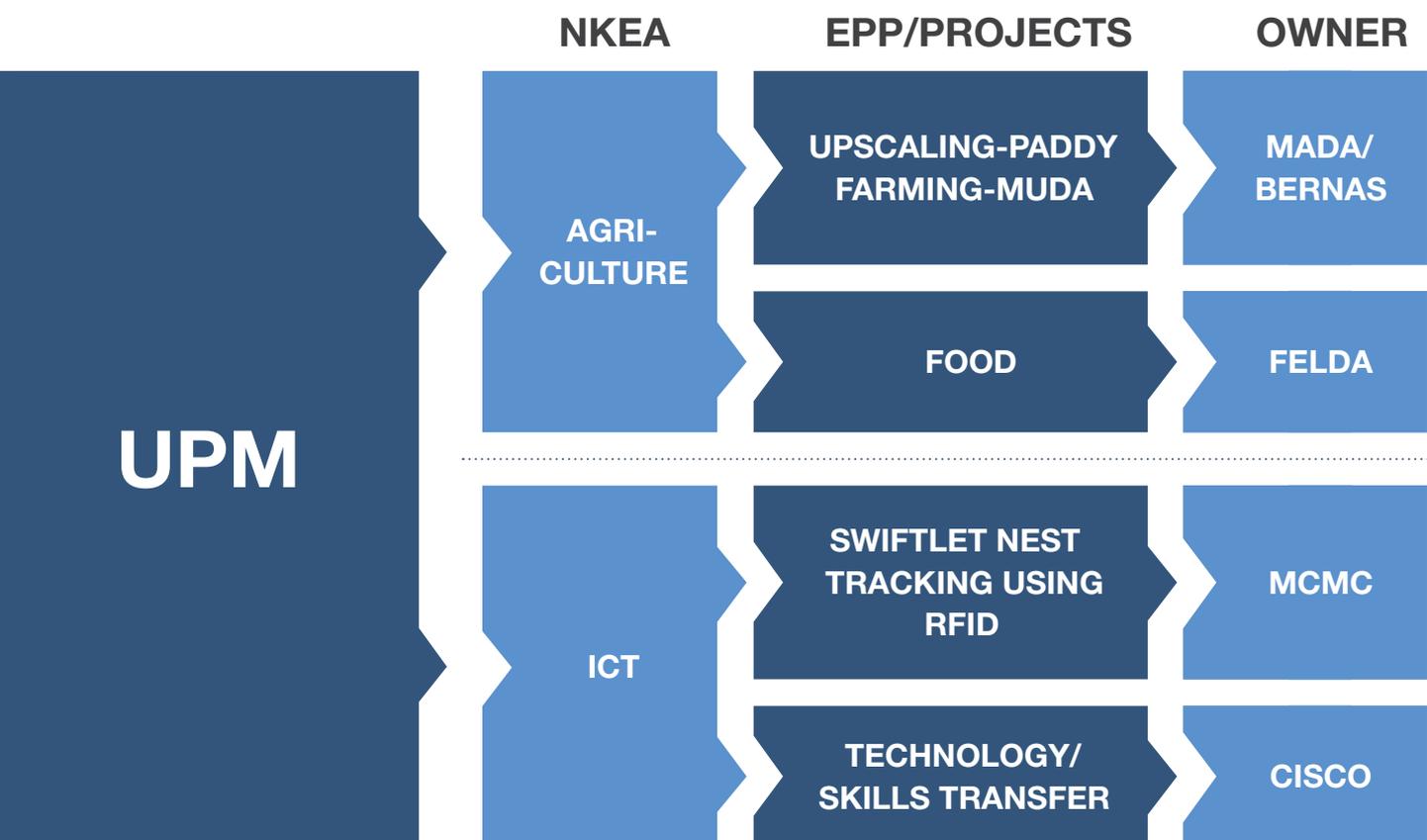
46% of jobs created require vocational or diploma qualifications

Figure 2.1: National Key Economic Areas (NKEAs)

The university shall continue to be the cornerstone for the supply of quality and professionally-trained workforce. The role of the government is to support and to facilitate. All government agencies will intensify efforts to resolve disputes or bottlenecks to ensure successful implementation of the NKEAs. The 12 NKEAs targeted are oil, gas and energy, palm oil and rubber, financial services, wholesale and retail, tourism, information and communication

technology, education, electrical and electronics, business services, private healthcare, agriculture and Greater Kuala Lumpur/Klang Valley. A total of 131 projects called Entry-Point Projects (EPPs) and 60 business opportunities in the NKEAs have been identified and generated to be implemented. The owner of each project and business opportunity has been identified among companies, government agencies and universities (see Figure 2.2).

Concept: Industry Engagement



Source: (PEMANDU)

[http://etp.pemandu.gov.my/News-@-List of National Key Economic Areas \(NKEA\) Projects Announced \(2010-2012.aspx\)](http://etp.pemandu.gov.my/News-@-List of National Key Economic Areas (NKEA) Projects Announced (2010-2012.aspx))

Figure 2.2: An Example of a Conceptual Framework of University-Industry Engagement with NKEAs

In line with this government policy, the participating university will further foster its industry engagement strategy and programmes to actively support activities that will enhance development of NKEAs. Seventy per cent of the industry engagement of the participating university should focus on the development of the

NKEAs and 30 per cent on the non-NKEAs. This is in line with the policy of the government that is still committed to continually support growth in the non-NKEA sectors.

2.1.2 UPM Niche Strategic Areas in Response to NKEAs

In strategising an impactful industry engagement, the participating universities will initially identify and assess the strength and niche areas that could contribute significantly to the development of the NKEAs. For instance, the main NKEAs that relate to the niche areas of UPM include agriculture, palm oil and rubber, education, information and communication technology, electrical and electronics, oil, gas and energy, wholesale and retail, and business services.

For those participating universities such as UPM which is located in the vicinity of the Klang Valley, industry engagement will be actively focused on the development of the Greater Kuala Lumpur/Klang Valley. Such participating universities will collaborate closely with entities responsible in developing Greater Kuala Lumpur/Klang Valley, in particular, InvestKL, which is a government entity under the purview of the Ministry of International Trade and Industry (MITI), Ministry of Federal Territories and Pemandu (the Performance Management and Delivery Unit) under the Prime Minister's Department.

2.1.3 Guiding Principles

The twelve National Key Economic Areas (NKEAs) indicated in the Economic Transformation Programme 2010 are - Oil, Gas and Energy, Palm Oil; Financial Services; Wholesale & Retail; Tourism; Business Services; E & E; CCI; Healthcare; Education; Agriculture and Greater KL (Klang Valley) - and support the the 11th Malaysia Plan.

The 11th Malaysia Plan (RMK11) has six strategic thrusts whereby the thrusts are: 1) financing inclusiveness towards an equitable society; 2) improving wellbeing for all; 3) accelerating human capital development for an advanced nation; 4) pursuing green growth for sustainability and resilience; 5) strengthening infrastructure to support economic expansion; and 6) re-engineering economic growth for greater prosperity. All of these thrusts directly impact the strategic development process of higher learning institutes.

2.1.4 Identification of Strategic Partners

The road-mapping approach is undertaken to systematically and strategically link the participating university's niche areas to NKEA projects and business opportunities. The participating university will plan and integrate all resources in the university involving all entities. A holistic strategic plan for industry engagement for each NKEA will be undertaken to match each NKEA, including specific projects and their owners. Figure 2.3 shows examples of the strategic partnership between UPM and owners of projects undertaken under NKEA.

The following activities should be carried out in executing the plan:

- i. develop the industry database of the participating university
- ii. categorise industry into NKEA and the participating university's clusters
- iii. match industry interest with respective participating university's niche areas
- iv. strategise existing industry that has track record with the participating university
- v. map industries matching the university's niche areas
- vi. produce a list of industries that match the university's niche areas
- vii. establish formal collaboration and engagement (MoU/MoA/NDA).

Finally, a comprehensive strategic road map should be developed and be ready for implementation linking each participating university's niche area with each NKEA project and owner for short and long term engagements.

UPM : STRATEGIC PARTNERS

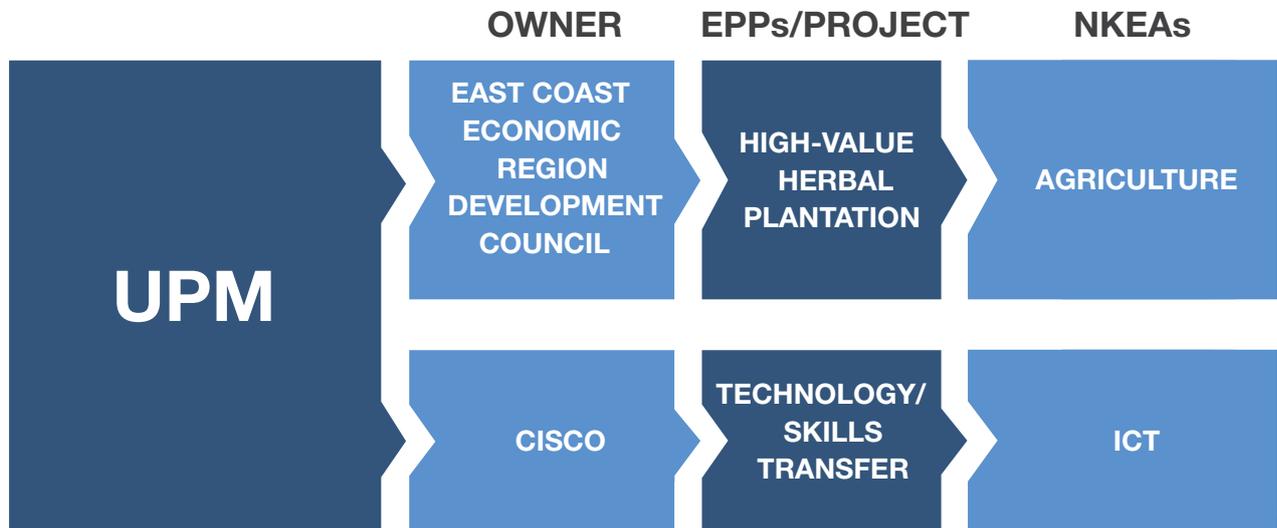


Figure 2.3: Strategic Partnership between UPM and Owners of Projects Under NKEAs

2.1.5 Process/ Stages of Industry Engagement

University-industry engagement involves linking the process from the point of intention to collaborate till the point of reaping the benefits of the collaboration and beyond. Different motivational factors or drivers to collaborate determine the type of mechanism that is appropriate to a specific type of collaboration because each mechanism gives a specific impact on the benefits to both parties.

So, though University and industry collaborate for mutual benefit, it is important to understand the differences in intention to collaborate between both parties as it ensures promotion of more specific activities that directly tackle the different motivating factors, namely the structure, behaviour, and policy at institutional and individual levels.

Secondly, it is also important to know the type of collaboration mechanism to be adopted. The preferred mechanism should be adopted based on the agreement between both parties depending on the degree of formality, the degree of interaction,

the direction of knowledge flow and the potential to obtain desired results.

Thirdly, it is important to identify the main benefits from the interaction as perceived by both parties. The participating university benefits in terms of economic gains from research inputs, securing funds and financial resources as well as expansion of intellectual capacity from knowledge exchange and academic publications. Likewise, the industry gains in terms of productivity enhancement through new human resources, access to different approaches for problem-solving and innovation, new R&D projects, technology licences as well as access to university research and discoveries. Both parties could boost their image and reputation as a result of the collaboration.

A strong impactful engagement between university and industry would ensure a long term commitment and sustainability of the collaboration.

2.1.6 Core Mechanisms of Industry Engagement

As an example, UPM will focus on four core mechanisms to ensure impactful linkages with industry, which are:

- (a) the development of Industry in Campus,
- (b) strengthening of the Up-skilling Programme,
- (c) expansion of practical attachments, and
- (d) promoting industry investment through CSR programmes.

a) Development of Industry in Campus

The development of Industry in Campus will be intensified with the objective to support university activities and to solve identified industry problems. The Industry in Campus initiative can be established in the form of physical presence or other means such as the Industry Centre of Excellence (iCoE), industry lab, chair, talks, satellite campus, HiCoE and KTP Programme.

b) Strengthening of the Up-skilling Programme

The strengthening of the Up-skilling Programme will be undertaken in order to develop competent and skilled students and staff of UPM as well as those of industry (for example, Industrial Ph.D, staff professional development, and Industry-UPM Internship Programmes such as Hitachi Young Leaders Initiative and Western Digital Graduate Induction Programme).

c) Expansion of Practical Attachment

The expansion of practical attachment will be undertaken by students and staff of UPM as well as staff of industry at local or international levels. More access and opportunities will be given to the officers of both parties to attend short-term and long-term attachments with the respective institutions. Opportunities for student internship at international industries will also be expanded.

d) Promoting Industry through investment in CSR programmes.

Industry investment in universities through CSR programmes will be further promoted. The CSR programmes focus on community and welfare work either in the form of financial contributions or in kind. The CSR programmes will boost the industry's international profile of CSR initiatives as well as the transparency and sustainability index.

2.2 ISSUES AND CHALLENGES: COMMUNITY ENGAGEMENT

Social problems affect all nations regardless of geographic location or economic status. In fact, social problems exist in the most remote communities as well as in the most populated communities. There is always a list of social problems, and this list may be longer or shorter, similar or different, from one community to another. In Malaysia, for instance, predominant social problems include illegal immigrants, road safety, petty and serious crimes and substance abuse among others, with the severity of each problem differing from state to state.

Like a plague, social problems trigger a chain-reaction effect. What appears as a minor problem involving a small group of people may lead to a series of other social problems and affect larger segments of society. It is simply because social problems are multi-faceted and can have both direct and indirect influence in various directions. As such, one problem could trigger the emergence of other social problems that can ultimately turn into major social concerns affecting the larger population. Therefore, before embarking on the planning, designing and developing of appropriate interventions to address social problems, the urgent need is the identification of the root cause(s) of each social problem, regardless of its significance. Pragmatic and effective solutions, knowing how to solve any problem can only come about with full knowledge and understanding of why the problem occurred in the first place.

However, addressing social problems is never an easy task. There are several other issues and challenges that also need to be examined. Among them are:

i) Current university programmes and co-curricular activities are not designed to address social problems

One of the major issues requiring attention is the relevance and effectiveness of the current university academic and non-academic programmes being offered. University programmes are designed primarily to help students achieve academic excellence and while there may be attention given to developing and enhancing students' hard and soft skills to increase their employability, awareness of social problems and the need to address them are often excluded in the university curricula.

ii) The Industry and Community Relations Division in universities is not fully mobilised

Although the Industry and Community Relations Division has been established in most universities, this division still has a lot to accomplish. Ideally, this division should have a say in all student-related activities, be they academic or non-academic. The current practice, however, minimises the division's participation in the planning and implementation of many students' activities. Thus, there is no or little alignment of students' activities with the aspirations of the university and the country.

iii) It is difficult to engage active participation from industry and the community to tackle social problems

One of the roles of the Industry and Community Office is to identify and coordinate potential linkages between university, industry and the community. However, getting the anticipated commitment and participation from industry and the community to help address social problems can be a challenging task. In many cases, industry and the community justify their involvement in Corporate Social Responsibility (CSR) programmes on the basis of how they can benefit from them rather than how they can help the intended beneficiaries of the programmes, i.e. the community.

iv) Social problems are highly inter-related with one another and to solve one problem could mean having to deal with several other problems simultaneously

It is often perceived that social problems only affect those who are directly involved, but the reality proves otherwise. What may seem an individual's problem could escalate and have a direct implication on the whole community as social problems are highly inter-related. HIV infection, for instance, is not merely the result of one's promiscuous lifestyle but could be the result of drug abuse, and can set off a series of other problems such as divorce, domestic violence, petty or serious crimes as well as loss of valuable manpower to industry and the country. In short, it is almost impossible to address one social problem in isolation without having to consider other related problems. In such a situation lies the daunting challenge of social work and a possible solution would be for various parties to work collaboratively in addressing social problems on several fronts simultaneously.

v) There is no one-way or one effective intervention to solve social problems

Due to the diversity and complexity of social problems, there is no one-way or one effective solution. Similarly, there is no silver bullet for social problems. Furthermore, apart from the need for a well-planned and closely-integrated university-industry-community collaboration, geographic location, culture, religious beliefs, accepted norms and values, economics and politics are some of the major factors that can determine the success or failure of any social intervention programme. As such, a programme proven to be effective in one university, industry or community may not produce the same outcome at another university, industry or community.

The list which has been provided is not exhaustive, and there are many other issues and challenges which require attention. Countless activities and intervention programmes have been carried out; however, social problems still exist and some of them, at an alarming level. While there has been very significant investment of money and time in various implemented programmes aimed at addressing social problems, they still exist. Thus, it can be generalised that the programmes and activities, no matter how nobly intended, have not produced the desired outcomes. This raises several questions: What is lacking? What went wrong? Why have the programmes been ineffective in addressing the issues?

For the effective implementation of this Framework, it will be necessary for a review to answer the questions raised above. The parties involved (university, industry and the community) should look into the root cause(s) of the identified problems. Although universities, industry and the community have implemented various measures and made efforts to address social problems, the participating universities need to look at conducting various programmes across various disciplines and in areas where expertise is not available, the cooperation of industry and individuals or groups from the community should be sought for the required input. For maximum benefit, programmes should be developed based on the needs of the various identified social problem clusters.

The full impact of this "Industry-Community Engagement: A University Framework" can be realised only if the tripartite partnership of university, industry and community closely practises seamless engagement in the holistic effort to address the identified social problems in the true spirit of responsible commitment and total dedication.

2.2.1 Understanding the Social Problems

There are many definitions of social problems and the following in Figure 2.4 are some of them.



Figure 2.4: Some Definitions of Social Problems

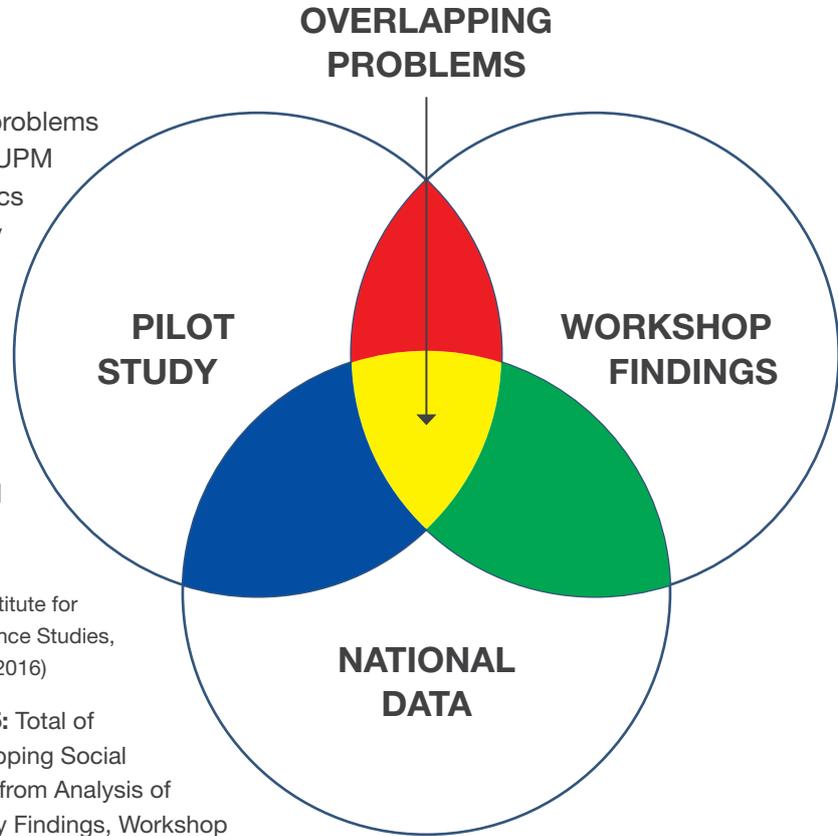
For the purpose of this framework, social problems are defined as:

Behavioural problems of individuals or groups and social conditions that lead to psychosocial and other sufferings to specific individuals or groups.

Through the analysis of social problems from findings of a Pilot Study, UPM workshop sessions and statistics published at national level by various government agencies such as the National Statistics Department, Ministry of Health, PEMANDU and MIROS, 42 overlapping sample problems were identified. They were then categorised as micro and problems (see Figures 2.5 & 2.6).

Source: Institute for Social Science Studies, UPM (July 2016)

Figure 2.5: Total of 42 Overlapping Social Problems from Analysis of Pilot Study Findings, Workshop Findings and National Data



The effects arising from these social problems can be categorised into two: effects at a micro level and effects at a macro level. At the micro level, the effects impact individuals or a small group of individuals. These normally refer to behavioural problems that disrupt an individual's well-being and family structure.

At the macro level, however, the impact is greater, widespread and could even jeopardise national security. If left unattended, these social problems could also lead to serious economic impacts to the nation.

They include:

- Loss of valuable human capital
- Less appeal to prospective investors
- Loss or limited business opportunities
- Reduction in tourist flow
- Wastage of resources for intervention programmes
- A sense of fear and insecurity
- Depletion of resources
- Jeopardised social well-being
- Depreciation of real estate values

The impacts vary in intensity. Nevertheless, it is undeniable that each poses a real threat to the well-being of the nation.

SOCIAL PROBLEMS

15

MICRO PROBLEMS (Behavioural Problems)

- Divorce
- Substance abuse: Drugs
- Sexual crime: Molest
- Sexual crime: Rape
- Delinquency
- Property crime: Burglary
- Property crime: Theft
- Violent crime: Robbery without firearms
- Violent crime: Harm
- Property crime: Snatch
- Human maltreatment: Domestic violence
- Human maltreatment: Abandoned babies
- Sexual misconduct: Illegitimate sex
- Sexual crime: Incest
- Delinquency: *Rempit*
- Hate crime
- Violent crime: Robbery with firearm
- Substance abuse: Cigarettes
- Substance abuse: Alcohol
- Sexual misconduct: Prostitution/LGBT
- Suicide

MACRO PROBLEMS (Social Issues)

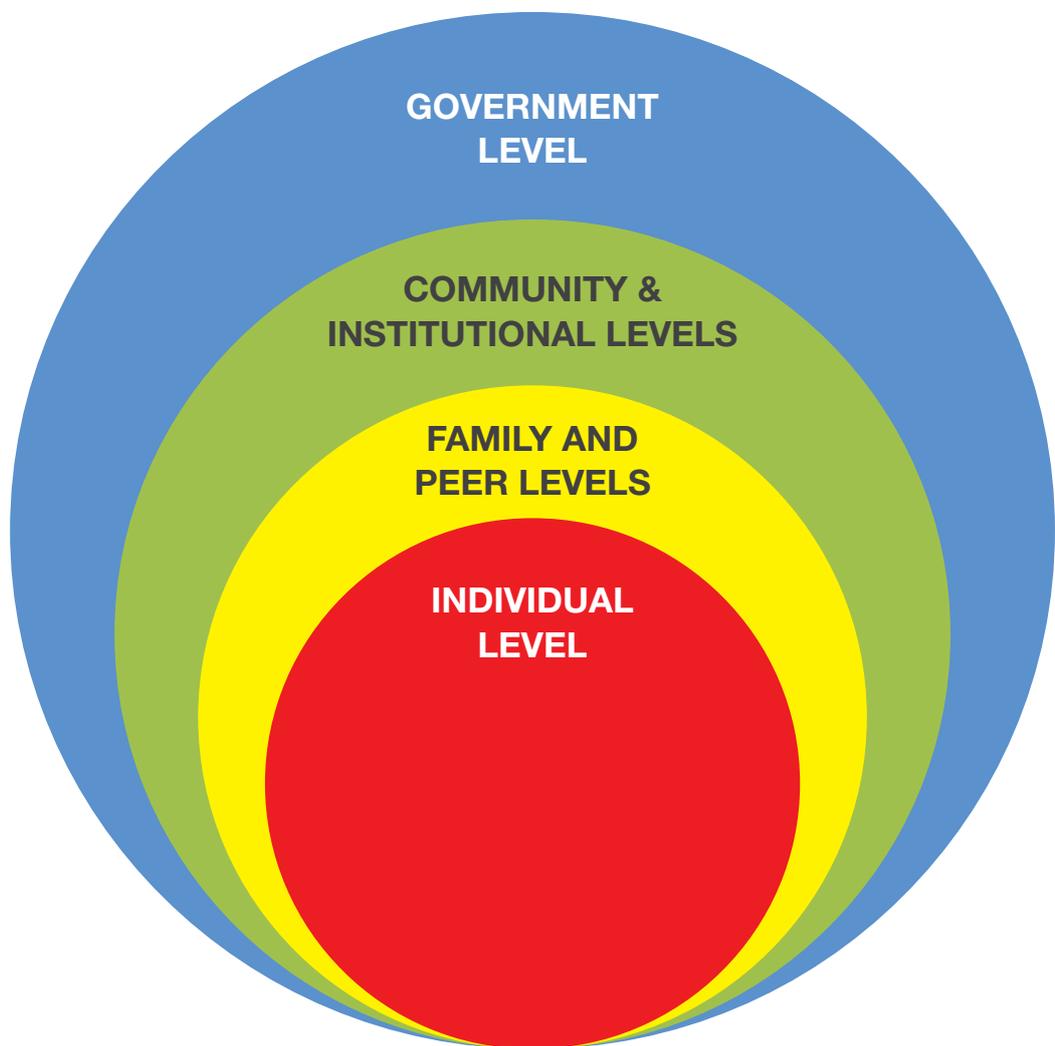
- Economic issues: Unemployment
- Illegal immigrants
- Corruption
- Health issues: HIV
- Economic issues: Beggars
- Health issues: AIDS
- Safety issues: Road safety
- Economic issues: Hard core poverty
- Power abuse
- Commercial crime: Breach of trust
- Environmental issues: Degradation of flora and fauna
- Health issues: Dengue
- Racial polarisation
- Human trafficking
- Health issues: Mental health
- Health issues: Obesity
- Environmental issues: Pollution
- Commercial crime: Cyber crime
- Commercial crime: Drug trafficking
- Commercial crime: Forgery
- Commercial crime: Loan sharks

Source: Institute for Social Science Studies, UPM (July 2016)

Figure 2.6: Two Categories of Social Problems & Examples

2.2.2 Factors Influencing Social Problems

There are many factors identified as the causes of social problems. However, ecologically, factors that may influence the occurrence of social problems are embedded within and between a series of multiple systems surrounding human development. These systems can be divided into four levels: individual, peers and family, community and institutional, and the government (see Figure 2.7).



Source: FACE/ Faculty of Human Ecology,UPM (July 2013)

Figure 2.7: Multiple Systems Surrounding Human Development

3.0 ENSURING IMPACTFUL UNIVERSITY-INDUSTRY-COMMUNITY ENGAGEMENT

3.1 ROAD MAP OF UNIVERSITY-INDUSTRY-COMMUNITY IMPACTFUL ENGAGEMENT

The road map in Figure 3.1 summarises the steps needed to develop an impactful university-industry-community engagement.

In order to create relevant and impactful programmes, the university, industry and the community must review and reassess the relevance and suitability of the current programmes and identify existing gaps that could have been affecting the intended outcomes of these programmes. Participating universities need to identify their niche areas and work towards addressing social problems based on available expertise. Similarly, industry should avoid carrying out programmes merely to fulfil CSR quota. The community too must not agree to participate simply for the benefits offered.

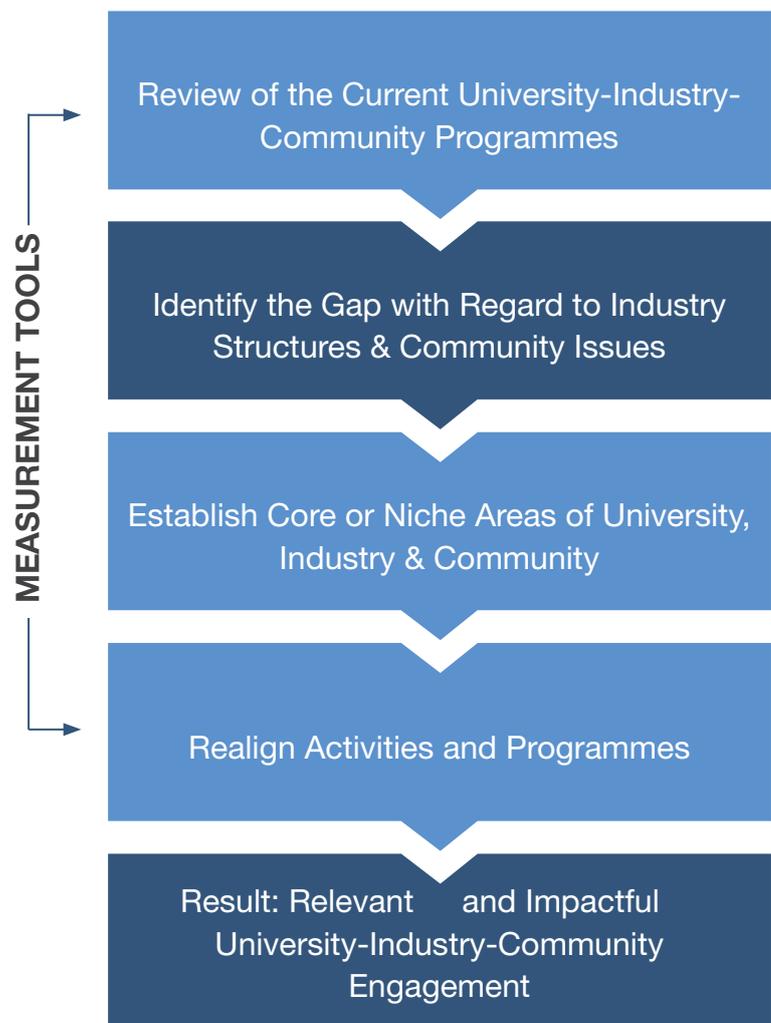


Figure 3.1: University-Industry-Community Engagement Framework

Matching the activities with existing resources and realigning the activities to the needs of industry and the community are crucial for the implementation of relevant and impactful programmes as shown in the case of UPM in Figure 3.2.

AREAS	PROGRAMMES / ACTIVITIES
Safety Issues – Public Safety	<ul style="list-style-type: none"> • Food Safety
Environmental Pollution	<ul style="list-style-type: none"> • Mangrove Rehabilitation
Safety Issues – Road Safety	<ul style="list-style-type: none"> • Awareness & Support of Road Safety
Resource – Food Security and Safety	<ul style="list-style-type: none"> • Urban Farming • Padi Technology Transfer • Extension Service for Jackfruit Farmers • A Course on Organic Farming System • Basic Fertigation Course • A Course for Increasing Yield of Swiftlet Bird Nest
Economic – Urban Poverty	<ul style="list-style-type: none"> • Nurturing of Natives
Economic – Unemployment	<ul style="list-style-type: none"> • Agriculture Entrepreneur Incubation Project • Termerloh Patin Rearing Programme
Economic – Rural Poverty	<ul style="list-style-type: none"> • Tailoring Workshop for Chiffon Head Scarf • Goat Rearing
Health Problem - Obesity	<ul style="list-style-type: none"> • Healthy Lifestyle Course
Educational Problems	<ul style="list-style-type: none"> • School Adoption
Environmental – Flora and Fauna Degradation	<ul style="list-style-type: none"> • World Tapir Day • Preservation of National Heritage • Tourist Guide Course on Flora and Fauna • Ecotourism Entrepreneur Incubation Project • Toyota Eco-Youth Expert Advisory • Bakti Ceria at Zoo Negara
Animal Maltreatment - Neglect	<ul style="list-style-type: none"> • Pet Exhibition

Figure 3.2: Example of the Matching of University Activities to University Niche Areas for Relevant and Impactful Programmes (UPM Experience)

3.2 DEVELOPMENT OF INDUSTRY & COMMUNITY ENGAGEMENT PROGRAMMES

CONTENT DEVELOPMENT

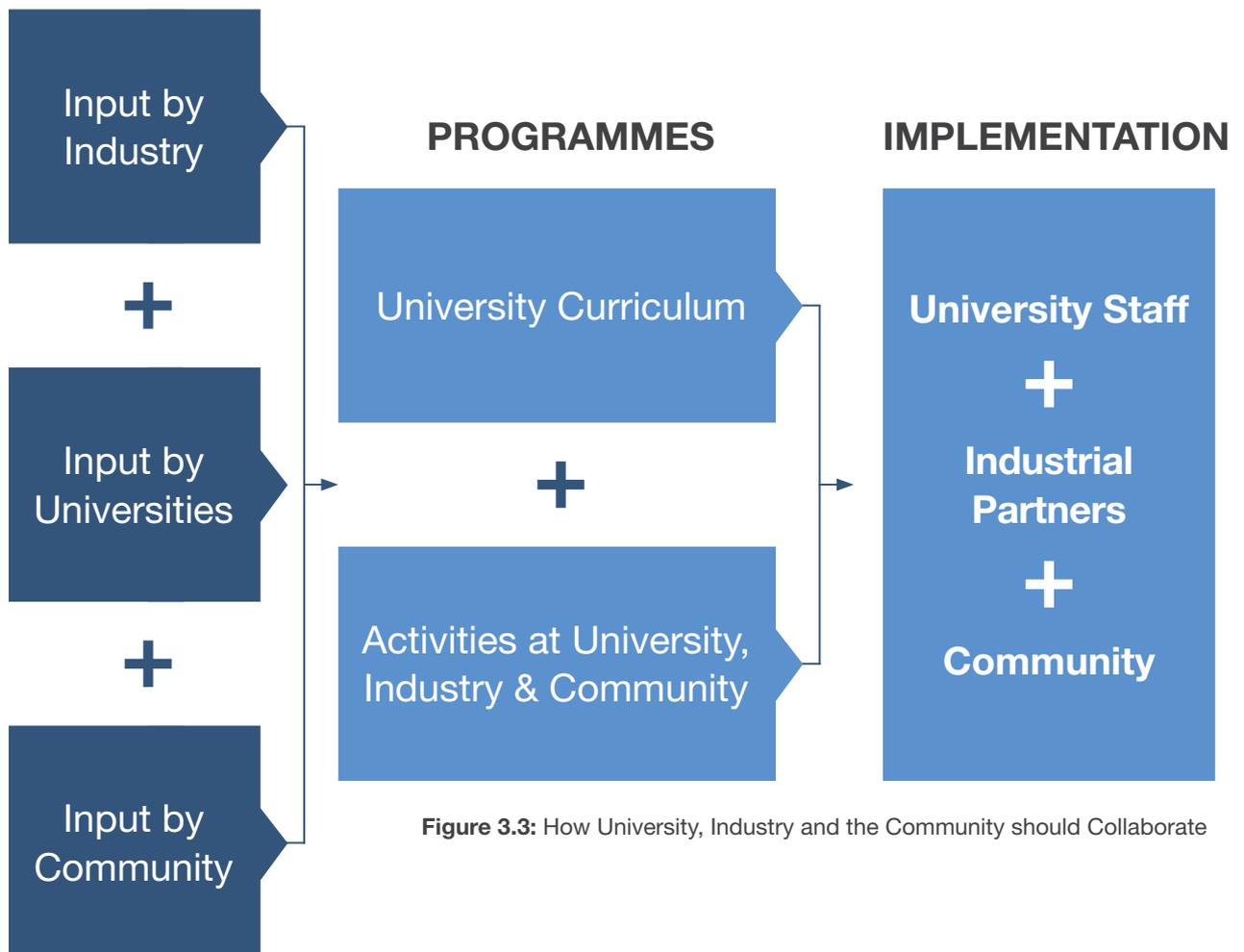


Figure 3.3: How University, Industry and the Community should Collaborate

All industry and community collaboration should be monitored and evaluated continuously to ensure the quality and impact of the relationship (see Figure 3.3). To ensure this, suitable and useful measurement tools have been devised.

3.3 USEFUL MEASUREMENT TOOLS

To maintain continuous monitoring and evaluation, criteria and methodology are vital as the purpose is to measure the industry and community relations performance of impactful engagement, income generation from industry and survey employer

satisfaction. Thus, the chosen criteria should contain the dimensions of collaboration, type of collaboration and the need for evidence. This led to the development of 5-star rating dimensions as evident in the Star Rating Forms in the subsequent sections.

3.3.1 Industry Engagement: Impact & Star Rating System

All industry collaboration with university should be monitored and evaluated continuously to ensure the quality and impact of the relationship. Thus, there is a necessity for monitoring and evaluation to measure the industry relations performance of impactful engagement. The effectiveness of the industry engagement can be measured by conducting routine/periodic and systematic collection of information from the implementation of the activities/programmes. Continuous assessment is done to strategise future industry engagement, encourage and cultivate high impact industry relations and learn from experiences to improve practices and activities in the future.

Monitoring begins in the planning stage of an industry engagement. It allows results, processes and experiences to be documented and used as a basis to steer decision-making and learning processes and to check progress against plans. The data acquired through monitoring would be used for evaluation.

Evaluation needs to be done to obtain information pertaining to strategic decisions, the effects produced by the project/programme and the overall impact of the project/programme.

A set of criteria and methodology should be established to monitor and evaluate every industry engagement. UPM has established the Industry Rating System as a tool to measure the industry engagement impact. The 5-star rating system has five dimensions that are:

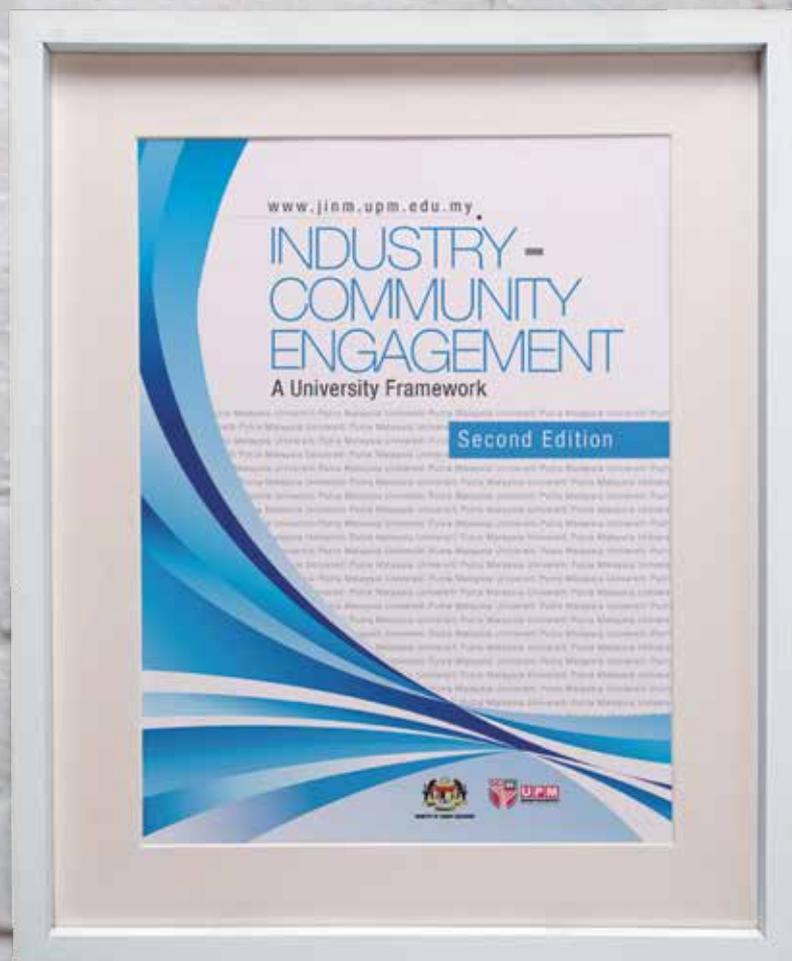
- i) Network Relations – showing interest to cooperate.
- ii) Support and Involvement – beginning of a collaboration between both parties.
- iii) Collaboration Impact – collaboration activities that bring impact to both parties.
- iv) Sustainable Strategic Partnership – continuous activities from previous year to current year.
- v) Financial Contribution – funding by industry (e.g. above RM150,000).

Each entity under the university is required to conduct an evaluation of industry engagement (refer to Figure 3.4). Therefore, the evaluators must be briefed and familiarised with the Star Rating System.

INDUSTRY - COMMUNITY ENGAGEMENT

A University Framework

Second Edition



FORM FOR STAR RATING OF INDUSTRY ENGAGEMENT

DIMENSION	TYPES OF COOPERATION/ACTIVITIES (Kindly tick (/) in the related box)
<p>1 NETWORK RELATIONS (shows interest to cooperate)</p>	<p><input type="checkbox"/> Industry contacted UPM</p> <p><input type="checkbox"/> UPM contacted Industry for feedback</p>
<p>2 SUPPORT AND INVOLVEMENT (Collaboration started by both parties)</p>	<p>The following activities are being implemented:</p> <p><input type="checkbox"/> Industrial Training</p> <p><input type="checkbox"/> Staff Training</p> <p><input type="checkbox"/> Industry Talk</p> <p><input type="checkbox"/> Industrial Visit</p> <p><input type="checkbox"/> Staff attachment in Industry (for UPM staff)</p> <p><input type="checkbox"/> Staff attachment in UPM (for industry officers)</p> <p><input type="checkbox"/> Further studies in UPM (for industry officers)</p> <p><input type="checkbox"/> Others (Please state:)</p>
<p>3 COLLABORATION IMPACT (Collaborative activities that bring impact to both parties)</p>	<p>The following activities are being implemented:</p> <p><input type="checkbox"/> Employability (UPM graduates employed by industry)</p> <p><input type="checkbox"/> Consultancy</p> <p><input type="checkbox"/> Research (Contract research)</p> <p><input type="checkbox"/> Joint Council</p> <p><input type="checkbox"/> Industry Centre of Excellence (iCoE)</p> <p><input type="checkbox"/> Lab/Incubator</p> <p><input type="checkbox"/> Product Commercialisation</p> <p><input type="checkbox"/> Others (Please state:)</p>

EVIDENCE OF SUPPORTING DOCUMENTS (Kindly tick (/) in the related box)	STAR RATING
<input type="checkbox"/> E-mail <input type="checkbox"/> Letter of Intent/Correspondence <input type="checkbox"/> Minutes of Meeting	
<input type="checkbox"/> E-mail <input type="checkbox"/> Correlation via Letter/Correspondence <input type="checkbox"/> Minutes of Meeting <input type="checkbox"/> Report <input type="checkbox"/> Memorandum of Understanding (MoU) <input type="checkbox"/> Memorandum of Agreement (MoA) <input type="checkbox"/> Non-Disclosure Agreement (NDA)	
<input type="checkbox"/> E-mail <input type="checkbox"/> Correlation via Letter/Correspondence <input type="checkbox"/> Minutes of Meeting <input type="checkbox"/> Discussion Notes <input type="checkbox"/> Report <input type="checkbox"/> Memorandum of Understanding (MoU) <input type="checkbox"/> Memorandum of Agreement (MoA) <input type="checkbox"/> Non-Disclosure Agreement (NDA) <input type="checkbox"/> Term Sheet <input type="checkbox"/> Press Clippings/Press kit <input type="checkbox"/> Patent <input type="checkbox"/> Copyright <input type="checkbox"/> Photo <input type="checkbox"/> Certificate/Plaque/Medal	

DIMENSION	TYPES OF COOPERATION/ACTIVITIES (Kindly tick (/) in the related box)		
<p>4 SUSTAINABLE STRATEGIC PARTNERSHIP (Continuous activities from previous to current year)</p>	<p>Continuous activities implemented from previous year: (Dimension 2)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Industrial Training <input type="checkbox"/> Staff Training <input type="checkbox"/> Industry Talk <input type="checkbox"/> Industrial Visit <input type="checkbox"/> Staff attachment in Industry (for UPM staff) <input type="checkbox"/> Staff attachment in UPM (for industry officers) <input type="checkbox"/> Further studies in UPM (for industry officers) <input type="checkbox"/> Others (Please state:) <p>Continuous activities implemented from previous year: (Dimension 3)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Employability <input type="checkbox"/> Consultancy <input type="checkbox"/> Research (Contract research) <input type="checkbox"/> Joint Council <input type="checkbox"/> Industry Centre of Excellence (iCoE) <input type="checkbox"/> Lab/Incubator <input type="checkbox"/> Product Commercialisation <input type="checkbox"/> Others (Please state:) 		
<p>5 FINANCIAL CONTRIBUTION (Funding by Industry)</p>	<p>Please specify the amount.....</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> Cash contribution to UPM without any activity <input type="checkbox"/> Consultancy <input type="checkbox"/> Research (Contract research) <input type="checkbox"/> Endowment <input type="checkbox"/> Chair <input type="checkbox"/> Scholarships / Reward from Faculty <input type="checkbox"/> Industry Centre of Excellence (iCoE) <input type="checkbox"/> Lab/Incubator <input type="checkbox"/> Product Commercialisation <input type="checkbox"/> Local Industrial Training (Monthly Allowance) <input type="checkbox"/> Others (Please state:) </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> Industrial Training Abroad/mobility programme (ticket, allowance, accommodation) <input type="checkbox"/> Staff Training <input type="checkbox"/> Industry Talk <input type="checkbox"/> Industrial Visit <input type="checkbox"/> Staff attachment in Industry (for UPM staff) <input type="checkbox"/> Staff attachment in UPM (for industry officers) <input type="checkbox"/> Further studies in UPM (for industry officers) <input type="checkbox"/> Equipment / Hardware / Software </td> </tr> </table>	<ul style="list-style-type: none"> <input type="checkbox"/> Cash contribution to UPM without any activity <input type="checkbox"/> Consultancy <input type="checkbox"/> Research (Contract research) <input type="checkbox"/> Endowment <input type="checkbox"/> Chair <input type="checkbox"/> Scholarships / Reward from Faculty <input type="checkbox"/> Industry Centre of Excellence (iCoE) <input type="checkbox"/> Lab/Incubator <input type="checkbox"/> Product Commercialisation <input type="checkbox"/> Local Industrial Training (Monthly Allowance) <input type="checkbox"/> Others (Please state:) 	<ul style="list-style-type: none"> <input type="checkbox"/> Industrial Training Abroad/mobility programme (ticket, allowance, accommodation) <input type="checkbox"/> Staff Training <input type="checkbox"/> Industry Talk <input type="checkbox"/> Industrial Visit <input type="checkbox"/> Staff attachment in Industry (for UPM staff) <input type="checkbox"/> Staff attachment in UPM (for industry officers) <input type="checkbox"/> Further studies in UPM (for industry officers) <input type="checkbox"/> Equipment / Hardware / Software
<ul style="list-style-type: none"> <input type="checkbox"/> Cash contribution to UPM without any activity <input type="checkbox"/> Consultancy <input type="checkbox"/> Research (Contract research) <input type="checkbox"/> Endowment <input type="checkbox"/> Chair <input type="checkbox"/> Scholarships / Reward from Faculty <input type="checkbox"/> Industry Centre of Excellence (iCoE) <input type="checkbox"/> Lab/Incubator <input type="checkbox"/> Product Commercialisation <input type="checkbox"/> Local Industrial Training (Monthly Allowance) <input type="checkbox"/> Others (Please state:) 	<ul style="list-style-type: none"> <input type="checkbox"/> Industrial Training Abroad/mobility programme (ticket, allowance, accommodation) <input type="checkbox"/> Staff Training <input type="checkbox"/> Industry Talk <input type="checkbox"/> Industrial Visit <input type="checkbox"/> Staff attachment in Industry (for UPM staff) <input type="checkbox"/> Staff attachment in UPM (for industry officers) <input type="checkbox"/> Further studies in UPM (for industry officers) <input type="checkbox"/> Equipment / Hardware / Software 		

EVIDENCE OF SUPPORTING DOCUMENTS (Kindly tick (✓) in the related box)	STAR RATING																												
<table border="0"> <tr><td><input type="checkbox"/></td><td>E-mail</td></tr> <tr><td><input type="checkbox"/></td><td>Correlation via Letter/Correspondence</td></tr> <tr><td><input type="checkbox"/></td><td>Minutes of Meeting</td></tr> <tr><td><input type="checkbox"/></td><td>Discussion Notes</td></tr> <tr><td><input type="checkbox"/></td><td>Report</td></tr> <tr><td><input type="checkbox"/></td><td>Memorandum of Understanding (MoU)</td></tr> <tr><td><input type="checkbox"/></td><td>Memorandum of Agreement (MoA)</td></tr> <tr><td><input type="checkbox"/></td><td>Non-Disclosure Agreement (NDA)</td></tr> <tr><td><input type="checkbox"/></td><td>Term Sheet</td></tr> <tr><td><input type="checkbox"/></td><td>Press Clippings/Press kit</td></tr> <tr><td><input type="checkbox"/></td><td>Patent</td></tr> <tr><td><input type="checkbox"/></td><td>Copyright</td></tr> <tr><td><input type="checkbox"/></td><td>Photo</td></tr> <tr><td><input type="checkbox"/></td><td>Adaptive matching technology</td></tr> </table>	<input type="checkbox"/>	E-mail	<input type="checkbox"/>	Correlation via Letter/Correspondence	<input type="checkbox"/>	Minutes of Meeting	<input type="checkbox"/>	Discussion Notes	<input type="checkbox"/>	Report	<input type="checkbox"/>	Memorandum of Understanding (MoU)	<input type="checkbox"/>	Memorandum of Agreement (MoA)	<input type="checkbox"/>	Non-Disclosure Agreement (NDA)	<input type="checkbox"/>	Term Sheet	<input type="checkbox"/>	Press Clippings/Press kit	<input type="checkbox"/>	Patent	<input type="checkbox"/>	Copyright	<input type="checkbox"/>	Photo	<input type="checkbox"/>	Adaptive matching technology	
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<input type="checkbox"/>	Official Receipt																												
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<input type="checkbox"/>	Statement of Accounts (UPM Bursar's Office)																												
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Figure 3.4: Star Rating Evaluation Form for Industry Engagement

3.3.2 Community Engagement: Impact & Star Rating System

STAR RATING

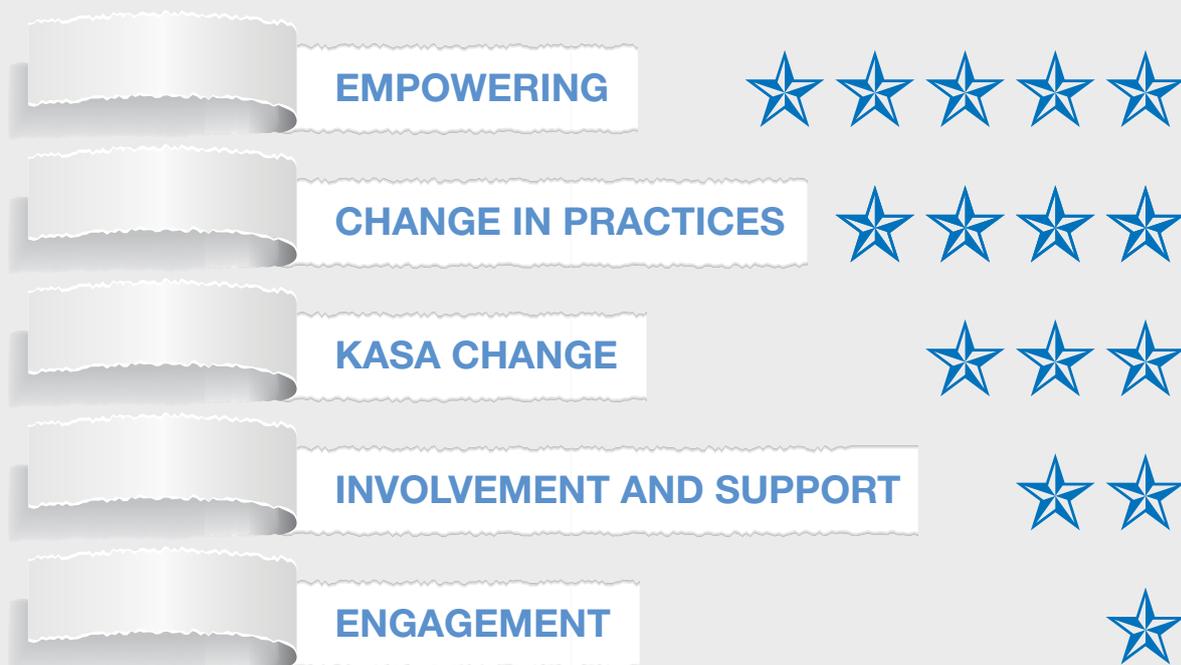


Figure 3.5: Star Rating Dimensions

The Star Rating for Community Engagement is based on the dimensions in Figure 3.5. To decide on the star rating, evaluation of the status of the programme has to be carried out. This entails the use of the form in Figure 3.6 (a) where the 4 criteria utilised are:

- Input (the management of resources),
- Local Institutions (level of engagement),
- Finance (source of funds), and
- Impact (the level of transformation)

5	The community manages all resources needed for the programme.	The community independently manages all aspects of the programme.	The community finances the programme entirely.	<ul style="list-style-type: none"> The community is empowered and can independently sustain the practices that were introduced through the programme. 	★★★★★
4	The community manages the majority of all programme inputs.	The community manages the majority of the programmes.	Corporate bodies finance the joint university-community programmes.	<ul style="list-style-type: none"> The community programme results in a change of practices. 	★★★★
3	The community mobilises programme resources with the university.	The community works with other agencies and the university in implementing the programme.	Financing for joint university-community programmes is from public sources other than MOHE.	<ul style="list-style-type: none"> The community action programme results in change in knowledge/skills/attitudes or aspirations. 	★★★
2	Only available community facilities or resources are used.	At least one local institution jointly implements the programme with the university.	Financing is sourced through Knowledge Transfer Programme (KTP).	<ul style="list-style-type: none"> The community considers the programme relevant and needed. A formal university-community cooperation agreement exists. 	★★
1	The university provides the resources needed for the programme.	The university establishes an engagement with at least one local institution.	The relevant unit (PTJ) at the university finances the programme.	<ul style="list-style-type: none"> The community has a positive orientation towards the programme. 	★
TIER	INPUT	LOCAL INSTITUTIONS	FINANCE	IMPACT	RATING

STATUS OF PROGRAMME

Figure 3.6 (a): Star Rating Evaluation Form

4.0 GOVERNING AND SUSTAINING RELEVANT & IMPACTFUL INDUSTRY - COMMUNITY ENGAGEMENT

4.1 THE NATIONAL AND UNIVERSITY GOVERNANCE MODEL

Essentially, the university-industry-community collaboration will require a governance system to be instituted to ensure that it gets the support and facilitation for it to grow and flourish.

The prerequisite for the success of industry engagement is the effectiveness of the governance system. In the case of UPM, this governance system has been in place since 2010 at the university level as shown in Figure 4.1.

the Dean/Deputy Dean (Industry and Community Relations) or Director/Deputy Director respectively. Members of the committee include all heads of Department and some appointed staff.

A UPM Committee for Industry and Community Relations established at UPM level is chaired by the DVC (Industry and Community Relations). All Deans/Directors are members of the committee. At the faculty and institute levels, the committee for Industry and Community Relations is chaired by

The Centre for Industry Relations and Network will oversee and provide advice to both committees. These committees should be consolidated and regular meetings should be held at least once in three months to monitor and evaluate the programmes/activities.

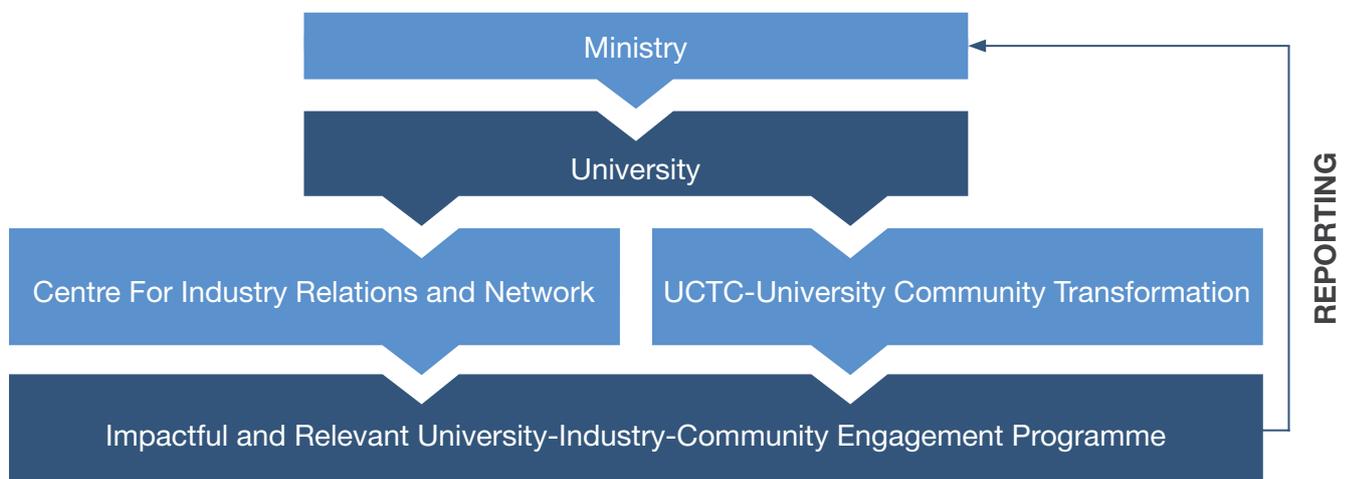


Figure 4.1: The National and University Governance Model

One of the biggest challenges faced by a participating university in industry collaboration is the commitment of the university community (academics and non-academics). As such, a university must inculcate the culture of industry engagement among the campus community to increase their awareness and involvement. Continuous discussion on and training in industry collaboration competency such as programme planning and development, industry networking

and negotiation should be conducted. It is crucial that the university articulates the future prospects for the development of relations with industry. This means that the participating university has to act beyond the concept of collaboration or linkage to the notion of cooperation both at strategic and operational levels. In this way, university-industry linkage can be sustained.

CONCLUSION

The success of the university-industry-community linkage is dependent on a coherent framework and concerted efforts to address the issue of social problems in a more sustainable and responsive manner. This framework provides the road map for collaborative activities at the participating university, given the importance of high-level continuous training and technological innovation for the competitiveness of the national economy.

This “Industry-Community Engagement: A University Framework” should be viewed as an opportunity for various parties – Malaysian universities, the various industries in the country and the Malaysian community- to play our part in contributing to the betterment of our fellow Malaysians, our society, and ultimately, our nation. Regardless of the economic or social status of a

nation, social problems are an inevitable byproduct of progress and change. At the micro level, the various social ills range from minor misdemeanours to major ones but all put together, the picture is one of major concern.

The task of achieving impactful industry and community engagements is moving forward with knowledge-driven programmes. The motivation, though, that should drive us on is the knowledge that any success we achieve, or any difference we make, will touch some lives somehow, somewhere, sometime; the lives of human beings, fellow Malaysians. That would be just reward and a real contribution towards making Malaysia a truly developed nation come 2020.

QUICK-WINS OF THE FRAMEWORK

REALIGN

COUNTRY NEEDS VS. UNIVERSITY NICHE

DEVELOP

STRATEGY TOWARDS IMPACTFUL AND
RELEVANT INDUSTRY & COMMUNITY
ENGAGEMENT

PERFORM

IMPLEMENTATION OF IMPACTFUL &
RELEVANT INDUSTRY & COMMUNITY
ENGAGEMENT PROGRAMMES

MONITOR

IMPACT AND RATING MEASUREMENT
TOOLS FOR INDUSTRY AND COMMUNITY
ENGAGEMENT ACTIVITIES

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