



# FUTURE ASEAN AGENDA FOR TVET

Developed by the regional working group  
"Business and industry cooperation in TVET"

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June 2019

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The Association of Southeast Asian Nations (ASEAN) is one of the largest economic communities in the world experiencing rapid and stable growth since 2000. The lack of a dequately skilled workers is a crucial bottleneck for sustained growth and keeping companies competitive in line with technological change.

Technical and vocational education and training (TVET) is recognised as an important element in strategies to close prevailing skills gaps, yet in practice the school-based TVET systems of ASEAN member states (AMS) rarely meet expectations and TVET graduates fail to live up to the demands of business and industry.

The potential of engaging business and industry representatives in planning and delivery of TVET has been widely recognised by AMS. Yet cooperation between business and industry and the education sector remains scarce.

Recognizing the urgency for change, the ASEAN Secretariat with support from the German government's Regional Cooperation Programme for TVET in ASEAN (RECOTVET) has initiated a regional learning process among AMS. The objective is to identify challenges and solutions to strengthening business and industry cooperation in TVET.

The process was kicked off at the 7th Regional Policy Dialogue on "Business and industry cooperation in TVET – Towards a better practice for ASEAN", which took place on June 21-22, 2018 at the ASEAN Secretariat in Jakarta, Indonesia.

As a concrete step, a regional working group comprised of TVET champions from business and industry was launched on June 22, 2018.

The Deputy Secretary General of ASEAN for the Socio-Cultural Community chaired the kick-off meeting and mandated the group with the development of a Future ASEAN Agenda for TVET that outlines action-oriented policy recommendations for labour-market oriented TVET reforms in the region. The work of the regional working group was subsequently also endorsed by the Senior Officials Meeting on Education during their 13<sup>th</sup> session in November 2018.

20 representatives from chambers, associations and companies from all ten AMS were selected as members. It was the first time that a regional working group on TVET is composed only of business and industry representatives.

Over the course of 5 workshops between June 2018 and March 2019 the group discussed how to make TVET in the ASEAN region fit for the future. The group agreed on 45 recommendations across nine thematic headers, which are at the heart of the Future ASEAN Agenda for TVET:

- Enhancing the relevance and quality of TVET regulations and strategies
- Establishing public-private models for skill standard development and assessments
- Strengthening the leadership of business membership organisations in TVET
- Rebranding TVET
- Mobilizing companies to engage in TVET
- Ensuring sufficient funding for TVET
- Improving the quality of training delivery
- Deepening the collaboration of TVET schools with business and industry
- Intensifying research on TVET and future skills needs

Each recommendation outlines a specific activity or field of action that would either directly or indirectly strengthen the leadership of business and industry in TVET and ultimately contribute to improving the quality of TVET across the ASEAN region.

The recommendations are action-oriented, describing what should happen and why, and pointing out the contributions required from different stakeholders. A particular focus in each recommendation has been put on what stakeholders from business and industry themselves can contribute.

Five recommendations were prioritized by the group as particularly important:

- Form an ASEAN Future Workforce Council led by business and industry.
- Set up National TVET Councils co-chaired by senior public and private sector representatives to drive coherent, future-oriented national TVET agendas.
- Form skill standard development committees that support business and industry in leading the development of skill standards.
- Develop skills information platforms to make information about the supply and demand of skills publicly accessible online.
- Allocate an appropriate annual budget to TVET and consider the establishment of a TVET fund.

Another eight recommendations have been identified as quick wins:

- Set up National TVET Councils co-chaired by senior public and private sector representatives to drive coherent, future-oriented national TVET agendas.

- Strengthen business and industry cooperation in TVET planning through structured public-private dialogue.
- Form skill councils to monitor and initiate the updating of skill standards when changes in industry practices necessitate revisions.
- Form an ASEAN Future Workforce Council led by business and industry.
- Launch TVET awareness campaigns to improve the public reputation of TVET.
- Offer career counselling and a TVET-oriented curriculum at high school level to inspire and motivate students from a young age to pursue TVET.
- Identify and distribute best practices of business and industry cooperation in TVET.
- Encourage professionals and specialists from the industry to become part-time TVET teachers.

The group also established a set of core values that the Future ASEAN Agenda for TVET is based on. The following values should guide the implementation of recommendations contained in this Future ASEAN Agenda for TVET to achieve successful business and industry cooperation in TVET:

- Partnership
- Effectiveness
- Communication
- Learning
- Sustainability

## SUMMARY OF RECOMMENDATIONS AT A GLANCE

### ● Enhancing the relevance and quality of TVET regulations and strategies

- 1 Set up National TVET Councils co-chaired by senior public and private sector representatives to drive coherent, future-oriented national TVET agendas.
- 2 Develop all government regulations on TVET with business and industry on a consensus basis.
- 3 Develop a long-term TVET strategy.
- 4 Strengthen business and industry cooperation in TVET planning through structured public-private dialogue.
- 5 Strengthen evidence-based policy-making.
- 6 Develop a future workforce strategy that creates a common understanding of Industry 4.0 and its impact on ASEAN education systems and labour markets.

### ● Establishing public-private models for skill standard development and assessments

- 7 Form skill standard development committees that support business and industry in leading the development of skill standards.
- 8 Form skill councils to monitor and initiate the updating of skill standards when changes in industry practices necessitate revisions.
- 9 Form national certification bodies to professionalise and standardise the assessment of skills.

### ● Strengthening the leadership of business membership organisations in TVET

- 10 Form an ASEAN Future Workforce Council led by business and industry.
- 11 Expand the member base of business membership organisations by providing more and better value-added services.
- 12 Encourage companies to become members of business membership organisations and consider making membership mandatory by law.
- 13 Prepare and disseminate position papers of business membership organisations that represent the voice of employers on TVET-related issues.
- 14 Establish TVET departments in business membership organisations staffed with full-time employees who are trained to deliver TVET-related services.
- 15 Expand TVET-related activities and services of business membership organisations for members.

### ● Rebranding TVET

- 16 Launch TVET awareness campaigns to improve the public reputation of TVET.
- 17 Offer career counselling and a TVET-oriented curriculum at high school level to inspire and motivate students from a young age to pursue TVET.
- 18 Open up further education opportunities for TVET graduates, including access to higher education.
- 19 Provide opportunities and financial incentives for life-long learning.
- 20 Improve and promote the value of skill certificates to companies.

### ● Mobilizing companies to engage in TVET.

- 21 Calculate the return on investment of engaging in TVET in order to persuade more companies of its benefits.
- 22 Set up a recognition system to award outstanding companies engaged in TVET.
- 23 Stipulate incentives for companies to become engaged in TVET and ensure their enforcement.
- 24 Prioritize TVET as a topic in annual work plans of business membership organisations and use meetings to talk about the benefits of TVET.

- 25 Develop and pilot a cooperation scheme for the provision of practical training between large companies and SMEs, leveraging supply chain relationships.
- 26 Identify and distribute best practices of business and industry cooperation in TVET.
- 27 Develop a TVET handbook for companies to facilitate their engagement in TVET.

### ● Ensuring sufficient funding for TVET

- 28 Allocate an appropriate annual budget to TVET and consider the establishment of a TVET fund.
- 29 Pool public and private resources by establishing national centres of excellence.
- 30 Require foreign direct investors to fund TVET training in order to meet their investment project's skills demands.
- 31 Set up inter-company training institutes as an income-generating measure to finance TVET activities and services of business membership organisations.

### ● Improving the quality of training delivery

- 32 Align training curricula better with the needs of business and industry and make them more consistent across TVET schools.
- 33 Adapt TVET curricula to better prepare students for the future of work.
- 34 Encourage professionals and specialists from the industry to become part-time TVET teachers.
- 35 Strengthen the capacity and industry experience of government personnel working in TVET, in particular of TVET teachers.
- 36 Develop the competencies of in-company trainers.
- 37 Provide autonomy to TVET schools to diversify their funding sources in order to guarantee the delivery of high quality TVET programs.

### ● Deepening the collaboration of TVET schools with business and industry

- 38 Expand apprenticeship programs and enhance their quality by providing more guidance to participating companies and students.
- 39 Find appropriate ways for TVET schools and companies to formalise their dialogue and cooperation.
- 40 Establish the pursuit of cooperation opportunities with business and industry as a key responsibility of every TVET school principal.
- 41 Appoint TVET school personnel to serve as focal persons for the cooperation with business and industry.

### ● Intensifying research on TVET and future skills needs

- 42 Develop skills information platforms to make information about the supply and demand of skills publicly accessible online.
- 43 Conduct regular employability studies to promote the attractiveness of TVET degrees.
- 44 Conduct more research on (future) skills needs, particularly sector-specific research.
- 45 Establish national coordinating agencies for TVET research and increase inter-ASEAN research cooperation.

# I. INTRODUCTION

## BACKGROUND

The Association of Southeast Asian Nations (ASEAN) is one of the largest economic communities in the world experiencing rapid and stable growth since 2000. The lack of adequately skilled workers is a crucial bottleneck for sustained growth and keeping companies competitive in line with technological change.

Technical and vocational education and training (TVET) is recognised as an important element in strategies to close prevailing skills gaps, yet in practice the school-based TVET systems of ASEAN member states (AMS) rarely meet expectations and TVET graduates fail to live up to the demands of business and industry.

The potential of engaging business and industry representatives in planning and delivery of TVET has been widely recognised by AMS. But not much has changed in recent years. Several challenges persist for business and industry to meaningfully participate in TVET: Legal and policy frameworks often do not encourage a strong role of the private sector in TVET, coordination mechanisms facilitating a systematic public-private dialogue are not in place, and on the side of business and industry itself, individual as well as organisational capacities are lacking.

Recognizing the urgency for change, the ASEAN Secretariat with support from the German government's Regional Cooperation Programme for TVET in ASEAN (RECOTVET) has initiated a regional learning process among AMS. The objective is to identify challenges and solutions to strengthening business and industry cooperation in TVET.

The process was kicked off at the 7<sup>th</sup> Regional Policy Dialogue on "Business and industry cooperation in TVET – Towards a better practice for ASEAN", which took place on June 21-22, 2018 at the ASEAN Secretariat in Jakarta, Indonesia.

Participants at the policy dialogue included senior education and labour officials from relevant ministries of AMS and representatives from business and industry. Both public and private sector representatives affirmed their willingness to institutionalise a cooperation mechanism for TVET. They resolved that there is a need to move 'from potential to realisation' by focusing on practical actions.

As a concrete step, a regional working group of TVET champions from business and industry was launched. The group was mandated with the articulation of a Future ASEAN Agenda for TVET that outlines specific, action-oriented recommendations for labour-market oriented TVET reforms in the region. It was decided that the group will have the opportunity to present and discuss its recommendations with high-level representatives from ministries responsible for TVET at another regional policy dialogue. This 9<sup>th</sup> Regional Policy Dialogue on "Business and industry cooperation in TVET – Advancing ASEAN's Future Agenda for TVET" took place on June 24-25, 2019 in Bangkok, Thailand.

## REGIONAL WORKING GROUP

The regional working group "Business and industry cooperation in TVET" was launched on June 22, 2018. The Deputy Secretary General of ASEAN for the Socio-Cultural Community chaired the kick-off meeting and mandated the group with the development of a Future ASEAN Agenda for TVET. The work of the regional working group was subsequently also endorsed by the Senior Officials Meeting on Education during their 13<sup>th</sup> session in November 2018.

It was the first time that a regional working group on TVET is composed only of business and industry representatives. This allowed business and industry itself to judge which practical measures lead to real change.

20 representatives from chambers, associations and companies from all ten AMS were selected as members. Coming from senior positions in their organisations, they have a strong record of leadership in the field of human resource development, are familiar with TVET in their respective countries and committed to serve as business and industry champions in this regional process.

The 20 members of the regional working group come from the following organisations:

-  • Brunei Institution of Surveyors, Engineers and Architects
-  • ASEAN-Business Advisory Council Brunei
-  • Cambodian Federation of Employers and Business Associations
-  • Young Entrepreneurs Association of Cambodia
-  • Indonesian Chamber of Commerce and Industry
-  • Dicoding Indonesia
-  • Lao National Chamber of Commerce and Industry
-  • Association of Lao Garment Industry
-  • Lao Automotive Industry Association
-  • Federation of Malaysian Manufacturers
-  • Union of Myanmar Federation of Chambers of Commerce and Industry
-  • Myanmar Heating, Ventilation, Air-conditioning and Refrigeration Association
-  • Philippine Chamber of Commerce and Industry – Batangas
-  • Philippine Chamber of Commerce and Industry – Tarlac
-  • Singapore National Employers Federation
-  • Federation of Thai Industries
-  • Thai Chamber of Commerce
-  • BETAGRO PCL
-  • Vietnam Chamber of Commerce and Industry
-  • Vietnam Association of Construction Contractors

## METHODOLOGY

The regional working group met five times between June 2018 and March 2019. During the kick-off workshop in June 2018, the working group members jointly identified topics they felt were important to cover in the Future ASEAN Agenda for TVET.

They also collected questions on issues they needed more information about. To address these issues, a study tour to Germany was organised by RECOTVET that allowed the group to learn about the roles of public and private stakeholders and their cooperation mechanisms in the German dual training system.

In the pursuant series of four workshops, the working group discussed in depth how to make TVET in the ASEAN region fit for the future and identified practical measures for labour-market oriented TVET reforms. A particular focus was always put on how to improve business and industry cooperation in TVET.

**The working group dealt in each workshop with a specific set of topics, identified during the kick-off workshop, within the following four fields of discussion:**

1. What individual capacities do TVET stakeholders, particularly business and industry representatives need to meaningfully contribute to TVET?
2. What organisational capacities do TVET institutions, particularly business and industry organisations need to meaningfully contribute to TVET?
3. What cooperation systems would enable business and industry to meaningfully contribute to TVET?
4. What framework conditions would enable business and industry organisation to meaningfully contribute to TVET?

The four fields describe the different levels of capacity development: (1) individuals; (2) organisations; (3) the cooperation relationships between the actors involved; and (4) societal and policy frameworks. According to GIZ's approach, "the proactive management capacity of a cooperation system, and thus its effectiveness, are determined not only by specific capacities on the different levels, but also specifically by the interplay between them".

During each workshop, the regional working group drafted a new set of recommendations and also further refined the recommendations of the last workshop.

In the final workshop, the regional working group discussed the presentation of the recommendations in the Future ASEAN Agenda for TVET. They grouped the recommendations under thematic headings, discussed the order in which they should be presented, and identified high priority and quick win recommendations to be highlighted in the Future ASEAN Agenda for TVET.

Finally, the group established the values that underpin the Future ASEAN Agenda for TVET, and the roles and responsibilities of different stakeholders in an ideal future when business and industry cooperation in TVET has become a reality.

RECOTVET facilitated the work throughout the workshop series, provided exposure to research and practical examples to guide the group, and edited the final document based on the input of the regional working group.

## ABOUT THIS DOCUMENT

At the core of this document, the Future ASEAN Agenda for TVET, are the recommendations for strengthening business and industry cooperation in TVET described in chapter III. Each recommendation outlines a specific activity or field of action that would either directly or indirectly strengthen the leadership of business and industry in TVET and ultimately contribute to improving the quality of TVET across the ASEAN region.

The recommendations are action-oriented, describing what should happen and why, and pointing out the contributions required from different stakeholders. A particular focus in each recommendation has been put on what stakeholders from business and industry themselves can contribute. The Future ASEAN Agenda for TVET contains a total of 45 recommendations. These are grouped into 9 headings, which provide the structure for chapter IV.

The highest priority recommendation is highlighted for each group. The numbering of recommendations from 1 to 45 is, however, not to be understood as an overall ranking of recommendations. It is simply used to facilitate the identification of specific recommendations in discussions.

Also highlighted throughout the document are quick win recommendations that have been identified by the regional group work.

## DEFINITIONS

**Key concepts and terms are defined below to ensure a joint understanding of terminologies as used in the Future ASEAN Agenda in TVET:**

• **Technical and vocational education and training (TVET):** TVET is used throughout this document as overarching term for technical and vocational training and education. No differentiation is made

between formal, non-formal and informal TVET. The term is also used to refer to training courses that in some countries and settings might be referred to as skills development, human resource development or human capital development.

• **Business and industry:** Since state-owned enterprises play an important role in many AMS; this document uses the term business and industry instead of private sector when referring to business membership organisations and companies.

• **Business membership organisations (BMOs):** The term BMOs is used throughout this document to summarise organisations of business and industry that consist of different members (often companies). These organisations include chambers of commerce and industry, employer associations, sectoral associations, and professional associations.

• **Small and medium-sized enterprises (SMEs):** ASEAN has not adopted a common SME definition yet. The term SMEs refers broadly throughout this document to enterprises that can be distinguished from large enterprises by their lower total assets and employee numbers (in most countries the maximum threshold for medium-sized enterprises is 200 employees).

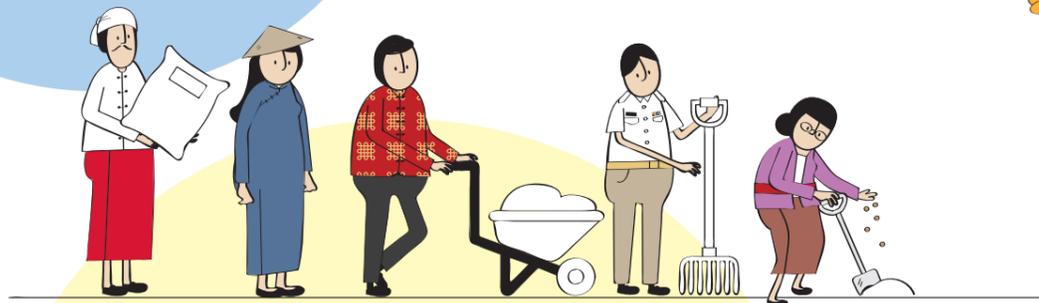
• **TVET schools:** TVET schools often have various different names across ASEAN (e.g. TVET college, TVET institute, polytechnic), and even within AMS, different types of TVET schools exist. The term TVET schools is used throughout this document to refer to institutions that offer technical and vocational education and training.

• **Responsible line ministries:** Since different ministries are responsible for TVET in different AMS, this document refers to 'responsible line ministries' instead. It usually implies that all ministries responsible for TVET or skills development are addressed. Where specific ministries are mentioned, they are addressed because their responsibility for certain activities could be clearly identified.

## II. A PUBLIC-PRIVATE PARTNERSHIP FOR TVET

The Future ASEAN Agenda for TVET is based on a specific vision of business and industry cooperation in TVET.

In a perfect future, TVET can be imagined like a tree that bears many fruits for the people and economies of ASEAN: Business and industry growth, better productivity, company profits, more foreign direct investment (FDI), increased gross domestic product (GDP), enhanced human capital, less skills mismatch, better jobs and less unemployment.



Like a tree trunk holding up the crown of a tree, TVET is based on a strong public-private partnership. National TVET Councils co-led by public and private stakeholders, skills councils, and the ASEAN Future Workforce Council are all at the heart of this public-private partnership. They have their roots in the stakeholder groups that are important for every TVET system: Governments (more specifically education ministries, labour ministries but also ministries of trade, industry or economics), BMOs, companies, TVET schools, experts and teachers, as well as students and their parents.

Each one of these stakeholder groups contributes to the public-private partnership according to their role: Governments provide direction, strategy, infrastructure, resources and funding. BMOs promote industry involvement in skills development and industry-driven apprenticeships, and they solicit and feedback the interest of business and industry to policy makers. TVET schools provide the curriculum and quality teachers to delivery training.



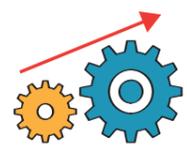
For trees to continue growing they require nurturing in the form of sunlight, water and minerals. For the 'TVET tree' to continue growing it requires political commitment, passion, incentives, infrastructure, funding and technology.

### III. VALUES FOR A SUCCESSFUL COOPERATION

The Future ASEAN Agenda for TVET is based on a set of core values. Values guide or motivate actions and help to determine what is important. The following values should guide the implementation of recommendations contained in this Future ASEAN Agenda for TVET to achieve a successful business and industry cooperation in TVET:



**Partnership:** Successful business and industry cooperation in TVET is based on a partnership of all stakeholders that is defined by honesty, integrity and transparency. In a true partnership, stakeholders also feel like they belong, they accept and support each other.



**Effectiveness:** Successful business and industry cooperation in TVET ensures effectiveness in TVET development. It is purpose-driven and utilizes opportunities to create a legacy.



**Communication:** Successful business and industry cooperation in TVET is based on open communication which allows everyone to know and be known, creates understanding and ultimately ensures inclusion and participation of all stakeholders.



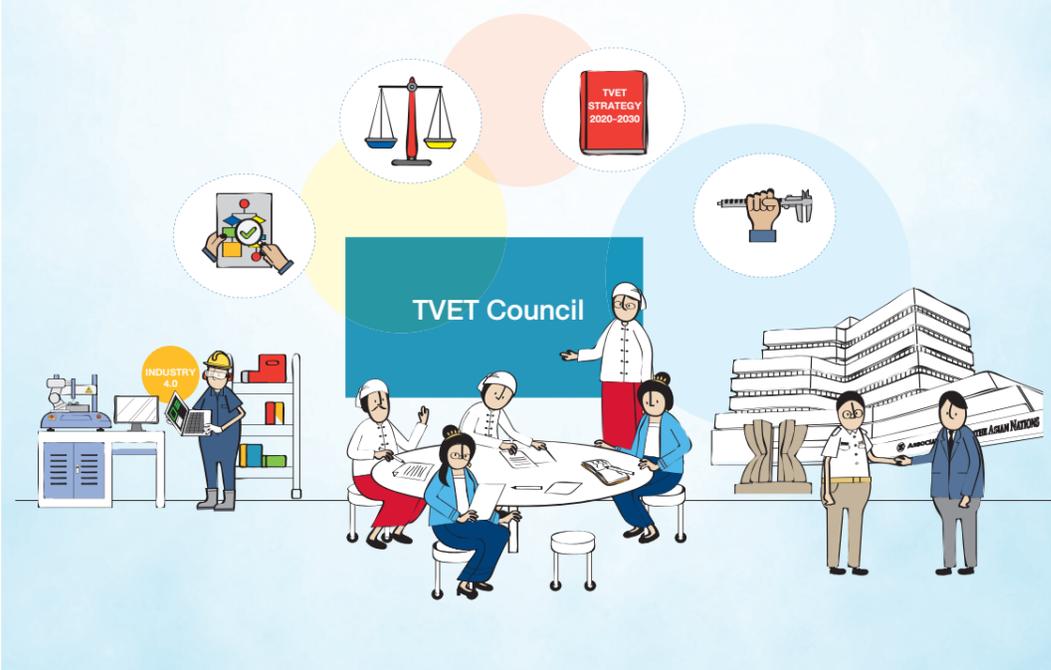
**Learning:** Successful business and industry cooperation in TVET is based on continuous (life-long) learning. The cooperation provides inspiration and stimulation to all stakeholders. Using creativity, it leads to innovation and the continuous improvement of TVET.



**Sustainability:** Successful business and industry cooperation in TVET is based on consistent and sustainable efforts of all stakeholders to enhance TVET development, in order to achieve stability, harmony and prosperity in ASEAN.

### IV. RECOMMENDATIONS

## ENHANCING THE RELEVANCE AND QUALITY OF TVET REGULATIONS AND STRATEGIES



The regulations and strategies for TVET set out by governments define the framework conditions for how TVET is implemented in a country. This includes the framework conditions for the involvement of business and industry in TVET.

In order to strengthen business and industry involvement in TVET, it is important to enhance the relevance and quality of TVET regulations and strategies. A key concern of business and industry is the lack of inter-ministerial coordination and the pursuit of a common long-term strategy for the development of a country's skilled workforce. The absence of such a visible national agenda makes it difficult for business and industry to contribute in an effective manner.

Genuine stakeholder consultations, for example in the form of a structured platform for public-private dialogue on TVET are also still lacking. The results are often straitjacket policies for all industries and inflexible rules and procedures that prevent business and industry from engaging in TVET.

**RECOMMENDATION 1:**  
**SET UP NATIONAL TVET COUNCILS CO-CHAIRLED BY SENIOR PUBLIC AND PRIVATE SECTOR REPRESENTATIVES TO DRIVE COHERENT, FUTURE-ORIENTED NATIONAL TVET AGENDAS.**

PRIORITY QUICK WIN

In many AMS, several ministries are involved in TVET and skills development with very little coordination among themselves and no alignment to a clearly visible national agenda.

In order to ensure more coherent national policy making on TVET, and to achieve a more effective and efficient implementation of those policies, a restructuring of how government deals with TVET appears necessary. A concrete solution is the establishment of National TVET Councils in each ASEAN member state.

National TVET Councils should be regulated by a statute to act as the central bodies for TVET in each member state. The councils should have the responsibility to create high-level national agenda for TVET and ensure the transparent, consistent and evidence-based development,

implementation and monitoring & evaluation of TVET strategy and policy. This includes the timely identification of future trends (such as Industry 4.0 or a shift to green economies) that are relevant for TVET and need to be considered in the planning of future demand and supply of skills. National TVET

National TVET Councils should be co-chaired by senior public and private sector representatives and serve as centralised coordination platforms. They should have a permanent secretariat with staff who work on TVET issues throughout the year and an executive management team, whose members are appointed by a board that consists of senior members of various government ministries and representatives from business and industry. The members of the executive

management team should change every couple of years, based on suggestions from the secretariat, in order to ensure that its members (especially those from business and industry) represent at all times the key economic priority sectors that are of high relevance for the future economic development of the country. Members of the executive management team should be committed to invest time and work in the National TVET Council instead of being selected based on their position in their respective organisations.

In AMS where similar forums to National TVET Councils already exist, governments should re-evaluate their function to ensure they are more than generic communication platforms, but councils with actual power and responsibility to create results-oriented policies and programs.

### RECOMMENDATION 2: DEVELOP ALL GOVERNMENT REGULATIONS ON TVET WITH BUSINESS AND INDUSTRY ON A CONSENSUS BASIS.

Government regulations on TVET often lack relevance for business and industry or create expectations that are unrealistic (for example "straitjacket policies" that are expected to fit all industries and sectors despite their differences). While there are attempts to consult with business and industry on new regulations in order to increase their relevance, consultations are often organised too late in the process (not allowing any feedback provided by business and industry to change the developed drafts), on too short notice (not allowing the right people to make time to participate) and with too little time to allow for a proper discussion to take place.

As important stakeholders in TVET, business and industry should be consulted on all government regulations on TVET in a genuine process. Moreover, TVET strategies and regulations that have a large and long-term impact on the

country's workforce should be developed with business and industry on a consensus basis.

Genuine stakeholder consultations involve all relevant stakeholders (from different sectors where appropriate) and are ideally tripartite in nature, involving government, employers and employee representatives. Genuine stakeholder consultations also allow enough time to provide feedback on drafts in their early stages, when changes are still possible. If possible, business and industry representatives are even part of the drafting team for new TVET-related strategies and regulations.

Developing TVET strategies and regulations with the explicit approval of business and industry will increase the quality of feedback and input provided by business and industry representatives, ensure they are relevant and accepted, and create ownership among business and industry.

### RECOMMENDATION 3: DEVELOP A LONG-TERM TVET STRATEGY.

Many AMS lack a transparent, coherent and long-term TVET strategy. Without a strategy that provides a compelling future vision for the country's TVET system, it is impossible for business and industry to align their plans and resources, and to monitor the results of TVET reforms and programs.

All AMS should put in place a TVET strategy that provides a framework for long-term planning (5-years at minimum; this may vary for each country).

The strategy should be jointly drafted by a government-led working committee that involves all relevant TVET stakeholders in the country, including business and industry. From the government side, ministries of trade or economics should be included alongside ministries of education and labour.

Having a long-term TVET strategy in place could also lead to more transparency about the demand of skills among ASEAN members, potentially facilitating labour mobility of skilled workers in the ASEAN region as a result.

### RECOMMENDATION 4: STRENGTHEN BUSINESS AND INDUSTRY COOPERATION IN TVET PLANNING THROUGH STRUCTURED PUBLIC-PRIVATE DIALOGUE.

QUICK WIN

Stronger cooperation between business and industry and governments (including different government departments and TVET schools) should start in the planning stages for TVET. In order to ensure that the voice of business and industry is taken into consideration in TVET planning, AMS should develop a forum for structured public-private dialogue on TVET to take place on a regular basis.

These public-private dialogue forums can be used to offer business and industry an insight into government laws, regulations, strategies and policies before they are finalised, and give them the chance to provide feedback to them in their draft stage. The forums can also be utilized to share and align perspectives on the future

socio-economic development of the country, to discuss the relevance of research studies, jointly analyse and forecast the supply and demand of specific skills, set key performance indicators for relevant actors, and discuss strategies to mobilize resources for TVET initiatives of high priority to public and private partners.

Public-private dialogue forums should be constituted at the ASEAN, ASEAN member state, and sub-regional (e.g. industry/sector) level. At the ASEAN member state level, public-private dialogue forums could be organized by National TVET Councils (see recommendation 1), also on more specific issues in the form of technical sub-committees.

## RECOMMENDATION 5: STRENGTHEN EVIDENCE-BASED POLICY-MAKING.

Many TVET policies appear to be lacking a data-driven and evidence-based foundation. While a lot of research is conducted, it appears to be insufficiently used in the planning and implementation of TVET policies and programs.

Governments, as well as other stakeholders, including BMOs, should strengthen evidence-policy making in TVET by making better use of existing research. Strengthening – often weak – monitoring and evaluation systems would also contribute to more evidence-based policy-making.

Key performance indicators (KPIs) should be set up for TVET institutions, programs and personnel, and regularly monitored and evaluated. The introduction of KPIs could be combined with the introduction of recognitions for those who are performing well.

For business and industry, TVET-related indicators (such as the number of trainings they have provided or interns/apprentices they have trained) could be included in their annual company reports to government, in countries where such reports are compulsory.

## RECOMMENDATION 6: DEVELOP A FUTURE WORKFORCE STRATEGY THAT CREATES A COMMON UNDERSTANDING OF INDUSTRY 4.0 AND ITS IMPACT ON ASEAN EDUCATION SYSTEMS AND LABOUR MARKETS.

Many people and companies are still lacking a proper understanding of what Industry 4.0 is, and how they can best prepare for technological changes and their corresponding impacts on skills. Especially for the ASEAN region with its low labour costs, many companies, especially small and medium-sized enterprises (SMEs), have to carefully consider whether investments in Industry 4.0 technologies are effective and will lead to a positive return on investment.

It is therefore important to develop a common understanding of Industry 4.0 and the impact it has on TVET systems. In order to determine

these impacts, AMS should conduct a proper analysis. Then, in a second step, a future workforce strategy should be developed that includes transition roadmaps for the region and each member state, outlining a detailed timeline and milestones for preparing ASEAN's education systems and labour market for Industry 4.0.

Developing such roadmaps regionally will help AMS who are in different stages of readiness for Industry 4.0 to learn from each other.

## ESTABLISHING PUBLIC-PRIVATE MODELS FOR SKILL STANDARD DEVELOPMENT AND ASSESSMENTS



Skill standards define, for different levels of competency, the skills and knowledge required for different occupations. Skill standards, therefore, are the foundation on which TVET curricula and skill assessments are based on.

Yet, skill standards are not developed consistently across AMS. In many countries, skill standards are missing for several sectors, including priority sectors. Another common challenge is that existing skill standards do not represent the skills and knowledge required by industry, because they are often developed without business and industry involvement. Finally, the development process usually takes so long that standards are often obsolete again by the time their development is completed.

The establishment of public-private models for skill standard development and assessment is a concrete area to strengthen business and industry involvement in TVET. It also has the potential to considerably improve the labour-market orientation of TVET and increase the trust in skill certificates.

**RECOMMENDATION 7:  
FORM SKILL STANDARD DEVELOPMENT COMMITTEES THAT  
SUPPORT BUSINESS AND INDUSTRY IN LEADING THE DEVELOPMENT  
OF SKILL STANDARDS.**

PRIORITY

Each ASEAN member state should create the structures and opportunities that support business and industry to develop skill standards by forming skill standard development committees for different sectors. These committees should be institutionally affiliated with the government (e.g. the responsible Ministry for TVET) but must have the endorsement of the country's business and industry. Governments should also set up the necessary legal frameworks for these committees so that the standards they develop can be officially recognised and provide funding and other support needed to the appropriate business member organisations that lead the development of skill standards for their sectors and professions.

The work of skill standard development committees is highly technical using industry resources, experience and knowledge. It therefore needs to be led by appropriate BMOs (ideally sectoral associations) with support from TVET institutions and academia. Such an industry-led approach should accelerate the development process and also establish ownership among business and industry for the final product. The specific set up must be in line with each AMS national context.

The respective business membership organisation leading the skill standard development committees must ensure that appropriate experts are selected and engaged in the standard development process as committee members. These experts:

- must be from relevant companies (or industries);
- have in-depth knowledge of the profession they are developing the standard for;
- have in-depth knowledge of the specific context of that profession in the country.

The use of foreign experts in the development process should be limited.

Completely new skill standards could be developed by referencing global standards and adapting these to the specific country context. However, it should be envisaged to have ASEAN standards in the future, along with a framework for the mutual recognition of skills across the region.

**RECOMMENDATION 8:  
FORM SKILL COUNCILS TO MONITOR AND INITIATE THE UPDATING  
OF SKILL STANDARDS WHEN CHANGES IN INDUSTRY PRACTICES  
NECESSITATE REVISIONS.**

QUICK WIN

Skill standards require periodic updating to ensure they remain aligned with technological advances and changes in industry standards and practices. In order to monitor whether existing skill standards need to be revised, each ASEAN member state should establish a skills council (or several skills councils for different sectors, depending on the country).

Skills councils should be independent institutions but established jointly by business and industry and the government in each ASEAN member state. If there are several skills councils for different sectors in one country, it might be necessary for the public and private sectors to periodically check whether additional skills councils for newly emerging sectors need to be set up.

Skills councils have a coordinating function and are the first point of contact for companies who believe that new industry requirements necessitate the updating of existing skill standards

or the development of new ones. Skills councils should therefore be led by the country's chamber of commerce and industry, or in the case of sector-specific skills councils by the appropriate sector associations. Its members are from business and industry as well as from the government.

In addition to their ongoing coordination with companies, skills councils should conduct regular (for example quarterly) meetings with its members to obtain input on industry requirements for the updating of skill standards. They should then consolidate all input and report their findings to the appropriate skill standard development committee, which would then, if considered necessary, revise the outdated skill standard.

The establishment of such skills councils should make it easy and effective for business and industry to monitor skill standards and initiate a revision process when necessary.



## RECOMMENDATION 9: FORM NATIONAL CERTIFICATION BODIES TO PROFESSIONALISE AND STANDARDISE THE ASSESSMENT OF SKILLS.

In many AMS, the assessment of skills is government-led with little or no involvement of business and industry. There is also a weak linkage between the skill requirements of business and industry, the assessment of skills, and the certifications provided. In consequence, skill certificates are not trusted by business and industry (see recommendation 20).

AMS should professionalise and standardise the assessment of skills, and also ensure a greater involvement of business and industry in the process. National certification bodies should be created, where they do not already exist, to lead the assessment and certification of skills. These bodies should consist of the country's Ministry of Labour/Manpower, the chamber of commerce and industry, professional and sectoral associations, as well as the Ministry of Education, depending on the country context.

The responsibilities of the national certification bodies should include the training and certification of assessors, the standardisation of skill assessments, and assessing and issuing licences for assessment centres.

Assessment centres are allowed to assess skills and issue certifications for the professions they are licenced for. All TVET school graduates, but also existing workers (through a recognition of prior learning mechanism) should be assessed in these assessment centres. The assessment itself should be conducted by two assessors, one assessor from a professional association and one from a TVET institution. The assessment centres should be allowed to charge a fee for the assessment and certification, in order to cover their costs, including for the payment of assessors who should be paid for the time they spend conducting assessments.

## STRENGTHENING THE LEADERSHIP OF BUSINESS MEMBERSHIP ORGANISATIONS IN TVET



BMOs are key players in TVET development. As common platforms among companies and industries, BMOs have an important coordination function in identifying the skills needs and requirements of the sector(s) and region(s) they represent. The current mismatch of skill supply and demand will be hard to resolve without their active involvement in TVET.

BMOs in ASEAN are, however, not yet as strong as their counterparts in other regions of the world. Many BMOs face challenges in funding and delivering value-added services to their members. The consequence is that companies do not see the benefit of joining BMOs. They remain without any form of organization or representation, resulting in a weak voice and less influence on key policies, such as the future TVET agenda.

Strengthening business and industry cooperation in TVET therefore has to start with strengthening the voice, capacity and leadership of BMOs to engage in TVET.

### RECOMMENDATION 10: FORM AN ASEAN FUTURE WORKFORCE COUNCIL LED BY BUSINESS AND INDUSTRY.

PRIORITY QUICK WIN

An ASEAN Future Workforce Council, led by business and industry from all sectors across the region, would provide the avenue to advance ASEAN-wide action on TVET, in particular the implementation of recommendations entailed in this Future ASEAN Agenda for TVET.

Committed members of the regional working group on business and industry cooperation in TVET will form the inaugural team of this council. BMOs from all AMS are encouraged to support the council and participate in it.

The council should be an independent body purely consisting of business and industry. An affiliation with ASEAN and/or ASEAN-BAC might be pursued to increase the council's political influence, if a lengthy process of bilateral approvals and confirmations that often comes with setting up a political body can be avoided.

The council should instead start informally and focus on action, before getting formalised. A collaboration with the ASEAN Secretariat and ASEAN sectoral bodies on specific activities of common benefit, including the endorsement of activities from relevant sectoral bodies, is envisaged.

To ensure continuity of initiatives, a rotating secretariat, set up in existing organisations, would provide organisational support to the council. Financial support would also come from its members, making the council financially independent from third parties. The detailed set-up, financing and identification of primary activities need to be clarified and documented in the form of Terms of Reference for the council.

Primary activities might include the following activities focused on the rebranding of TVET:

- Organisation of an annual ASEAN Future Workforce Conference hosted on a rotating basis in AMS.
- Setting up of a recognition platform to award best practices in conjunction with the Annual Future Workforce Conference (see recommendation 22).
- Documentation of success stories from AMS.

Aligned with the formation of an ASEAN Future Workforce Council, BMOs should consider the formation of National Future Workforce

Councils in their countries, where necessary. These national councils should bring together the responsible people from TVET departments and education/skills committees that already exist in BMOs, in order to strengthen their collaboration and ensure that they speak with one voice on TVET policy and development in their country. They would also act as feeder for the regional level ASEAN Future Workforce Council and support its efforts in collecting and documenting success stories and rebranding TVET.

### RECOMMENDATION 11: EXPAND THE MEMBER BASE OF BUSINESS MEMBERSHIP ORGANISATIONS BY PROVIDING MORE AND BETTER VALUE-ADDED SERVICES.

BMOs will have a stronger voice if they represent more member companies. In order to grow their membership, BMOs in ASEAN should put more emphasis on offering more and better value-added services to their members.

Companies only pay membership fees, if they can expect to access and receive services that are useful and relevant to them. These services may cover a wide range of activities, from the provision of market and business data and information, to consultation services in areas such as import, export and labour laws, and to offering training courses for their staff.

In order to identify the most sought-after services, BMOs need to enhance the capacity of their staff to identify which services are of interest to companies. Staff capacity also needs to be enhanced for the provision of better services to member companies.

In order to secure necessary funding for core operations and the delivery of services, BMOs should develop a suitable fee structure, which distinguishes between services delivered for free, core services delivered for free only to members, and additional services which can generate revenue for BMOs through a fee-for-service charge for members.

**RECOMMENDATION 12:  
ENCOURAGE COMPANIES TO BECOME MEMBERS OF BUSINESS MEMBERSHIP ORGANISATIONS AND CONSIDER MAKING MEMBERSHIP MANDATORY BY LAW.**

Governments should provide concrete support to the efforts of BMOs to expand their membership by promoting the role of BMOs and encouraging companies to become members.

The following actions could be considered:

- Promoting the work of BMOs on government websites and linking to BMO websites;
- Direct encouragement and endorsement of BMOs by government officials in business forums and events attended by companies;
- Provision of tax incentives to companies who have joined BMOs that have been approved for such a purpose by the government;

- Provision of subsidies to BMOs for offering TVET-related services to companies.

Governments should also consider making membership in BMOs (in particular chambers of commerce and industry) mandatory by law. Any such law should be jointly developed by government and business and industry, based on the initiative of chambers and associations in each country. It should avoid interfering in the internal affairs of BMOs and instead focus on enabling them to express freely and self-organized the interests of employers and contribute to the social and economic development of their countries.

**RECOMMENDATION 13:  
PREPARE AND DISSEMINATE POSITION PAPERS OF BUSINESS MEMBERSHIP ORGANISATIONS THAT REPRESENT THE VOICE OF EMPLOYERS ON TVET-RELATED ISSUES.**

If business and industry are involved in TVET policy dialogues, it is often ad-hoc and through the voice of individual representatives (see recommendation 4).

Preparing and disseminating position papers that represent the voice of employers on planned TVET reforms, new or existing TVET policies, and progress made on the implementation of TVET programs, would give business and industry a stronger voice in TVET policy dialogues.

Chamber and associations alike could develop such position papers, based on input by and representing the positions, interests and policy recommendations of their members. As an advocacy tool, position papers could be prepared either in certain intervals (e.g. annually) or whenever the need arises. They might also be developed at the national level, or if appropriate at the regional/provincial level.

As part of the dissemination strategy, BMOs could organise conferences to present and discuss their position paper with representatives of the public sector. Position papers should

also be submitted to relevant government authorities at a high level for discussion and consideration.

**RECOMMENDATION 14:  
ESTABLISH TVET DEPARTMENTS IN BUSINESS MEMBERSHIP ORGANISATIONS STAFFED WITH FULL-TIME EMPLOYEES WHO ARE TRAINED TO DELIVER TVET-RELATED SERVICES.**

Moving the TVET agenda in BMOs forward cannot be left to volunteers alone. In order to successfully provide the above-mentioned TVET-related services to its members, BMOs should establish TVET units or departments within their secretariat structure.

These units need to be staffed with dedicated employees who need to be:

- knowledgeable about the country's TVET system and relevant laws and regulations (including labour laws);
- knowledgeable about local and international practices in TVET development, including dual training;
- able to network with relevant stakeholders and have the business acumen to successfully finance and implement the activities of the unit;
- able to communicate market trends and their impact on skills to government representatives and other stakeholders;
- able to develop guidelines, tools, materials and campaigns to mobilize and support the involvement of companies in TVET (see recommendations 8);

- able to develop and coordinate survey with members to gather relevant industry intelligence;
- able to identify relevant industry experts for the development of skill standards and to serve as assessors or in-company trainers.

Clear responsibilities and key performance indicators need to be established for these units, which correlate with the activities and services to be provided.

With such TVET units in place, board members can focus on policy-level advocacy and stakeholder coordination related to TVET.

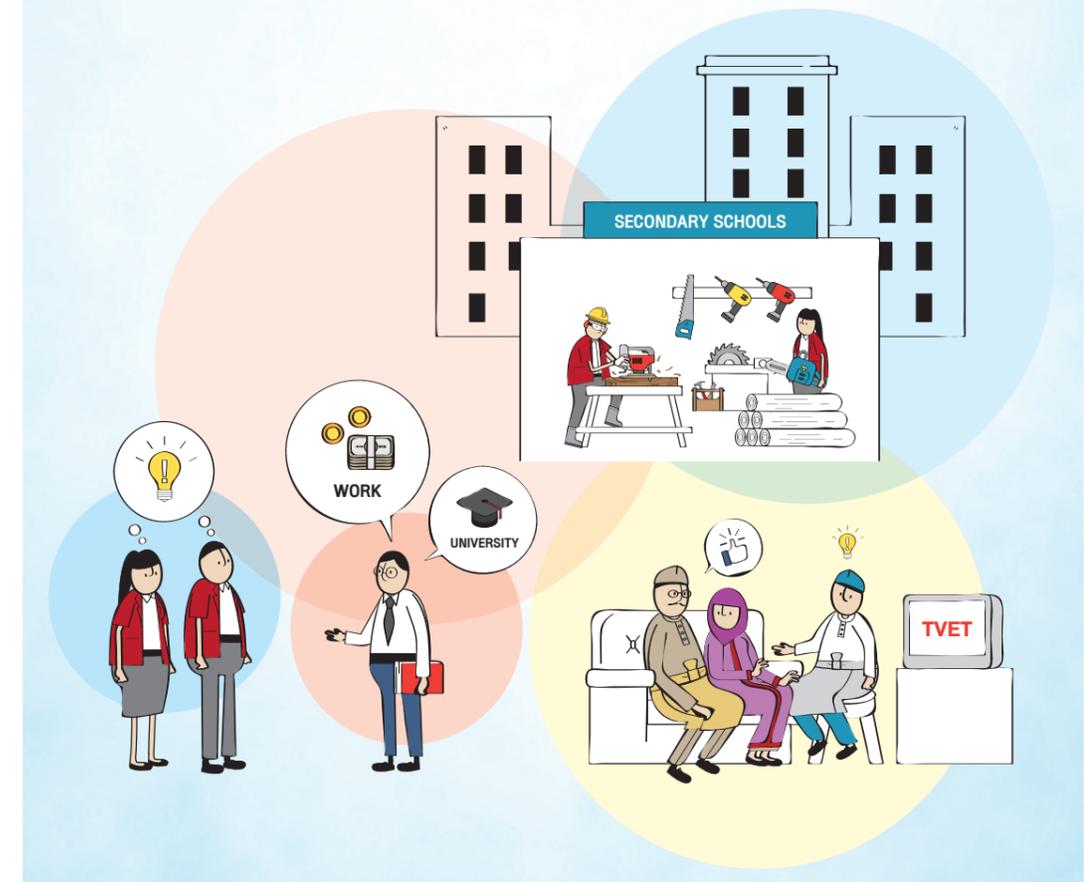
## RECOMMENDATION 15: EXPAND TVET-RELATED ACTIVITIES AND SERVICES OF BUSINESS MEMBERSHIP ORGANISATIONS FOR MEMBERS.

For the majority of BMOs, TVET is still a new area to engage in, but one that is becoming increasingly important. As part of BMOs' expansion of membership services, particular attention should be paid to expanding and improving TVET-related services.

TVET-related activities and services of BMOs may include the following:

- **Legal and tax advisory services:** BMOs could advise their members on the impact and opportunities of existing and upcoming TVET-related laws (including labour laws), regulations, taxes and available subsidies for their businesses.
- **Support skills development efforts of companies:** BMOs could consult and support companies in setting up in-company training programs, linking companies to local TVET schools for the placement and hiring of apprentices and graduates, and provide speakers or trainers for training programs or workshops of companies.
- **Offer certified training for company staff:** BMOs could develop tailor-made competency-based skills training programs for employees based on the demand of their member companies (see recommendation 31). Trainings could be linked to certifications offered exclusively by BMOs, e.g. for in-company trainers.
- **Support standard and curriculum development:** BMOs could support the development of demand-oriented skill standards and curriculum that is aligned with the needs of their members (see recommendation 7).
- **Conduct and publish research and information:** BMOs have a key role to play in assessing skills needs through membership surveys (see recommendation 44). Conducting and publishing research and other information could create value for members if it is focused on issues that affect them or are of high interest to them.
- **Promote and lobby for TVET:** BMOs can also be an important influence in promoting TVET to member companies, governments, and young people and their parents (see recommendation 16). The organisation of seminars, workshops and roadshows on TVET-related issues can help in creating a positive branding for TVET and increasing its attractiveness and acceptance.

## REBRANDING TVET



TVET has an image problem in AMS. The perception of TVET among young people, their parents and also employers is quite negative throughout the region. Among the prejudices against TVET are: Only those who were not good enough for college attend a TVET school, a TVET degree will not offer a good career in the future, and the salaries of TVET graduates are very low.

Many of these beliefs are not true or have been generalized. For example, some TVET graduates in technical professions earn even more than college graduates in entry level office jobs. There are also success stories of TVET graduates who have gone on to have a successful career.

The negative perception of TVET is not only a challenge because of the lack of skilled workers it contributes to, it also has a direct impact on the quality of training. For example, TVET schools (especially private schools that cannot offer comparable benefits to a public service job) find it difficult to hire skilled professionals who want to work as TVET teachers. But with teachers and trainers who often do not have the right qualification to serve in that capacity, the quality of training suffers – contributing again in turn to the negative perception of TVET.

Rebranding TVET is consequently an important field of action, which should be tackled by all stakeholders together.

**RECOMMENDATION 16:  
LAUNCH TVET AWARENESS CAMPAIGNS TO IMPROVE THE PUBLIC REPUTATION OF TVET.**

QUICK WIN

It is important to establish a positive and supportive attitude of the public towards TVET, especially among parents and youth. Public awareness campaigns should be launched in each ASEAN member state to improve the understanding and reputation of TVET. One of the main objectives of such a campaign should be to convince more young people to choose a technical or vocational training to launch their career. Government and BMOs could support such a campaign financially. It would, however, be best coordinated by a government appointed agency.

The campaign should focus on the following key messages:

- TVET graduates contribute significantly to the social and economic development of our countries, to MSMEs and start-ups;
- TVET graduates can start earning money more quickly and continue their higher education later on, or at the same time of pursuing a TVET degree;
- TVET provides skills of the future and opportunities for self-employment;
- TVET can contribute to securing the sustainability of family businesses by providing necessary core skills of running a business (such as bookkeeping);
- TVET covers not only blue-collar jobs, but also prepares students for jobs in other

sectors, such as hospitality, business, and administration.

The campaign should utilise different communication channels, including TV, online and social media and TVET fairs with industry experts, in order to reach its different target groups. Target groups of the campaign might,

in addition to students and parents, also be employers, teachers and trainers, and officials of relevant government bodies. Success stories from TVET alumni could be utilised to show that TVET graduates are highly employable.

**RECOMMENDATION 17:  
OFFER CAREER COUNSELLING AND A TVET-ORIENTED CURRICULUM AT HIGH SCHOOL LEVEL TO INSPIRE AND MOTIVATE STUDENTS FROM A YOUNG AGE TO PURSUE TVET.**

QUICK WIN

It is important to get students to understand and appreciate skilled professions from a young age. When young people understand and have a positive attitude about TVET, they are more likely to go on to a TVET school instead of university.

Education ministries should help students to better understand TVET, the benefits of a technical or vocational training (earning while you learn, earning an income sooner, and less investment costs), and how they can contribute to the economic progress of their country with a TVET qualification. One way of doing this is by expanding career counselling in public schools, starting as early as junior high schools. Another way is by introducing a TVET-oriented curriculum at high school level.

Career counselling should not be understood as a one-time event, but rather as a journey that young people and their counsellors embark upon. In order to provide professional career counselling, schools need experienced career counsellors that:

- have access to up-to-date labour market information;
- are able to identify what students are passionate about and which skills they have, for example by applying appropriate psychological or aptitude tests;
- are able to convince young people, who are more inclined towards technical rather than academic skills, that they will be happier pursuing a technical or vocational training;
- are able to convince parents about the benefits for their kids of pursuing a technical or vocational training (also economically)
- are excellent mentors.

Schools should establish a systematic process for career counselling and collaborate closely with local BMOs and government authorities to offer different career counselling activities. These might include:

- Identifying ‘youth ambassadors for TVET’ (TVET graduates) who appear in the media, roadshows, fairs, and particularly in school talks to inspire their peers about TVET;

- Conducting career talks with industry leaders at the school;
- Organising industry visits for students to become familiar with the working environment of different companies;
- Holding TVET roadshows in schools;
- Organising open days in TVET schools to allow students at secondary and high schools to visit and learn first-hand about the school environment, occupations taught, and training facilities/equipment used.

Introducing a TVET-oriented curriculum at schools could be another stand-alone measure or ideally combined with career

counselling. It would offer students the opportunity to work with their hands in a certain number of lessons on selected vocational or technical skills. Lessons could be selected based on how popular the associated sectors and jobs are for students and their parents. When introducing such a TVET-oriented curriculum at schools, education ministries might consider offering different tracks.

It is the responsibility of education ministries to include career counselling and TVET-oriented curriculum in schools. However, BMOs in AMS could lobby for their introduction.

### RECOMMENDATION 18: OPEN UP FURTHER EDUCATION OPPORTUNITIES FOR TVET GRADUATES, INCLUDING ACCESS TO HIGHER EDUCATION.

Successful TVET systems offer pathways for TVET students to acquire academic degrees later on in their career. In AMS, no such pathways are currently defined for TVET, which contributes to the reputation of TVET as a 'second class' education.

Formulating TVET pathways, parallel to academic pathways, up to level 7 of the ASEAN Qualification Reference Framework, would provide TVET graduates with better career development opportunities and thereby contribute to a more positive image of TVET.

Opening up further education opportunities after graduating from a TVET school, including access to higher education, also allows young people to catch up who might have fared poorly in secondary school and dropped out early due to economic reasons or their family situation, rather than their capacity to learn.

Education ministries should lead the formulation of these pathways, in cooperation with other relevant stakeholders, depending on the country context.

### RECOMMENDATION 19: PROVIDE OPPORTUNITIES AND FINANCIAL INCENTIVES FOR LIFE-LONG LEARNING.

No matter the specific impact of Industry 4.0 on the ASEAN region, it is clear humans will not be replaced entirely by robots in the future. Jobs are, however, changing and changing fast. More and more, companies require very specific expertise which they currently cannot find on the labour market as education systems are unable keep up with the pace of technological change and the subsequent change in skill profiles.

In order to tackle this reskilling and upskilling challenge – now and in the future – life-long learning becomes a necessity. Everyone needs to be able to keep learning and acquiring new skills and knowledge throughout their career, in order to adapt to the continuous technological advancements in their profession.

Young people need to be equipped with the desire and ability for life-long learning as early as possible in our education system (see recom-

mendation 33). In addition, governments should create pathways and opportunities for those already in work to develop their fullest potential throughout life, regardless of their starting position. This should include financial support and incentives, especially for those who cannot afford lifelong-learning, for example through the introduction of a voucher system or tax deductions for individuals for training-related expenses.

The introduction of such a system would contribute to raising the reputation of TVET, as it would allow everyone to benefit from vocational or technical training courses to further enhance their career.

Setting up such a system is the responsibility of AMS and will require the collaboration of several ministries, including those for education, labour and economics.

### RECOMMENDATION 20: IMPROVE AND PROMOTE THE VALUE OF SKILL CERTIFICATES TO COMPANIES.

For several reasons associated with the weak quality of TVET in ASEAN (for example, the lack of practical skills training and of involvement of business and industry in skills assessments), skill certificates are not trusted by companies.

As a consequence, companies have no motivation to hire TVET school graduates or other certified workers. This, in turn, creates no incentives for people to get certified.

Breaking this cycle is important to improve the reputation of TVET, and to encourage more young people and professionals to pursue a skill certificate, also by means of recognition of prior learning.

Public and private stakeholders have a joint responsibility to change the attitude of employers towards skill certificates. BMOs can promote the importance of skill certificates by identifying and publishing case studies of companies which have increased their productivity and profits due to the hiring of certified skilled workers (see recommendation 21).

Governments should make work-based learning a mandatory requirement of all skill certificates, in order to ensure that students acquire

the necessary skills to start working in companies after their graduation without requiring further intensive on-the-job training. This would distinguish those with a skill certificate from those that have not obtained one and build up trust in skill certificates by companies.

Furthermore, governments should consider incentives and regulations linked to other core aspects of doing business, which would encourage more companies to hire certified workers. For example, compliance with safety regulations could be linked to having certified workers on staff. Another idea could be to reduce the social security contributions companies have to pay for their staff, if they are certified or the company invests in getting them certified.

## MOBILIZING COMPANIES TO ENGAGE IN TVET



Companies are important for TVET for two main reasons: As employers, they stand to benefit from hiring well-qualified TVET graduates, who have learned the necessary skills and knowledge to be productive employees. They are also important as providers of training and work-based learning for TVET students.

Across the ASEAN region, companies have not yet shown much interest in engaging in TVET. Several factors contribute to this, including a lack of information about TVET systems and how companies can contribute to higher quality training, the absence of significant benefits for companies that engage in TVET compared to those who don't, a mismatch between the training curriculum at TVET schools and the needs of companies, and a high turnover of apprentices and staff who move to other companies even after their employer has invested in their training.

Mobilizing companies to engage in TVET is a significant area that requires action by business and industry and governments alike.

**RECOMMENDATION 21:  
CALCULATE THE RETURN ON INVESTMENT OF ENGAGING IN TVET  
TO PERSUADE MORE COMPANIES OF ITS BENEFITS.**

Companies do not engage in TVET, because they believe it is an investment with very little or no return. Providing data that shows a positive return on investment might persuade more companies to engage in TVET.

To that extent, a model should be developed how the return of investment can be calculated for companies, and then applied using relevant financial and other data of companies who have been engaged in TVET and those that haven't, in order to compare the effects.

As part of the model, key performance indicators (KPIs) should be identified that can be used by companies to monitor the effects of engaging

in TVET. KPIs might, for example, include the productivity rate of employees (with/without TVET background), recruitment costs and the level of and costs associated with staff turnover.

The model for calculating the return on investment of engaging in TVET could be developed at the ASEAN level and then utilized by BMOs, particularly sectoral associations, for their specific area or sector. The cooperation of companies in providing the required data to BMOs is essential for the success of deriving such return on investment data.

**RECOMMENDATION 22:  
SET UP A RECOGNITION SYSTEM TO AWARD OUTSTANDING  
COMPANIES ENGAGED IN TVET.**

Despite many challenges, a number of companies across ASEAN are already engaging in TVET. Their commitment to training is not only benefiting themselves, but as TVET champions they are also serving as role models for other companies and contributing to the overall improvement of TVET. In order to recognize these companies and encourage more companies to follow their lead and engage in TVET, a recognition system should be set up to award outstanding companies involved in TVET.

The recognition system could be linked with the ASEAN Business Award, which has already been successfully established as an annual award by the ASEAN Business Advisory Council (ASEAN-BAC). Chambers in AMS could serve

as national focal points to help identify and nominate companies to ASEAN-BAC, based on set criteria. The final winners are then selected by ASEAN-BAC, which would also host and hand out the award during its annual ASEAN Business Award gala.

Organising an award gala also supports efforts of rebranding TVET across the ASEAN region. Setting up a live broadcast of the award gala, organising TV and radio interviews with the winning companies, using social media and the websites of BMOs to distribute information about the award winners could help to spread the word and inspire more companies to get engaged in TVET.

**RECOMMENDATION 23:  
PRIORITIZE TVET AS A TOPIC IN ANNUAL WORK PLANS OF BUSINESS  
MEMBERSHIP ORGANISATIONS AND USE MEETINGS TO TALK ABOUT  
THE BENEFITS OF ENGAGING IN TVET.**

BMOs are well-positioned to raise awareness among their member companies about the benefits of engaging in TVET and support them in making their first steps. One way to flag the importance of TVET is to include it as a topic of priority in the annual work plan of the BMO. This would also ensure that the leadership and staff of the BMO itself has a strong mandate to work on TVET.

Several different topics and activities are suitable to be included in annual work plans of BMOs, in order to find discussion in membership assemblies: The rights and benefits of companies' engagement in TVET, the specific roles of key stakeholders in TVET and appropriate mechanisms for stakeholder cooperation, development of competencies of in-company trainers, exchange visits and other forms of

cooperation among TVET schools and companies, the identification and sharing of best practice examples, or the development of employer position papers for TVET development (see recommendation 13).

Similar to the prioritization of TVET by BMOs, other groups should consider opportunities

available to them to encourage and discuss company involvement in TVET. For example, the organisers of the ASEAN Skills Competition could hold a business forum on TVET as a side activity to the competition, in order to utilize the presence of company representatives in the event.

**RECOMMENDATION 24:  
DEVELOP AND PILOT A COOPERATION SCHEME FOR THE  
PROVISION OF PRACTICAL TRAINING BETWEEN LARGE COMPANIES  
AND SMES, LEVERAGING SUPPLY CHAIN RELATIONSHIPS.**

Mobilising companies to engage in TVET is particularly difficult when it comes to SMEs. SMEs are often too small to invest the necessary time and money to engage in the provision of practical technical or vocational training. SMEs, on the other hand, are the backbone of local economies and make up 96% of all companies in the ASEAN region. They also stand to profit considerably from employing TVET graduates.

More emphasis therefore needs to be put on developing incentives and programs that encourage the involvement of SMEs in TVET delivery.

One possible scheme could leverage supply-chain linkages between large companies and SMEs. Usually, large companies source the majority of their supply from local SMEs in their supply chain. Strengthening the quality and productivity of workers in these SMEs would presumably increase the quality of the supply

they produce, therefore benefiting their buyer. Building on this dynamic, a cooperation scheme could be developed in which large companies contribute to the training and development of skilled workers in their supply chain. This would create a win-win situation: Large companies would benefit from better quality supply (including a possible reduction of costs) and SMEs would benefit from a better qualified workforce that enhances their productivity and output quality.

Such a pilot scheme could be developed by BMOs, who in a first step would need to further define the concept and an implementation structure, and then identify large companies to join the initiative. Government support, especially in the form of incentives for participating companies, are useful during the pilot phase. Ministries of trade, industry or economics would be best suited to champion such a scheme.

If the scheme was to be piloted in several AMS, the ASEAN Secretariat could play a supporting role through the development of templates and guiding instruments. Coordination at the regional level would also have the added

advantage that lessons learned get documented and shared among AMS.

In the case of a successful pilot implementation, a larger scale roll-out could be envisaged.

**RECOMMENDATION 25:  
IDENTIFY AND DISTRIBUTE BEST PRACTICES OF BUSINESS AND  
INDUSTRY COOPERATION IN TVET.**

QUICK WIN

The identification and distribution of successful cases of business and industry cooperation in TVET, particularly of companies, could raise awareness and interest of more companies in TVET.

Similar to the TVET handbook (see recommendation 26), best practices could be jointly collected by responsible line ministries and BMOs, or any other stakeholders.

The best practices should be professionally edited and designed, in order to be easy to read and understand.

Along with the publication of best practices, sharing session could be organised in each ASEAN member state to distribute the best practices systematically.

**RECOMMENDATION 26:  
DEVELOP A TVET HANDBOOK FOR COMPANIES TO FACILITATE THEIR  
ENGAGEMENT IN TVET.**

QUICK WIN

Companies, especially SMEs, often struggle to understand the complexities of TVET systems. They also do not know how they could contribute to training skilled workers.

A simple way of addressing this, is by developing a TVET handbook, specifically targeting managing directors and HR managers of companies. Such a handbook could be developed

jointly by responsible line ministries and BMOs, or any other stakeholders.

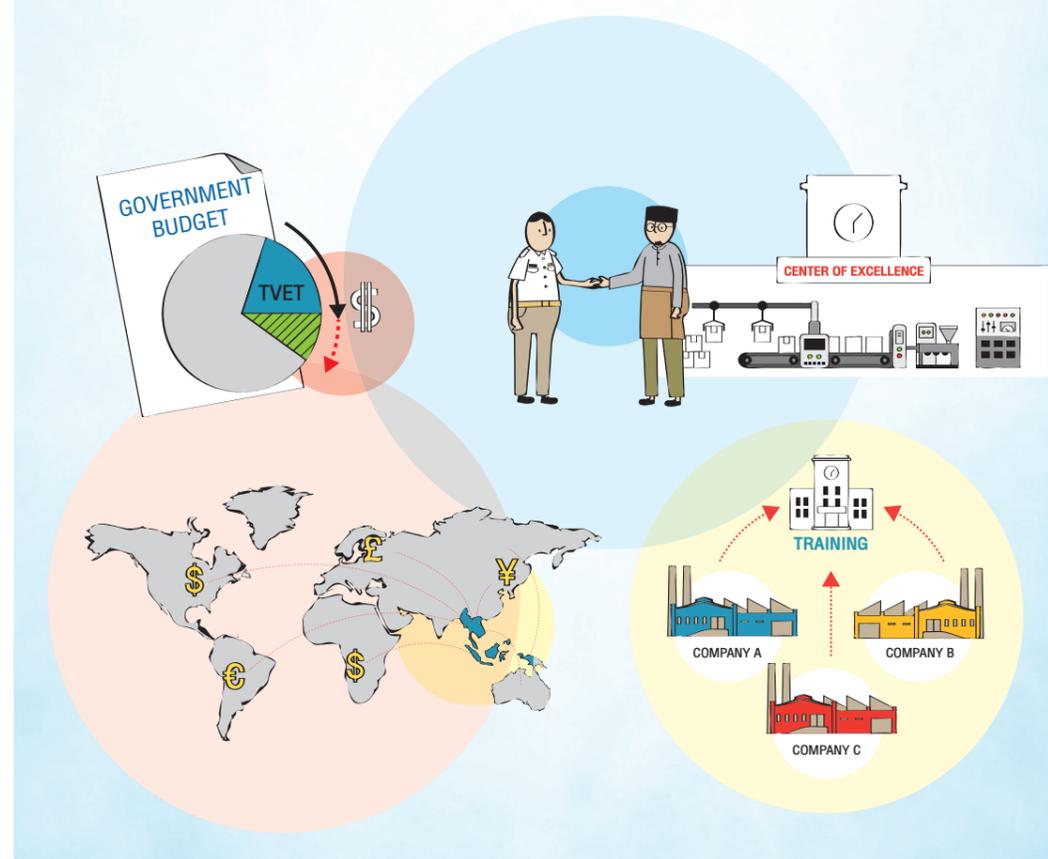
The content of the handbook should include a description of the national TVET system, benefits for companies who support the delivery of training, how to become active, as well as good practices and examples of other companies who are already active.

In countries with dual or cooperative training schemes already in place, more specific tips could be added on how to establish good processes for training delivery at the company level.

It is also possible to focus the handbook on select priority industries in the country, in order to be able to provide more industry-specific information and good practices.

Reference could be made to the possibility of identifying senior company staff to become in-company trainers, as one of the first concrete steps towards more engagement in TVET (see [recommendation 36](#)).

## ENSURING SUFFICIENT FUNDING FOR TVET



Sufficient funding is an important prerequisite for ensuring high quality TVET.

The allocation of a sufficient amount of public budget for TVET is an important part of TVET financing. Other sources of funding are, however, needed to ensure the delivery of high quality and labour-market oriented training. For example, many technologies are changing so quickly in today's world that it is too expensive for public schools to continuously upgrade their training equipment. The contribution of business and industry is essential to ensure the relevance of training. This might require the development of appropriate policies and incentives that facilitate business and industry contributions, as well as addressing the reputation of TVET among employers.

The distribution of available sources of funding is also important. More can be done for example to reduce the mismatch of resources, i.e. through supply-driven investments in certain TVET schools, occupations or technologies without a matching demand from business and industries.

### RECOMMENDATION 27: ALLOCATE AN APPROPRIATE ANNUAL BUDGET TO TVET AND CONSIDER THE ESTABLISHMENT OF A TVET FUND.

PRIORITY

In many AMS, the funding structure of TVET is not clear and presumably, there is an insufficient allocation of public budget to TVET. Several reasons might contribute to this, including a lack of awareness about the social and economic benefits of a high-functioning TVET system among those responsible for budget decisions, as well as reputation and credibility issues among the public.

All AMS should allocate an appropriate annual budget to TVET and make the information about public TVET spending transparent and available to all citizens by publishing it as part of the annual government budget.

The allocation of budget should be based on a national cost estimate for running an effective

TVET system. This cost estimate should be developed jointly by government and business and industry, in order to ensure the use of accurate and updated data and facilitate an open exchange about the costs and cost-sharing possibilities to run they country's TVET system.

To provide further transparency about the allocation and use of public TVET funding, governments should consider setting up a TVET fund, administered and funded by the government with contributions from business and industry (if necessary, enforced through regulation). The amount of money contributed to the TVET fund by business and industry should be appropriate to the situation of companies, particularly MSMEs, in the country.

### RECOMMENDATION 28: STIPULATE INCENTIVES FOR COMPANIES TO BECOME ENGAGED IN TVET AND ENSURE THEIR ENFORCEMENT.

Government incentives can motivate companies to support and contribute to TVET. TVET-supportive government policies can take on different forms.

Tax reductions for companies that offer internships or apprenticeships and incur training related expenses are a common incentive already stipulated by some AMS.

However, tax reductions might not work for all AMS as the collection of tax remains a difficult task. Other forms of support to companies,

such as the provision of training subsidies or the recognition of training companies through an award, might be more suitable in such countries.

In addition to stipulating incentives through laws, governments should also focus on their enforcement by ensuring the timely development of implementation guidelines, and set up of necessary processes. Establishing a National TVET Council, mandated with the monitoring of TVET policy implementation, could aid the enforcement (see recommendation 1).

### RECOMMENDATION 29: POOL PUBLIC AND PRIVATE RESOURCES BY ESTABLISHING NATIONAL CENTRES OF EXCELLENCE.

TVET, with its constant need for investments in new training equipment, is costly. Given the accelerating speed of change in technologies, governments alone will find it difficult to keep TVET schools up-to-date. A cooperation with business and industry is indispensable to provide state-of-the-art equipment and training.

One way of encouraging a greater involvement of business and industry in TVET delivery is the establishment of national centres of excellence in close cooperation with industry.

TVET centres of excellence provide highly specialised training in selected industry sectors (e.g. a center of excellence for renewable energy).

In addition, these centres of excellence facilitate the pooling of public and private resources, instead of spreading limited resources across a vast number of public (and private) TVET schools.

Two different funding models could be envisaged for these centres of excellence:

1. Based on a public-private-partnership agreement the public sector provides the training facilities, while the entire operation of the centre is taken over by business and industry. Such a model can improve the management of the centres and allow for more flexibility by business and industry to adapt the training offers to their needs.

2. The centres are funded and operated by the government, but with extensive mobilisation of additional resources from business and industry. Public funding would also be allocated differently among TVET schools in the country: Instead of giving all schools a little bit of funding for many subjects, funding would be focused on a few subjects offered by each centre of excellence. This would optimise the use of existing resources as well as create more specialised workers by shifting training programs from a generic baseline to the advanced level.

The overall approach is highly sector-driven and would require all key actors from one sector to cooperate and support their sector-specific centre of excellence, also through the transfer and provision of technology and equipment.

**RECOMMENDATION 30:  
REQUIRE FOREIGN DIRECT INVESTORS TO FUND TVET TRAINING  
IN ORDER TO MEET THEIR INVESTMENT PROJECT'S SKILLS  
DEMANDS.**

Foreign direct investment (FDIs) often requires larger numbers of skilled workers to be ready in the country where the investment is being made. If it can be foreseen that the required quantity and quality of skilled workers is not available, investors typically bring their own country's workers to implement the project – depleting the prospect of local job creation that should come with large investments.

Government should therefore consider incorporating the requirement to fund TVET training in agreements with foreign investors. The requirement should also include the provision of technology and machines that are required

to prepare students or existing workers for the specific tasks they will perform in the investment project. As well as the provision of a plan, which outlines the skill sets required and a timeline for how these skills could be developed with their help.

Encouraging international corporations to invest in the skills development of their target countries could provide considerable assistance in the development of their national TVET systems. At the same time, international corporations would benefit themselves through the development of a local workforce that can support their business operations in the country in the long-term.

**RECOMMENDATION 31:  
SET UP INTER-COMPANY TRAINING INSTITUTES AS AN INCOME-  
GENERATING MEASURE TO FINANCE TVET ACTIVITIES AND  
SERVICES OF BUSINESS MEMBERSHIP ORGANISATIONS.**

Establishing and running inter-company training institutes is a way for BMOs to generate revenue that can be used to finance other TVET-related activities and services. Conducting tailor-made training courses that cater to the needs of member companies is also a service that benefits member companies, thereby making membership in the BMOs more attractive.

Training institutes could be set up in cooperation with large firms who are willing to provide additional start-up funding. The involvement of large firms may be necessary in case that the training institute is also going to provide technical skills trainings that require investment

in equipment and machinery. In the medium to long-term, training institutes should be self-financing and generate income through the delivery of demand-based training courses for company staff, in particular in-company trainers who can serve as multipliers. Experts from the industry should be utilized to offer the training courses.

An additional source of income might be the provision of a business and industry-sanctioned certification (see recommendation 9). A collaboration with TVET schools and the public TVET system could provide further added-value.

## IMPROVING THE QUALITY OF TRAINING DELIVERY



The quality of training delivery is a big challenge. Several factors play an important role, these include but are not limited to: Training curricula need to be aligned with the needs of business and industry and reviewed regularly for necessary updates; training equipment and learning aids and needs to be up to date; teachers in schools require industry experience and trainers in companies require pedagogical know-how; practical skills training and the development of soft skills require more attention; classroom sizes need to be reduced.

**RECOMMENDATION 32:**  
ALIGN TRAINING CURRICULA BETTER WITH THE NEEDS OF BUSINESS AND INDUSTRY AND MAKE THEM MORE CONSISTENT ACROSS TVET SCHOOLS.

Training curricula describe the specific knowledge and skills that trainees will acquire in a certain training program. The quality of a training program therefore depends to an important degree on the quality of the training curriculum used.

A key issue for business and industry is that curricula as well as the equipment and training materials used in TVET schools are often out of date, thereby training students in skills that are not in demand in the economy.

In order to better address the current skills needs of companies and create a high quality and up-to-date workforce, governments need to update the training curriculum, equipment and materials of their TVET schools. This includes, teaching up-to-date skills and knowledge, teaching more practical skills and teaching soft skills, such as communication, team work or problem solving, which are nowadays almost entirely absent from curricula. Having access to up-to-date labour market information is an important prerequisite for schools to do this (see recommendation 44).

There is also a need to develop a more uniform and consistent quality of training programs: Different TVET schools in one country often deliver different training programs for the same occupation. As a consequence, students gain different skills and knowledge depending on the school they attended, making it difficult for companies to know what skills and knowledge they can expect from hiring a TVET school graduate. Developing national skill standards (see recommendation 7), which specify core skills and knowledge that ought to be part of every training program for an occupation at all schools across the country, will help to introduce more consistent quality levels across TVET schools.

While making it mandatory for TVET schools to include such prescribed core skills and knowledge in their training curricula, they should still be given the flexibility to adapt their training programs to the needs of the local economy by including additional learning objectives. Local companies should provide their local TVET school with data and information about their current skills requirements, for example via an industry advisory council

(see recommendation 39). Based on the information provided, TVET schools, companies and responsible government agencies should jointly develop the updated curriculum.

For quality assurance, schools should set up monitoring & evaluation systems to ensure

that teachers comply with the core curriculum and deliver the skills and knowledge they are supposed to. Ensuring that the final assessment of students covers all relevant core skills and knowledge will further assist with that.

### RECOMMENDATION 33: ADAPT TVET CURRICULA TO BETTER PREPARE STUDENTS FOR THE FUTURE OF WORK.

It can be expected that future trends, in particular Industry 4.0, are going to have a considerable impact on ASEAN's labour markets in the coming years and decades.

It is unlikely that Industry 4.0 will completely change the competencies required by skilled workers and therefore necessitate a complete overhaul of TVET curricula. Key skills and knowledge that are currently needed will likely continue to constitute the fundamental competencies for many jobs. Yet, adaptations will become necessary to include additional modules or new insights that prepare students for the use of new technologies.

More importantly, TVET schools need to focus more on the provision of soft skills, in order to prepare students for Industry 4.0. Students need to learn how to learn, in order to prepare for life-long learning. Given the increasingly rapid speed of technological change, it is likely that

much of what is being taught in school today will be obsolete in the near future. It therefore becomes increasingly important for schools to impart in students, apart from fundamental skills and knowledge, the ability and desire for lifelong learning. Skills such as problem-solving will become so important in the future that students need to start learning them much before entering high-school level.

The rapid speed of technological change will also make it increasingly more important for schools to cooperate with business and industry. New technologies often require large investments (not only in new equipment, but also in the expertise of teaching staff). TVET schools will find it increasingly difficult to keep up with the required investments and therefore need to enhance their cooperation with companies, in order to better prepare their students for future jobs.

### RECOMMENDATION 34: ENCOURAGE PROFESSIONALS AND SPECIALISTS FROM THE INDUSTRY TO BECOME PART-TIME TVET TEACHERS.

QUICK WIN

In addition to strengthening the industry experience of TVET teachers, it is important to get experienced professionals and specialists from the industry to contribute to the training of TVET students. Getting professionals and specialists involved would improve the quality of TVET training considerably.

BMOs can play a key role in encouraging their member companies to identify suitable professionals and specialists who could provide training at TVET schools. Setting up a recognition system for these individuals might incentivise them to volunteer for such a task. TVET schools can also identify local entrepreneurs to collaborate with. For example, they could allow entrepreneurs to use their facilities for their business in exchange for training.

If industry experts are invited to teach at TVET schools, it needs to be ensured that they get

appropriately compensated, and that they have the ability to teach others and the mindset to work with young people. A training and certification as in-company trainer provides the necessary skills and knowledge (see recommendation 36). Governments also need to enact regulations that would allow industry experts to teach in public TVET schools.

Similar to industry experts working as part-time teachers in public TVET schools, experienced public TVET school teacher should be allowed to work as part-time teachers at private TVET schools. Private TVET schools often lack teachers, as they cannot provide the same benefits as public TVET schools. Allowing public TVET school teachers to offer courses in private schools, could provide them with additional income thereby making the teacher profession more attractive.

### RECOMMENDATION 35: STRENGTHEN THE CAPACITY AND INDUSTRY EXPERIENCE OF GOVERNMENT PERSONNEL WORKING IN TVET, IN PARTICULAR OF TVET TEACHERS.

Government personnel working in TVET play a key role in ensuring a high quality of TVET policies and training delivery. Many government officials responsible for TVET are, however, lacking the necessary understanding of TVET required to support an effective implementation

of TVET programs. Budget and time should be set aside for government personnel to further professionalize their TVET competencies. Exchange programs and study missions overseas could be a useful way for them to acquire more exposure to best practices.

Of particular importance is industry exposure, especially for TVET teachers and trainers in public service. The majority of TVET teachers in ASEAN lack any practical industry experience in the occupation they are teaching. This leaves them ill-equipped to provide useful career guidance to their students.

Different approaches could be pursued to strengthen the industry experience of existing TVET teachers and make them more aware of the demands of industry:

- Industrial attachment programs can be organised that send TVET teachers to work for companies for a certain amount of time (e.g. 1-2 months);
- They could be twinned with senior experts from the industry who impart updated industry standards to them;
- Information materials, provided by BMOs for their occupation, could be made accessible to them through their school.

It should also be considered whether it could be made mandatory for TVET teachers to undergo further practical training (e.g. organised by BMOs) in order to renew their teacher license, in countries where such a system of license-renewal is already in place. Alternatively, proof of further practical training could be linked to teacher's career paths. This would also provide an incentive for teachers to keep their industry skills and knowledge up-to-date and recognise those who keep on learning. It is up to governments to lead any such reform programs that put more emphasis on continuous further training of TVET teachers.

Finally, more emphasis needs to be placed on upgrading TVET teacher's knowledge and use of new learning methods, such as blended learning, student-centred learning, and project-based learning. School-based learning in AMS still centres very often around theory-focused lectures, which are – according to numerous studies – not conducive for learning.

### RECOMMENDATION 36: DEVELOP THE COMPETENCIES OF IN-COMPANY TRAINERS.

When it comes to the provision of training in companies, there is a lack of experts who meet the requirements of TVET, i.e. experts who have the skills and knowledge to prepare and implement training, whether it be for interns, apprentices or junior staff.

In order to play a more important part in the training of TVET students, companies need to identify those industry experts, who have the technical skills and knowledge to engage

in TVET and then systematically build up their expertise to be in-company trainers. With more in-company trainers in companies, more practical training programs can be implemented that meet the desired quality standards.

A standard and training framework for in-company trainers already exists with the Standard for In-Company Trainers in ASEAN Countries, which has been endorsed by senior education and labour officials of ASEAN.

Responsible ministries should work with business membership organisation (BMOs) in their country to develop and endorse national competency standards for in-company trainers. The regional standard could be used as a reference document, in order to ensure

a regionally harmonised profile of in-company trainers. BMOs, or other suitable institutions, should then be mandated to provide the appropriate training for company staff to become in-company trainers.

### RECOMMENDATION 37: PROVIDE AUTONOMY TO TVET SCHOOLS TO DIVERSIFY THEIR FUNDING SOURCES IN ORDER TO GUARANTEE THE DELIVERY OF HIGH QUALITY TVET PROGRAMS.

In order to assure the quality of training, the professional development of teachers and trainers, and the availability of sufficient facilities and training equipment, TVET schools should be encouraged to identify additional sources of funding for their operations that would supplement government funding. This requires TVET schools to have a certain amount of autonomy over their budget in the first place.

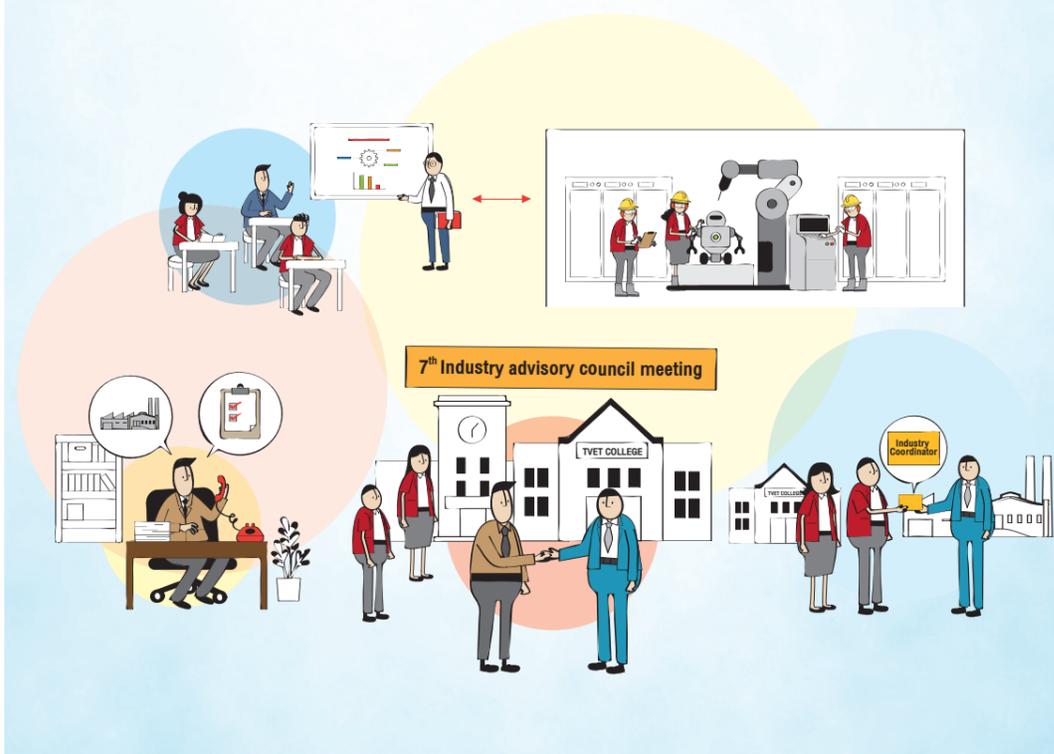
Each TVET school should ascertain their budgetary requirements to sustain operations at a high-quality level and potential sources of funding from both government and private institutions. Only equipped with this knowledge, they can successfully solicit financial support.

Private funding sources might include companies or nongovernmental organisations. For them, contributing to TVET could go beyond

corporate socially responsible and constitute an investment in their own future human resources. Contributions from companies also do not necessarily have to come in the form of a direct budgetary contribution. They could also involve the donation of machines or equipment for training purposes; the temporary provision of industry experts as teaching staff, assessors or for the labour-market oriented revision of training curricula; the provision of student sponsorships; the payment of recruitment fees for excellent graduates; or the investment of time by offering students work-based learning opportunities or company exposure as part of their training.

Schools might also consider generating their own income through the production of parts that they can sell to the industry.

## DEEPENING THE COLLABORATION OF TVET SCHOOLS WITH BUSINESS AND INDUSTRY



The collaboration of TVET schools with business and industry plays a particular role in increasing the quality of training delivery. Ultimately, TVET should be organised in a dual or cooperative system in which training takes place in TVET schools and companies. The development of policy frameworks for dual or cooperative training should be advanced in all AMS.

Where pilot apprenticeship schemes already exist, it is important to provide the proper guidance for all stakeholders involved, in order to guarantee the successful implementation of these schemes. But even where apprenticeship schemes are not in place yet, a lot more can be done to establish and deepen the collaboration of TVET schools with business and industry.

### RECOMMENDATION 38: EXPAND APPRENTICESHIP PROGRAMS AND ENHANCE THEIR QUALITY BY PROVIDING MORE GUIDANCE TO PARTICIPATING COMPANIES AND STUDENTS.

The quality of training delivery increases with the amount of workplace-based learning that is offered. All AMS should therefore establish nation-wide apprenticeship schemes and expand their existing internship, apprenticeship and dual cooperative training programs.

At the same, more attention needs to be paid to the quality of those programs, which is often poor due to a lack of proper guidance provided to participating companies and students, the quality of in-company trainers (see recommendation 36) and the coordination between schools and companies (see recommendation 39).

Responsible ministries and BMOs should work together to develop guidelines, which can be adapted by schools to their specific profile and local circumstances. Guidelines should be developed for both students and companies.

Guidelines for students should provide orientation to them during their work-based learning part of the training program they are attending.

This includes information about the specific learning outcomes, duration of the work-based learning phase, the roles and responsibilities of the different parties involved in the programme, as well as workplace regulations. Without any such guidance, work-based learning can pose a threat to students who might not be familiar with labour laws, working regulations in the company, or appropriate occupational safety and health measures and usually do not receive a work contract for the time they spent in companies.

Guidelines for companies should include general information about the country's TVET system, tasks and competencies (knowledge, skills and attitudes) expected from HR managers and in-company trainers who supervise trainees and apprentices, relevant legal frameworks regarding work-based learning programs and the hiring of under-aged youth, and information regarding the assessment and certification of trainees and apprentices and their (possible) involvement in those processes.

Companies who have agreed to get involved in a work-based learning programme also require orientation for their HR managers and in-company trainers on the specific skills and knowledge they should provide to students

during their work-based learning phase. This presupposes a clear division of the curriculum taught in schools and companies, and a close cooperation between teachers and trainers.

### **RECOMMENDATION 39: FIND APPROPRIATE WAYS FOR TVET SCHOOLS AND COMPANIES TO FORMALISE THEIR DIALOGUE AND COOPERATION.**

To support more in-depth dialogue and cooperation among schools and companies, it is important to formalise their relationship, once it has been established. There are different ways this can be accomplished:

Setting up TVET industry advisory councils could provide a forum for a regular exchange and discussion of information among schools and companies. Such advisory councils could be set up on the local level (in this case they would be school-specific) or at the regional/provincial level (in which case they would be most useful if they are industry-specific).

Another instrument to formalise the relationship between a school and companies is to sign a Memorandum of Agreement (MOA). A MOA can prevent misunderstandings by clearly describing the roles of schools and companies and their expected contribution to the cooperation at the outset of the relationship.

A template could be developed at the country level to ensure a certain quality standard of such a MOA. However, the process of signing a MOA should not be made overly bureaucratic and rather focused on facilitating the engagement of companies with TVET schools. The template should therefore also allow for adaptations by the schools, in order for a MOA to be truly needs-based, practical and feasible. Finally, a monitoring should be set up to ensure implementation of the MOA.

Identifying the best way to formalise relationships between TVET schools and business and industry depends on the specific objectives and should be done jointly by local schools, companies and the government in each ASEAN member state.

### **RECOMMENDATION 40: ESTABLISH THE PURSUIT OF COOPERATION OPPORTUNITIES WITH BUSINESS AND INDUSTRY AS A KEY RESPONSIBILITY OF EVERY TVET SCHOOL PRINCIPAL.**

TVET school principals are important decision makers who are, sometimes along with the management board of the school, responsible for the development of their school's long-term strategy and work plan. They are consequently in a key position to improve the quality and labour-market orientation of the trainings delivered by their school. If they are convinced of the important role that business and industry cooperation in TVET plays, their schools are more likely to proactively pursue cooperation opportunities with local companies.

Unfortunately, many TVET school principals still have a rather conservative mind-set and attitude. They believe their only responsibility as a school is to provide training, but not to ensure the employability of their students after graduation.

The ministries that are responsible for overseeing TVET schools need to pay attention to school principals that are exhibiting such attitudes and encourage them to change. Raising awareness of the importance of school-industry linkages is important. Even more effective would be to include the development of school-industry linkages as a main task in school principal's job descriptions as well as in their yearly performance reviews.

BMOs can help to raise awareness among TVET schools principals about the benefits of a good cooperation with business and industry by organising workshops to share best practices of school-industry cooperation, or networking events where school principals can meet with representatives from BMOs and companies. Such networking events could help school principals to build relationships with business managers on a personal level, which is an important prerequisite for better cooperation.

**RECOMMENDATION 41:  
APPOINT TVET SCHOOL PERSONNEL TO SERVE AS FOCAL PERSONS  
FOR THE COOPERATION WITH BUSINESS AND INDUSTRY.**

Developing better school-industry linkages requires focal persons on both sides, who are responsible for developing and maintaining the cooperation. TVET schools should appoint one or more of their staff to serve as industrial coordinators. In case the appointed persons take on the role in addition to their existing role, they should receive additional payment to reflect their increased responsibility.

The main role of industrial coordinators is to reach out to business and industry and establish cooperation with companies. It is important that these cooperations are institutionalised and not based on personal relationships only, as is often the case today. Appointing industrial

coordinators, or even setting up cooperation centres at schools, whose role is to establish cooperation with business and industry will help to formalise relationships.

In order to be able to conduct their work successfully, industrial coordinators need to be knowledgeable about their school graduates and the occupations taught at the school, be good at marketing and promoting their school, have good intra-personal and communication skills, and have a solid understanding of their country's TVET system. Each school should develop a detailed job description for their industrial coordinators, once they are ready to appoint them.

**INTENSIFYING RESEARCH ON TVET  
AND FUTURE SKILLS NEEDS**



The availability of research on TVET and future skills needs is an important pre-requisite for improving many of the other fields of action described in this Future ASEAN Agenda for TVET. Evidence-based policy making for example is only possible, if policy makers have access to the necessary data and information. The development of skill standards and labour-market oriented curricula also relies on the availability of information about the (future) supply and demand of skills.

Due to their large outreach and membership base, BMOs can contribute to gathering reliable data for their sectors and industries.

Intensified research, however, needs to be well coordinated and results should be made publicly available.

**RECOMMENDATION 42:  
DEVELOP SKILLS INFORMATION PLATFORMS TO MAKE  
INFORMATION ABOUT THE SUPPLY AND DEMAND OF SKILLS  
PUBLICLY ACCESSIBLE ONLINE.**

PRIORITY

Data concerning both the supply and demand of skills is not easily accessible. Skills information platforms, similar to labour market information systems but specifically focused on the skilled worker segment of the labour market rather than academic jobs, should be developed to make current data available and support the matching of skills supply and demand.

Skills information platforms would be of interest to both companies who are seeking to hire skilled workers, as well as job seekers who are trying to find employment.

All information should be categorized according to TVET specific categories (e.g. skill levels)

in order to make the platform as user-friendly as possible for its key target groups: companies and jobseekers.

Setting up such online platforms could be done by different stakeholders as long as they involve IT experts for the technical platform development. However, the data collection necessitates a public-private partnership model that brings together governments (supply side information about TVET schools and graduates) and business and industry (demand side information about skills needs).

**RECOMMENDATION 43:  
CONDUCT REGULAR EMPLOYABILITY STUDIES TO PROMOTE THE  
ATTRACTIVENESS OF TVET DEGREES.**

TVET graduates often have a better chance of employment compared to university graduates. Studies should be conducted regularly (e.g. every 3-5 years) that identify the employability of TVET graduates and compare it with the employability of university graduates. The results can contribute to increasing the popularity of TVET and changing the mind-sets of young people and their parents when choosing their career pathways.

A particular focus of such studies could be on out-of-school children and youth who can

improve their prospects of employment through a TVET degree.

The study report can be enriched by showcases and interviews with successful TVET graduates who talk about the job opportunities offered to them after graduation, including those who have become entrepreneurs.

Employability studies may be commissioned by the public sector, for example ministries of economics, labour or education, or by BMOs.

**RECOMMENDATION 44:  
CONDUCT MORE RESEARCH ON (FUTURE) SKILLS NEEDS,  
PARTICULARLY SECTOR-SPECIFIC RESEARCH.**

A lot of research concerning TVET, skills and economic development is already conducted. However, existing research does not sufficiently focus on the skills needs of business and industry, particularly future skills needs. More robust research is needed that can inform TVET policy making and ensure labour-market oriented training takes place at TVET schools.

Greater involvement of business and industry in such skills research can improve its relevance. BMOs are in a unique position to access a great number of companies through their member-

ship network. They should conduct regular surveys (e.g. once every 2-3 years) among their members, in order to gather insights about the quality of the current workforce, find out about any skills gaps between the current supply and demand of workers, and identify future skills needs that can be foreseen, for example, due to investments in new machinery.

Research focused on (future) skills needs in specific sectors or prioritized industries should be given priority. Such research projects are ideally conducted jointly among key

stakeholders of that sector, in particular associations and schools (e.g. between a hotel association and a TVET school in the hospitality sector). An initial research project in a selected priority industry should be conducted across ASEAN in all member states.

Conducting more sector-specific research also increases the likelihood of companies participating in surveys, as it increases the relevance of results for their own business. When conducting membership surveys, BMOs should consider incentives they can offer their members in order to maximize their participation. For example, providing them access to the detailed report while publishing only a brief summary of results and making the full report available to non-members for a fee.

The research results can contribute significantly to reducing gaps in the supply and demand of skills, reducing re-training efforts required after graduation, and helping TVET policy makers

map the way forward. They should therefore be shared with relevant stakeholders including ministries and TVET schools. The data and insights gathered through the research can further be used by BMOs to strengthen their voice in policy dialogues on TVET.

In case BMOs are not able to conduct research themselves, they could provide assistance and resources to research projects in the form of financial support, human resources (part-time or volunteer expertise), network and connections (particularly to member companies), guidance on areas and topics of research, continuous feedback and communication with other stakeholders, and selection of appropriate consultants or companies to conduct the research.

In addition to skills research provided by BMOs, responsible ministries for TVET should work with other relevant ministries to identify and forecast skills needed from expected investments in the country.

all stakeholders. This includes the cooperation with similar agencies in the other AMS for the purpose of standardizing core research methodologies and definitions across countries to make them comparable and to increase the number of joint research projects that are conducted in the region.

TVET-related research should however remain decentralized with the possibility of different stakeholders from business and industry, government and academia initiating research for their own purposes.

**RECOMMENDATION 45:  
ESTABLISH NATIONAL COORDINATING AGENCIES FOR TVET  
RESEARCH AND INCREASE INTER-ASEAN RESEARCH  
COOPERATION.**

A lot of research is already being conducted, but it is not very well coordinated. This causes a duplication of efforts and makes it difficult to maintain an overview of available data and information. There is also very limited research cooperation and hence, comparability of data across ASEAN.

A national coordination agency for TVET research should therefore be set up in each ASEAN member state, either established, or endorsed and funded by the government. The agencies would initiate the planning, consolidation and compilation of TVET-related data for the public, and coordinate research among

stakeholders of that sector, in particular associations and schools (e.g. between a hotel association and a TVET school in the hospitality sector). An initial research project in a selected priority industry should be conducted across ASEAN in all member states.

Conducting more sector-specific research also increases the likelihood of companies participating in surveys, as it increases the relevance of results for their own business. When conducting membership surveys, BMOs should consider incentives they can offer their members in order to maximize their participation. For example, providing them access to the detailed report while publishing only a brief summary of results and making the full report available to non-members for a fee.

The research results can contribute significantly to reducing gaps in the supply and demand of skills, reducing re-training efforts required after graduation, and helping TVET policy makers

map the way forward. They should therefore be shared with relevant stakeholders including ministries and TVET schools. The data and insights gathered through the research can further be used by BMOs to strengthen their voice in policy dialogues on TVET.

In case BMOs are not able to conduct research themselves, they could provide assistance and resources to research projects in the form of financial support, human resources (part-time or volunteer expertise), network and connections (particularly to member companies), guidance on areas and topics of research, continuous feedback and communication with other stakeholders, and selection of appropriate consultants or companies to conduct the research.

In addition to skills research provided by BMOs, responsible ministries for TVET should work with other relevant ministries to identify and forecast skills needed from expected investments in the country.

all stakeholders. This includes the cooperation with similar agencies in the other AMS for the purpose of standardizing core research methodologies and definitions across countries to make them comparable and to increase the number of joint research projects that are conducted in the region.

TVET-related research should however remain decentralized with the possibility of different stakeholders from business and industry, government and academia initiating research for their own purposes.

**RECOMMENDATION 45:  
ESTABLISH NATIONAL COORDINATING AGENCIES FOR TVET  
RESEARCH AND INCREASE INTER-ASEAN RESEARCH  
COOPERATION.**

A lot of research is already being conducted, but it is not very well coordinated. This causes a duplication of efforts and makes it difficult to maintain an overview of available data and information. There is also very limited research cooperation and hence, comparability of data across ASEAN.

A national coordination agency for TVET research should therefore be set up in each ASEAN member state, either established, or endorsed and funded by the government. The agencies would initiate the planning, consolidation and compilation of TVET-related data for the public, and coordinate research among



