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Report

## **Skills for jobs: maximising potential in Asia**

Tuesday 13 – Thursday 15 March 2018 | WP1584

Held in Bangkok

In partnership with:



Department for  
International Trade



## Report

# Skills for jobs: maximising potential in Asia

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## Summary

Technical and Vocational Education and Training (TVET) will play a central role in the future economic development of ASEAN countries, equipping the future workforce with vocational skills and training that delivers economic prosperity and productivity in modern economies.

Key points from this Wilton Park discussion:

- Across ASEAN countries TVET remains the ‘poor-relation’ compared to Higher Education (HE); a shift in parents’ and teachers’ perceptions is needed;
- Populations in each country need to be convinced about the importance of continuing their education in more vocational skills and in the field of Science, Technology, Engineering and Mathematics (STEM).
- Implementing more career guidance in the educational system would be helpful for young people and, hopefully, draw them into TVET programmes;
- Significant scale-up in the provision of quality TVET courses is needed; all ASEAN countries are building up national programmes, but at different stages;
- Getting the right architecture in place for TVET provision is critical. Governments are urged to set a clear and stable policy framework for TVET that benefits working adults and youths; providing smart regulation and quality control and assurance, that enables providers with the flexibility to deliver TVET training in the most suitable manner. Governments can also map future human capital needs with industrial strategies.
- Partnerships between government, TVET providers and businesses are critical. Different countries have had varying success in working towards industry driven/market-led TVET provision. The UK’s Skills Sector Council is a useful example;
- TVET providers, and employers, need to collaborate and be adaptable in their approach to curricula development, on-the job training, and building in soft skills, critical thinking and life-long learning elements into TVET training;
- There are significant opportunities for the UK to play a key role as a partner of choice with ASEAN countries building on existing partnerships;
- Different actors play different roles, whether governments, employers and the third sector (including private providers, donors and others) but the interaction between them is key to success. There are many challenges within and between these actors, and some levels of dysfunction that need to be overcome;
- Greater transferability and recognition of qualifications across ASEAN would benefit individuals and enable greater movement of citizens with skills to offer growing economies.

## Introduction

This Wilton Park dialogue aimed to:

- offer an opportunity for Asian and UK educational institutions and providers to share their TVET expertise and innovations;
- provide thought-leadership on building and improving TVET in the ASEAN region that would create the skilled workforce needed for modern economies, including through developing future strategies and ways to implement these successfully;
- provide opportunities for political leaders, government policy makers, skills and training providers and other stakeholders to maximise partnership opportunities within and across the ASEAN region, and with the UK.

## The role of TVET in helping ASEAN economies harness the Fourth Industrial Revolution

1. With the emergence of disruptive technology, the Internet of Things (IoT), the rise of Artificial Intelligence (AI), automation and robotics (the Fourth Industrial Revolution), there is a growing skills gap in ASEAN countries. A better skilled workforce will depend on a much stronger focus on TVET.
2. Although technology continues to impact upon employability across the region, there are still many jobs that need well-skilled human capital. Although AI has the potential to make certain tasks and jobs obsolete, technology's ability to be emotionally cognitive is still in its early phases. Jobs that require high 'soft skills', such as customer service, will still need humans. If TVET can provide both hard and soft skills, it will play a vital role in strengthening the resilience of the workforce to technological change.
3. From a training provider's perspective, TVET is a good alternative to university. It is an affordable, strong and agile system, able to cope with changes in policy, demographics, technology and automation; it has to be highly adaptable to stay afloat as countries move from an industrial manufacturing era to a post-industrial, technological era. Training providers argue that governments should first work on a clear and stable policy framework that focuses on socioeconomic objectives that benefit working adults and youths.

## Challenges: understanding the hurdles to effective skills provision in the region

4. There is a sense that TVET is often perceived as the 'poor relation' of Higher Education. Parents and students are likely to prefer a more traditional academic route and professions such as medicine, law and accountancy. There is a danger that, if graduates continue to choose an academic route over TVET, businesses will get fewer students with the skills they need and graduates themselves will be poorly-equipped for industries that require workers with tailored skills.
5. Challenges become apparent when there is a dysfunction between the roles of government, employers and the third sector. Thus, a symbiotic relationship needs to be fostered between these different actors to enable effective TVET provision.
6. Many countries in the region do not have a long history of manufacturing, which can make it difficult for countries seeking to harness the power of the Fourth Industrial Revolution. Countries can find that they lack knowledge or competency or have a limited understanding of the role of education programmes in successful Industry 4.0 strategies.
7. Jobs that exist now did not exist 10 to 15 years ago. It is vital that curricula keep up with the changing nature of the workplace. TVET will become outdated and devalued both in practice and perception if the skills training architecture is not responsive enough to constant update.
8. Foreign institutions looking to establish TVET programmes in the region have often found themselves stymied by bureaucracy. The process of ensuring that foreign institutions are

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## The role of government in delivering skills training

“Governments must be careful not to over-regulate”

9. Governments are encouraged to emphasise the value of vocational learning in comparison to academic learning by engaging and educating stakeholders such as parents, care-givers and teachers. Governments have a key role to play in changing perceptions surrounding TVET as a second-class career choice.
10. Investments in human capital are likely to be most effective when they are mapped against wider industrial strategies. Governments need to identify the skills needed by priority industries, particularly as those being disrupted by new technologies. Human capital must translate into marketable skills, which match demand within priority industries.
11. Governments must be careful not to over-regulate. Smart regulation for example would not set laws on how many hours students must take on a programme or what the students are expected to achieve over a given period of time. Governments are recommended to be assuring quality, while giving institutions the freedom to develop dynamic, tailored TVET courses.
12. Governments can create the conditions for good quality skills training by deregulating, decentralising and minimising bureaucracy to allow skills providers to operate in an increasingly autonomous market-friendly, and market-led ecosystem.
13. Countries in the region are attempting to clear administrative obstacles to quality TVET architecture. For example, governments are seeking to acquire information about industrial needs and market demands, which some industries are reluctant to share. Carrying out this kind of research can help governments better understand industrial needs, so that the education sector can update their curricula and ensure the up-to-date quality of their courses.

### Case study - Myanmar

The education sector within Myanmar has been relatively centralised. Government has recognised the need to shift towards a “smarter” mode of regulation.

Effective government leadership and partnership between the Ministry of Education and Ministry of Labour has led to new policies being enacted. The government aims to enhance the participation of the private sector and establish cross-sector collaboration between universities, industries and the government to ensure that TVET is demand-driven, relevant, and responsive to the market.

Instead of setting out specific credit hours and a fixed number of years in order for students to receive accredited qualifications, policies will set boundaries within a broad framework of definite outcomes, and work towards keeping tight control of quality to address underperformance.

## Case study – Sri Lanka

Sri Lanka is looking to scale up its provision of TVET, increasing the number of young people who access higher education and certified training.

Investments have decayed over the years and those students who have emerged from existing colleges demanded good jobs and were unwilling to take on low-level entry jobs. This forced the government to provide jobs, making the public sector over-large.

Actions taken to address this include making TVET free-of-charge, which will then require investments to be funnelled into TVET programmes. The government has also revamped their education system to incorporate more training of employable skills. Through merging soft skills competency with quality-assured vocational training they hope to create a bridge across the national quality certification system.

A key issue in scaling up public sector TVET programmes is finding trainers and instructors who are sufficiently certified or trained themselves. Private sector TVET providers are more attractive to trained instructors because of the higher earning potential. Government plans include additional training for professions in the public sector where this is lacking.

Public-private partnerships in TVET provision are currently seen as financially risky because the government often ends up investing more money than is necessary.

## Matching the needs of industry and providing quality training in the workplace

14. At the heart of good training and effective workplace practice and strategies is the need to connect vocational training with the workplace and employment to ensure students are 'work ready' and focusing on key sectors with good employment prospects or where entrepreneurial capability can be encouraged.
15. Industry acknowledges the need to have better-trained employees. Industries have complained that vocational education is not always of sufficient quality, while public provision is often constrained by resources. For instance, it is costly to train and maintain teachers. A compromise must be found between industry leaders and the education sector. Industry could look to source some of their 'human capital' development from their industries, where 'teachers' are more abundant and could help overcome issues with capacity.
16. Gaps exist between the formal classroom training and training in the workplace, and the needs of industry need to be consider in the development of vocational curricula and the approaches to deliver this.
17. It is pivotal that learning takes place in a real context as a student may be competent in the classroom, but unable to translate these skills to the working environment. Hence, simulation-based learning in collaboration with industry experts is a significant means to ensuring the language of TVET remains pertinent in its provision of relevant occupational skills for employment via vectors of on-the-ground training.
18. Industry engagement has been a common problem in the region, as many parts of the private sector have been reluctant to invest in internships or apprenticeship trainings. Some countries in the region have begun to utilise the private sector as 'labs' for students' practical experience, with bureaucrats constructing the curriculum revolving around apprenticeships with industry. For example, in Thailand, 1500 companies across the country offered short training and skills enhancement courses for fresh graduates that led to their potential employment. However, the government discovered that some companies had not carried out these courses, and had only stated so in order to fulfil legal requirements.

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19. TVET systems need to be flexible and dynamically responsive to industry. Malaysia’s recent TVET development of the ‘fluid curriculum’ is a good example. In Malaysian polytechnics, 30% of the curriculum is determined by the industry and according to market directives, the curriculum is adjusted within a timeline of 3 months. In Sarawak (West Malaysia), a TVET institution located in the middle of a forest was offering programmes on banking and technology (for students to receive skills to help them find employment elsewhere); however, it is now changing course to serve local demands that are inclined towards agro-technology and logistics for example. Hence, the demography, local policies, automation, and innovation also must be factored in TVET development.
20. Participants suggested setting up committees within government ministries to bridge the gap between education providers and employers, engaging with good companies to co-create content. This has the potential to make industry the “biggest supporters, users and enthusiasts of that content”. This could involve bringing industry leaders into universities and the classroom.
21. More generally, decentralising provision can allow education providers to create standards that match industry expectations. Moving towards a market-led model and away from government control can allow providers freedom to design or customise their programmes. This can allow more flexibility in meeting the needs of the labour market, as providers can reach out to employers with increased responsiveness and, therefore, satisfaction of market demands.
22. TVET providers should seek out industry support when funding their courses. The greatest financial supporters may be the potential employers who help develop or co-create the programmes. Having industry engaged in creating and curating the content will ensure that what is taught meets industry requirements and is of a desirable quality to them. Setting occupational standards is another method of employer engagement.
23. Industry will become more engaged with TVET when the quality of training is consistently high and its effectiveness is measured against high employability and work performance. To ensure this, the adaptability and articulation of TVET must be dynamic and responsive to changing industries.

### Case study - Malaysia

“As the students evolve, the companies evolve. This is a sustainable financial structure for the industry.”

The Minister for Education of Malaysia is personally committed to ensuring intense industry engagement in technical and vocational educational. The Penang Skills Development Centre set up by the government is an example of a training institution that is linked to over 200 companies to support the learning, training and employment of its students.

Malaysia has specific TVET universities that provide qualifications ranging up to PhD level. The government robustly emphasises TVET, with 15% of the national budget being channelled into TVET subsidies.



## Case study – Indonesia

In Indonesia there is a perception gap between Higher Education and training, causing employers to believe that most graduates lack skills and relevant knowledge. The Ministry of Education is working on implementing vocational education, especially through polytechnics.

Indonesia's TVET policy framework is to conform to national economic development missions, produce graduates that meet the labour market requirements, and to fulfil the industrial demands which would contribute to national economic growth.

The transportation sector is a particular focus, with TVET expansion involving collaboration between the government and TVET providers to help graduates of vocational and polytechnic schools (VP) to obtain jobs. The VP linkages with industry can help form new competencies and professional qualifications, giving polytechnic schools more prestige and more opportunities for innovative initiatives.

When sourcing for trainers and lecturers, a plan to incentivise industry involvement is recommended. With enough resources to expand and fully equip TVET providers to produce competent graduates, employers may be further convinced of the quality and relevance of these youths and employ them.

## Beyond TVET: towards a multi-stakeholder approach to skills training

24. Higher Education (HE) and TVET must not be seen as mutually exclusive pathways. Teaching and training need to work together in an integrated fashion engaging with industries.
25. Universities can teach students how to learn, acting as a currency that supports their future careers and potentially their global mobility. By giving students transferable skills, such as problem-solving, critical thinking and verbal and written communication, universities prepare students for a variety of careers, ready to pick up new skills that are industry specific. In this regard, universities can produce graduates with both technical and soft skills.
26. There are many innovative methods that universities can use to ensure that students are more employable when they graduate. For example, degree apprenticeships combine full-time paid work and part-time university study to allow students to leave university with a Bachelor's or Master's degree, while tailoring their learning to match the needs of business.
27. Smaller and less economically developed countries in the region, such as Myanmar, are struggling with drop-out rates before the completion of primary school, leading to a large number of unskilled workers in the informal sector. TVET can play a role in alleviating unemployment and TVET systems need to be designed to ensure they reach a maximum number of people, including those in rural areas who are too often left behind by technological change. Engaging stakeholders, including parents, in rural areas is essential for ensuring that TVET is attractive and accessible.
28. Industries have expressed the need to allow employees to transfer from one department to another so training in pipeline skills that the employer needs are a concern. There is a sense that both employers and workers are prioritising flexibility, so it is vital that courses are giving students skills that allow them to be flexible, and able to move between jobs and tasks.

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## Case study - Singapore

The Singaporean government recognises the key role TVET plays in the current and future economy, setting up the Institute of Technical Education (ITE) 25 years ago. Now 25% of school leavers join TVET through the ITE or polytechnics. The government has focused on: setting up the right overall infrastructure; creating multiple pathways; ensuring teachers are well-trained and provide constant support through career guidance; creating experiential learning by working with industry; empowering and motivating students to make informed choices to opt between ITE, polytechnics or the conventional direction of academia.

The conversation encouraging students to discover their passion and areas of strength begins at a young age, and their skillset is developed and nurtured by well trained teachers as they progress. The students’ pathways are then contingent upon their interests for learning either applied or technical skills, with roadmaps of multiple routes to succeed in their careers made available to them. This can be thought of as a ‘bus route’.

Additionally, a multi-stakeholder process of “Life-Long-Learning” through Skills Future has been recently developed to facilitate training for the ageing population and to ensure that skills are perpetually updated so that the entire trajectory of the age demographic is able to work to their fullest potential.

## Case study – Brunei

TVET is delivered up to Level 5 (Diploma) by the government of Brunei who alongside providing free education also allocates allowances for all students. Applications for TVET are now so high there is a question about capacity and sustainability.

One pressing issue is the need for training in future or emergent skills such as adaptive thinking, trans-disciplinary skills, and entrepreneurial skills. There is a recognition that the life skills in current training programmes are not tailored to every field with varying needs and companies such as the Institute of Brunei Technical Education (IBTE) are working towards developing programmes that fill this gap. Such programmes will place more emphasis in creative development and competency training.

By focusing back on the classroom setting rather than the process, IBTE can screen their teachers and instructors, ensuring that the trainers meet the quality-assured standards and achieved mastery of this area so that the same quality can be passed down in the pedagogy.

## Quality and transferability: building assurance frameworks for institutions, courses and teachers

29. The recognition of qualifications from TVET courses across countries within ASEAN could lead to the easier transferability for employees from one country to another and beyond. To achieve this greater quality assurance of qualifications, courses, institutions and teachers is needed.
30. As part of this it is recommended that independent inspection agencies such as Ofsted in the UK (Office for Standards in Education, Children's Services and Skills) should be developed at the national level with agreements set up in the region. Inspections would work towards stringently assessing TVET providers on a regular basis. For on-the-job learning, the workplace needs to be checked at regular intervals to ensure that students are learning what they are supposed to be learning. In addition, infrastructure is needed to demonstrate to industries a level of professionalism, competency, and respect for the learner and the market.



31. Data collected should be rich and updated, displaying student records and achievements, and ensuring learning is on track. This needs to be followed up with staff adhering to strict KPIs and deadlines.

### **Case study – Cambodia**

Cambodia faces challenges of low teaching quality and a shortage of skilled teachers. Most educators are underqualified, have low digital literacy and little research skills as they continue to utilise traditional pedagogical approaches.

The upscaling and training of teachers is a critical need, with teachers adapting their teaching techniques and embracing a facilitative pedagogy through assignments and group work where soft skills and digital literacy is also integrated in the learning.

As a still-developing country, TVET implementation in Cambodia is not just the government's responsibility as they seek to form public-private sector collaborations both within and outside of the country.

The focus now should be on the development of a viable quality assured system of vocational technical education that will have easy access and exit learning pathways, be certified to international standards and which must be validated by accredited training at the workplace that will lead to jobs or continued progress along other development pathways.

Organisations such as City and Guilds, a market leader for setting global educational standards for technical and professional qualifications, alongside providing accreditation, eLearning and digital credentialing, have expressed support to assist in the development of skills by providing high quality products and services to bridge these gaps and deliver learning solutions.

Cambodia is now focusing on TVET internships. They target school leavers and high school graduates who opt for higher education. The aim for these internships is to provide students with workplace vocational skills.

### **Case study – Vietnam**

Vietnam is facing a dire unemployment rate for higher education graduates, so, like Cambodia, a Vocational Education and Training Program (VET) was established to steer high school graduates and school leavers from jumping too quickly into higher education.

However, the number of students entering VET is low with the skills to match—weak in soft skills, low efficiency, and training quality has not met industrial requirements. Foreign language skills are also too low to work in an international environment.

To overcome this, the VET is being developed and improved through legislation, expansion to include rural labourers, retraining for, labourers who lost their jobs; and standardising quality assurance factors.

Cooperation with Vietnam Chamber of Commerce and Industry (VCCI) was also established whereby the VCCI oversee the laws on VET. They signed a working agenda in 2017 aiming to promote the cooperation between enterprises and VET institutions including strengthening quality assurance, research, funding adjustments.

More training contracts with larger enterprises and corporations are pending to be signed in 2018. These contracts could help gauge the skills needed for each profession, and help build partnerships with other institutions to form new curricula.

“rich opportunities for regional collaborations on TVET provision within ASEAN, and a common approach is recommended”

“For ASEAN countries the UK can be an international partner to both individual nations and the region as a whole to support TVET development”

## Developing successful partnerships in the region, including with the UK

32. There are rich opportunities for regional collaborations on TVET provision within ASEAN, and a common approach is recommended that brings countries together to scrutinise the development of technical and vocational training in the region, examine how skills are provided via occupational standards, and develop common modes of assessment and qualifications provided and of quality and inspection of providers, courses and teachers.
33. These shared frameworks could be self-assessed if they require provisions or upgrades to optimise TVET. Multilateral organisations such as the ASEAN Educational Secretariat and the Asian Development Bank (ADB) can play a central role in fostering and strengthening such regional development and provide not just moral but also financial support to guide the educational sector.
34. By way of example the UK is part of the largest network of global information providers and awarding bodies, and has begun to sign bilateral and multilateral agreements that oblige signatory states to have mutual recognition of qualifications. The UK has entered into 5 MoU treaties over the past 18 months.
35. For ASEAN countries the UK can be an international partner to both individual nations and the region as a whole to support TVET development, provision, qualification, recognition, and transferability is a sustainable way forward for the ASEAN region. With support at national, regional, and global levels, TVET can be truly sustainable.

### Case study - Thailand

Thailand has created a new law, 'Section 44', which will enable foreign TVET institutions to establish educational schools in the eastern area of Thailand.

Foreign institutions who wish to help Thailand achieve the 'Thailand 4.0' mission and wish to open a TVET institution can submit a proposal to the government which, if approved, should exempt them from private university law, and from higher education commissions and regulations.

This law was established to ease the problems faced by foreign institutions regarding governmental administrative processes. Pearson (UK) is the first institution to utilise Section 44 and an MOU was signed between Pearson and the Thai Ministry of Education during the dialogue.

With the establishment of Section 44, Thailand is working to build liaisons with institutions known for their STEM and TVET programmes.

Carnegie Mellon University will soon establish a branch campus, offering a few PhD and master's degree programmes, in Thailand and begin accepting students by September 2018. Their programmes will be reviewed and approved by the National Taiwan University.

Some Thai-Chinese technical vocational schools will also be working with industrial partners to better understand the needs and demands of STEM industries on a national and multinational scale.

## Case study – Laos and the University of Nottingham

Educational institutions such as the University of Nottingham (UoN) demonstrate how TVET and Higher Education can complement each other.

The Nottingham Advantage Award (NAA) module, which exists across all three UoN campuses in Malaysia, China and the UK, equips students with skills to enhance their employability in addition to serving as a gateway for companies to enter the arena of higher education.

Adopting the 4th industrial revolution requires more people to be highly skilled. UoN has linked up with Laos as a result of the previous Wilton Park dialogue, committing to provide the credibility of a degree that consists of a TVET qualification as it simultaneously offers a “passport” to formal employment.

## Conclusion

There is a strong acknowledgement across all ASEAN countries of the central role that TVET and skills training will have in the development of their missions to embrace the 4.0 revolution and create a skilled workforce ready for the future workplace.

This conference allowed participants to learn about the approaches being taken by different ASEAN countries and the UK to increase provision of TVET, recognising the different stages of maturity of economy, TVET systems and TVET provision.

Many ideas were shared about how different countries and institutions are overcoming their challenges around TVET provision so that the future generation can benefit. Four core themes emerged relating to:

- Perception, and the need for a more positive view of parents and society with career guidance a core element;
- Adaptability of TVET providers and employers, with soft skills, critical thinking and life-long learning key elements; articulation between schools, the TVET sector and Higher education
- Roles of different actors needed whether governments, employers and the third sector (including private providers, donors and others). There are many challenges within and between these actors, and some levels of dysfunction
- Transferability and recognition of qualifications across the region to benefit the individuals and enable greater movement of citizens with skills to offer.

There are many opportunities for greater collaboration across ASEAN, and with the UK, and as partnerships develop they could have beneficial outcomes for each country.

### **Louise Nicol and Dan Gill**

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