

Regional Community Briefing

# Human Capital Outlook Association of Southeast Asian Nations (ASEAN)

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# Human Capital Outlook: Association of Southeast Asian Nations (ASEAN)

## EDUCATION AND WORK IN THE FOURTH INDUSTRIAL REVOLUTION

Disruptive changes to business models will have a profound impact on the employment landscape over the coming years. Many of the major drivers of transformation currently affecting global industries are expected to have a significant impact on jobs, ranging from significant job creation to job displacement, and from heightened labour productivity to widening skills gaps. By one popular estimate, 65% of children entering primary school today will ultimately end up working in completely new job types that don't yet exist. In many industries and countries, the most in-demand occupations did not exist 10 or even five years ago, and this pace of change is set to accelerate. The Association of Southeast Asian Nations (ASEAN) region is no exception to these trends.

As a core component of its Systems Initiative on Education, Gender and Work, the World Economic Forum brings together the latest thinking of leading experts from academia, international organizations, professional service firms and the heads of human resources of major organizations with its own analysis.<sup>1</sup> The Forum's knowledge tools are intended as a guide to decision-makers to bring specificity to the upcoming disruptions to the global employment and skills landscape, and to stimulate deeper thinking about how business and governments can manage this change. New insights are

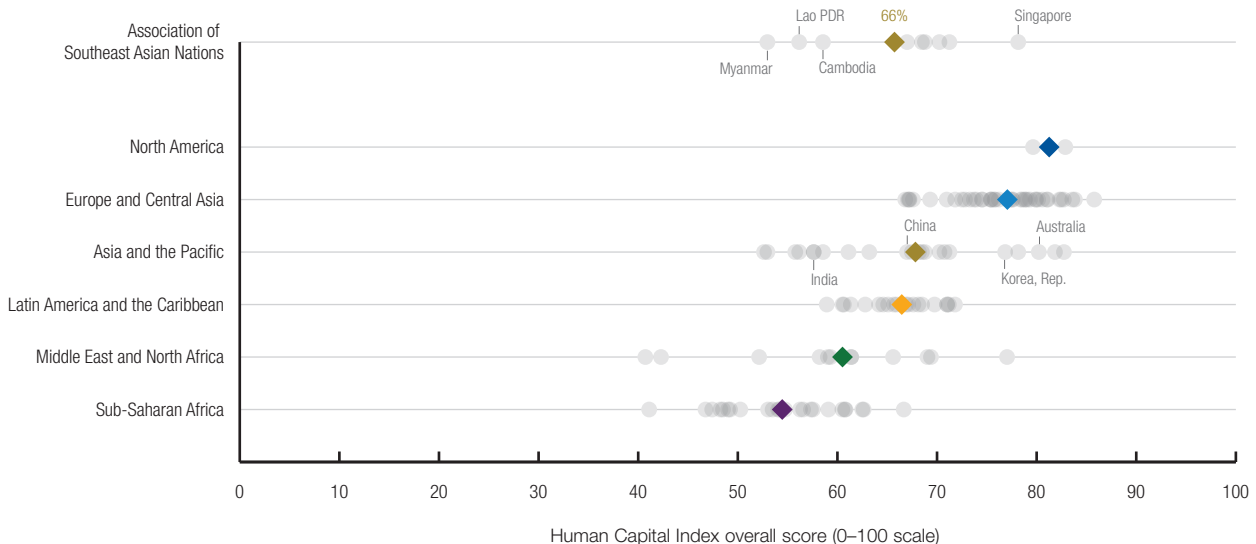
Figure 1: Human Capital Index 2015—ranking of ASEAN countries

ASEAN		
Global Rank	Country	Score
24	Singapore	78
46	Philippines	71
52	Malaysia	70
57	Thailand	69
59	Vietnam	68
69	Indonesia	67
97	Cambodia	59
105	Lao PDR	56
112	Myanmar	53

Note: Insufficient data to cover in 2015 edition: Brunei Darussalam.

also integrated into the Forum's regional public-private collaboration initiatives to promote employment and skills. This briefing aims to support deliberations by our members and partners at the World Economic Forum on ASEAN 2016 on how the region's talent can be best positioned for growth—particularly in the context of the Fourth Industrial Revolution—and how business and government can work together to close skills gaps.

Figure 2: Human Capital Index 2015—ranking and spread of ASEAN countries compared to world regions



Source: Human Capital Index 2015, World Economic Forum.  
Note: Regions are sorted by simple, unweighted average score.

**Figure 3: Labour market conditions in ASEAN**

Country	Ease of finding skilled employees (7=easiest, 1=hardest)	Average monthly wage (US\$)	Workers in vulnerable employment (%)	Incidence of child labour (%)
Cambodia	3.4	121	64	18.3
Indonesia	4.3	174	36	6.9
Lao PDR	3.1	119	83	10.1
Malaysia	5.3	609	22	—
Myanmar	2.4	—	89	—
Philippines	4.4	206	42	11.1
Singapore	4.8	3547	9	—
Thailand	3.8	357	56	8.3
Vietnam	3.4	181	63	6.9

Note: "Workers in vulnerable employment" refers to the number of unpaid family workers and informal sector "own-account workers" as a share of total employment.

### ASEAN'S PERFORMANCE IN A GLOBAL CONTEXT

The World Economic Forum's annual Human Capital Index benchmarks and quantifies how countries are developing and deploying their human capital, and tracks each nation's progress over time. It takes a life-course approach to human capital, evaluating not only the levels of education, skills and employment available to people across different ages, but also how well economies around the world are leveraging this potential for the benefit of economy and society as a whole. Covering more than 120 countries—representing 92% of the world's people and 98% of its GDP—the Index measures a country's present performance against an ideal benchmark, and offers insight into how well a country is positioned for deploying talent in the future.

In 2015, the development and deployment of ASEAN's human capital potential ranged from 53% of the ideal situation in Myanmar to 78% versus the ideal in Singapore, according to the Index.<sup>2</sup> This is on a par with the wider Asia region as well as Latin America, and is some way ahead of the Middle East and Sub-Saharan Africa but behind Europe and North America. The region features a cluster of solid performers, a few countries significantly underperforming their potential (Myanmar, Lao PDR and Cambodia) and one global success story: Singapore. The key factors contributing to this performance are further highlighted below.

### DEMOGRAPHICS AND WORKFORCE STRUCTURE

Since 1990, ASEAN's population of approximately 625 million people has almost doubled, and by 2025 it is expected to reach 694 million. It accounts for 8.6% of the world total, is equal to the combined populations of Latin America and the Caribbean, and is larger than that of the European Union and double that of the United States. ASEAN is experiencing significant demographic change: it will see 68.2 million new entrants to the labour force by 2025. There is high labour force participation among the region's population, as well as a relatively narrow labour force participation gender gap. High-skilled workers—i.e. those educated to degree level—are noticeably younger

than ASEAN's workforce as a whole, having a median age in the mid-20s, leading to a potential "demographic dividend" from an increasingly well-educated younger population.

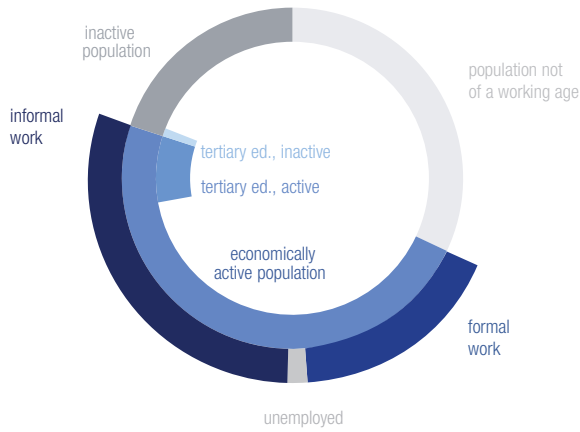
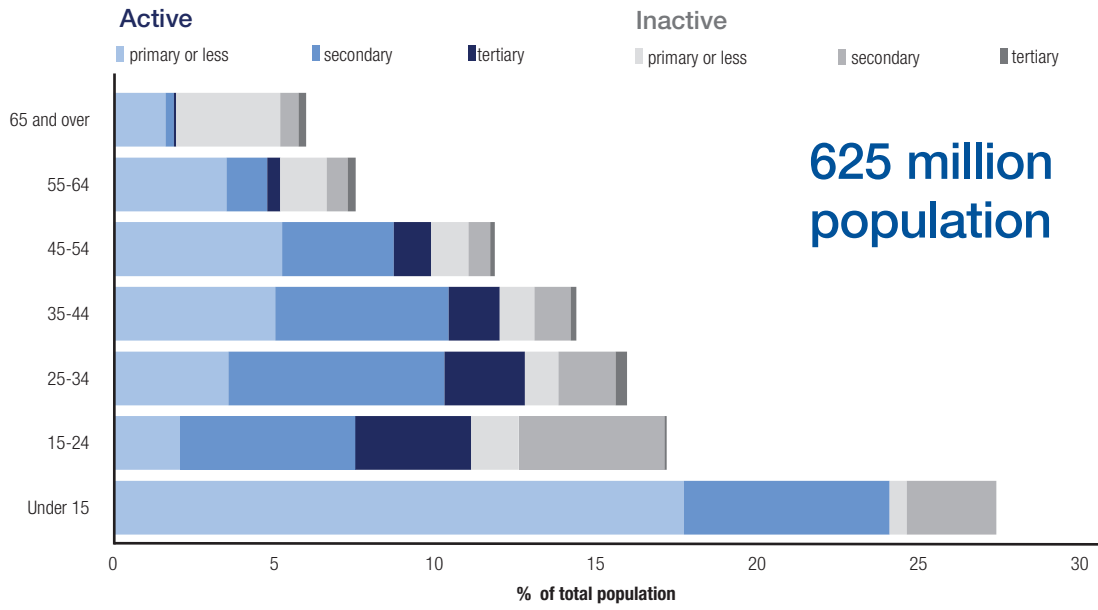
While nearly 40% of the overall workforce in ASEAN is occupied in agriculture, an equal number (41%) is engaged in the services sector while 19% are involved in industry—although this picture varies across the countries of the region. Vietnam and Thailand have a more agriculture-heavy labour market, while Singapore, Malaysia, the Philippines and Indonesia have more services-based workforces. Malaysia has the region's largest share of the workforce in industry. Across the region economic and developmental indicators have improved steadily over the past decade, although more work remains to be done (Figure 3).

Over the coming decade major drivers of occupational change—including mobile internet connectivity, new energy technologies, cheap processing power and data analytics and flexible and remote working practices—are expected to lead to significant net job creation, according to regional business leaders and human resources executives surveyed for the Forum's recent *Future of Jobs* study.<sup>3</sup> In particular, the Transportation and Logistics, Sales, Management and Business, Legal and Financial job families are forecast to expand. To meet these expectations, however, the countries of the region will need to ensure their workforces are skilled appropriately and able to adapt to the changing nature of these jobs.

### EDUCATION AND SKILLS OUTCOMES

With growing pools of young, well-educated workers, several economies in the region compare favourably with global standards on the availability of skilled talent. In particular, Malaysia, Singapore, the Philippines and Indonesia receive strong scores from companies evaluating the ease of finding skilled employees as part of the Forum's Human Capital Index. However, the perceived quality of skilling and training programmes varies widely between and even within countries across different parts of the education and training ecosystem. In Cambodia, Lao PDR

## Population by economic activity, age and education

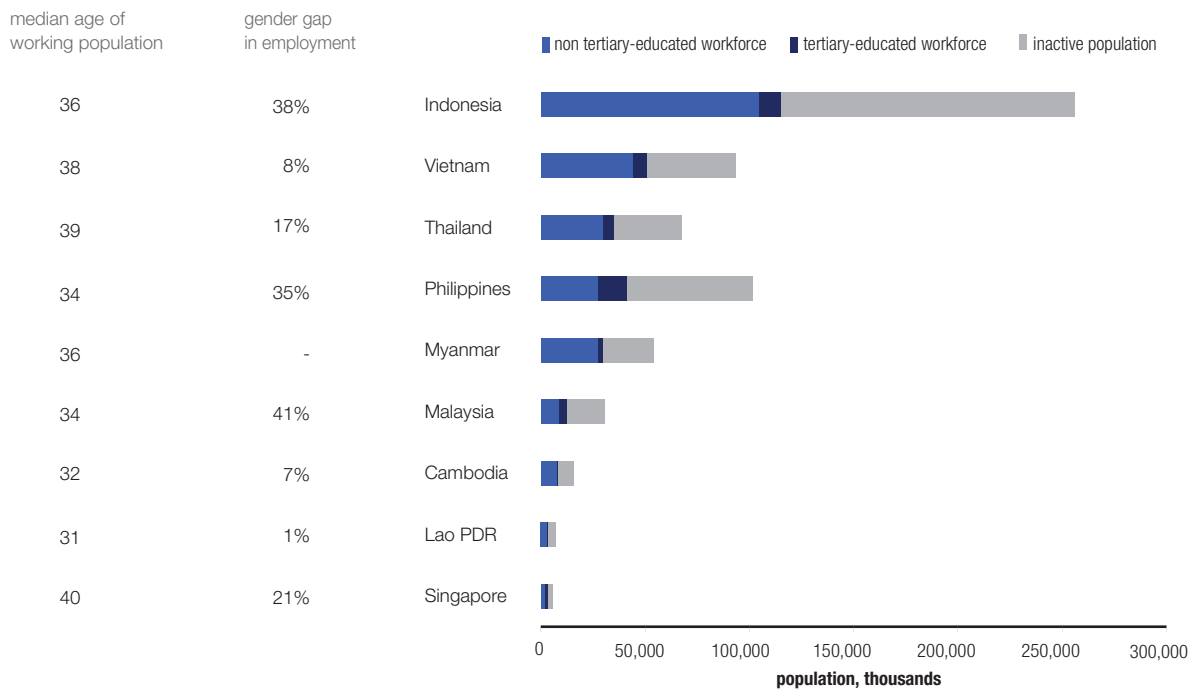


### Women to men in the workforce

**43%**

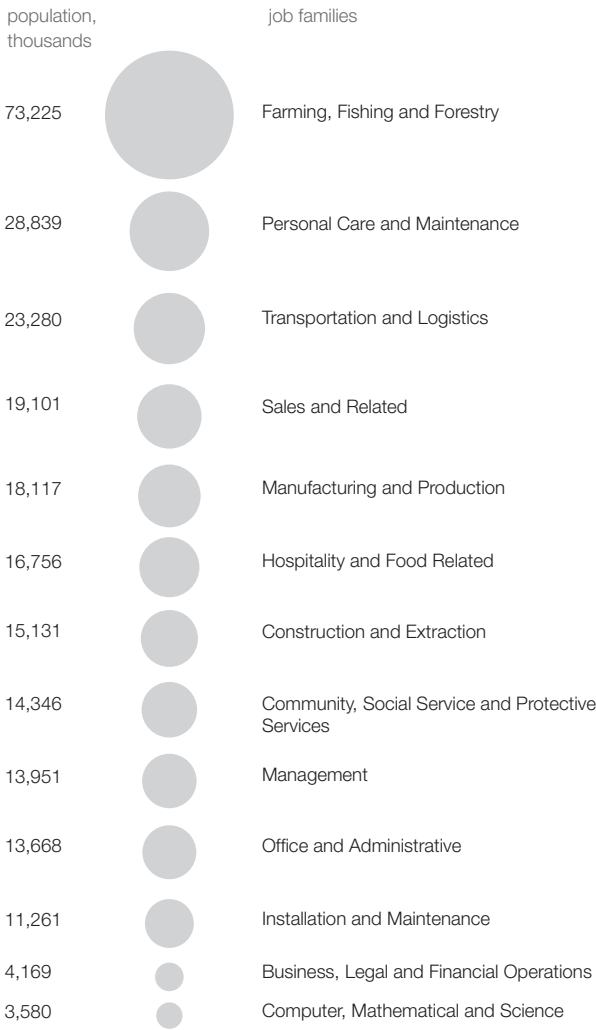


## The working and not working population

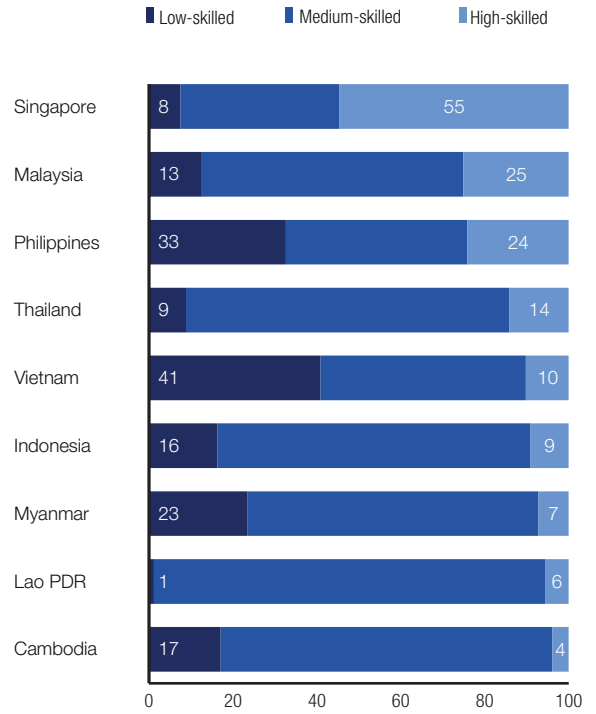


Note: The "economically active population" is defined as those in work or looking for work; the "unemployed" are the segment of the economically active population looking for work; the "inactive population" is defined as those not in employment and not actively seeking work.

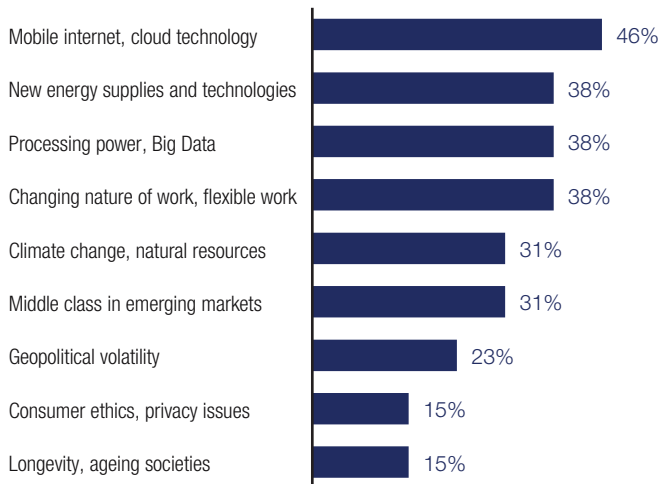
### Size of job families in region \*



### Employment share



### Driver of change impacting industries importance to ASEAN business leaders



### Resulting disruptions to jobs projected by ASEAN business leaders

**4:1** Job creation to job displacement

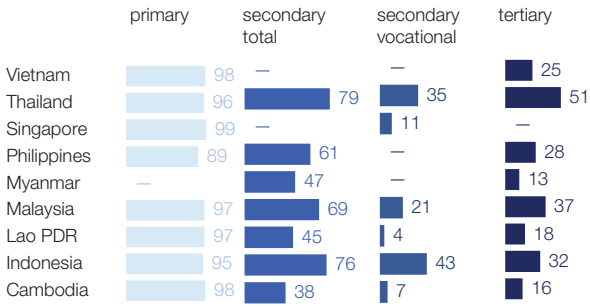
#### Sectors with expanding employment

- Transportation and logistics
- Sales and related
- Management
- Business, legal and financial

Note: Job families as classified in the O\*NET categorisation system; size of job families estimated based on labour markets of: Brunei Darussalam, Cambodia, Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam.

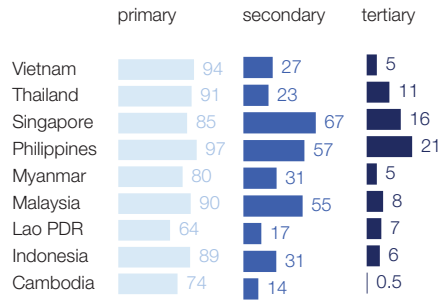
### Current enrolment \*

(% of relevant age group)

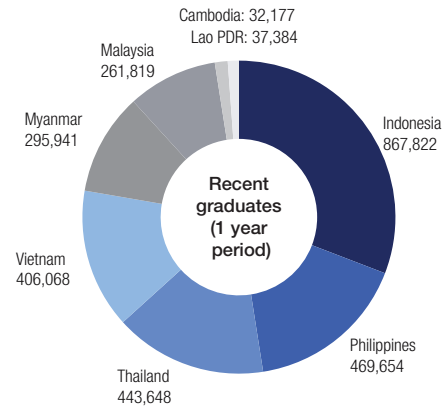
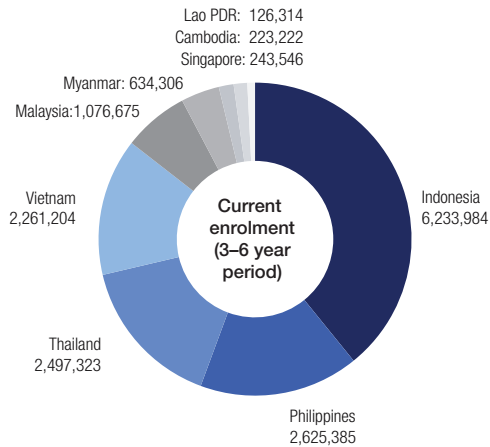


### Long-term attainment \*

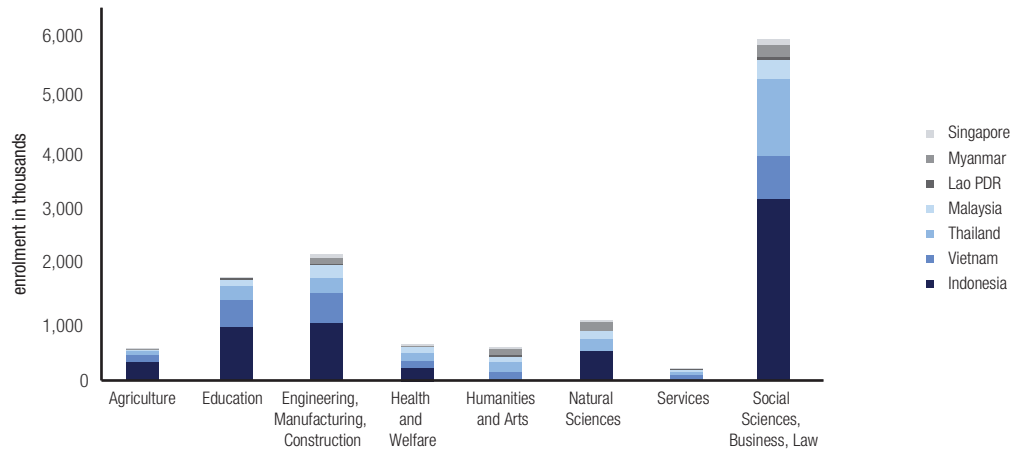
(% of relevant age group)



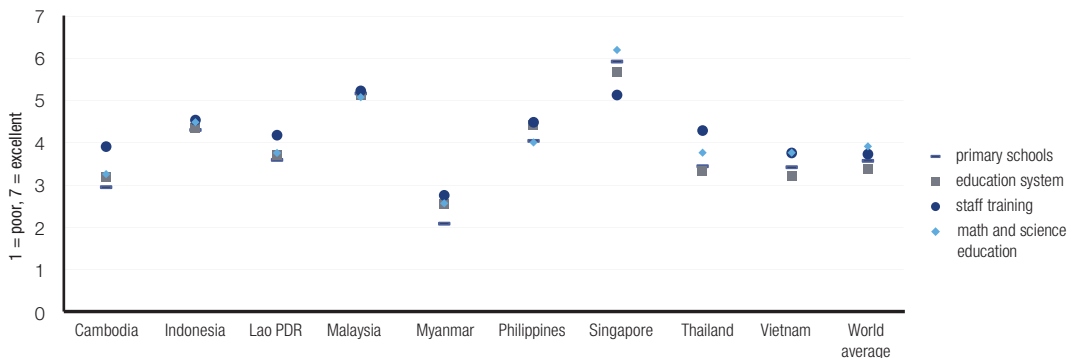
### Tertiary enrolment and recent graduates \*



### Students in tertiary education by field of study



### Quality of education as perceived by countries' business community



Note: "Recent graduates" refers to students who have recently graduated from tertiary degree programs; "long-term attainment" refers to the number of tertiary graduates in the overall population.

and Thailand, for example, on-the-job staff training is rated comparatively higher than the rest of the local education ecosystem, pointing to local companies undertaking their own measures to secure their supply of talent.

Across nearly all industries, the impact of technological and other changes is shortening the shelf-life of employees' existing skill sets. For example, technological disruptions such as robotics and machine learning—rather than completely replacing existing occupations and job categories—are likely to substitute specific tasks previously carried out as part of these jobs, freeing workers up to focus on new tasks and leading to rapidly changing core skill sets in these occupations. On average, by 2020, more than a third of the desired core skill sets of most occupations will be comprised of skills that are not yet considered crucial to the job today, according to the Forum's *Future of Jobs* analysis. The economy of the Fourth Industrial Revolution will also need strong vocational skills—too often still regarded as poor alternatives in relation to traditional academic routes—as well as social and creative skills.

Education reformers worldwide have often looked to Singapore as a role model for the kinds of reforms needed—and the ASEAN region can certainly learn from its successes. However, other economies in the region have also begun reorienting their education and training systems to align with their own future developmental paths and skills requirements, moving beyond a narrow focus on academic skills alone. For example, Vietnam has invested heavily in education and shifted its curriculum away from rote learning. Malaysia's 1Youth 1Skill vocational education scheme, set up in 2010, has helped improve the reputation of vocational education in the country and reported higher success rates at job placement than for tertiary education. Finally, Indonesia has begun closer coordination between its economics and education ministries.

Given the complexity of the change management needed, business stakeholders, too, will need to realize that collaboration on talent issues, rather than competition, is no longer a “nice-to-have” but rather a necessary strategy. Multi-sector partnerships and collaboration, when they leverage the expertise of each partner in a complementary manner, are indispensable components of implementing scalable solutions to future skills challenges. Across the ASEAN region, there is a need for bold leadership and strategic action within companies and within and across industries, including partnerships with public institutions and the education sector.

## KEY AREAS FOR ACTION

All of ASEAN's economies are set to be impacted by the changing nature of work brought about by the Fourth Industrial Revolution. To reap the benefits and minimize the downsides, four key themes stand out for urgent attention by the region's political leaders and business community, regardless of the current level of development and education in a geography or sector.

## Building an integrated ASEAN labour market

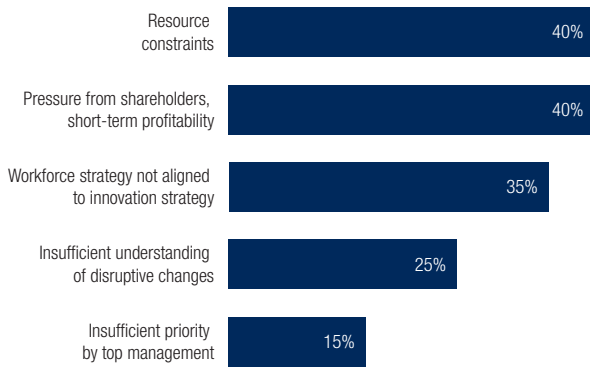
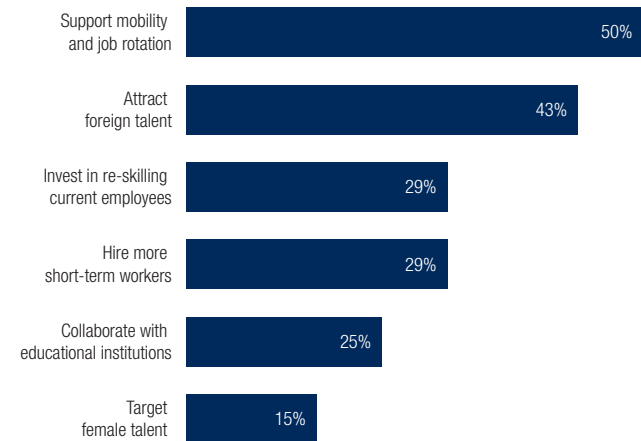
Regional integration is critical to the future of the ASEAN region. For this vision of integration to work, labour mobility will be critical, as will a coordinated, forward-looking approach to education and skilling objectives across the region. Intra-ASEAN talent mobility has a key role to play in optimizing the region's long-term human capital potential.<sup>4</sup> Currently, labour migration patterns in the region are centred on several one-way corridors: from Cambodia, Lao PDR and Myanmar into Thailand (55% of total intra-ASEAN labour migration); from Indonesia into Malaysia (16%); and from Malaysia into Singapore (16%).<sup>5</sup> In addition, the transferability and recognition of education and skills through common protocols of certification will also be necessary for reaping the full benefits of integration. Upgraded mechanisms for joint skills training and mutual recognition of occupational qualifications and standards between ASEAN nations are also highly effective approaches to alleviating geographic skills mismatches: they can promote talent flows from economies with specific skills surpluses to those where such skills are in short supply.

The aims the region has set itself include achieving universal literacy, developing education networks at a variety of skill levels, establishing research clusters, and programme-level initiatives such as regional vocational training initiatives. As each of the region's economies continues to upgrade its human capital, there are significant cross-regional learning opportunities through the sharing of best practices on foundational education, vocational training, higher education, education to work transition and lifelong learning.

## Harnessing untapped talent pools

Female talent is an often-wasted resource that entails opportunity costs for families, companies and entire economies. Tackling the barriers to female labour force progression in ASEAN will unlock further growth and accelerate the region's performance by expanding talent pools, connecting better to diverse customer bases, enhancing innovation and decision-making, and improving company performance. In recent years, the educational attainment of young women in ASEAN has become equal to or surpassed that of men, across all skills levels. However, throughout the region women continue to enter the workforce in smaller numbers than men, representing untapped human capital potential. The labour force participation gender gap is highest in Malaysia (41%), followed by Indonesia and the Philippines (38% and 35%, respectively). There is also a relatively small workforce gender gap in Vietnam, Cambodia and Lao PDR.<sup>6</sup> Still, both Cambodia and Vietnam, as well as other countries across the region as a whole, retain high gender gaps in the progression of female workers to senior levels, suggesting the region needs high-level focus on recruiting and developing female workers. This will become more and more important for the region as it attracts global businesses that are increasingly recognizing the dividends of developing female talent.<sup>7</sup>



**Figure 4: Future workforce strategies and significant barriers to change for ASEAN employers****Barriers****Strategies**

Source: Future of Jobs Survey, World Economic Forum.

**Preparing ASEAN's future workforce**

Technological, social and demographic change is creating an opportunity for the ASEAN region to be at the forefront of the Fourth Industrial Revolution over the coming decade, and to harness it for the region's growing prosperity, provided workforces in the region can adapt. In ASEAN, like much of the rest of Asia, low-cost—and low-skilled—labour has thus far been a source of competitive advantage. As the costs of automation fall, however, the region must begin to compete through skilled talent, not cheap labour alone, and, in addition, ensure that those skills are relevant to future growth. For example, in several ASEAN countries a large number of students are studying Social Sciences, Business and Law, while Engineering, Health and the Natural Sciences enrolment—areas critical to the evolving technological and demographic trends both regionally and globally—lags behind. With a young demographic profile and a rapidly expanding workforce, the region urgently needs to shift its approach to education curricula, bringing major reform to the education value chain, from basic education through to vocational training and higher education.

**Preparing ASEAN's current workforce**

Many of ASEAN's advanced economies developed by pursuing export-manufacturing, pulling farmers into factories, and, ultimately, into services. This strategy is unlikely to continue to work for countries newly embarking on this journey (Myanmar, Cambodia, Laos and others) if, as predicted by many, all three areas—manufacturing, agriculture and services—are deeply transformed by automation, 3D printing, robotics, mobile communications and other technologies of the Fourth Industrial Revolution. Both the advanced and developing economies within the region will now need to carve a new path and anticipate

and prepare for the rapidly unfolding changes occurring across all sectors. To ensure that the region taps into new opportunities and mitigates the risk of large-scale unemployment and underemployment, urgent attention must also be placed on lifelong learning and adult skilling and training mechanisms to support workers who can no longer expect to rely on skill sets acquired at the start of their careers. Both in school and in the labour market more broadly, education delivery and formats would benefit from emerging global best practices, such as massive open online courses (MOOCs) and flexible and modular “nano”-degrees that reflect the future of work.

Public-private collaboration will need to be at the heart of achieving all four objectives. The talent strategies of major employers in the ASEAN region to equip their workforces with the right skills to take advantage of these opportunities are rooted in expectations of deepening regional integration. Major perceived barriers to realizing this optimistic vision include short-term profitability pressures as well as, importantly, perceived insufficient alignment between firms' workforce and innovation strategies and insufficient understanding of impending disruptive change.

There is much that business can do alone. Across the ASEAN region, businesses can more proactively prepare by taking a strategic approach to workforce planning, one that extends beyond quarterly or annual results. This can entail partnering with training providers (both public and private) to create demand-driven training; collaboration with educational institutions to expose students to workplace skills, providing intra-regional job placement opportunities to staff; developing programmes to facilitate the transition from education to employment; and supporting entrepreneurs within their value chains. However, beyond the individual efforts of companies, there are likely to be gains in efficiency

and accelerated returns if businesses collaborate with each other and with governments. Such initiatives—ranging from developing cross-regional qualification systems within industries to cross-industry training to business contributions to curricula reform—come at a coordination cost but will yield long term benefits through a more robust and resilient workforce, an improved supply of talent to businesses and growth to the region’s economies.

## NOTES

- 1 The analysis presented in this brief draws on data from the Forum’s database on Education, Gender and Work. The data is constituted from a blend of aggregates of independently verified international statistics and the Future of Jobs employer survey (developed as part of the work of the Forum’s Global Future Councils and validated through their expertise). Products that similarly draw on this database include the Forum’s *Future of Jobs Report* and *Human Capital Report*.
- 2 World Economic Forum, *The Human Capital Report 2015*, 2015.
- 3 World Economic Forum, *The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*, 2016.
- 4 Asian Development Bank, *Achieving Skill Mobility in the ASEAN Economic Community: Challenges, Opportunities, and Policy Implications*, 2015.
- 5 Asian Development Bank, International Labour Organization, *ASEAN Community 2015: Managing integration for better jobs and shared prosperity*, 2015.
- 6 World Economic Forum, *The Global Gender Gap Report 2015*, 2015.
- 7 The Economist Intelligence Unit, *Mind the gaps: Perceptions of gender equality in Southeast Asia*, 2016.





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