



# TECHNOLOGICAL REVOLUTION & EMPLOYMENT SUSTAINABILITY

for **THE ENTIRE LABOR FORCE** in ASEAN

8 GOOD JOBS AND  
ECONOMIC GROWTH



TEAM VITALITY – VIETNAM

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The research is based on the concept of Carlota Perez - Technological Revolutions & Financial Capital: The dynamics of Bubbles and Golden Ages

## THREE PHASES OF A SHIFTING ECONOMIC-TECHNICAL PARADIGM

### 1. INSTALLATION PHASE

- is the process of learning new technology
- appeared many new economic - technical models
- many challenges and high risks



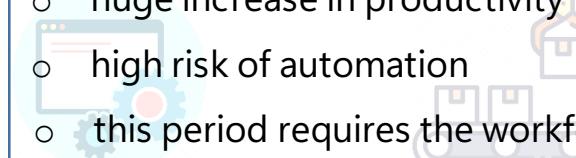
### 3. SYNERGY PHASE

- technology solutions are deeply applied
- appeared and increased many career opportunities
- fierce competition between skilled and unskilled workforce for job opportunities

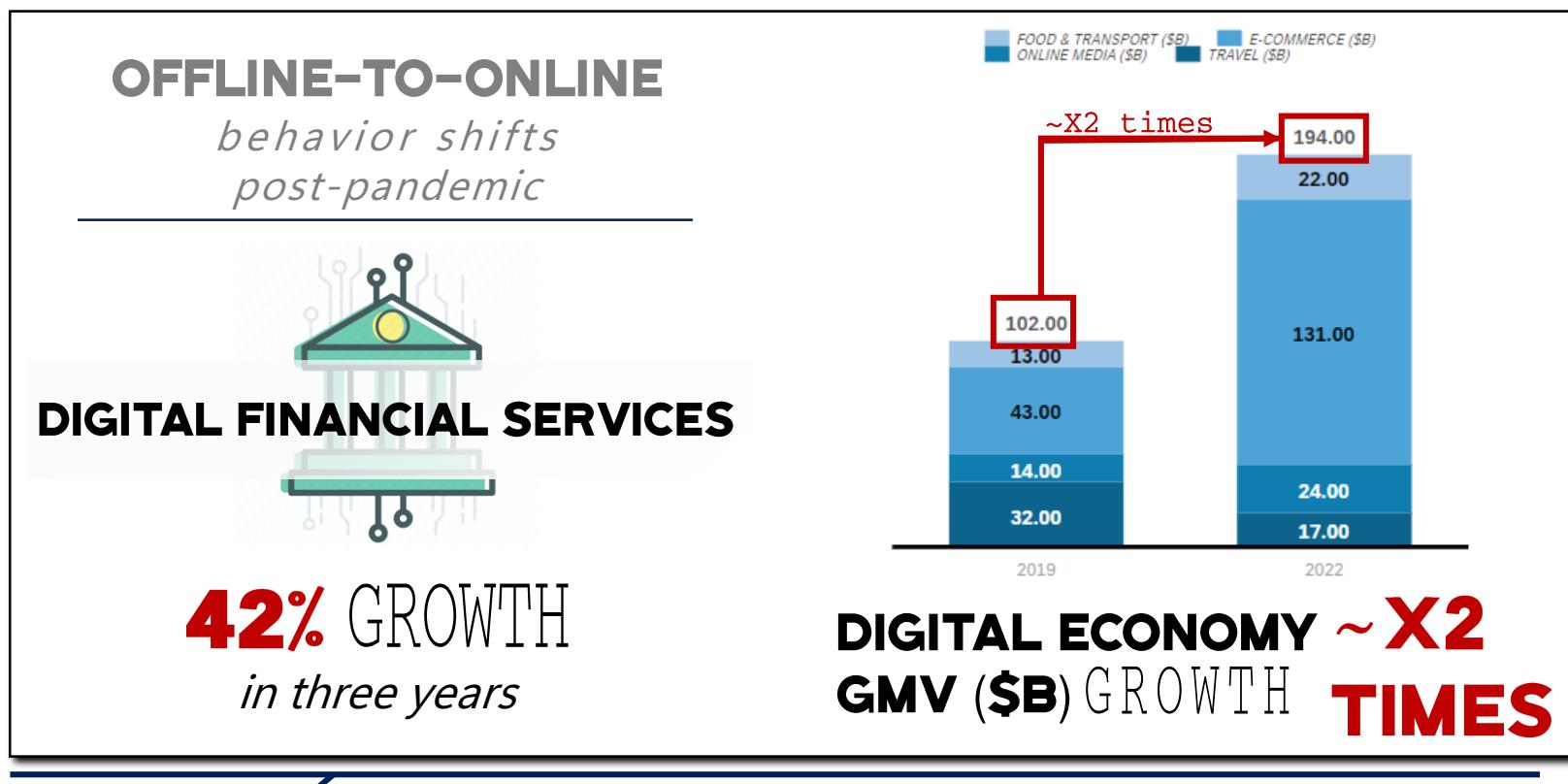
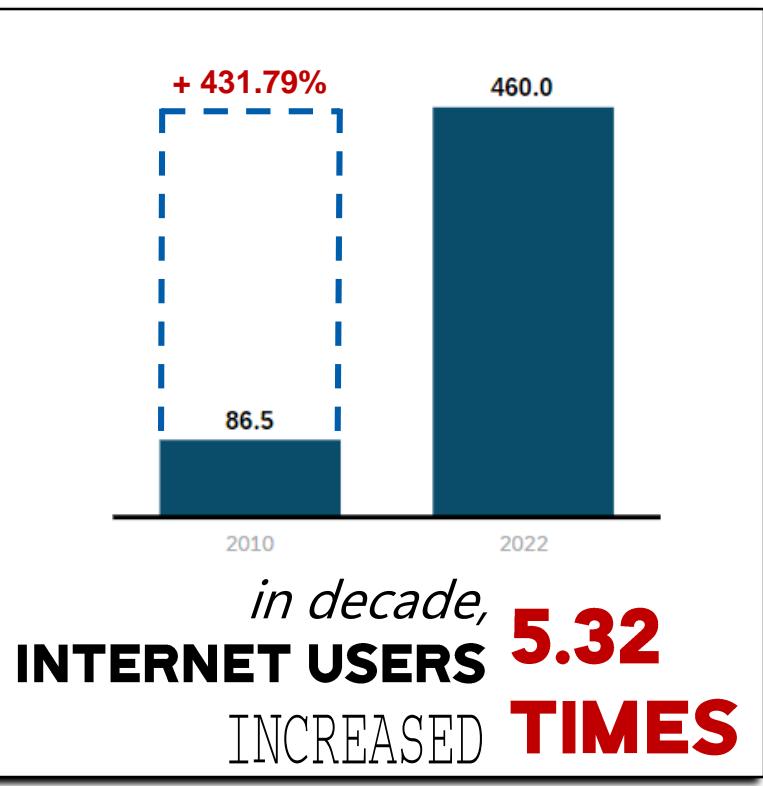


### 2. DEVELOPMENT PHASE

- many types of technology are widely applied
- huge increase in productivity
- high risk of automation
- this period requires the workforce to enhance their skills, knowledge, and experience to avoid being replaced by automation



# DIGITAL ECONOMY IN SOUTHEAST ASIA – THE EXPLOSIVE GROWTH



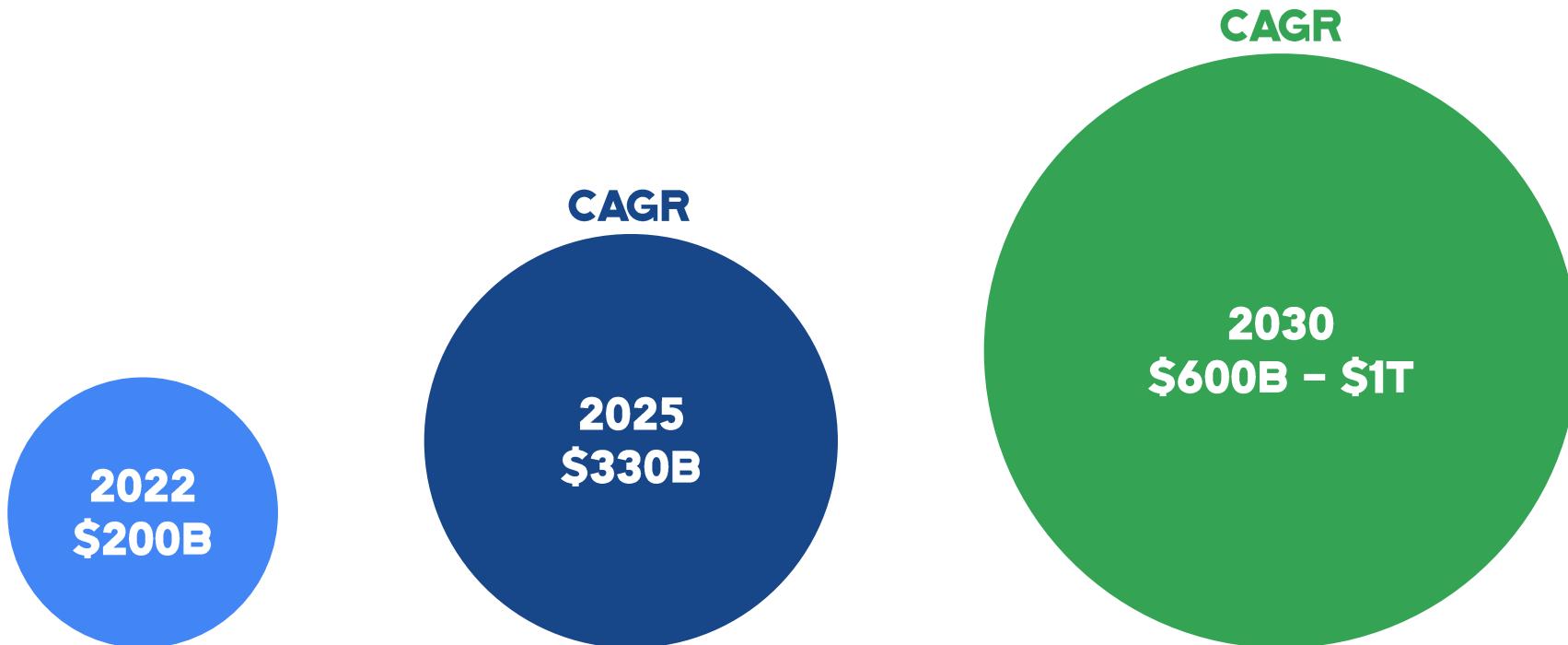
**SOUTHEAST ASIA'S  
DIGITAL ECONOMY** APPROACHES **\$200B GMV\***  
*three years earlier than expected!*

# ECON-O-MIGHT

**THE SEA\* DIGITAL ECONOMY  
COULD REACH UP TO \$1T GMV BY 2030**

*Stage 1 - achieving profitable growth (2023–2025)*

*Stage 2 - unlocking full potential, sustainably (2025–2030)*

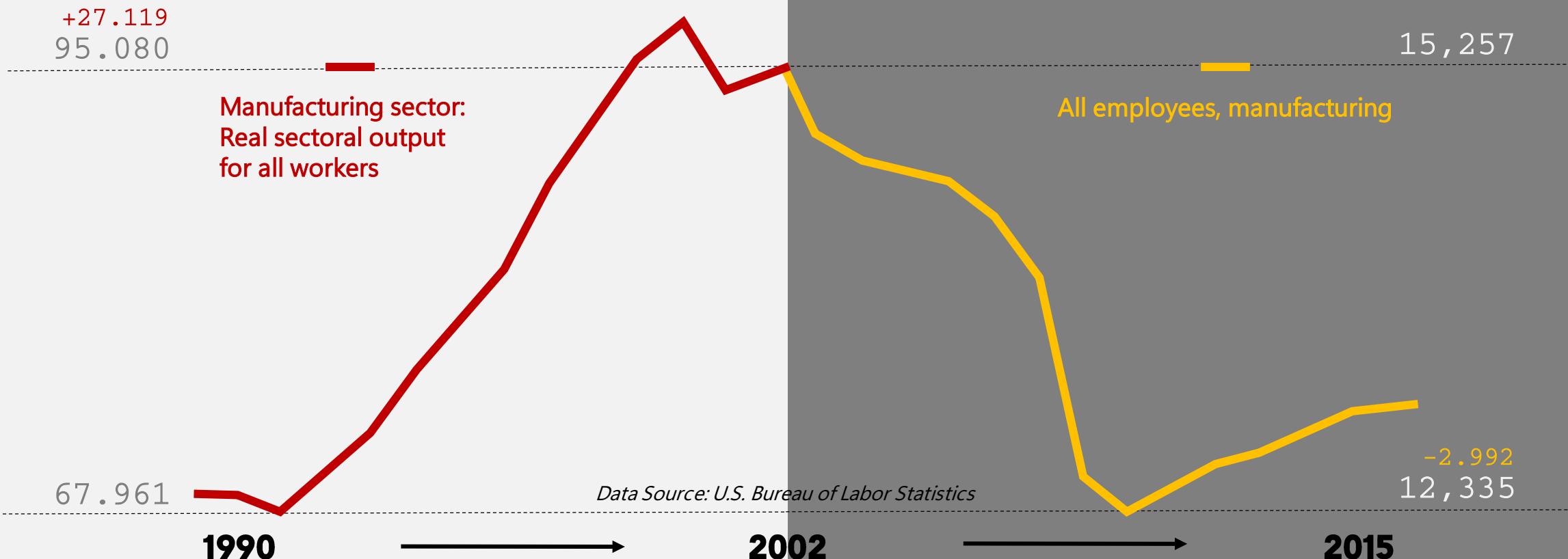


# OPPORTUNITY

THREE PHASES OF A SHIFTING TECHNO-ECONOMIC PARADIGM – CARLOTA PEREZ  
& THE LESSON OF U.S – WHO WENT THROUGH THE FIRST TWO STAGES

# CHALLENGE

## THE INSTALLATION & DEPLOYMENT PERIOD



TECH-INNOVATION HAS ~X1.5  
INCREASED EFFICIENCY **TIME**

THE ADVANCEMENT OF  
TECHNOLOGY IS OFTEN  
ACCOMPANIED BY **JOB  
DISPLACEMENT**

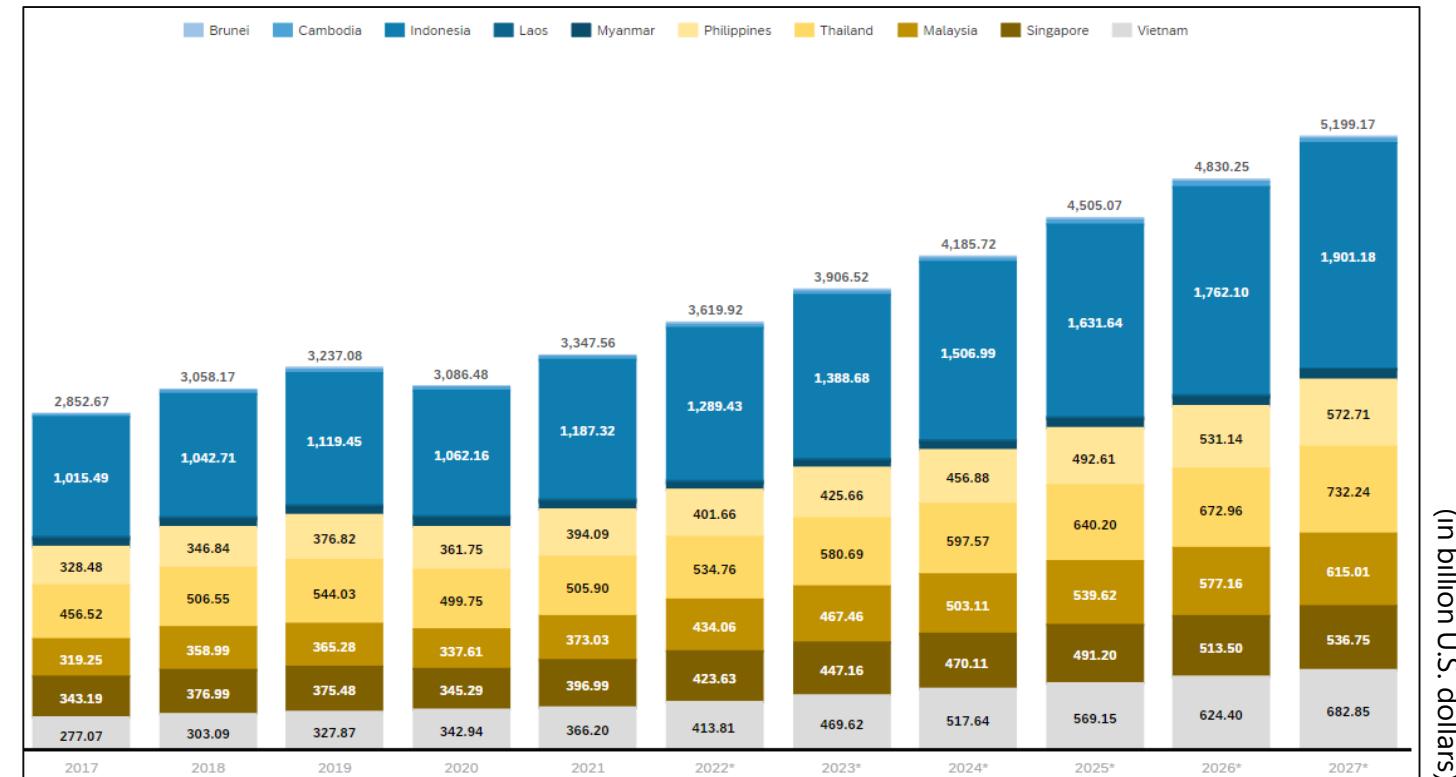
# CHALLENGES THAT ASEAN MUST FACE IN THE FUTURE

**THE ASEAN REGION IS CURRENTLY AT THE END OF PHASE 1 AND BEGINNING OF PHASE 2 OF THE THREE PHASES OF A SHIFTING ECONOMIC-TECHNICAL PARADIGM**

this phase is characterized by process innovation and is associated with  
**HUGE PRODUCTIVITY GAINS** and **JOB DESTRUCTION**

Data Source: STATISTA

## FORECAST OF GROSS DOMESTIC PRODUCT (GDP) OF ASEAN COUNTRIES (PERIOD 2017 – 2027) – THE PERIOD OF ECONOMIC RENEWAL



ACCOMPANYING THAT GROWTH IS **THE RISK OF SHEDDING WORKERS DUE TO AUTOMATION** – IT IS ESTIMATED THAT FOR ASEAN COUNTRIES, **ABOUT 3 OUT OF 5 JOBS** FACE A HIGH RISK OF AUTOMATION.

# CHALLENGES THAT ASEAN MUST FACE IN THE FUTURE

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## COMPANIES' [EXPECTED] CHANGES TO THE WORKFORCE BY 2025

according to the survey, **UP TO 43.2%** of enterprises intend to **REDUCE THE LABOR** due to **TECHNOLOGY INTEGRATION OR AUTOMATION**

*Data Source: Future of Jobs Survey 2020, World Economic Forum*

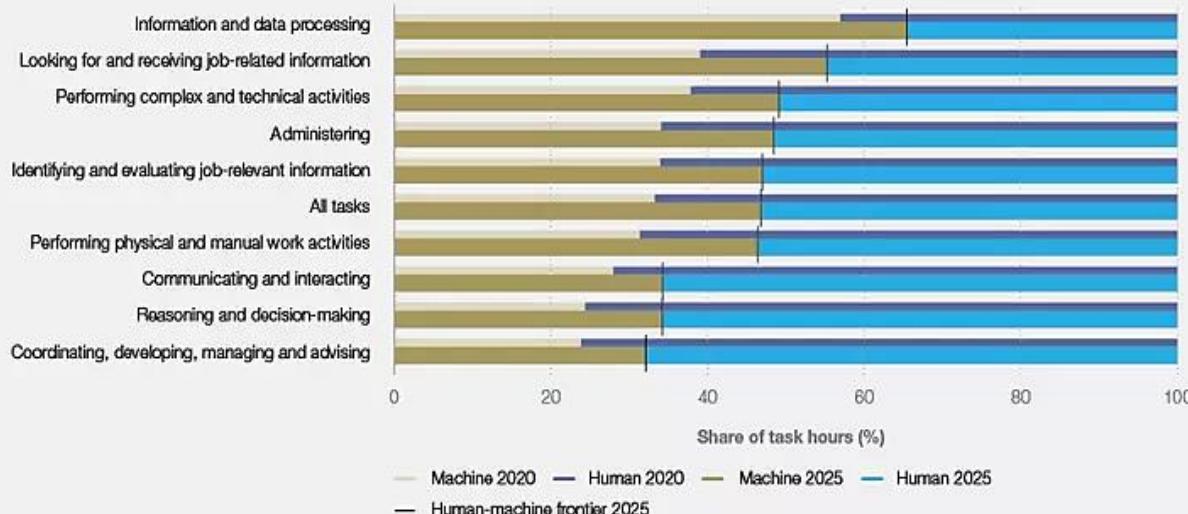
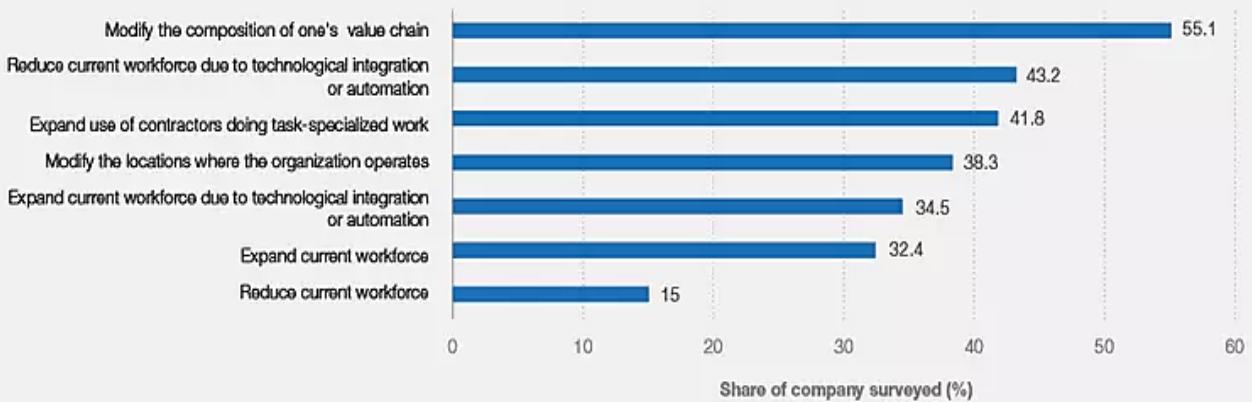
## SHARE OF TASKS PERFORMED BY HUMANS VS MACHINES, 2020 AND 2025 [EXPECTED], BY SHARE OF COMPANIES SURVEYED

**MACHINES AND ALGORITHMS** will handle **INFORMATION PROCESSING, ADMINISTRATIVE TASKS, AND SOME MANUAL LABOR** in the future

while **PEOPLE** will remain essential for **MANAGEMENT, CONSULTING, DECISION-MAKING, REASONING, COMMUNICATION, AND INTERACTION.**

to excel in these areas, individuals

**MUST POSSESS A THOROUGH UNDERSTANDING OF TECHNOLOGY**



## CAREER TRANSFORMATION

CREATES A LOT OF NEW JOBS BUT AT THE TIME  
COMPLEXITY OF WORK PROFILE IS INCREASE

CREATED  
NEW JOBS



**1.7M**

REDUCE  
TRADITIONAL JOBS



**800K**

INCREASE

FLEXIBILITY  
OF EMPLOYMENT

DEMAND FOR  
DIGITAL SKILLS

P&T

**-36%**

CUSTOMER  
SERVICE

**-25%**

FINANCE &  
INSURANCE

**-30%**

COMMERCE

**-27%**

WITH

DETAILED INFLUENCE

Data Sources: Mckinsey Global institute  
- The future of work in ASIA

Data Sources: ASEAN Development bank  
- Digitalisation and The future of work in ASIA

# ASEAN SITUATION: HIGH RISK OF AUTOMATION & LACK OF SKILLS TRAINING FOR WORKERS

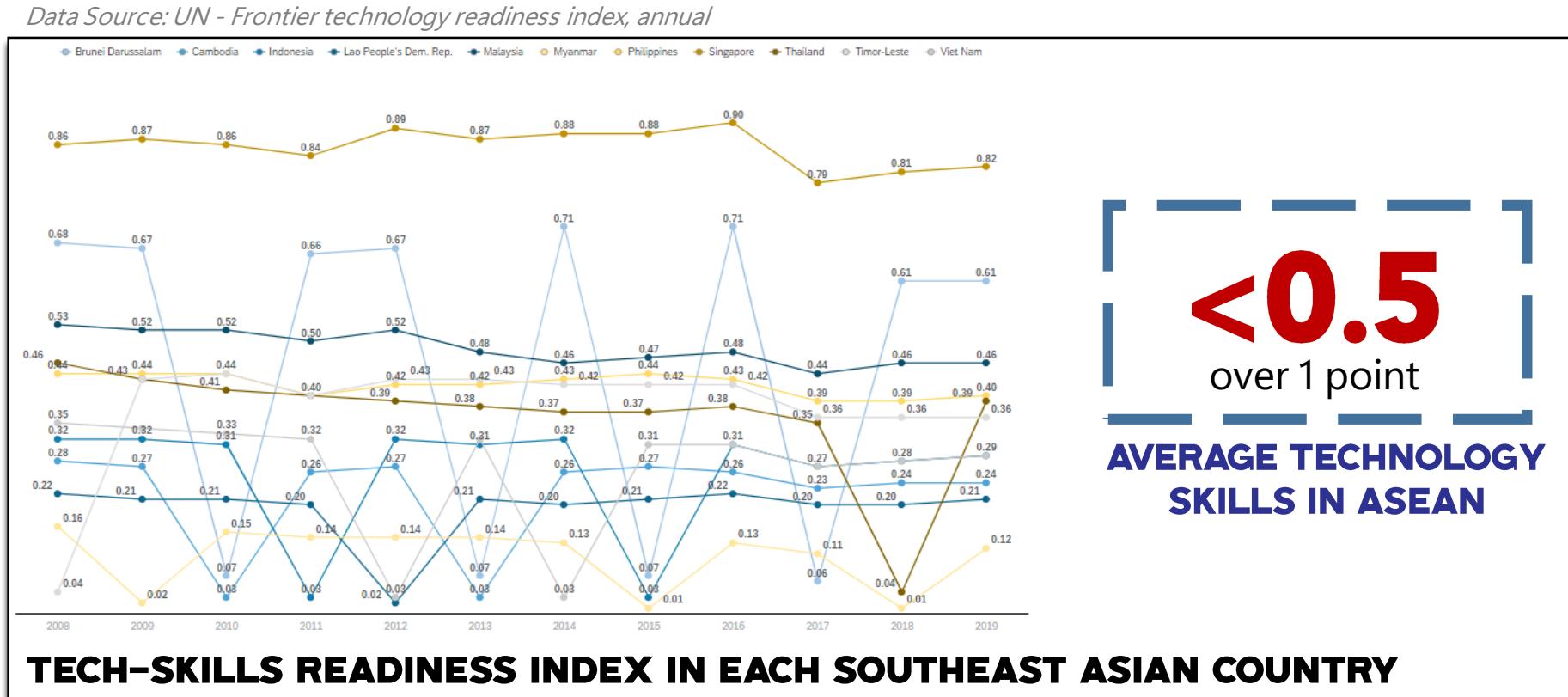


## SIMPLE JOB PROFILE

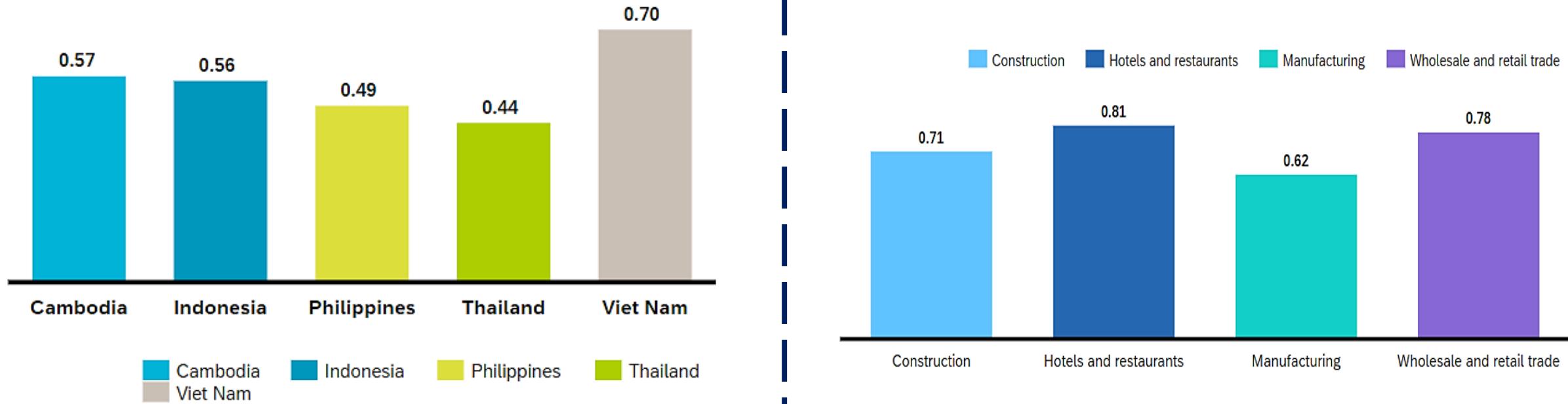


## LOW LEVEL TECHNOLOGY SKILLS

with the exception of Singapore, most Southeast Asian countries have **NOT SCORED 0.5** out of 1 in technology skills



## RISK OF AUTOMATION AMONG ASEAN-5 COUNTRIES



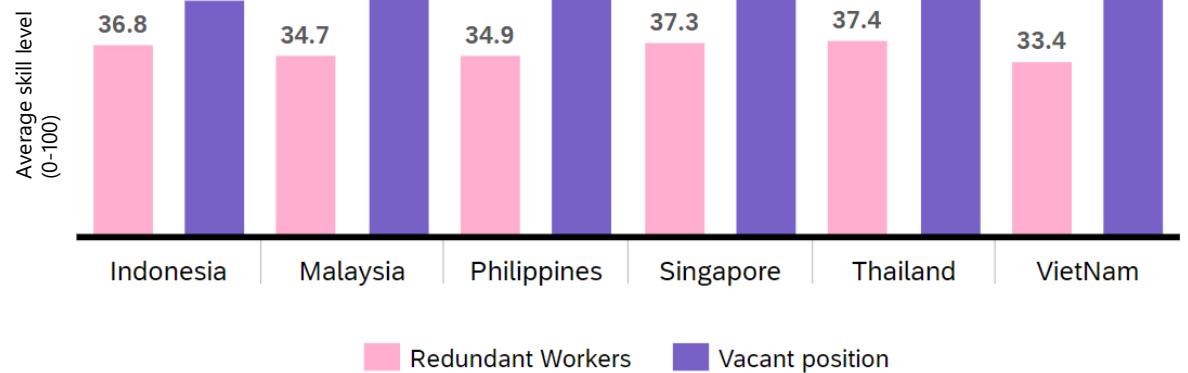
**COUNTRIES IN THE ASEAN-5 – WHICH MADE UP 80% OF THE ENTIRE ASEAN WORKFORCES – ALL HAVE APPROXIMATELY >50% RISKS OF AUTOMATION (WITH THE EXCEPTION OF THAILAND).**

**4 MOST HIGHLY-IMPACTED BY TECHNOLOGICAL REVOLUTION INDUSTRIES HAVE AUTOMATION RISKS LARGER THAN 60%**

# ASEAN SITUATION: HIGH RISK OF AUTOMATION & LACK OF SKILLS TRAINING FOR WORKERS

## SKILLS MISMATCH BY COUNTRY

Skills of redundant workers vs skills needed in vacant position



■ Redundant Workers ■ Vacant position

Source: Oxford Economics, Cisco

- ☞ Singapore faces the biggest skills challenge due to the fast-paced digital transformation in the region.
- ☞ Production workers and laborers in Singapore risk a high chance of being displaced.
- ☞ Jobs in highly-skilled managerial and professional roles are likely to be created
- ☞ Workers in the Philippines, Viet Nam, and Malaysia face the next most significant skills challenge.

**THIS IS CAUSED BY A LOW EXISTING SKILLSET AMONGST THOSE WORKERS AND THE NEEDS OF A RAPIDLY CHANGING ECONOMY**

## Perceptions of How Well Graduates Are Prepared for Entry-Level Positions

Percent of survey respondents who agree or strongly agree with the following statements (%)

Cambodia		Indonesia		Philippines		Viet Nam	
Training Institutions	Employees						
59	11	96	32	90	55	80	38
78	8	92	39	90	57	80	53
65	13	92	31	88	59	78	59

Note: In each country, the employer response represents an average of responses from employers surveyed in the two sectors surveyed (equally weighted across sectors).

- ☞ Training institutions believe that graduates are prepared to work, but employers require greater competence to perform well in entry-level positions, as well as higher general and job specific skills

## PERCEPTION GAPS ARE WIDEST IN CAMBODIA AND INDONESIA

**CAMBODIA – 59% of training institutions believe their graduates are WELL PREPARED for entry-level positions, ONLY 11% of employers in garments and tourism AGREE**

**INDONESIA – 96% of training institutions believe their graduates are WELL PREPARED for entry-level positions, ONLY 32% of employers AGREE**

**TRAINING INSTITUTIONS MAY UNDERSTAND WHICH SKILL CATEGORIES ARE RISING IN IMPORTANCE FOR 4IR, THEIR IMPLEMENTATION OF SKILLS TRAINING DOES NOT MATCH INDUSTRY REQUIREMENTS.**

# GOAL

## RESEARCH OBJECTIVES :

**BY 2025, ASEAN WILL COMPLETE THE PROCESS OF SUPPLEMENTING TECHNOLOGY KNOWLEDGE AND SKILLS FOR EVERYONE.**

## SUSTAINABLE GOALS :

**UN SUSTAINABLE DEVELOPMENT GOALS: NO. 8**

**UN SUSTAINABLE TECHNOLOGY DEVELOPMENT CAMPAIGN**

- Enhance adaptability to technology
- Enhance vocational education and training
- Increased support for workers affected by economic change

## TO PREVENT PREDICTION :

**137M WORKERS** ACROSS ASEAN MEMBER COUNTRIES – **ABOUT 56%** OF EACH COUNTRY'S TOTAL WORKFORCE – ARE AT RISK OF BEING **DISPLACED BY ROBOTS** IN THE PROCESS OF INDUSTRIALIZATION

*Source: ILO – Bureau for Employers Activities*

# THE RECOMMENDATION

## ADDRESSES UN-SDG

### MAIN

**8** DECENT WORK AND ECONOMIC GROWTH



8.2

8.5

8.6

GUARANTEE DEVELOPMENT OPPORTUNITIES,  
FAIR AND SUSTAINABLE JOB OPPORTUNITIES  
FOR EVERYONE

### EXTRA

**4** QUALITY EDUCATION



4.B

4.4

4.5

GUARANTEE LIFETIME LEARNING  
OPPORTUNITIES FOR EVERYONE

## IS ANCHORED WITH

**B/ 13./ B.2. EQUITABLE ACCESS FOR ALL**

VI

X

XIII

**E/ 21./ E.2. TOWARDS A CREATIVE,  
INNOVATIVE AND RESPONSIVE ASEAN**

I

V

IX



**D07: INCREASED CAPABILITY FOR  
BUSINESS AND PEOPLE TO PARTICIPATE  
IN THE DIGITAL ECONOMY**

**D08: A DIGITALLY INCLUSIVE SOCIETY IN  
ASEAN**

R

# READY! TECH TECHNOLOGY SKILL TRAINING SUPPORT INTERMEDIARY

G

# GO! TECH INTERMEDIARIES CONNECTING WORKERS WITH BUSINESSES



**BOTH PLATFORMS ARE DEVELOPED BASED ON  
SAP'S SKILLS PROGRAM FOR SOUTHEAST ASIA**

*is a program that aims to help students and workers in Southeast Asia master the technology skills needed to develop a career in the information technology field*

## FOR STUDENTS



ORIENTATION OF CAREER OPPORTUNITIES



FUTURE CAREER TRENDS

**SUPPORT ORIENTATION**



CONNECTING TECHNOLOGY KNOWLEDGE EDUCATION PROGRAMS IN THE AREA OF ASEAN



PROVIDE FREE TECHNOLOGY DEVELOPMENT COURSE

**MAIN TARGET**



DEVELOPMENT OF SCHOLARSHIP FUNDS SUPPORTING DIFFICULTY CASE OF ACCESSING TECHNOLOGY KNOWLEDGE



**MOTIVATING**

## READY! TECH TECHNOLOGY SKILL TRAINING SUPPORT INTERMEDIARY

### ANALYSIS & SUGGESTIONS



ANALYSIS OF JOB DEVELOPMENT TREND BASED ON LABOR'S CURRENT JOB



BUILDING ONLINE TRAINING FACILITIES FOR LIMITED SKILLS

### MAIN TARGET



PROVIDE TRAINING COURSES FOR SKILLS THAT ARE MISSING OR LIMITED AND HAVE BEEN ANALYZED BEFOREHAND



INTERNATIONAL CERTIFICATE MANAGEMENT AFTER COURSE COMPLETION

### DEVELOPMENT

SUPPORT FOR BUILDING LABOR PROFILE (ATTACH COMPLETED SKILLS) ACCURATE AND HONEST



### FOR EMPLOYEE

## MAIN TARGET



Create job opportunities in Southeast Asia for workers at risk of automation



The application connects businesses with suitable human resources to enhance cooperation.

### CREATE JOB OPPORTUNITIES



Ready! Tech's input control provides transparent worker profiles to employers.



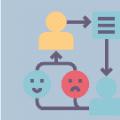
This helps businesses find and choose suitable human resources and increases job search success.

**EMPLOYEES ARE CERTIFIED BY READY! TECH WHEN PROVIDING SUFFICIENT REQUIREMENTS AND PROOF**

### TRANSPARENT & EFFICIENT



Prioritize creating a communication and information sharing environment between businesses and employees.



The application promotes exchange and provides information on industries and job trends in Southeast Asia.

### COMMUNITY & NETWORKING

# GO! TECH

## INTERMEDIARIES CONNECTING WORKERS WITH BUSINESSES

### ENHANCED INTERACTIVITY

BUILD COMMUNICATION TOOLS BETWEEN BUSINESSES AND EMPLOYEES TO IMPROVE INTERACTIONS AND BUILD TRUSTING RELATIONSHIPS

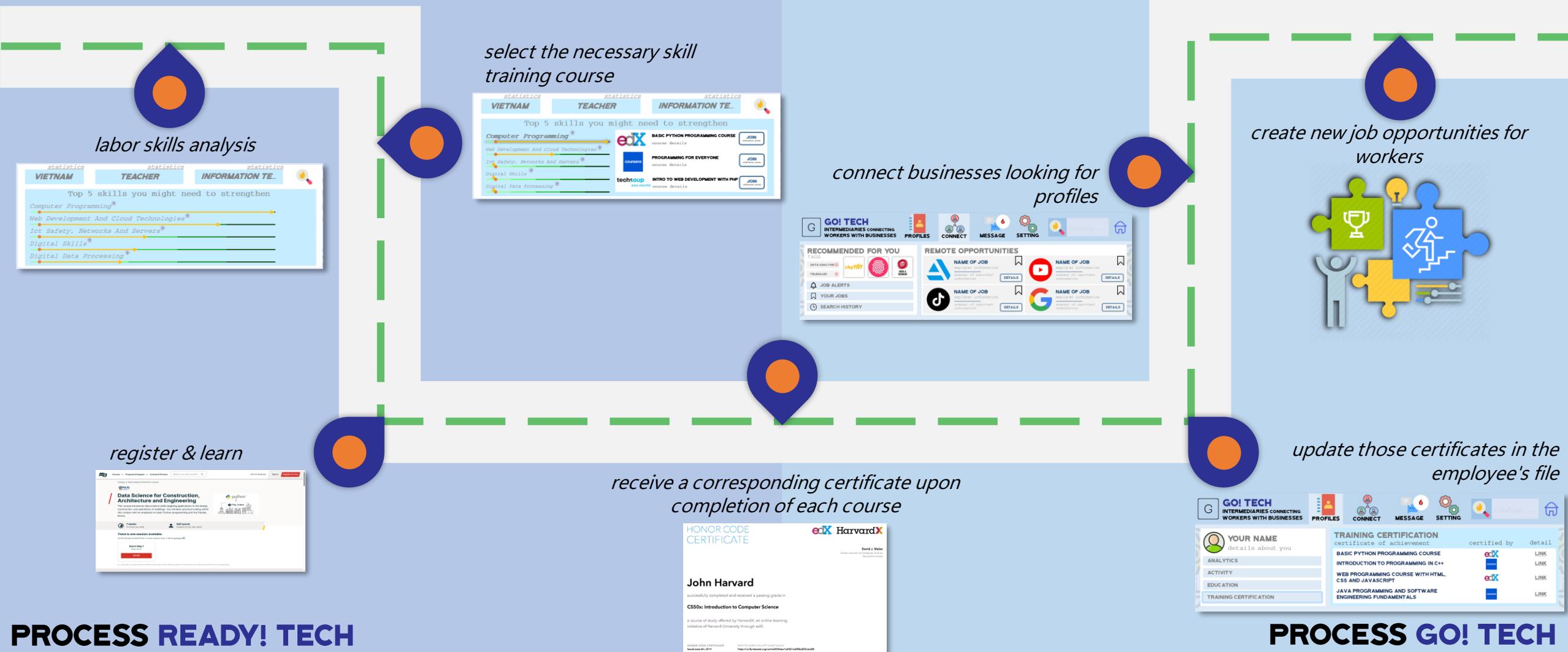


### DATA ANALYTICS FEATURES

USE TECHNOLOGY AND AI TO ANALYZE WORKER DATA AND LABOR MARKET TRENDS TO PROVIDE DETAILED INFORMATION ON JOB NEEDS AND TRENDS

### DEVELOPMENT

# COMBINATION PROCESS BETWEEN THE TWO PLANTS



# IMPLEMENTATION PLAN

**2023 – 2024**

## PHASE 1: RAISED

Partnering with SAP to develop the skills analysis capabilities of Ready! Tech

Raise people's awareness of lifelong learning and development in each ASEAN country

Each country's government encourages education, training in technology skills with the help of Read! Tech

Attract employers to the Go! Tech with a guarantee of honesty and accuracy

**EHCC –**  
*Enhancing Human Capital Competitiveness*

**ACHIEVED**  
ASCC

**B2. VI**

**E2. I**

**E2. V**

**B2. XIII**

**2024 – 2025**

## PHASE 2: STEADY

Continue to push recruiters to Go! Tech to enhance job opportunities for everyone

Construct built-in data & research center

Continue to seek, collaborate and grow with new educational institutions in the design and implementation of new technology skills training opportunities

Advise the Government on employment planning for vulnerable workers or working in disadvantaged areas

Propagate & guide people to learn and develop technology skills with the help of Ready! Tech

**LWD –**  
*Lifelong Workforce Development*

**ACHIEVED**  
ASCC

**E2. IX**

**B2. X**

**2025 – 2030**

## PHASE 3: STABLE

Ensure equal employment opportunities for everyone

Make universal designs to develop a plan to support those who do not have access to technology

Ensure access to education for any audience, at any scale

Promote the expansion of job connections for all people of all types of work

**ADA –**  
*ASEAN Digital Advancement*

**ACHIEVED**  
ADM

**D07**

**D08**

# THANK YOU

**ARE YOU READY TO CHANGE ?**  
**“CHANGE-OR-OUST”**

# REFERENCES

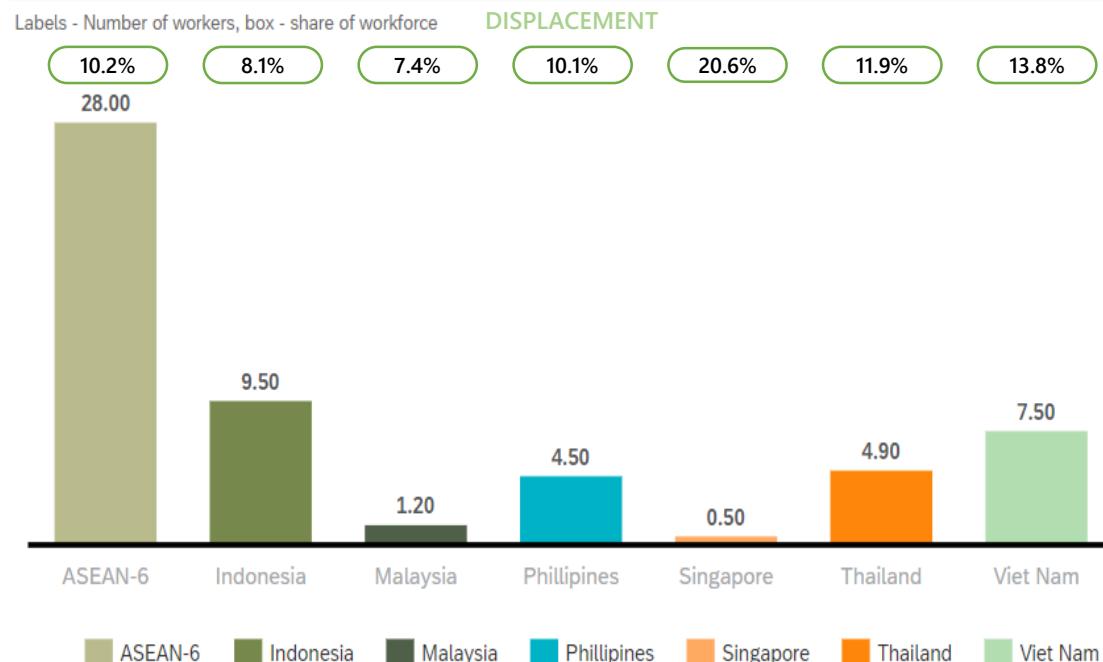
- Bank, A. D. (2021). *Reaping the benefits of industry 4.0 through skills development in high-growth industries in Southeast Asia - Insights from Cambodia, Indonesia, The Philippines and Viet Nam*. Asian Development Bank: <https://www.adb.org/publications/benefits-industry-skills-development-southeast-asia>
- Dave, N. (2019). *Technology and the future of ASEAN jobs - the impact of AI/Tech on workers in ASEAN's six largest economies*. Cisco: [https://sea-vet.net/images/seb/events/appendix\\_file/406/12-cisco-tech-and-impact-on-jobs-in-aseanfinal.pdf](https://sea-vet.net/images/seb/events/appendix_file/406/12-cisco-tech-and-impact-on-jobs-in-aseanfinal.pdf)
- Jae-Hee Chang and Phu Huynh. (2016). *Asean in transformation - The future of jobs at risk of automation*. International Labour Organization: [https://www.ilo.org/wcmsp5/groups/public/---ed\\_dialogue/---act\\_emp/documents/publication/wcms\\_579554.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---act_emp/documents/publication/wcms_579554.pdf)
- Siti Athirah Ali, Filippo di Mauro, Gog Soon Joo, Foo Suan Yong, Kiran Karunakaran, Priyanka Kishore, Darryn Lim,. (2018). *Technology and the future of ASEAN jobs - The impact of AI on workers in ASEAN's six largest economies*. Oxford Economics, Cisco: [https://www.cisco.com/c/dam/global/en\\_sg/assets/csr/pdf/technology-and-the-future-of-asean-jobs.pdf](https://www.cisco.com/c/dam/global/en_sg/assets/csr/pdf/technology-and-the-future-of-asean-jobs.pdf)
- World Economic Forum, Sea Ltd. (2021). *ASEAN Digital Generation Report: Pathway to ASEAN's inclusive digital transformation and recovery*. World Economic Forum: [https://www3.weforum.org/docs/WEF\\_ASEAN\\_Digital\\_Generation\\_2021.pdf](https://www3.weforum.org/docs/WEF_ASEAN_Digital_Generation_2021.pdf)
- International Labour Organization (ILO). 2016. "New technologies: A jobless future or golden age of job creation?". [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms\\_544189.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_544189.pdf)
- Google, Temasek, Bain & Company. 2022. "e-Economy SEA 2022". Bain & Company: [https://services.google.com/fh/files/misc/e\\_economy\\_sea\\_2022\\_report.pdf?utm\\_source=bain&utm\\_medium=website&utm\\_campaign=2022](https://services.google.com/fh/files/misc/e_economy_sea_2022_report.pdf?utm_source=bain&utm_medium=website&utm_campaign=2022)
- Vardi, Moshe Y. September 1, 2017. "What the Industrial Revolution really tells us about the future of automation and work". The Conversation: <https://theconversation.com/what-the-industrial-revolution-really-tells-us-about-the-future-of-automation-and-work-82051>
- Plecher, H. 2020. "Gross domestic product (GDP) of the ASEAN countries from 2018 to 2028". Statista. April 2023: <https://www.statista.com/statistics/796245/gdp-of-the-asean-countries/>
- Zahidi, Saadia. October, 2020. "The Future of Jobs Report 2020". World Economic Forum: [https://www3.weforum.org/docs/WEF\\_Future\\_of\\_Jobs\\_2020.pdf](https://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf)
- ERCD, ADB. February, 2022. "Asian economic integration report 2022". Asean Development Bank: <https://www.adb.org/sites/default/files/publication/770436/asian-economic-integration-report-2022.pdf>
- Azaz Zaman. Feb 10, 2022. "How digitalization is making South and Southeast Asia engines of growth". World Economic Forum: <https://www.weforum.org/agenda/2022/02/digitalization-south-southeast-asia/>
- UNCTAD. 2020. "Frontier technology readiness index, annual". UNCTAD STAT: <https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=227701>
- International Labour Organization (ILO). 2016. "How technology is changing jobs and enterprises - Full report". [https://www.ilo.org/wcmsp5/groups/public/---ed\\_dialogue/---act\\_emp/documents/publication/wcms\\_579553.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---act_emp/documents/publication/wcms_579553.pdf)
- World Economic Forum. August 2019. "ASEAN Youth Technology, Skills and the Future of Work". [https://www3.weforum.org/docs/WEF\\_ASEAN\\_Youth\\_Survey\\_2019\\_Report.pdf](https://www3.weforum.org/docs/WEF_ASEAN_Youth_Survey_2019_Report.pdf)
- DATAREPORTAL. May 11, 2023. "LinkedIn users, stats, data & trends". The Latest LinkedIn Statistics: <https://datareportal.com/essential-linkedin-stats>

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**THE ASEAN REGION IS CURRENTLY AT THE END OF PHASE 1 AND BEGINNING OF PHASE 2 OF THE THREE PHASES OF A SHIFTING ECONOMIC-TECHNICAL PARADIGM**

as well as the dangers of **JOB DISPLACEMENT**

**JOBs THAT WILL BE DISPLACED UNDER OUR NEW TECHNOLOGY SCENARIO,  
BY COUNTRY [2018 – 2028]**



**DISPLACEMENT, MILLIONS OF FULL-TIME EQUIVALENT [FTE] WORKERS**

**BY 2028, 28 MILLION FEWER WORKERS ACROSS THESE ECONOMIES – MORE THAN 10% OF THE CURRENT ASEAN-6 WORKFORCE – WILL BE REQUIRED TO PRODUCE THE SAME LEVEL OF OUTPUT AS TODAY.**

## DETAILED DESCRIPTION

**SINGAPORE'S LABOR MARKET FACES THE LARGEST DEGREE OF JOB DISPLACEMENT OVER THE NEXT DECADE.**

*Singapore has the exceptional enabling environment for innovation and digital transformation, combined with a small geographical area and modern, upgradeable infrastructure*

*So, businesses there can readily take advantage of new innovations as they become available.*

**VIETNAM AND THAILAND ARE NEXT IN LINE.**

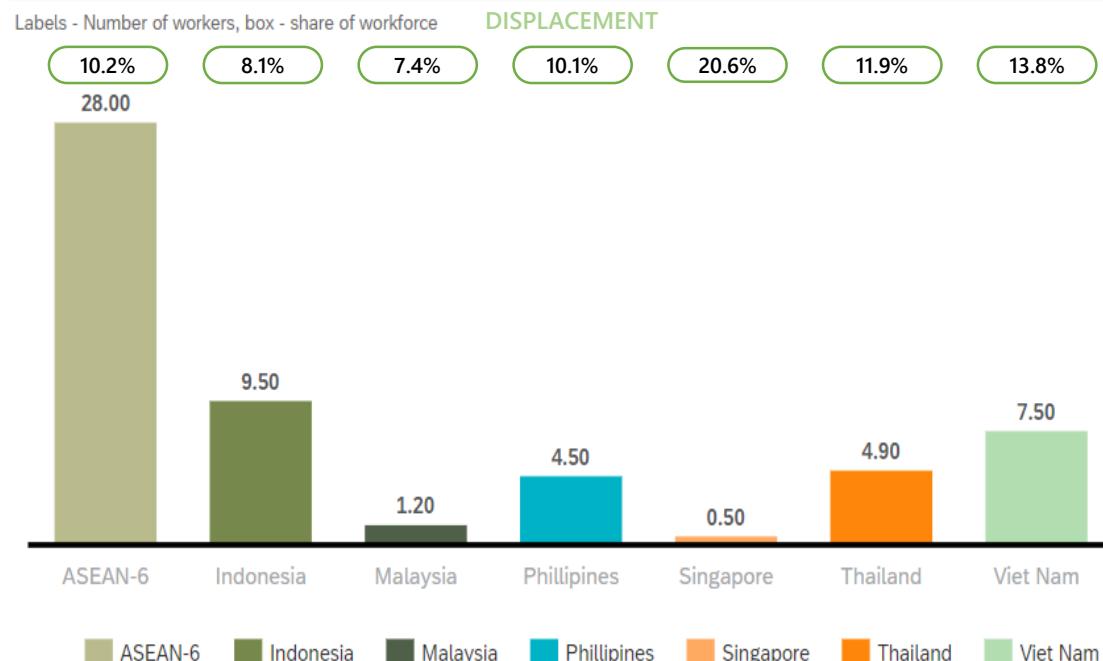
*Vietnamese and Thai workers are projected to be displaced from much-less productive, more monotonous jobs, especially unskilled laborers in Vietnam, and skilled agricultural workers Thailand*

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## DETAILED DESCRIPTION

**IN INDONESIA, MALAYSIA, AND THE PHILIPPINES**  
*the impact is smaller*

### **INDONESIA –**

*institutional and political constraints to automation, abundance of cheap labor*

☞ **competitive price of workers**

### **PHILIPPINES –**

*challenging regulatory environment, cheaper supply of labor*

☞ **make the widespread adoption of technology uneconomic for some time to come**

### **MALAYSIA –**

*labor market protection*

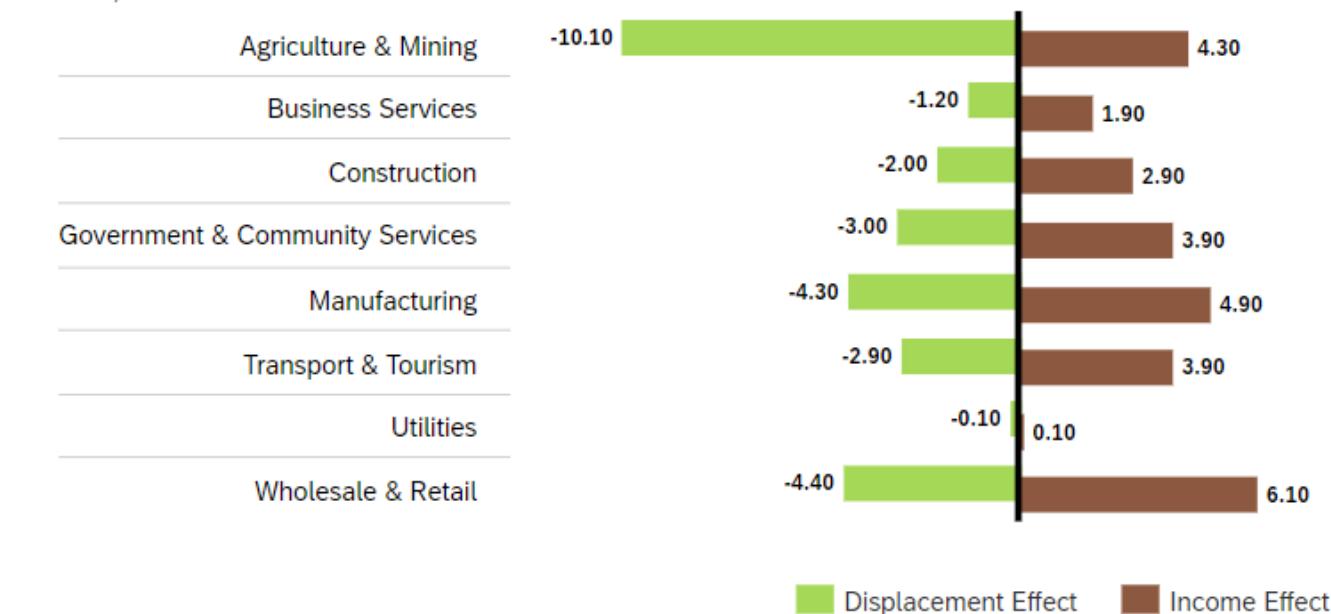
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**POSITIVE AND NEGATIVE IMPACT OF INCREASED TECHNOLOGY ADOPTION, BY INDUSTRY SECTOR [2018 – 2028]**

ASEAN-6, number of workers



## DETAILED DESCRIPTION

### **AGRICULTURE WILL BE THE MAJOR SOURCE OF THESE REDUNDANCIES,**

*as new development - for example in global positioning systems, telematics and smart sensors - are deployed to greater effect*

*Overall, we find there will be **5.7 MILLION NET FEWER FTE WORKERS IN THE AGRICULTURE SECTOR** by 2028, across the six economies*

*Agricultural work focus primarily on routine codifiable tasks and physical effort*

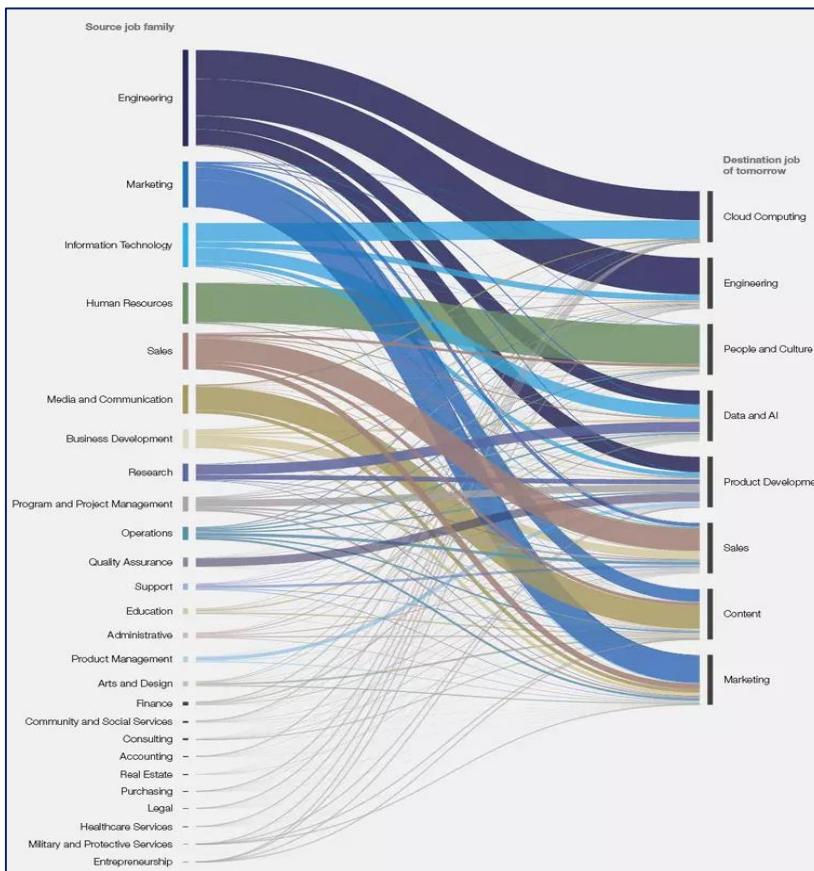
**→ HIGH RISK OF DISPLACEMENT**

**DISPLACEMENT, MILLIONS OF FULL-TIME EQUIVALENT [FTE] WORKERS**

## CAREER TRANSFORMATION

**CREATIONS A LOT OF NEW JOBS BUT AT THE TIME  
COMPLEXITY OF WORK PROFILE IS INCREASE**

### TRANSITIONS INTO THE JOBS OF TOMORROW



Data Source: LinkedIn Economic Graph

### TECHNOLOGIES LIKELY TO BE ADOPTED BY 2025

Technology/Sector	AGRI (%)	AUTO (%)	CON (%)	DIGICIT (%)	EDU (%)	ENG (%)	FS (%)	GOV (%)	HE (%)	MANF (%)	MIM (%)	OILG (%)	PS (%)	TRANS (%)
3D and 4D printing and modelling	54	67	39	39	69	69	27	45	65	69	48	79	40	60
Artificial intelligence (e.g. machine learning, neural networks, NLP)	62	76	73	95	76	81	90	65	89	71	76	71	76	88
Augmented and virtual reality	17	63	58	73	70	75	62	56	67	54	57	71	57	62
Big data analytics	86	88	91	95	95	76	91	85	89	81	90	86	86	94
Biotechnology	50	18	48	40	46	47	46	38	65	31	16	36	28	23
Cloud computing	75	80	82	95	95	88	98	95	84	92	87	86	88	94
Distributed ledger technology (e.g. blockchain)	31	40	41	72	61	60	73	40	72	41	60	46	53	38
E-commerce and digital trade	80	75	85	82	72	71	90	67	78	82	62	62	70	87
Encryption and cyber security	47	88	85	95	86	88	95	95	84	72	83	71	78	75
Internet of things and connected devices	88	82	94	92	62	94	88	79	95	84	90	93	74	76
New materials (e.g. nanotubes, graphene)	15	46	22	36	67	65	36	33	47	61	37	36	27	27
Power storage and generation	75	64	59	38	27	88	55	33	31	62	57	69	45	46
Quantum computing	18	21	17	51	25	41	44	36	38	21	29	25	19	38
Robots, humanoid	42	50	38	44	47	24	47	31	47	41	15	17	25	21
Robots, non-humanoid (industrial automation, drones, etc.)	54	60	52	61	59	66	63	50	56	79	90	79	35	69
Text, Image and voice processing	60	69	82	90	89	88	88	89	88	64	76	87	79	65

Data Source: Future of Jobs Survey 2020, World Economic Forum

BY SHARE OF COMPANIES SURVEYED, SELECTED SECTORS

# CHALLENGES THAT ASEAN MUST FACE IN THE FUTURE

## CAREER TRANSFORMATION

**CREATIONS A LOT OF NEW JOBS BUT AT THE TIME  
COMPLEXITY OF WORK PROFILE IS INCREASE**

Country	Sector	Analytical	Non-routine Interpersonal	Non-routine Physical	Routine Interpersonal	Routine Physical
Cambodia	Garments	90	60	53	35	(33)
	Tourism	53	56	17	(28)	(21)
Indonesia	Automotive	24	(17)	(41)	(48)	(76)
	F&B	24	3	(26)	(27)	(65)
Philippines	IT – BPO	25	22	15	(35)	(31)
	Electronics	49	10	15	(24)	(48)
Viet Nam	Agro - processing	33	(7)	(20)	(33)	(77)
	Logistics	27	14	(5)	(45)	(74)

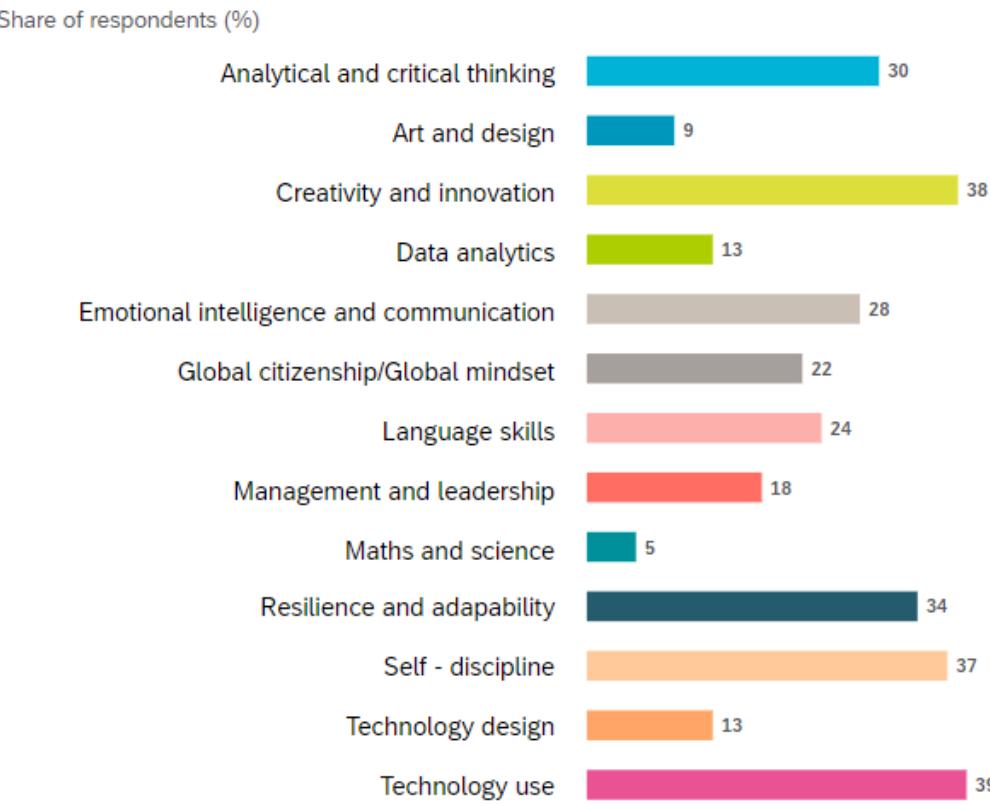
Net percent of survey respondents (%)

**HOW EMPLOYERS EXPECT 4IR TO AFFECT TIME SPENT ON TASKS BY TYPE FROM 2018 TO 2025.**

- ☞ *The time spent on analytical tasks is rising.*
- ☞ *By contrast, the time spent on routine physical tasks could decrease significantly by 2030.*
- ☞ *The time spent on nonroutine tasks varies somewhat by industry.*

**TECHNOLOGY WILL BE ABLE TO AUTOMATE ROUTINE PHYSICAL AND INTERPERSONAL TASKS, WHILE HUMANS WILL FOCUS ON MORE COMPLEX TASKS THAT REQUIRE THEIR PROBLEM-SOLVING ABILITIES.**

## TOP 3 MOST IMPORTANT SKILLS FOR THE POST-PANDEMIC WORLD [SURVEYED FOR THE ASEAN REGION]

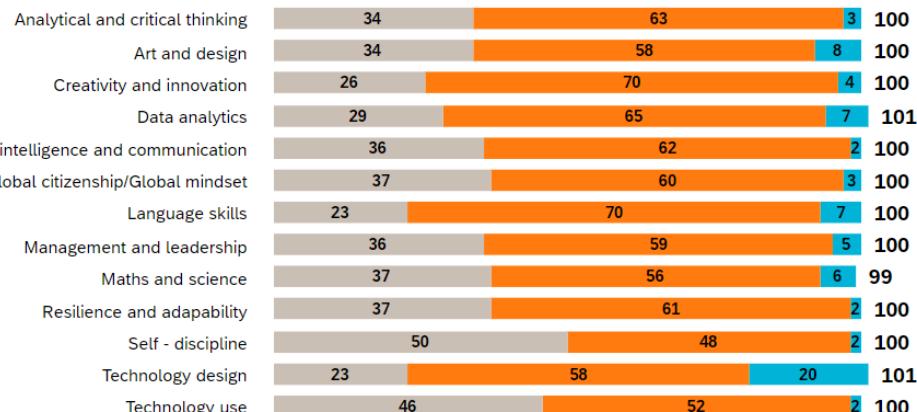


**TECHNOLOGY USE, CREATIVITY, AND INNOVATION ARE THE  
MOST IMPORTANT SKILLS FOR THE POST-PANDEMIC WORLD**

# WHICH SKILLS DOES ASEAN WORKFORCE NEED TO IMPROVE ON ?

Source: ASEAN Digital Generation Report: Pathway to ASEAN's inclusive digital transformation and recovery

## HOW PROFICIENT I AM IN THE SKILLS I CONSIDER IMPORTANT



■ Proficient ■ Not proficient ■ I do not have this skill

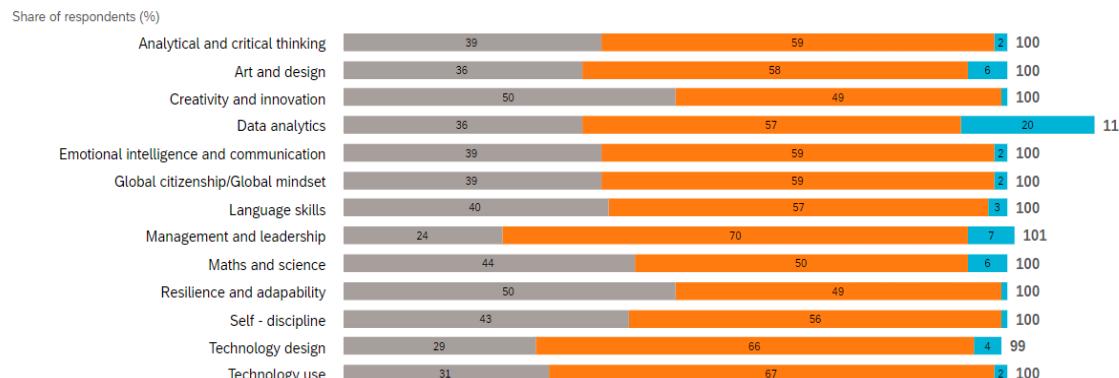
**50% WERE CONFIDENT ABOUT THEIR OF YOUTHS TECHNOLOGY USE SKILLS**

**ONLY 35% RESPONDENTS REGARDED THEMSELVES AS PROFICIENT ON NON-YOUTH THE SKILLS**

Even the youths themselves need to improve their technology-use proficiency.

**CREATIVITY, LANGUAGE SKILLS, AND ANALYTICAL SKILLS ARE THE NEXT CATEGORIES THAT RESPONDENTS IN THE ASEAN REGION REGARD AS BEING UNSKILLED**

## HOW PROFICIENT I AM IN THE SKILLS I CONSIDER IMPORTANT [MSME OWNERS]



■ Proficient ■ Not proficient ■ I do not have this skill

Compared to average respondents of ASEAN region, MSMEs in this region also showed the same patterns in the proficiency category, except being slightly higher in proficiency of the aforementioned skillset

However, a high percentage of them did not consider themselves proficient in those skills (49% – 69.3%)

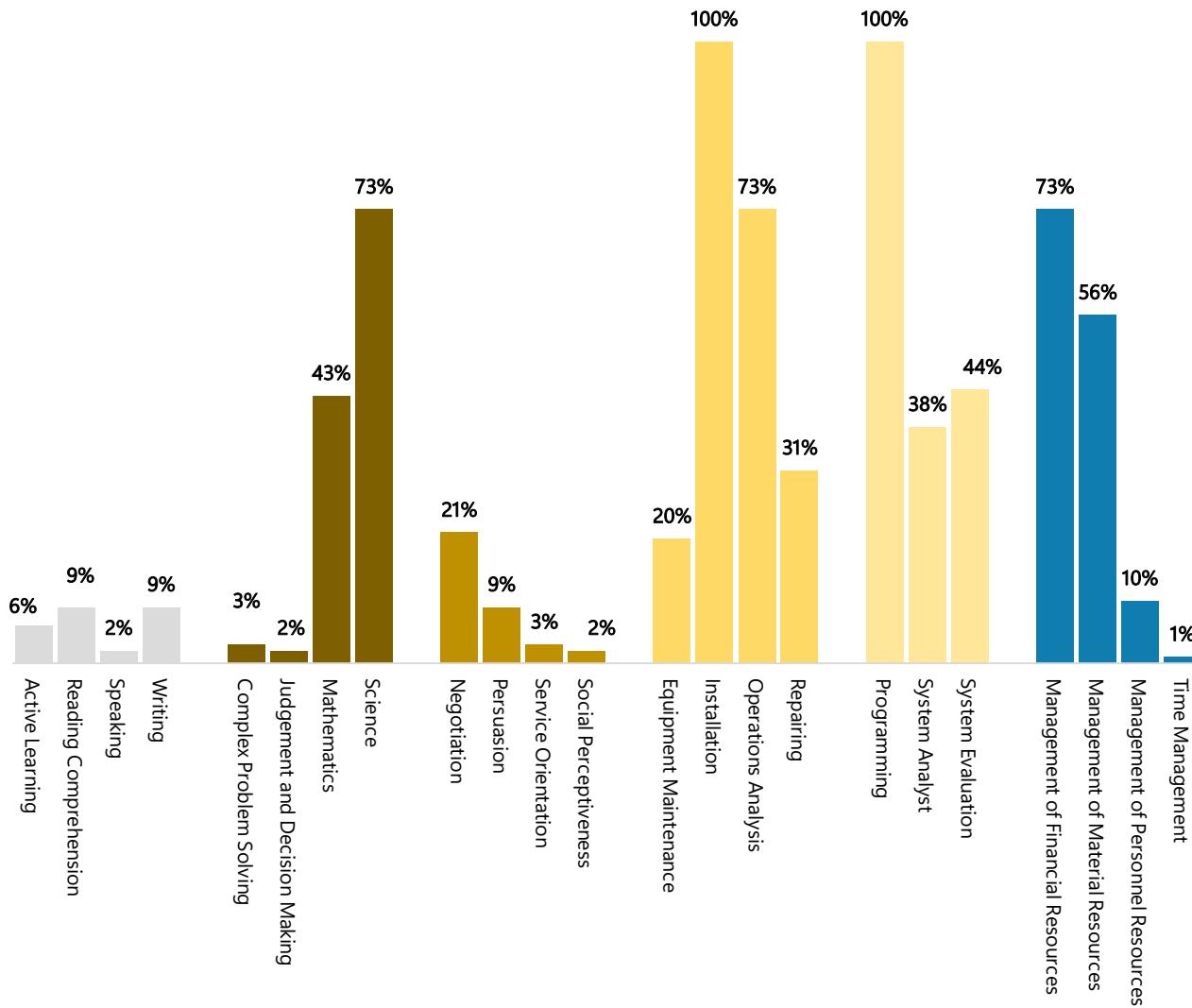
**THIS RAISES A SERIOUS CONCERN ON TALENT SHORTAGES FOR MSMES IN THE REGION**

**ASEAN WORKFORCE NEEDS RESKILLING AND UPSKILLING FOR THE FUTURE OF WORK**

# WHICH SKILLS DOES ASEAN WORKFORCE NEED TO IMPROVE ON ?

## PERCENTAGE OF "LARGE" SKILLS MISMATCHES

Incidence of large skills mismatches between redundant workers and vacancies, by skill, ASEAN aggregate

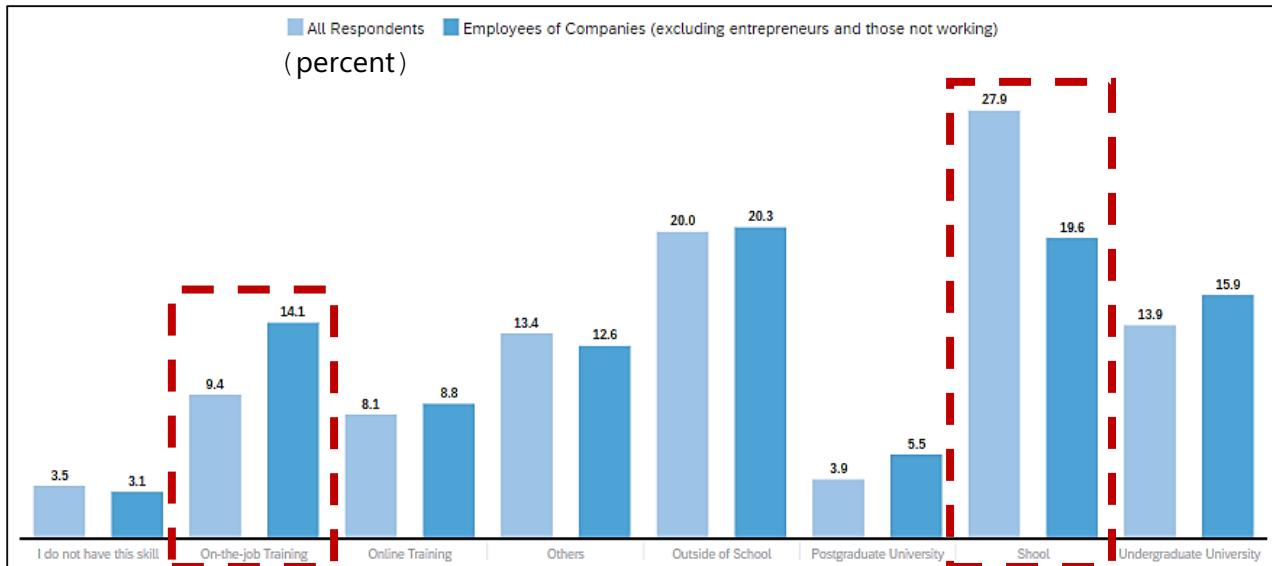


### IT SKILLS STAND OUT AS A MAJOR CHALLENGE

- Basic knowledge of science, management skills, operation skills are also factors to be considered under the new technology scenario
- A greater commitment to on-the-job training, more flexible courses should be implemented to complement for this skillset mismatch

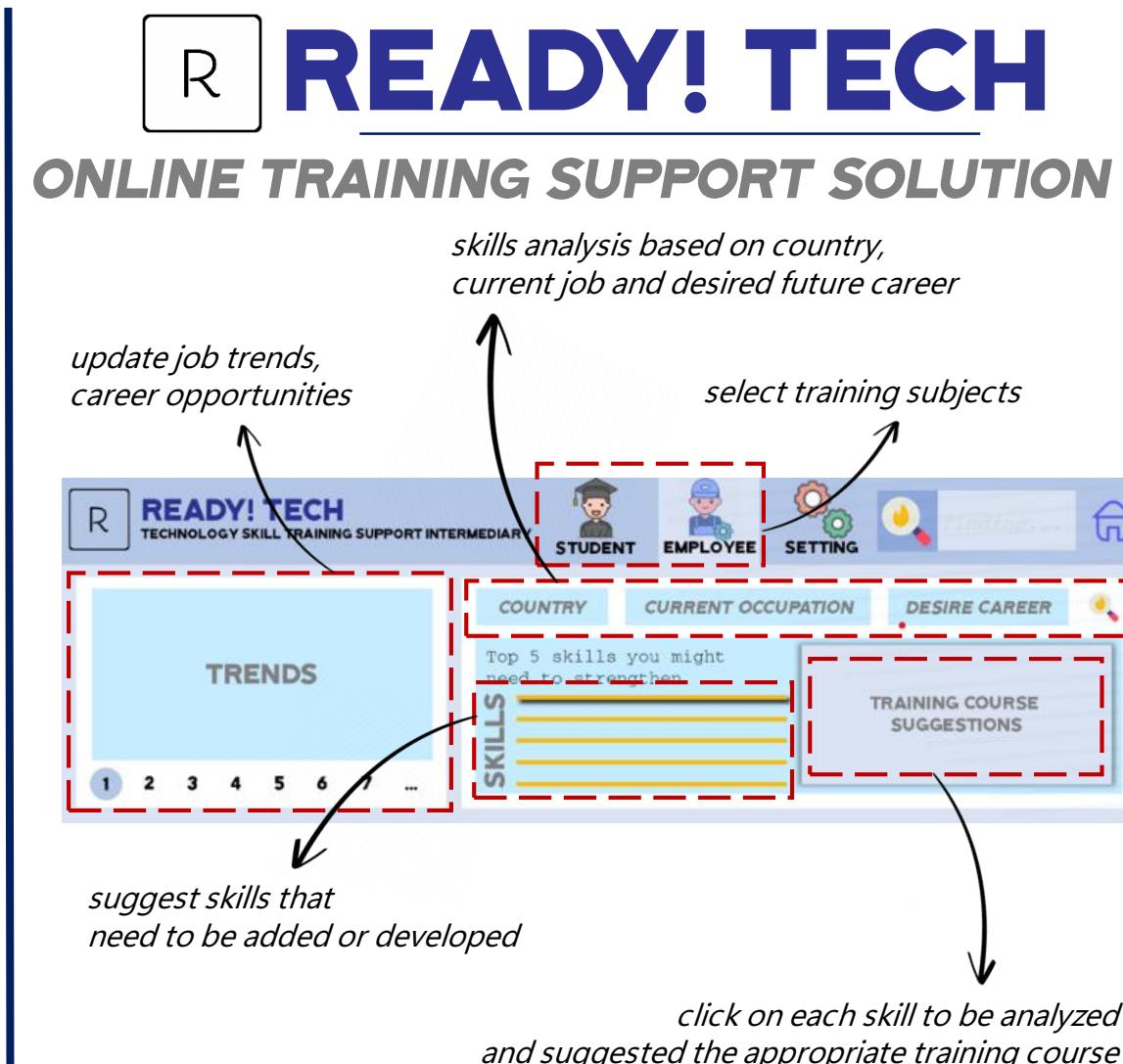
# STUDENTS AND WORKERS IN ASEAN HAVE NOT BEEN PROPERLY TRAINED IN IMPORTANT SKILLS!

Data Source: WEF - ASEAN Youth Technology, Skills and the Future of Work



for those who currently work for a company, **ONLY 14.1%** say they learned their most important skills through **FORMAL ON-THE-JOB TRAINING**

or just **27.9%** of students surveyed said they learned the most important STEM skills from **SCHOOL**





**GOVERNMENT**

### PRIMARY CONTRIBUTORS

Enhance technology education at secondary levels

Encourage and support workers to improve their individual labor skills

Regularly update the national situation during the digital economic transition process

### SECONDARY CONTRIBUTORS

Furnish the necessary technological foundation

Oversee information management and offer guidance on research

Assist with data analysis and forecasting



## READY! TECH TECHNOLOGY SKILL TRAINING SUPPORT INTERMEDIARY

### COOPERATION TO LEARN TECHNOLOGY EDUCATION BETWEEN ASEAN MEMBER COUNTRIES

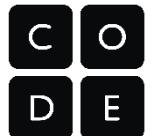


TECHNOLOGY EDUCATION & TRAINING ORGANIZATION.



**SAP** University Alliances

SAP'S SOUTHEAST ASIA TECHNOLOGY LITERACY CAMPAIGN



**CoderDojo**

**techsoup**  
ASIA-PACIFIC

NON-PROFIT TECHNOLOGY LITERACY CAMPAIGN IN ASEAN.

**EDUCATIONAL  
ORGANIZATION**



**GOVERNMENT**

## **SUPPORT & PROPAGANDA**

- Encourage flexible work arrangements to protect vulnerable workers from automation.
- Promote at-risk workers in the chain sector employment
- Incorporate vulnerable workers' feedback in decision-making and adapt social protection to changing work conditions



## **SUPPORT**

- Furnish the necessary technological foundation
- Oversee information management and offer guidance on research
- Assist with data analysis and forecasting

# **GO! TECH** INTERMEDIARIES CONNECTING WORKERS WITH BUSINESSES

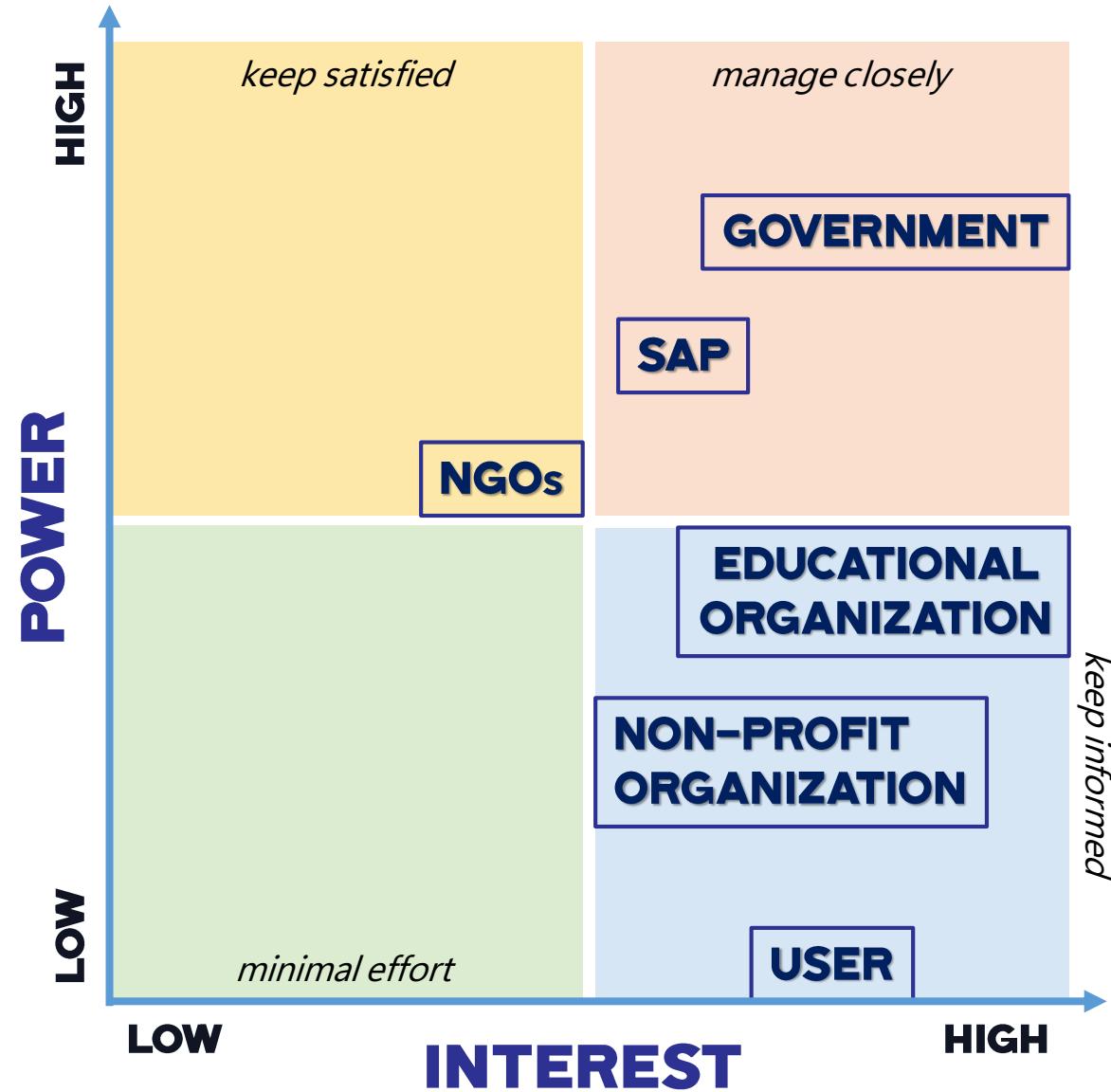


**BUSINESS**

## **SUPPORT**

- Foster job creation for vulnerable workers at high risk of automation
- Include vulnerable workers in the development of employment guidelines
- Enact measures to create a more accessible workplace for at-risk workers

# STAKEHOLDER MAP



## DETAILED DESCRIPTION

### POLICYMAKER

- Develop policies to support the development of Ready! and Go! platforms
- Authorize the use of Ready! and Go! platforms in the labor market
- Establish standards for skills assessment and training
- Develop regulations to ensure transparency and accountability of the platforms
- Collaborate with the private sector to support the growth of the platforms

### LABOR FORCE

- Access to relevant training courses and job opportunities through the Ready! platform
- Connect with potential employers through the Go! platform
- Benefit from the transparency and credibility of the Go! platform's worker profiles
- Receive fair and equal treatment from employers using the platforms
- Feedback and complaints mechanism for the platforms

### EMPLOYERS

- Access to a pool of skilled labor through the Ready! platform
- Connect with qualified candidates through the Go! platform
- Improved efficiency and productivity of the recruitment process
- Reliable and transparent information on the qualifications and skills of potential employees
- Compliance with labor laws and regulations when using the platforms

### GOVERNMENT AND INSTITUTIONAL BODIES

- Collaborate with the Ready! and Go! platforms to address skills gaps in the labor market
- Provide financial and non-financial support for the development of the platforms
- Monitor and evaluate the impact of the platforms on the labor market
- Establish regulations to ensure the protection of labor rights and fair competition
- Promote the platforms to other countries and regions in the ASEAN community

### EDUCATORS AND TRAINERS

- Collaborate with the Ready! platform to develop and deliver relevant training courses
- Access to a large pool of learners through the Ready! platform
- Feedback mechanism for continuous improvement of the courses
- Develop new courses to meet the needs of the labor market through the platform
- Recognition of the quality of courses and trainers through the Go! platform

# LINKEDIN HAS LIMITED REACH IN ASEAN & GO! TECH AIMS TO BECOME A REGIONAL BUSINESS NETWORKING APP

DESPITE ITS STRONG GLOBAL INFLUENCE, LINKEDIN HAS YET TO MAKE A SIGNIFICANT IMPACT IN ASEAN

TOTAL POTENTIAL REACH OF ADS ON LINKEDIN



**57.58  
MILLION**

OUT OF A TOTAL OF 900.2M  
(WHICH ACCOUNTS FOR 6.4%)

LINKEDIN AD REACH vs. TOTAL POPULATION



**8.4%**

LINKEDIN AD REACH vs. TOTAL INTERNET USERS



**11.1%**



## GO! TECH

INTERMEDIARIES CONNECTING WORKERS WITH BUSINESSES

**TARGET:**

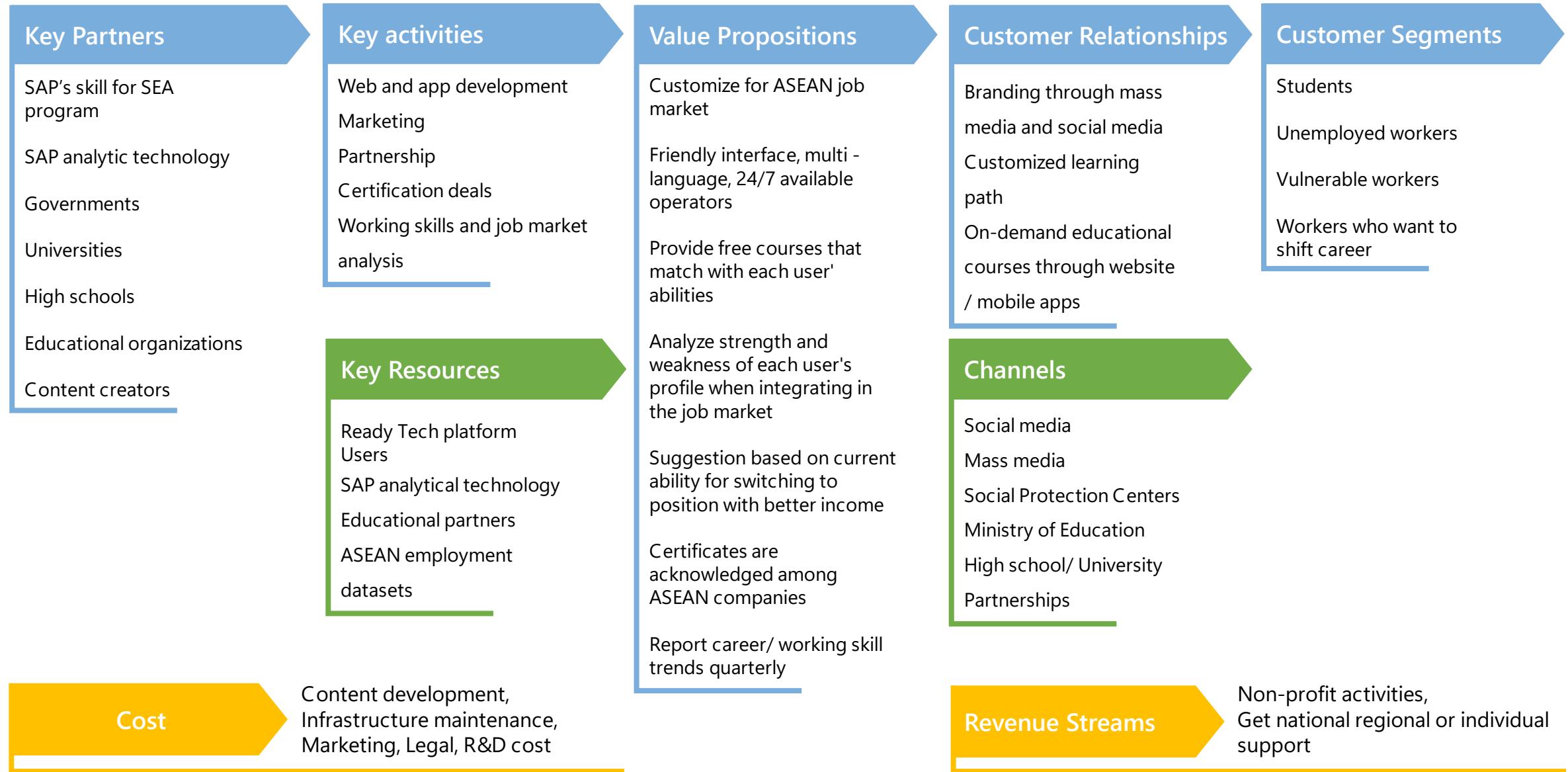


**INCREASES INFLUENCE TO 85% AT THE END OF PHASE 2**

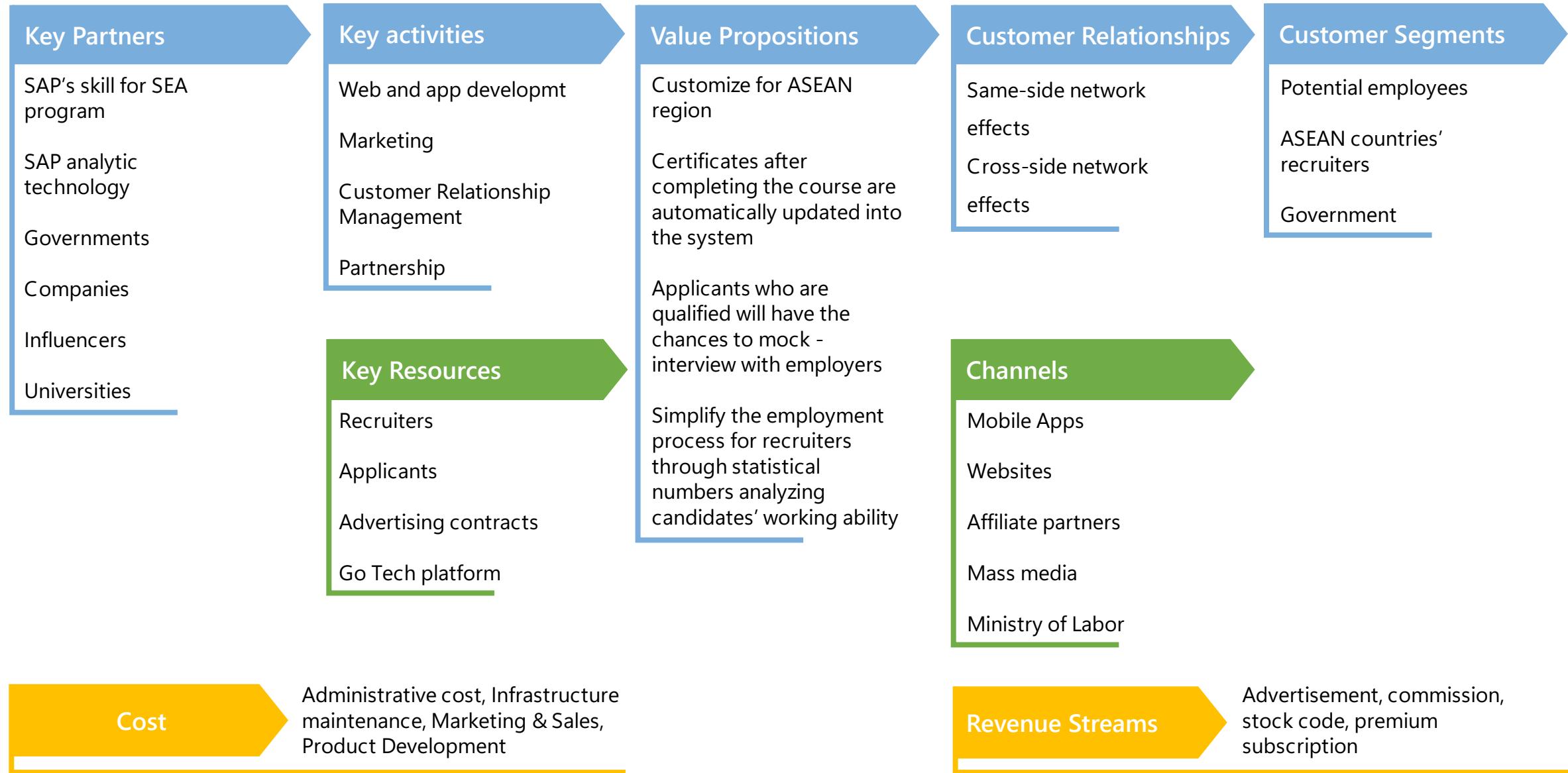
PROMOTE COOPERATION BETWEEN COUNTRIES TO INCREASE EMPLOYMENT OPPORTUNITIES FOR EMPLOYEES IN THE ASEAN AREA

Budget Proposal Table							Unit: USD / Year
	2024		2025		2030		
	Ready!	Go!	Ready!	Go!	Ready!	Go!	
Expanding Cost	1750	2130	1630	2200	1480	2490	
Mobile Application	680	700	650	720	500	850	
Website	500	800	500	800	500	890	
Office	250		280		300		
Other Expenses	320	380	200	400	180	450	
Fixed Cost	6800	8600	9040	10220	8770	10780	
Salary	6000	7500	8200	9000	8000	9200	
Machinery	150	200	150	200	150	300	
Marketing	100	200	150	280	120	380	
Product Development	250	300	260	320	220	400	
Manage	300	400	280	420	280	500	
VARIABLE COST	600	850	640	880	650	1090	
Research	100	150	120	180	120	200	
Maintenance & Update	50	100	70	100	70	140	
New Content Creation	150	200	150	200	180	300	
New Feature Development	200	250	200	250	180	300	
Test & Evaluation	100	150	100	150	100	150	
Total	20730		24610		25260		

# READY! TECH BUSINESS MODEL CANVAS



# GO! TECH BUSINESS MODEL CANVAS



# COMPETITORS



- SEA – VET.NET is a Regional Knowledge Platform for TVET in Southeast Asia, created & managed & hosted by SEAMEO VOTECH with the support of GIZ - RECOTVET
- SEA – VET Learning offers training courses for professionals who want to learn new skills and advance their career
- Its platform aims to prepare workers through TVET courses for the future of work



- TWI Technology SEA Sdn. Bhd. - a subsidiary of TWI - one of the world's foremost independent research and technology organizations, with expertise in materials joining and engineering processes.
- Provides training services to the oil and gas, power, engineering and manufacturing, construction, chemical and petrochemical industries
- All training delivered leads to internationally recognized qualifications for engineers and technicians working in industry



- LinkedIn is a social networking site designed specifically for the business community. It is a resource for professionals to find jobs, research companies, and get news about their industry and business connections.
- LinkedIn Learning was acquired by LinkedIn in 2015 to provide an online educational platform that offers a wide range of courses and tutorials designed to enhance professional skills and career development

# COMPETITORS

FEATURES	GO! TECH	VIETNAMWORKS	LINKEDIN
Free connection support	<p>Coordinate with government for a free proposal until phase 2 end</p> <p><i>After that, fee collection depends on country status</i></p>	<p><b>JOB POSTING FEE:</b> Normal: 75 USD/ month Gold: 1200 USD/ 15 days</p> <p><b>FEES TO VIEW CANDIDATE PROFILE:</b> 140 USD/ month</p>	<p><b>PREMIUM CAREER:</b> 29.99 USD/ month</p> <p><b>PREMIUM BUSINESS:</b> 49.99 USD/ month</p> <p><b>RECRUITER LITE:</b> 139.99 USD/ month</p>
Trends update & Analysis of job opportunities regularly			
Ensure the provision of transparent and clear employee records			
Combined with national government flexibility in creating job opportunities			