ASEM
ACTION PLAN 2030 WORKSHOP 4: "LIFELONG LEARNING INCLUDING TVET" – ADB-ASEM PARTNERSHIP

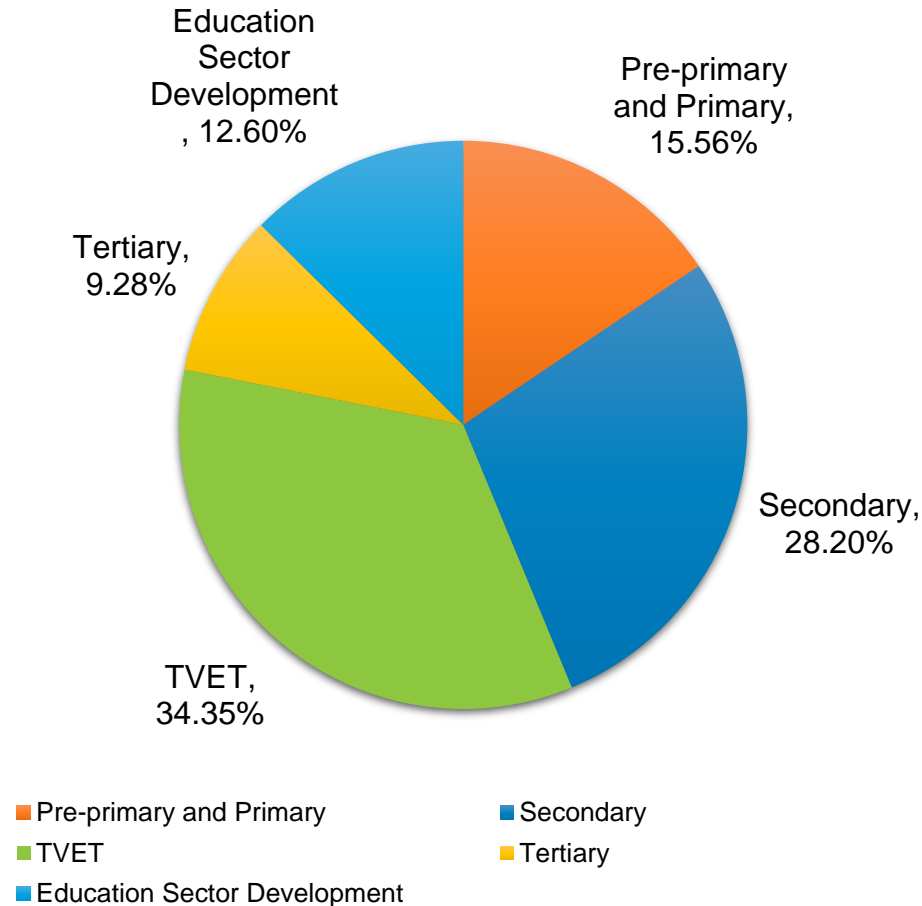## 9 February 2021

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EDUCATION PORTFOLIO - ONGOING

Pie chart:
- Pre-primary and Primary, 15.56%
- Secondary, 28.20%
- TVET, 34.35%
- Tertiary, 9.28%
- Education Sector Development, 12.60%

Legend:
- Pre-primary and Primary
- Secondary
- TVET
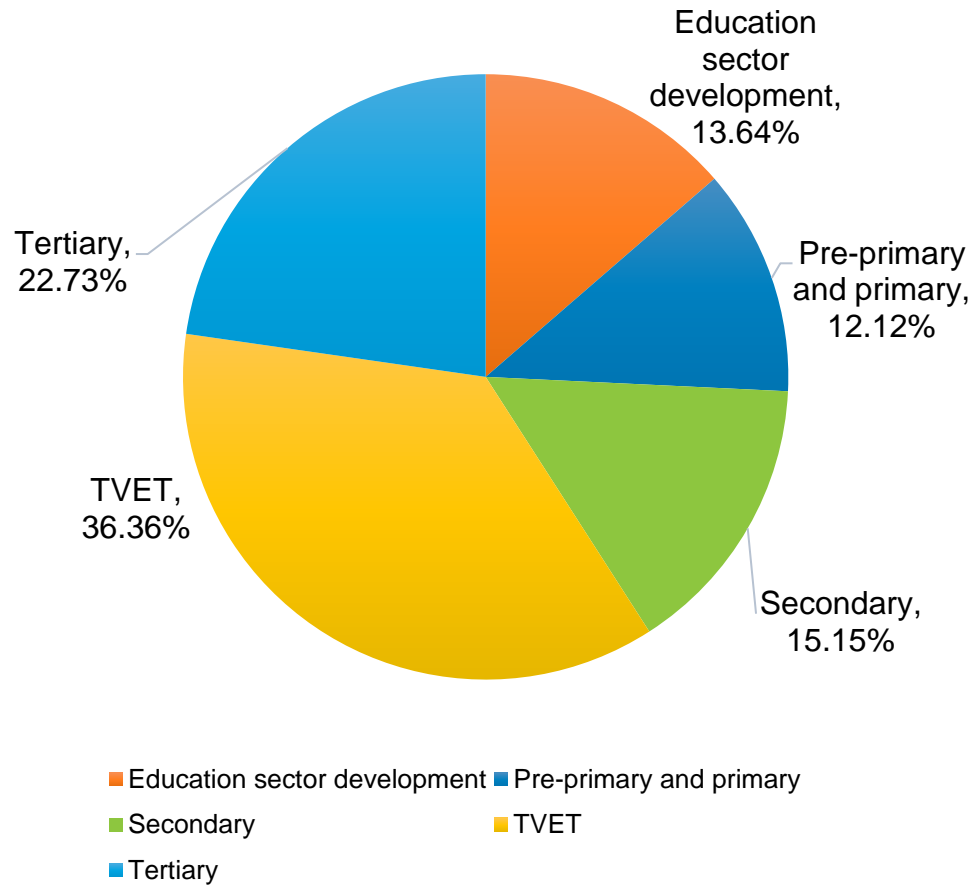- Tertiary
- Education Sector Development

Ongoing projects ($6.63 billion):

- o 73 ongoing projects in over 20 countries – 29 projects in TVET, 15 education sector development, 13 secondary education, 9 pre-primary/primary, 7 tertiary education

EDUCATION PORTFOLIO - PIPELINE

Pie chart:
- Education sector development, 13.64%
- Pre-primary and primary, 12.12%
- Secondary, 15.15%
- TVET, 36.36%
- Tertiary, 22.73%

Legend:
- Education sector development
- Pre-primary and primary
- Secondary
- TVET
- Tertiary

- Pipeline projects ($6.78 billion):
  - Over 50 projects 19 projects in TVET, 11 tertiary education, 9 education sector development, 6 secondary education, 6 pre-primary and primary,

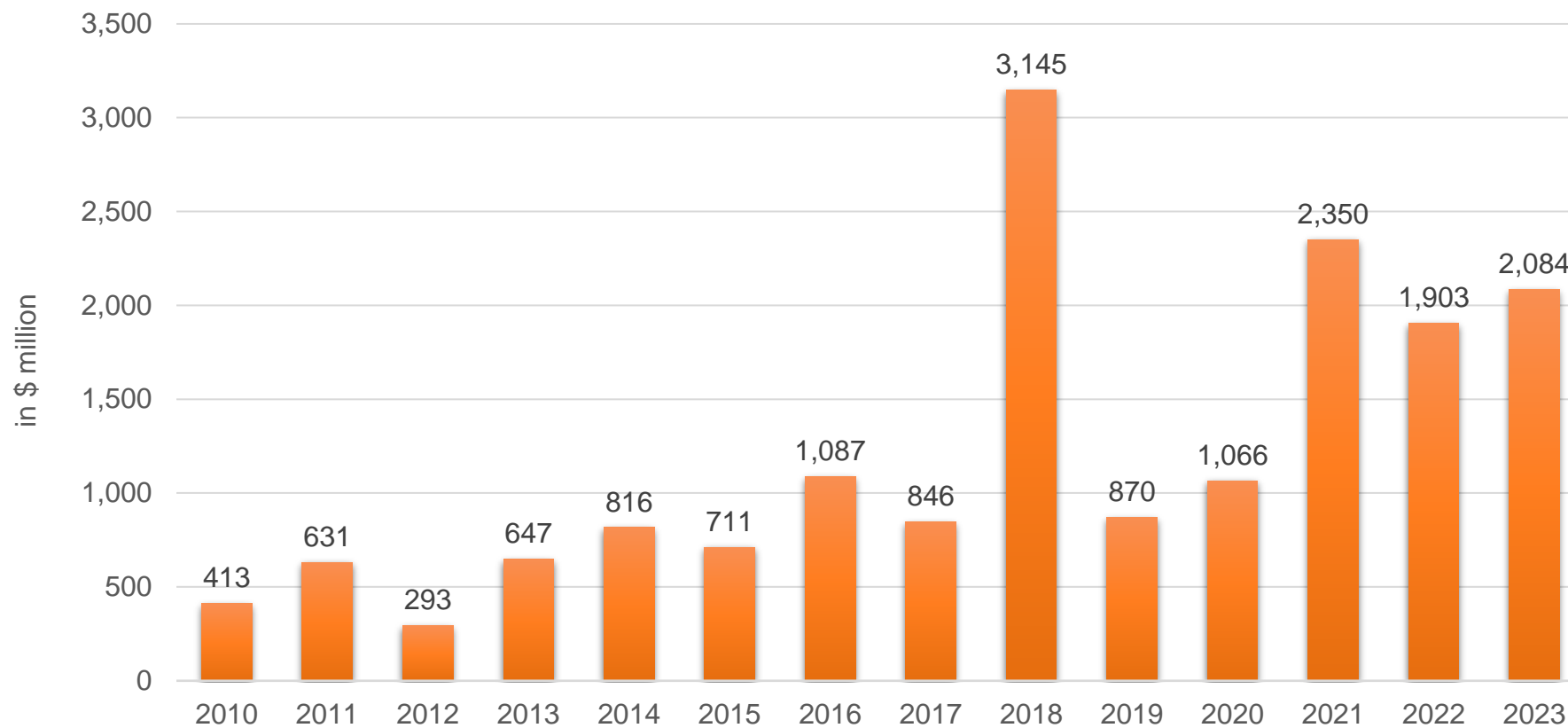# Pre-COVID-19 challenges, COVID-19 and New Normal

COVID-19 adds to existing challenges

- 'Learning crisis'
- Issues with teacher capacities or use of new generation technologies
- Continuation of rote learning
- Traditional settings and provision

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EDUCATION LENDING HISTORY AND PIPELINE

in $ million

Year	Value
2010	413
2011	631
2012	293
2013	647
2014	816
2015	711
2016	1,087
2017	846
2018	3,145
2019	870
2020	1,066
2021	2,350
2022	1,903
2023	2,084

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II. LIFE LONG LEARNING APPROACHES

WHAT IS THE NEED FOR LIFE LONG LEARNING?
..Technology, Millennials, and Future Economies

Geometric progression
Disruptive **technology**

Open
learning styles

ADB EDUCATION
OPERATIONS FACE
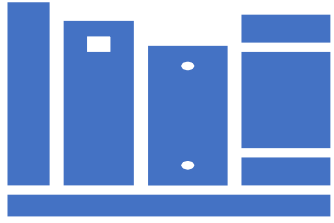REALITIES OF:

SLOW PACE OF
CHANGE

TRADITIONAL
STYLES

LACK OF
SYSTEMS
CAPACITY

Complex skills
Fast obsolete

Uncertain future
Unknown job markets

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Serve the economic interests of the country: global value chains; export competitiveness

Include modern and digital capabilities and advanced technologies

Resilient and agile to meet emerging needs disruptions and changing labor markets

Ensure foundational strength of capacities including soft skills

Life Long Learning Approaches – Priority Goals

Serving the interest of economies, youth and other beneficiaries, including the vulnerable

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III. TWO ELEMENTS OF LIFE-LONG LEARNING
- INDUSTRY 4.0
- MULTIPLE STAKEHOLDERS

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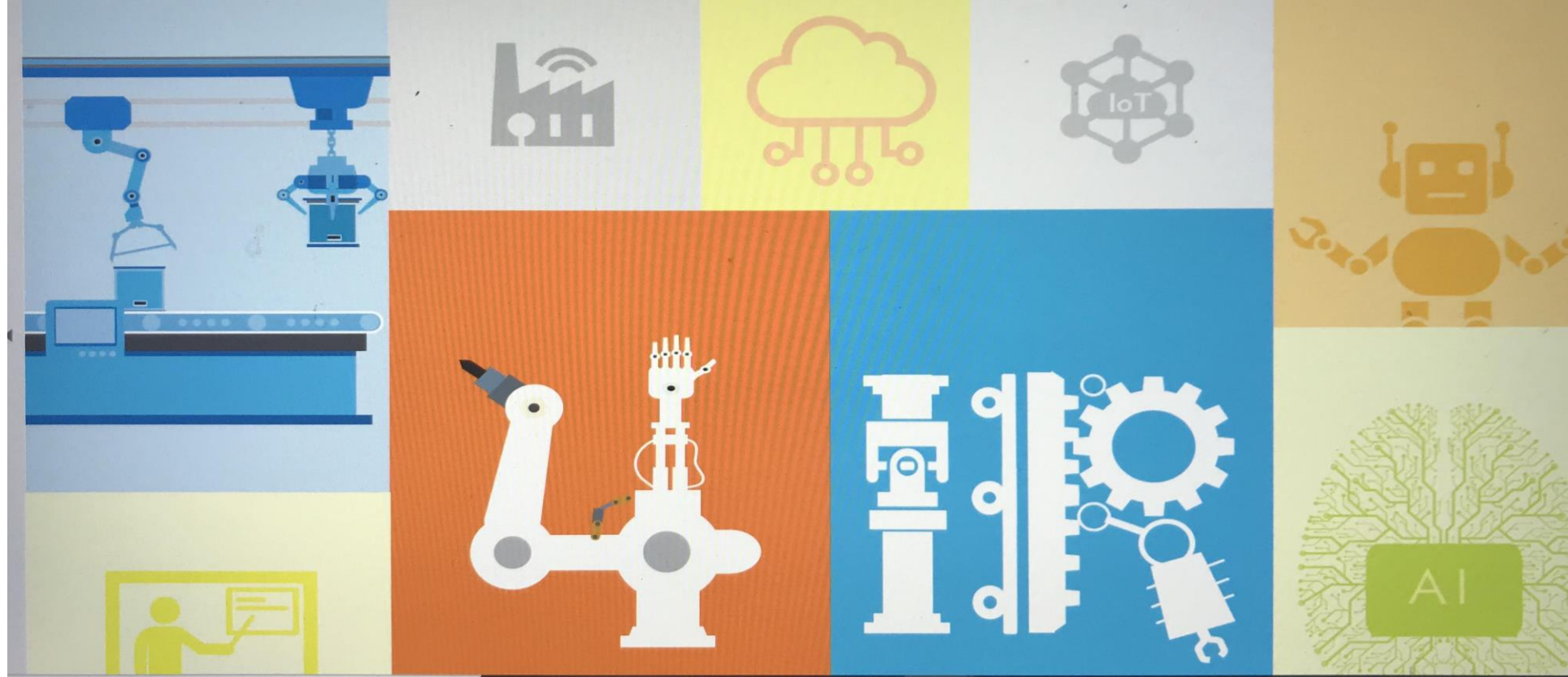
ADB study on Fourth Industrial Revolution and implications for skills and jobs in ASEAN

Recently released 4-country study
https://www.adb.org/publications/benefits-industry-skills-development-southeast-asia

Implications of 4IR on two sectors in each economy

Cambodia	Indonesia	Philippines	Viet Nam
Garments	F&B	IT BPO	Agro-processing
Tourism	Automotive	Electronics	Electronics

Steps for understanding skill gaps in each sector

1 Assess the sector's growth trajectory and potential of 4IR

2 Assess employment and skills implications of impact of 4IR

3 Explore changing nature of tasks and skills

4 Explore training required and volume of training

5 Assess education and training channels
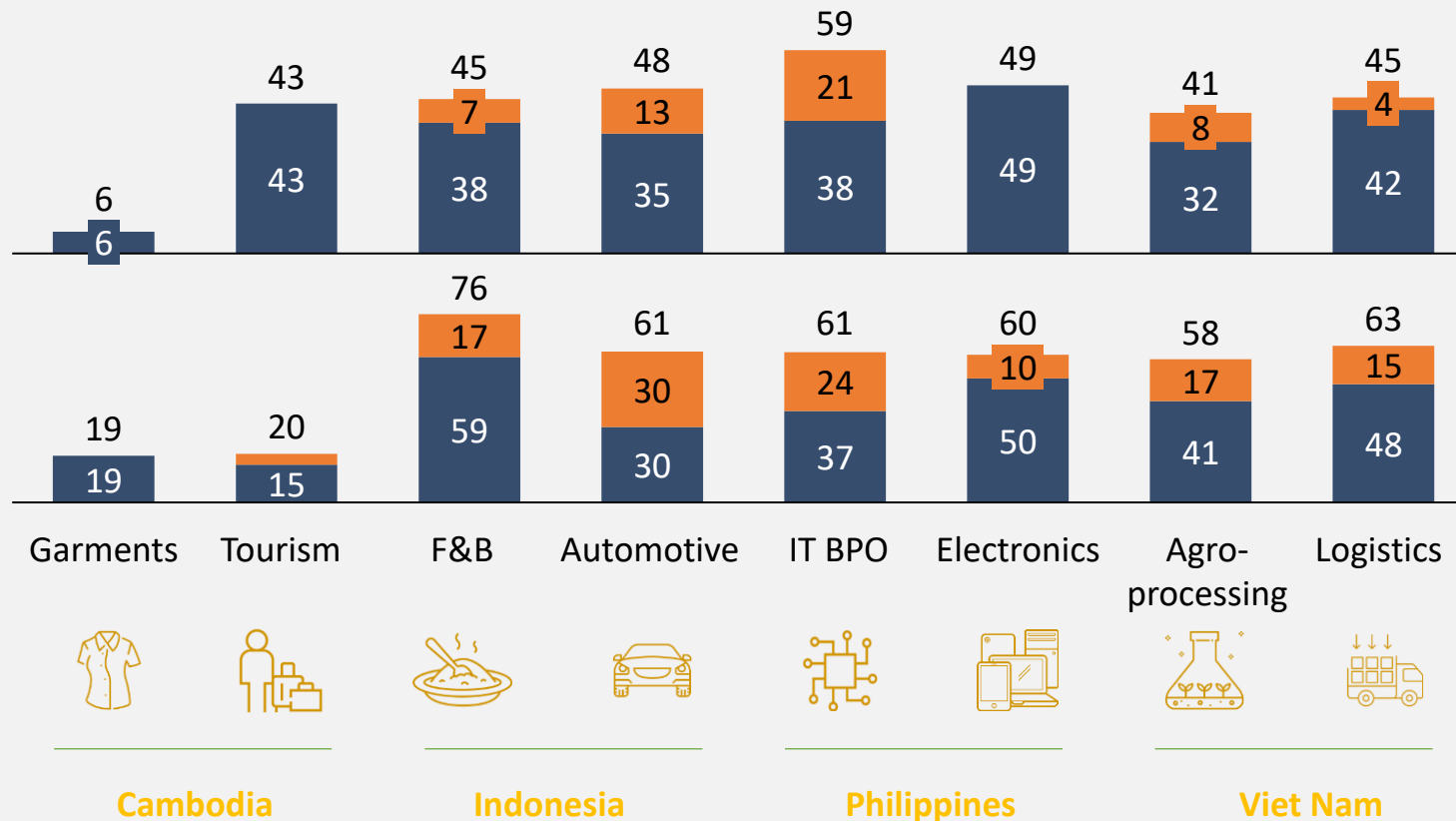
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Companies plan to adopt 4IR

Sentiments towards Industry 4.0 in different sectors and ASEAN Member States

Percent of respondents who agree or strongly agree, %

- ■ Strongly agree
- ■ Agree

My company already adopts I4.0 technologies in our operations

	Garments	Tourism	F&B	Automotive	IT BPO	Electronics	Agro-processing	Logistics
Total	6	43	45	48	59	49	41	45
Strongly agree			7	13	21		8	4
Agree	6	43	38	35	38	49	32	42

My company plans to adopt I4.0 technologies in our operations by 2025

	Garments	Tourism	F&B	Automotive	IT BPO	Electronics	Agro-processing	Logistics
Total	19	20	76	61	61	60	58	63
Strongly agree			17	30	24	10	17	15
Agree	19	15	59	30	37	50	41	48

Cambodia | **Indonesia** | **Philippines** | **Viet Nam**

SOURCE: Employer surveys conducted in Cambodia, Indonesia, Philippines, and Viet Nam

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Positive net impact of 4IR on jobs

Modelled impact of I4.0 on number of jobs between 2018 and 2030 in different sectors

Displacement and income effects of I4.0 on jobs,
2018-2030, % of jobs impacted in 2030

Net impact on jobs[3]

Effect

			Displacement effects[1]	Income effects[2]	Net impact on jobs[3]
Cambodia	Garments	5	-12	51	39
	Tourism	5	-3	5	2
Indonesia	F&B	5	-29	44	15
	Automotive	5	-29	30	1
Philippines	IT BPO	5	-24	35	11
	Electronics	5	-24	34	10
Viet Nam	Agro-processing	5	-33	68	34
	Logistics	5	-26	38	12
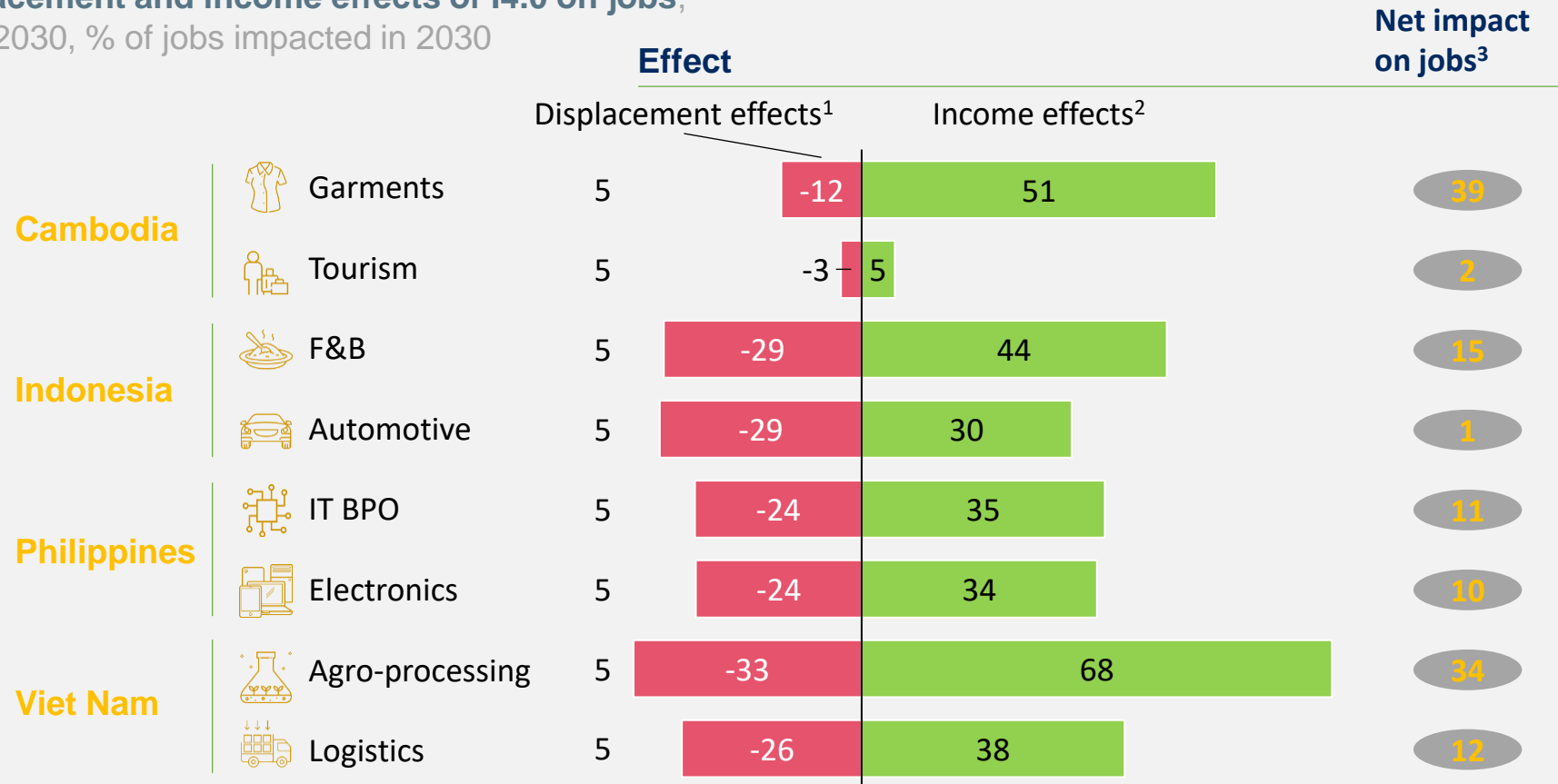
1 Job reductions due to labor-substitution effects of I4.0.
2 Additional labor demand stimulated by revenue increases brought about by I4.0-enabled productivity gains.
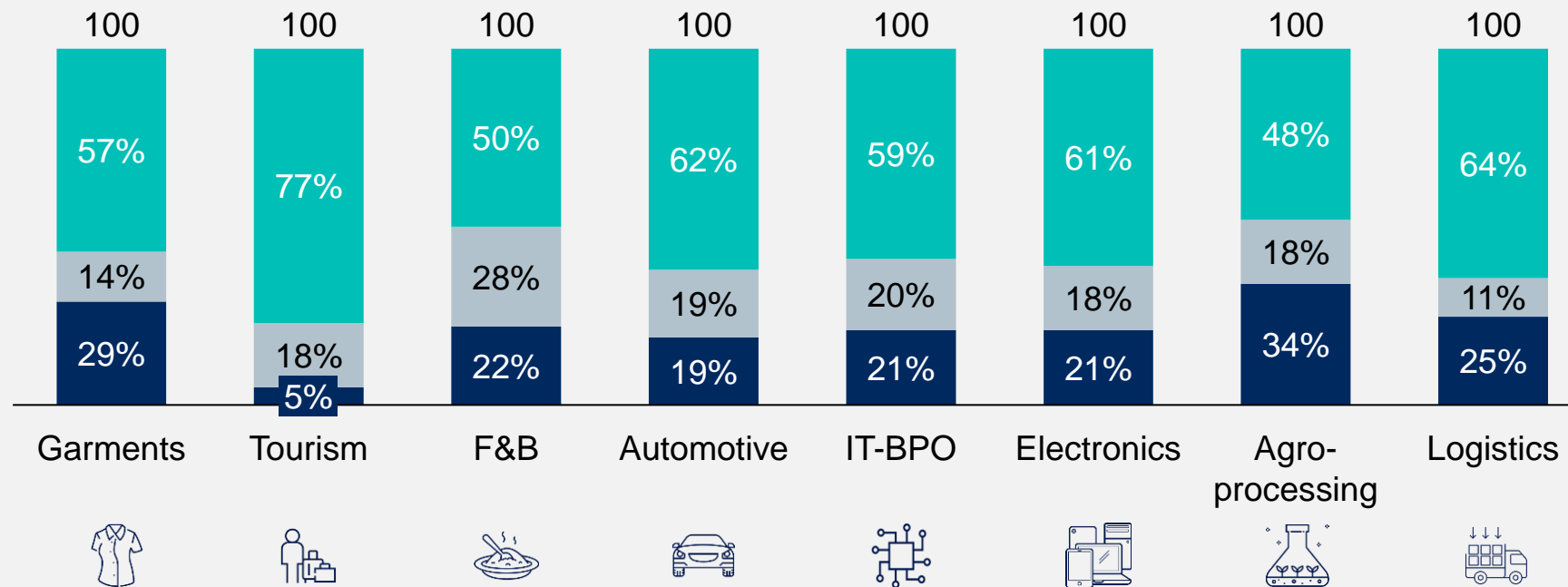3 Combination of displacement and income effects.
SOURCE: Various local economy data and AlphaBeta modelling

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Incremental skills demand for 4IR requires "on-the-job" training

■ On-the-job training   ■ Short professional training   ■ Longer formal training

Additional person trainings[1] required to meet skills demand driven by Industry 4.0 adoption in different industries and countries, in 2030, by training channel

Share of person trainings required by channel; Percent[2]

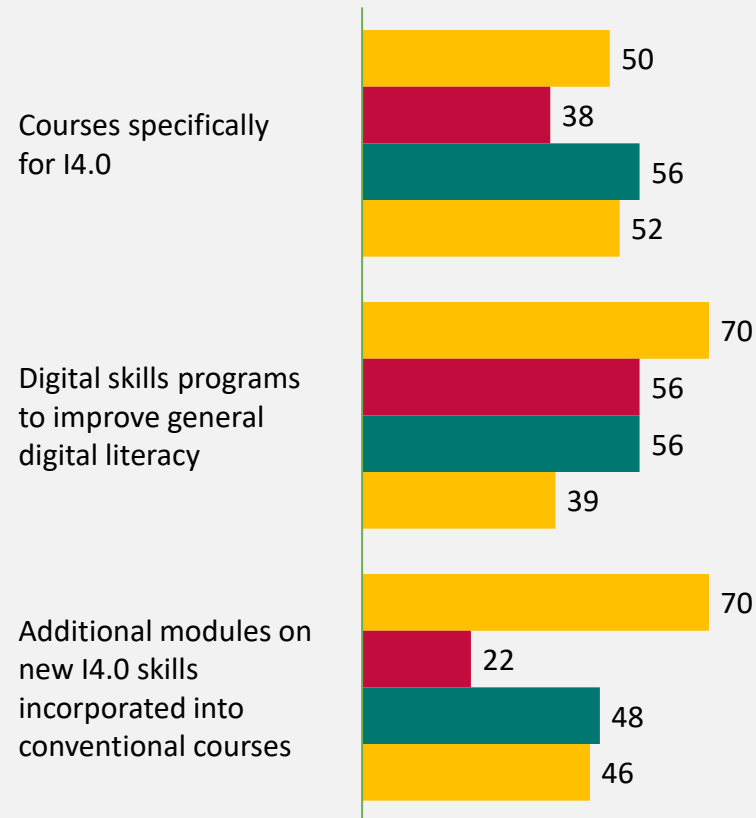|	Garments	Tourism	F&B	Automotive	IT-BPO	Electronics	Agro-processing	Logistics
Total	100	100	100	100	100	100	100	100
On-the-job training	57%	77%	50%	62%	59%	61%	48%	64%
Short professional training	14%	18%	28%	19%	20%	18%	18%	11%
Longer formal training	29%	5%	22%	19%	21%	21%	34%	25%

Note: Figures include rounding adjustments

1   One-person training refers to training **one worker**, in **one skill** from the level required by his occupation's skill profile in 2018 to the relevant level given by the skills profile in 2030.

2   "On-the-job" training refers to training conducted during day to day such as senior staff instructing junior staff or running internal seminars; "Short professional" training refers to short (between 1 day to 6 months) courses conducted by professional internal or external instructors (e.g. weekend seminars, boot-camps); "Longer formal" trainings refer to trainings longer than 6 months for which workers would likely have to take leave from their jobs, these include returning into formal education such as obtaining a degree

SOURCES: Local industry data and ADB-AlphaBeta study

I4.0 in training delivery limited

Legend: ■ Cambodia ■ Indonesia ■ Philippines ■ Viet Nam

Prevalence of technology related courses at training institutions

Percent of survey respondents, %

Courses specifically for I4.0
- Cambodia: 50
- Indonesia: 38
- Philippines: 56
- Viet Nam: 52

Digital skills programs to improve general digital literacy
- Cambodia: 70
- Indonesia: 56
- Philippines: 56
- Viet Nam: 39

Additional modules on new I4.0 skills incorporated into conventional courses
- Cambodia: 70
- Indonesia: 22
- Philippines: 48
- Viet Nam: 46

Prevalence of technology-based delivery in teaching at training institutions

Percent of survey respondents, %

Online self-learning modules
- Cambodia: 70
- Indonesia: 69
- Philippines: 62
- Viet Nam: 45

Interactive videos
- Cambodia: 50
- Indonesia: 38
- Philippines: 56
- Viet Nam: 54

Use of simulators
- Cambodia: 30
- Indonesia: 34
- Philippines: 33
- Viet Nam: 32

Use of virtual reality/ augmented reality mechanism
- Cambodia: 10
- Indonesia: 16
- Philippines: 26
- Viet Nam: 18

Virtual learning platform
- Cambodia: 10
- Indonesia: 19
- Philippines: 15
- Viet Nam: 4

SOURCE: Training institution surveys in Cambodia, Indonesia, Philippines, and Viet Nam.

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Digital agenda going forward

•TVET

- Advanced digital skills such as data science, big data, AI, and machine learning
- Real-time and AI-powered job matching platforms
- qualification frameworks with micro credentials for upskilling and reskilling
- Blended learning platforms established for learning continuity and upskilling

• HIGHER EDUCATION

- online courses for basic, intermediate, and advanced skills
- Digital platforms for lifelong learning with stackable credentials, nano degrees, micro masters degrees, etc.
- Blockchain for degrees and micro credentials
- Advanced virtual research labs and digital science capabilities
- Real-time and AI-powered job matching platforms

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Multiple Stakeholders in a Learning Society

ADB BOOK ON POWERING A LEARNING SOCIETY DURING AN AGE OF DISRUPTION

FORTHCOMING APRIL 2021

Community	CSO Citizen role	Private sector Private equity	Schools TVET
Metropolitan authorities			
Parents	Government	Online providers Coursera	City Planners Smart Cities Learning Cities
Workforce Planners	Infrastructure B4S – Build for Skills	Universities Future Proofing Students	Learning Assessments

IV. ADB-ASEM PARTNERSHIP

Life cycle approach to education

Expected Trends

- Continuous skill upgrade and re-skilling critical; No degrees/qualifications for life

- Digital skills to be central to education and training (Gartner estimates that 80% of secondary schools in 2024 will have curriculum for specific digital skills)

- Digital solutions to address the historical pile-up of learning deficits

- Universities will redefine cost parameters of face-to-face and online education

- Rising household expenditures on EdTech

- Management of facilities and resources based on enrollments through big data

Implications

- Lifelong learning initiatives needed; micro-credentials for short courses

- Greater demand for coding, computers in K-12; Practical training with Augmented Reality, Virtual Reality, and Mixed Reality solutions; digital curriculum design

- In-school and after-school initiatives and tech-enabled remediation

- Regulatory changes to enable universities to offer entirely online tertiary education

- Rising role of parents and communities

- Educational institutions need to adapt infrastructure and learning

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SHARE SUCCESSFUL PRACTICES FROM EUROPE

Key areas for ADB-ASEM knowledge sharing

- Re-balance focus areas and approaches:
  - From early-stage education/training to life cycle-based approach
  - From institution-based to learning outside formal settings
  - From face-to-face to blended and digital learning and training
  - From academic to experiential, workplace based learning
  - From technical skills to a combination of technical, soft skills and 'learning to learn' skills
  - From traditional degrees to digital and micro credentials for life-long stacking and continued learning

- Special focus on disadvantaged and underprivileged, particularly girls

PROMOTE EXCHANGE OF KNOWLEDGE AND PEER-TO-PEER INTERACTIONS

THANK YOU