UNESCO STRATEGY FOR TVET (2016-2021)

Outline

❑ **Setting the context**

❑ **Drivers for TVET Transformation**

❑ **UNESCO Strategy for TVET**

❑ **Using ICT in Transforming TVET**

I. SETTING THE CONTEXT

2016 – 2030
New Goals for Development

2016-2030
Education is foundational to the SDGS

A New Agenda for Education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

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4 QUALITY EDUCATION

➤ Free and equitable primary and secondary education of good quality

➤ Universal pre-primary education

➤ Ensure relevant skills for employment

➤ Universal literacy and numeracy

➤ More qualified teachers

➤ Make higher education more accessible

SDG4/Education 2030: TVET at Centre Stage

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Three identified targets:

➢**Access**

➢**Labour market outcomes**

➢**Equity and gender**

TVET contributes to other SDGs including:
SDG3 (health workforce)
SDG8 (inclusive growth and decent work),
SDG9 (infrastructure),
SDG13 (climate).

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Education expenditure: Lower than recommended

Government expenditure on education as % of GDP (%)		
	%	year
Kazakhstan	3.06	2009
Kyrgyzstan	6.78	2013
Mongolia	4.6	2011
Tajikistan	4	2012
Turkmenistan	3.05	2012
Uzbekistan	-	-

Source: (UNESCO-UIS, 2016)

Expenditure on secondary and post-secondary non-tertiary vocational as % of govt. total expenditure on education	
	2013
Kazakhstan	4.36

A New Framework for Action

ICT, particularly mobile technology, holds great promise for accelerating progress...

EDUCATION 2030

Education 2030

ICT development index (IDI): Lower than CIS average (except Kz)

ICT Development Index (IDI)

Legend: ■ 2010 ■ 2015
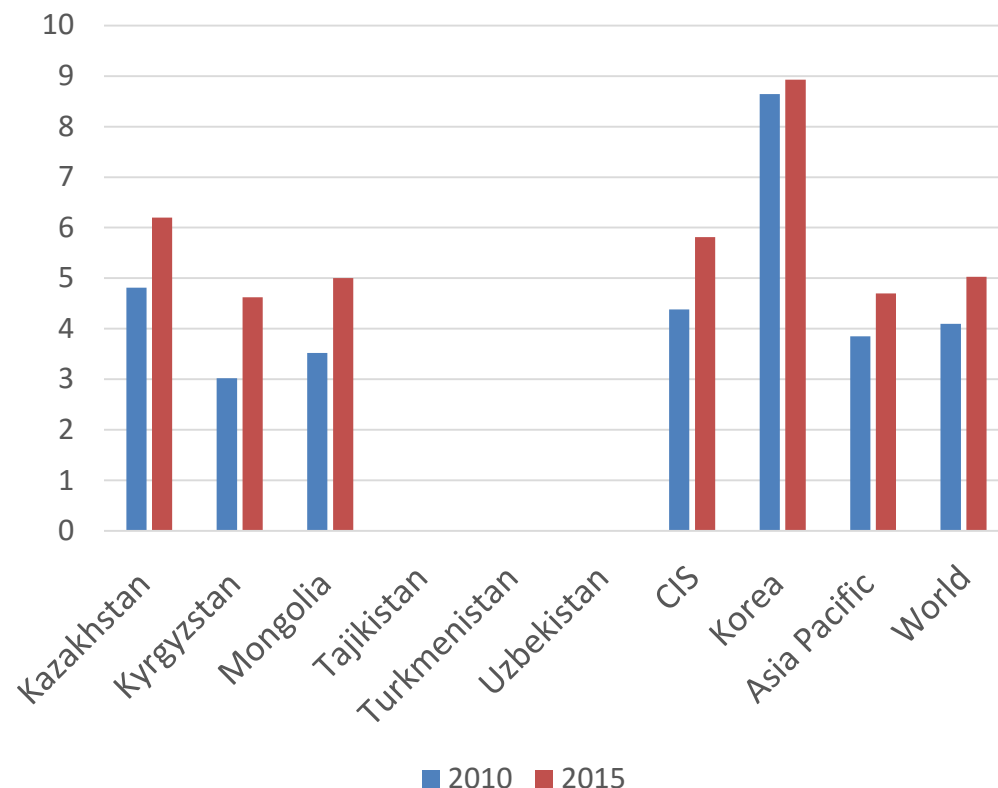
Area/Country	Global rank
Kazakhstan	58
Kyrgyzstan	97
Mongolia	84
Tajikistan	-
Turkmenistan	-
Uzbekistan	-
Korea	1

Source: (ITU, 2015a)

QINGDAO DECLARATION

"To achieve the goal of inclusive and equitable quality education and lifelong learning by 2030, **ICT must be harnessed** to strengthen education systems, knowledge dissemination, information access, quality and effective learning, and more efficient service provision."

GLOBAL DIGITAL SNAPSHOT

JAN 2016

A SNAPSHOT OF THE WORLD'S KEY DIGITAL STATISTICAL INDICATORS

TOTAL POPULATION	INTERNET USERS	ACTIVE SOCIAL MEDIA USERS	UNIQUE MOBILE USERS	ACTIVE MOBILE SOCIAL USERS
7.395 BILLION	**3.419 BILLION**	**2.307 BILLION**	**3.790 BILLION**	**1.968 BILLION**
URBANISATION: 54%	PENETRATION: 46%	PENETRATION: 31%	PENETRATION: 51%	PENETRATION: 27%
FIGURE REPRESENTS TOTAL GLOBAL POPULATION, INCLUDING CHILDREN	FIGURE INCLUDES ACCESS VIA FIXED AND MOBILE CONNECTIONS	FIGURE BASED ON ACTIVE USER ACCOUNTS, NOT UNIQUE INDIVIDUALS	FIGURE REPRESENTS UNIQUE MOBILE PHONE USERS	FIGURE BASED ON ACTIVE USER ACCOUNTS, NOT UNIQUE INDIVIDUALS

we are social
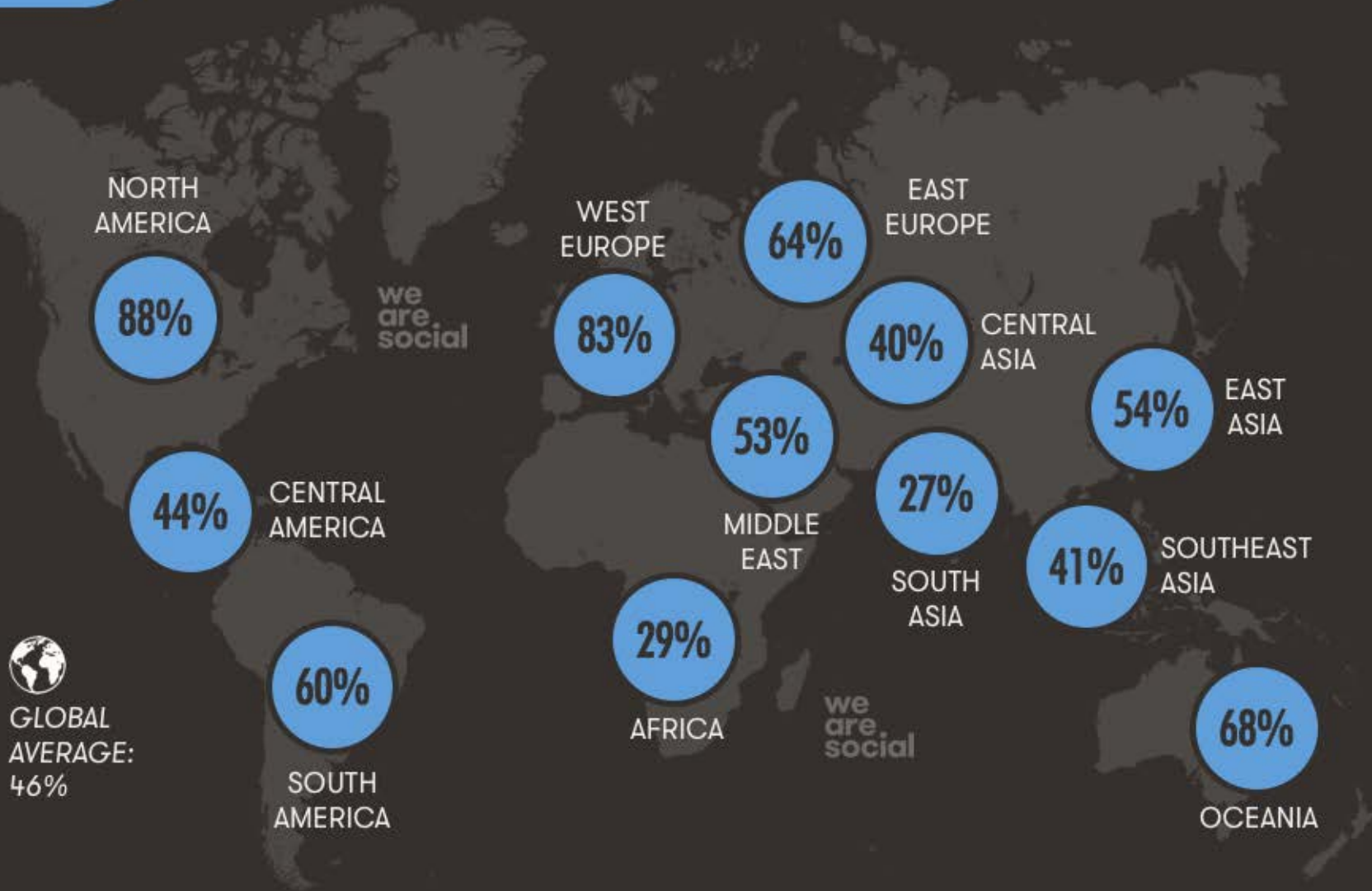
Population and development indicators:
Significant youth and rural population

Country/Area	Population size* (000) (2015)	Area of Country** (000 km²) (2013)	Population density** (people per km²) (2013)	Youth population* (15-24) (%) (2015)	Rural population* (%) (2015)	Life Expectancy** (years) (2013)	GNI per capita* (current USD) (2014)
Kazakhstan	17625	2724.9	6.3	15	46.8	70	11670
Kyrgyzstan	5940	199.9	29.8	18.3	64.3	70	1250
Mongolia	2959	1564.1	1.8	16.9	28	68	4280
Tajikistan	8482	142.6	58.6	20.2	73.2	67	1080
Turkmenistan	5374	488.1	11.2	19	50	65	8020
Uzbekistan	29893	447.4	71.1	18.8	63.6	68	2090
North and Central Asia	227542			13.2	37.9		10210
Asia Pacific	4414276			16	52		6331

Source: *(UNESCAP, 2015); **(World Bank, 2015)

ICT Infrastructure Status

Area/Country	Mobile-cellular subscriptions per 100 inhabitants (2014)*	Active mobile-broadband subscriptions per 100 inhabitants (2013)*	Fixed-broadband subscriptions per 100 inhabitants (2014)*	Percentage of individuals using the Internet (2014)*	Percentage of households with Internet access (2014)*	Computer-pupil ratio**	Proportion of schools with Internet access (%)**
Kazakhstan	168.62	56.6	12.93	54.89	49.4	18	97
Kyrgyzstan	134.46	22.7	4.16	28.30	7.2	57	6
Mongolia	105.06	18.2	6.85	27.00	21.0	18	91
Tajikistan	95.13	-	0.07	17.49	-	-	-
Turkmenistan	135.78	-	0.04	12.20	-	-	-
Uzbekistan	73.79	20.3	1.33	43.55	-	-	-
Asia Pacific	90.6	29.7	8.3	33.8	36.3	-	-
World	96.1	37.2	10.3	40.6	43.9	-	-

Source: *(ITU, 2015a); **(UNESCO-UIS, 2014)

Internet Penetration: Lower Than Average of Developed Countries
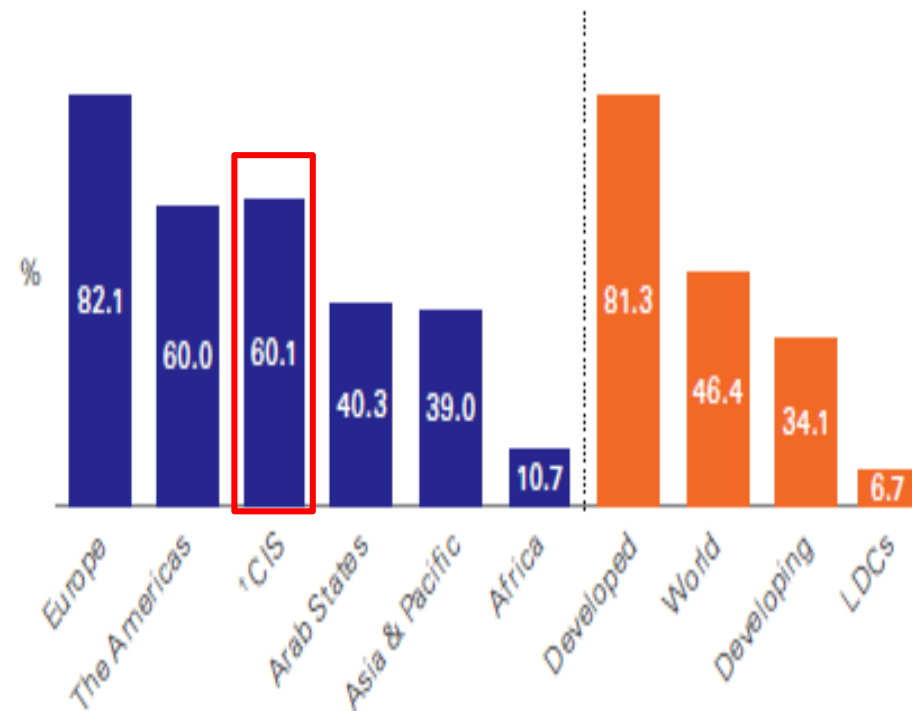
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Percentage of households with Internet access

Europe 82.1, The Americas 60.0, CIS 60.1, Arab States 40.3, Asia & Pacific 39.0, Africa 10.7, Developed 81.3, World 46.4, Developing 34.1, LDCs 6.7

Percentage of individuals using the Internet

Europe 77.6, The Americas 66.0, CIS 59.9, Arab States 37.0, Asia & Pacific 36.9, Africa 20.7, Developed 82.2, World 43.4, Developing 35.3, LDCs 9.5

Source: (ITU, 2015b)

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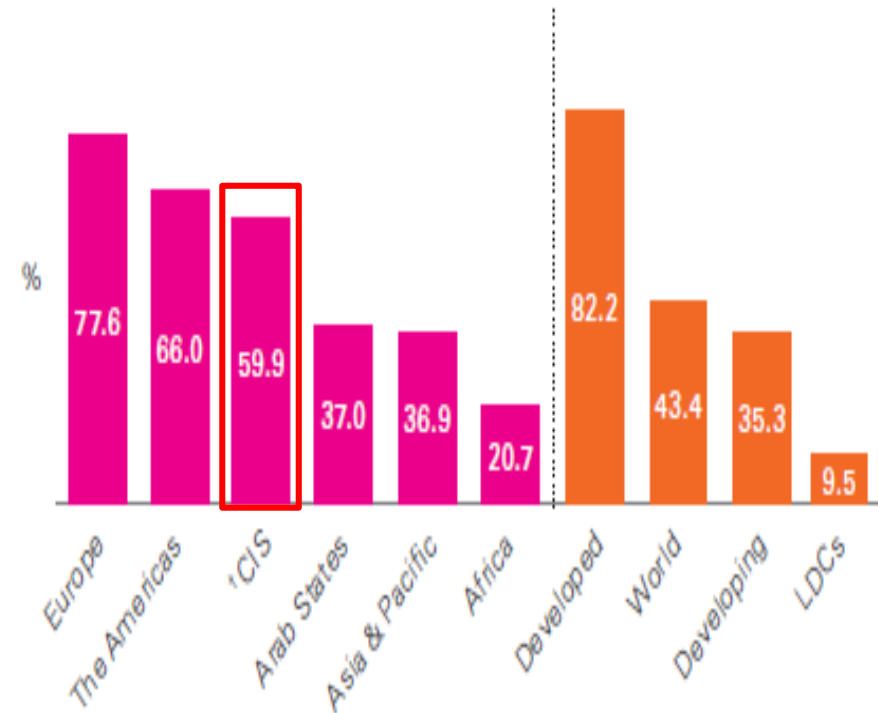
JAN 2016

MOBILE'S SHARE OF WEB TRAFFIC
PERCENTAGE OF ALL GLOBAL WEB PAGES SERVED TO MOBILE PHONES IN JANUARY OF EACH YEAR

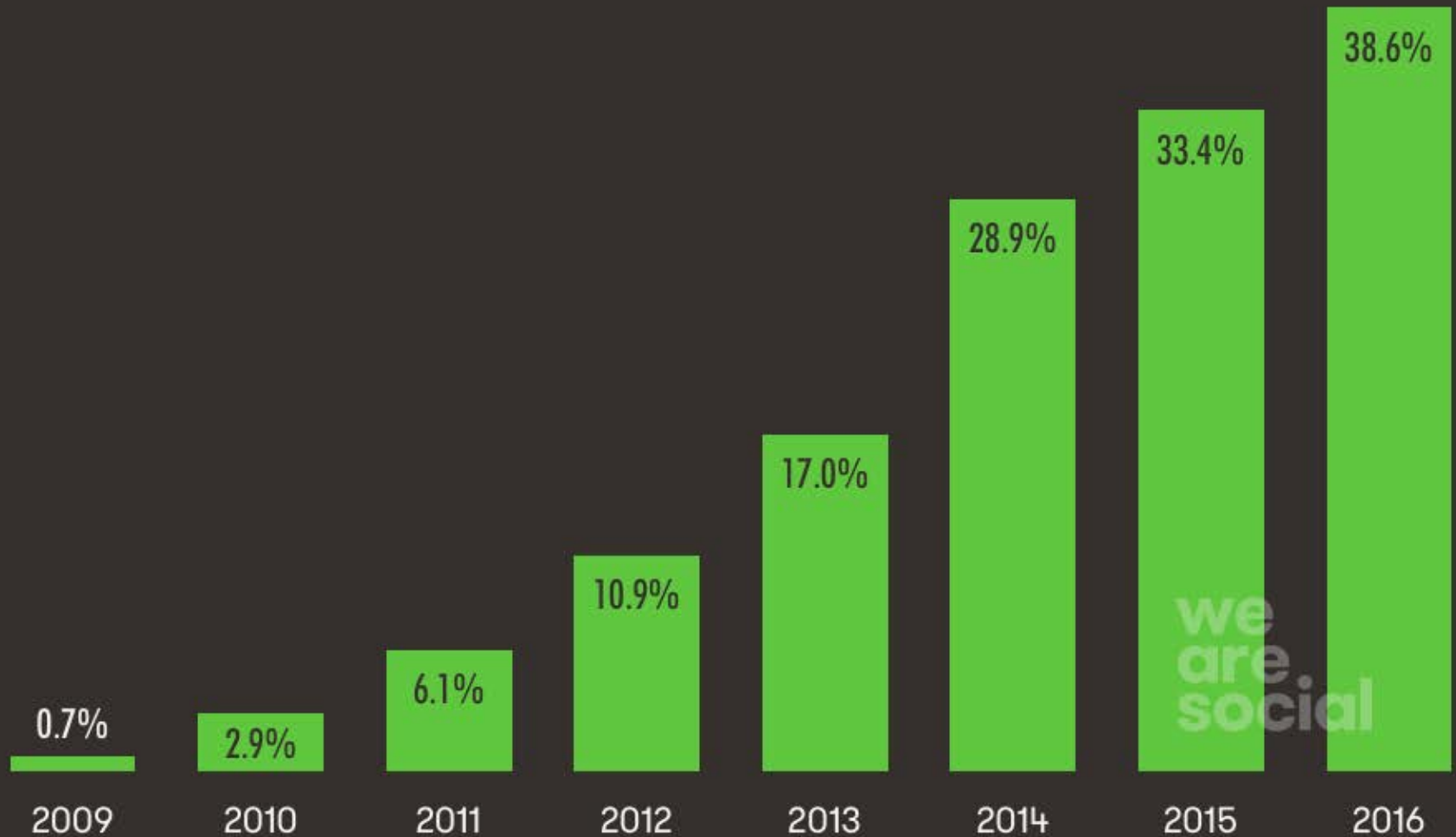| Year	Percentage
2009	0.7%
2010	2.9%
2011	6.1%
2012	10.9%
2013	17.0%
2014	28.9%
2015	33.4%
2016	38.6%

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JAN 2016

MOBILE'S SHARE OF WEB TRAFFIC

PERCENTAGE OF TOTAL WEB PAGES SERVED TO MOBILE PHONES

Country	%
NIGERIA	82%
SOUTH AFRICA	75%
INDONESIA	70%
INDIA	66%
SAUDI ARABIA	55%
POLAND	51%
UAE	49%
MALAYSIA	47%
TURKEY	46%
THAILAND	45%
SINGAPORE	41%
CHINA	40%
GLOBAL AVERAGE	39%
JAPAN	36%
MEXICO	34%
SPAIN	32%
ARGENTINA	31%
HONG KONG	29%
PHILIPPINES	29%
UK	28%
USA	27%
AUSTRALIA	27%
SOUTH KOREA	26%
BRAZIL	26%
VIETNAM	24%
GERMANY	22%
EGYPT	22%
ITALY	21%
FRANCE	19%
CANADA	19%
RUSSIA	12%

we are social

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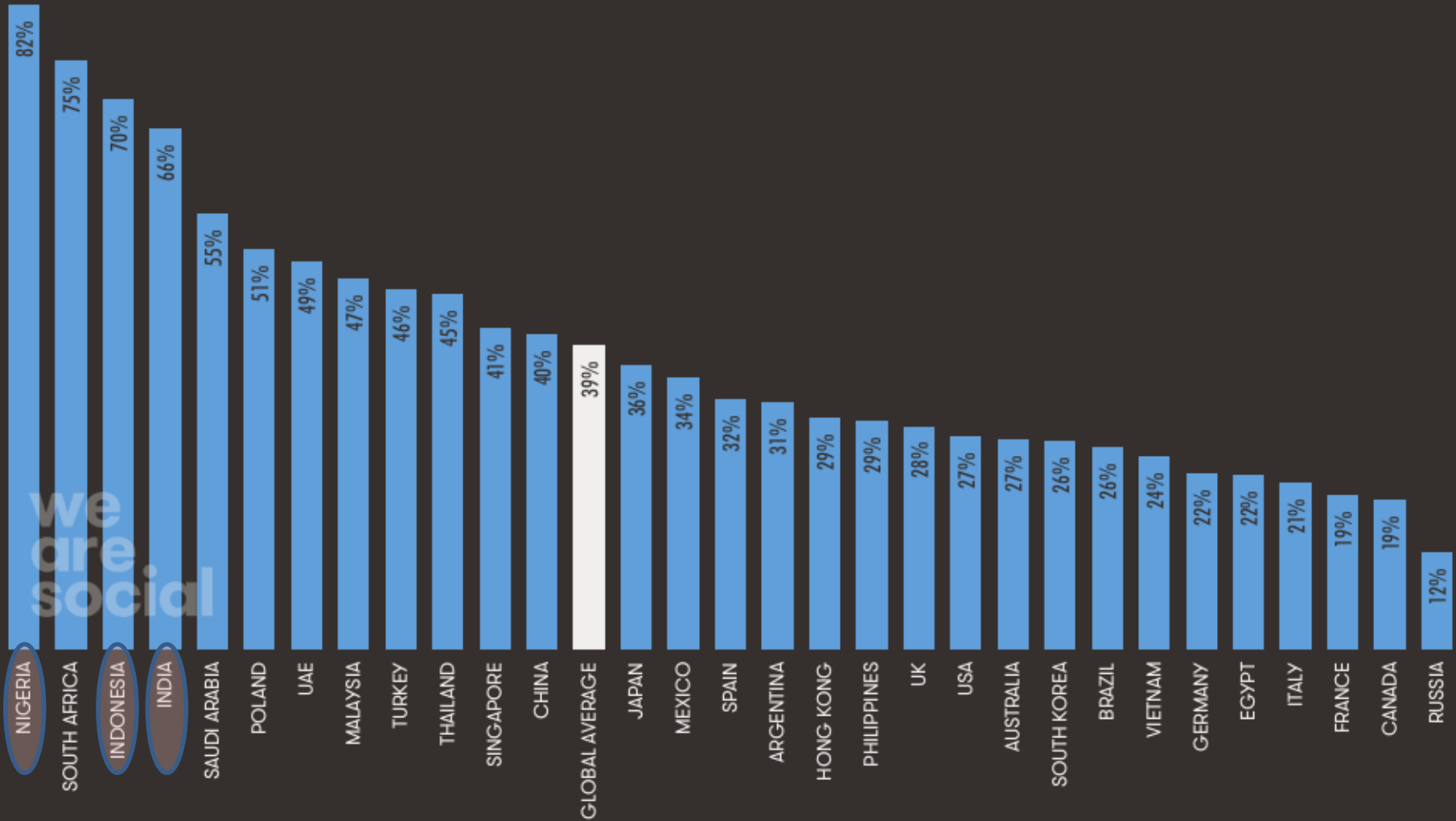
Proven Capacity to Help the Poor
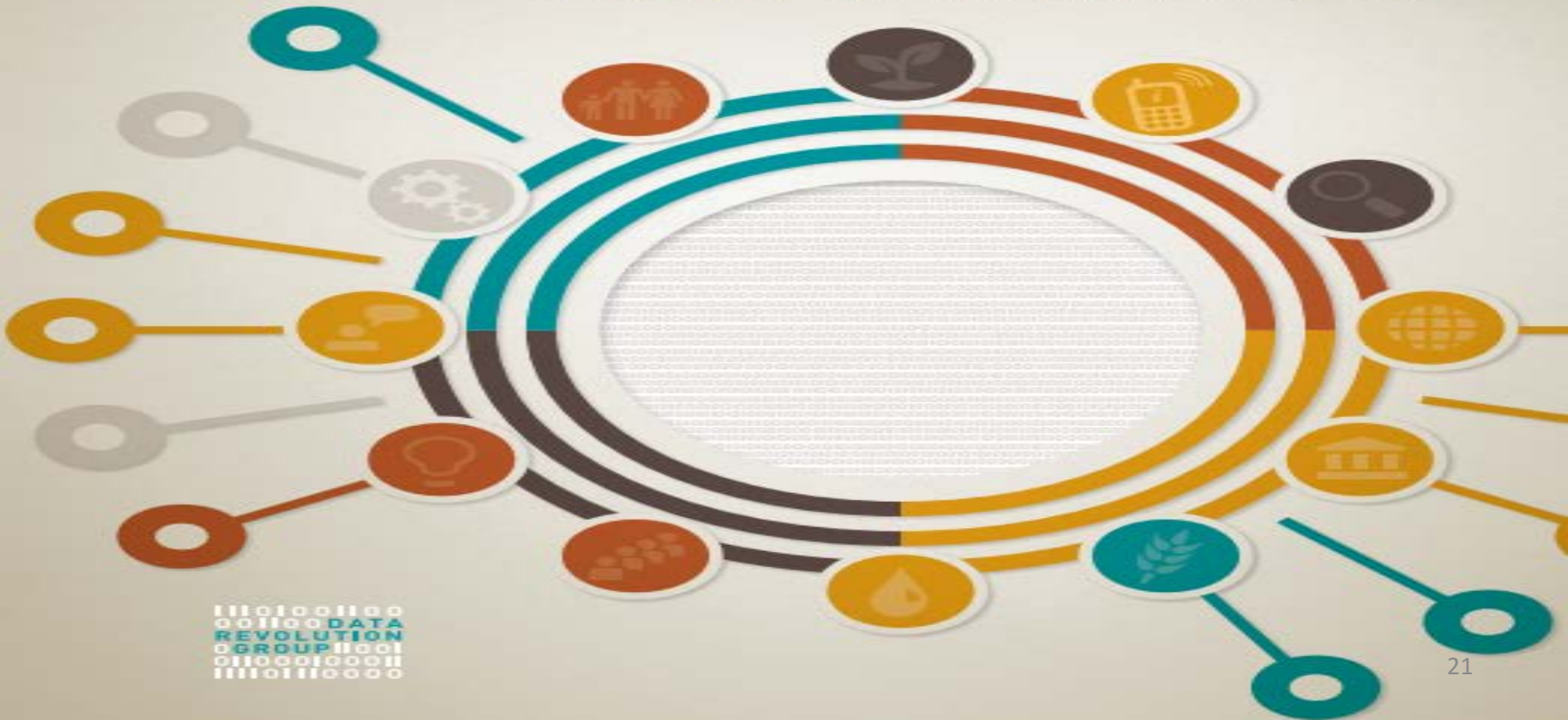
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The Digital Economy and Society Index (DESI) is a composite index that summarises relevant indicators on Europe's digital performance and tracks the evolution of EU Member States in digital competitiveness.
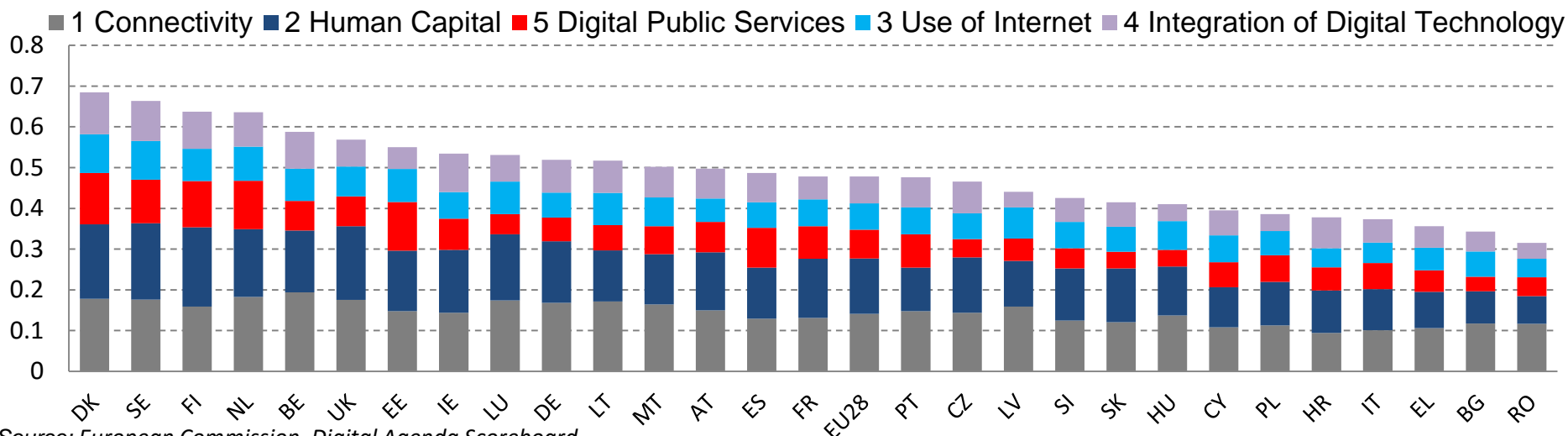
The five dimensions of the DESI

1 Connectivity	Fixed Broadband, Mobile Broadband, Broadband speed, and Affordability
2 Human Capital	Basic Skills and Usage, Advanced skills and Development
3 Use of Internet	Content, Communication and Transactions on line
4 Integration of Digital Technology	Business digitization and eCommerce
5 Digital Public Services	eGovernment and eHealth

Digital Economy and Society Index (DESI), June 2015

Legend: 1 Connectivity · 2 Human Capital · 5 Digital Public Services · 3 Use of Internet · 4 Integration of Digital Technology

Countries (left to right): DK, SE, FI, NL, BE, UK, EE, IE, LU, DE, LT, MT, AT, ES, FR, EU28, PT, CZ, LV, SI, SK, HU, CY, PL, HR, IT, EL, BG, RO

Source: European Commission, Digital Agenda Scoreboard

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II. DRIVERS FOR TVET TRANSFORMATION

EFA Goals Achievement:
All high EDI (Congratulations!)

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Area/Country	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5		Goal 6		
	Early childhood care and education	Universal primary educaiton	Learning needs of all youth and adults	Improving levels of adult literacy	Gender parity in primary and secondary education		Educational quality		EFA Development Index (EDI)
	GER in pre-primary education (%) (2012)	Primary education ANER (%) (2012)	Youth literacy rate (%) (15-24) (2005-2012)	Adult literacy rate (%) (15 and over) (2005-2012)	GPI in primary (F/M) (2012)	GPI in secondary (F/M) (2012)	survival rate to last grade (%) (2011)	pupil/teacher ratio in primary grade (2012)	High EDI: (.96-1.00)
Kazakhstan	58	99	100	100	1.01	0.97	99	16	0.99
Kyrgyzstan	25	98	100	99	0.98	1	97	24	0.971
Mongolia	86	98	98	98	0.97	1.03	93	29	0.967
Tajikistan	9	99	100	100	0.98	0.9	98	23	0.98
Turkmenistan			100	100					
Uzbekistan	25	91	100	99	0.97	0.98	98	16	0.982
Central Asia	33	95	100	100	0.99	0.98	98	16	
World	54	91	89	84	0.97	0.97	75	24	

Source: (UNESCO, 2015a)

TVET share of secondary enrolment:
Low compared to other developed regions

Area/Country	Enrolment in secondary education (000) (2010)	Enorolment in TVET (000) (2010)	TVET as a share of secondary enrolment (%) (2010)
Kazakhstan	1680	113	6.73
Kyrgyzstan	664	23	3.46
Mongolia	276	28	10.14
Tajikistan	1032	22	2.13
Turkmenistan			
Uzbekistan	4370	1623	37.14
Central Asia	10443	1947	18.64
World	542684	58371	10.76

Source: (UNESCO, 2012, p. 364, 370)

Technical and vocational education as a share of secondary enrolment

1999 (%)   2012 (%)
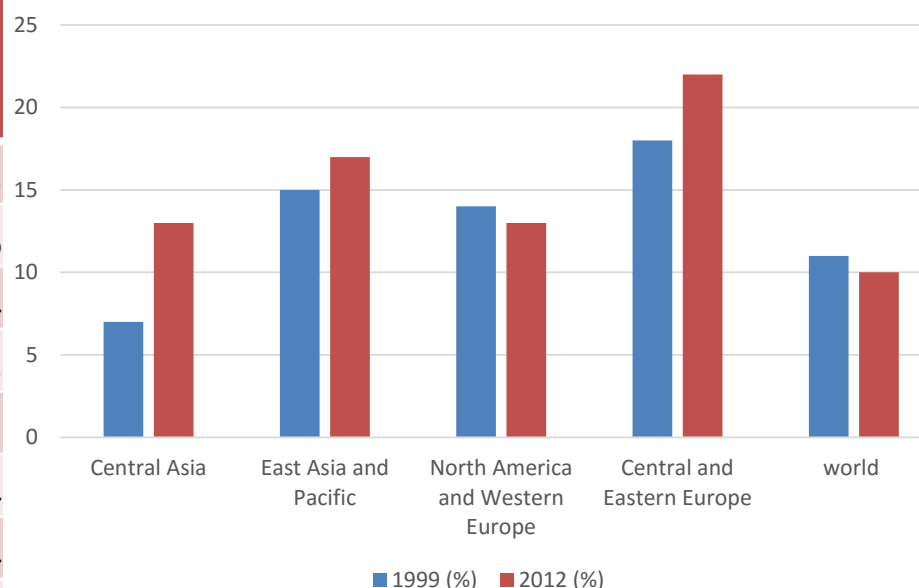
Source: (UNESCO, 2015a)

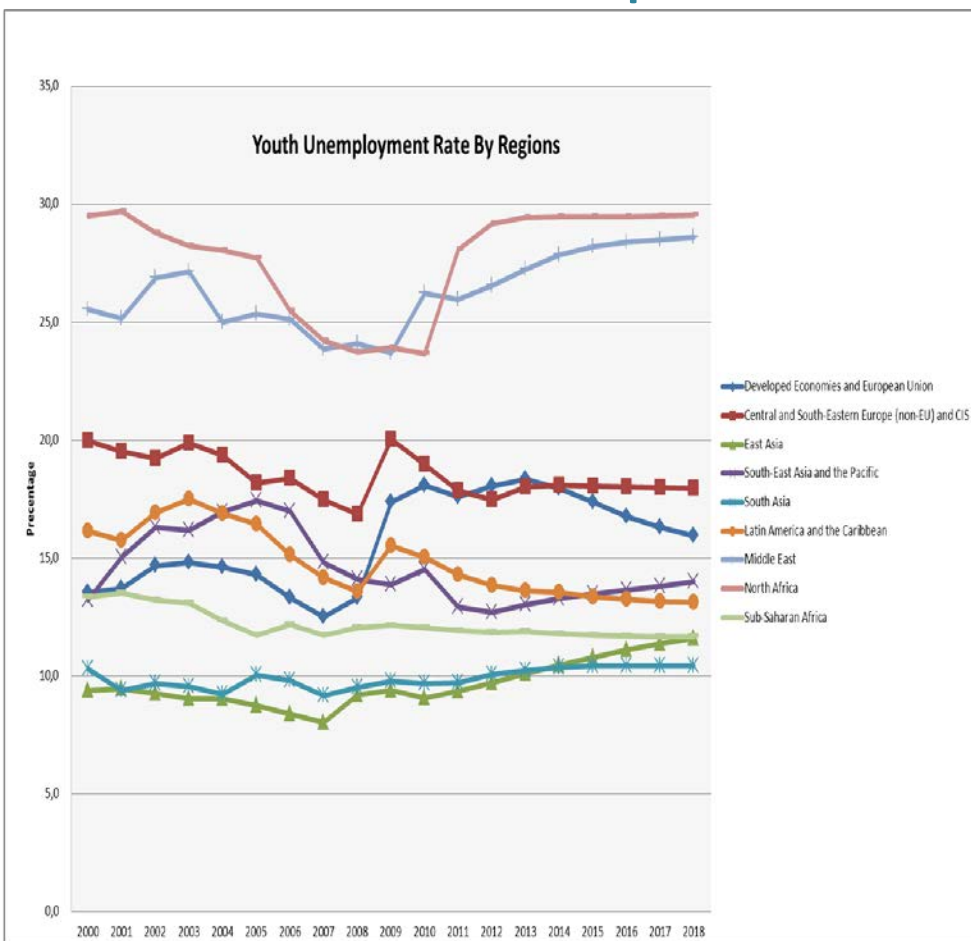# Status of ICT in education policy and teacher ICT competency standards

	ICT Component in Education Policy	**National ICT in Education Masterplan**	**Teacher ICT Competency Standards**		
			Existing general/ICT competencies	Pre-service training	In-service training
Kazakhstan	✓	✓	▪ General ▪ ICT	✓	✓
Kyrgyzstan	✓		▪ General	✓	
Mongolia	✓		▪ General ▪ ICT	✓	✓
Tajikistan		✓	▪ General (by subject)		
Uzbekistan		✓	▪ General ▪ ICT (in the process)	✓	✓

Source: (UNESCO, 2015b)

Persistent Youth Unemployment

Youth unemployment rate, by region, 2000-2018p

Youth Unemployment Rate By Regions

- Developed Economies and European Union
- Central and South-Eastern Europe (non-EU) and CIS
- East Asia
- South-East Asia and the Pacific
- South Asia
- Latin America and the Caribbean
- Middle East
- North Africa
- Sub-Saharan Africa

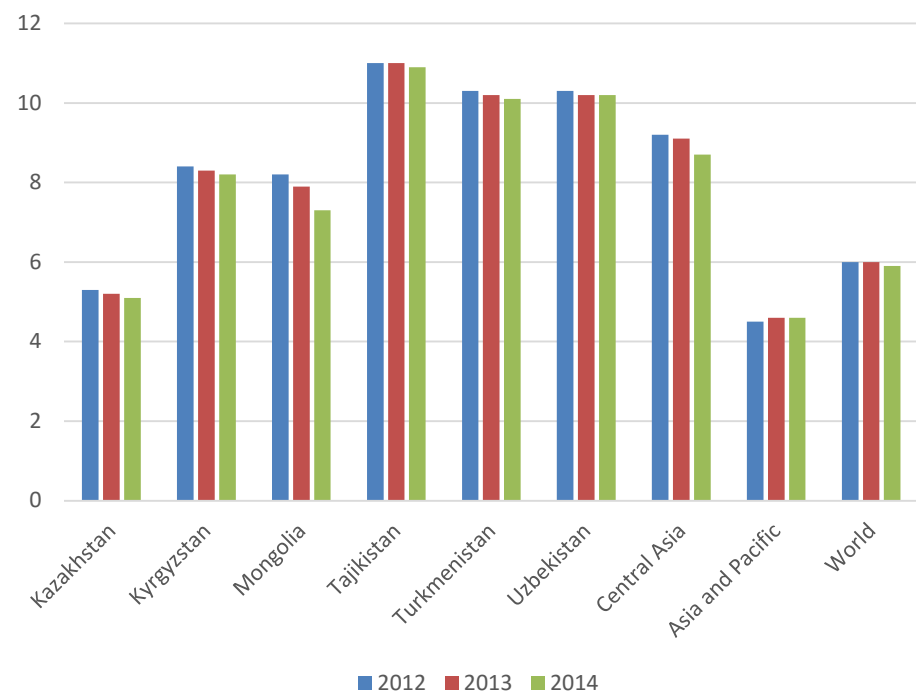## Ratios of youth-to-adult unemployment rates (%), by regions, selected years

■ 2000   ■ 2005
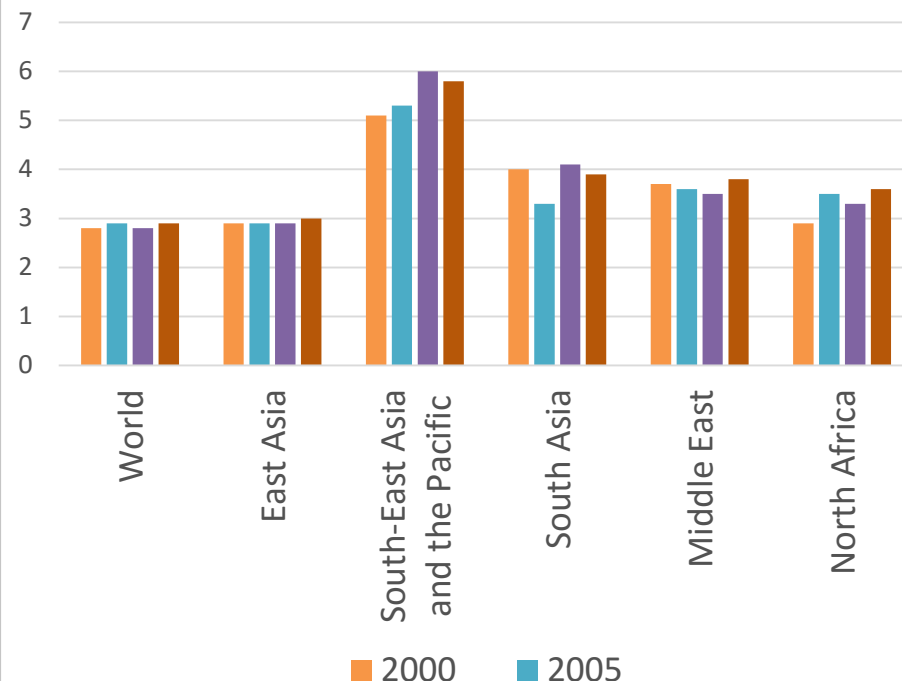
Although Asia-Pacific has relatively **low youth unemployment rates**, it also has some of the **highest youth-to-adult unemployment ratios**.
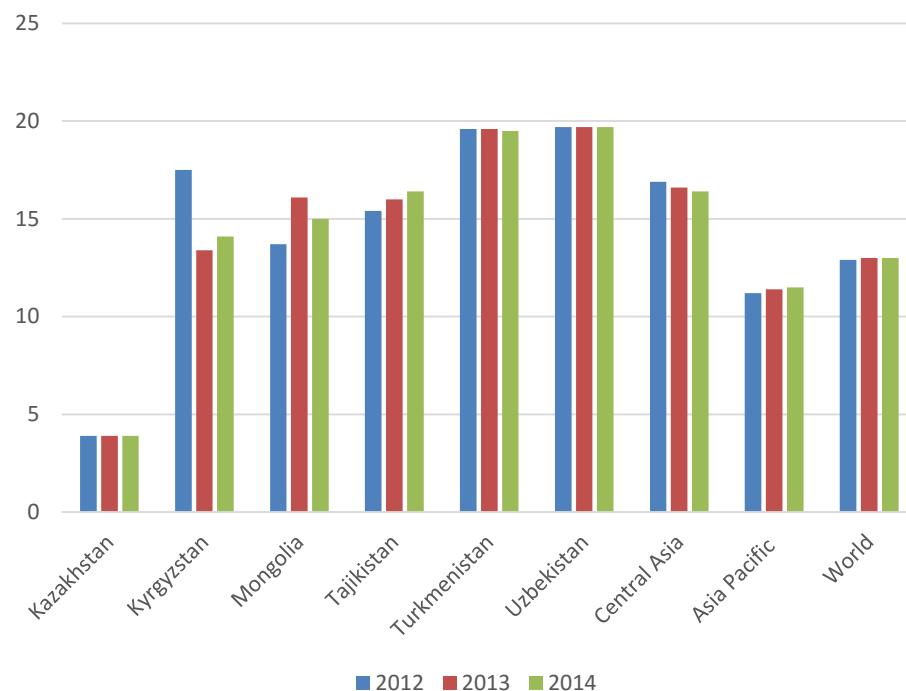
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Unemployment rates (Overall and Youth): Higher than Asia-pacific and World Average
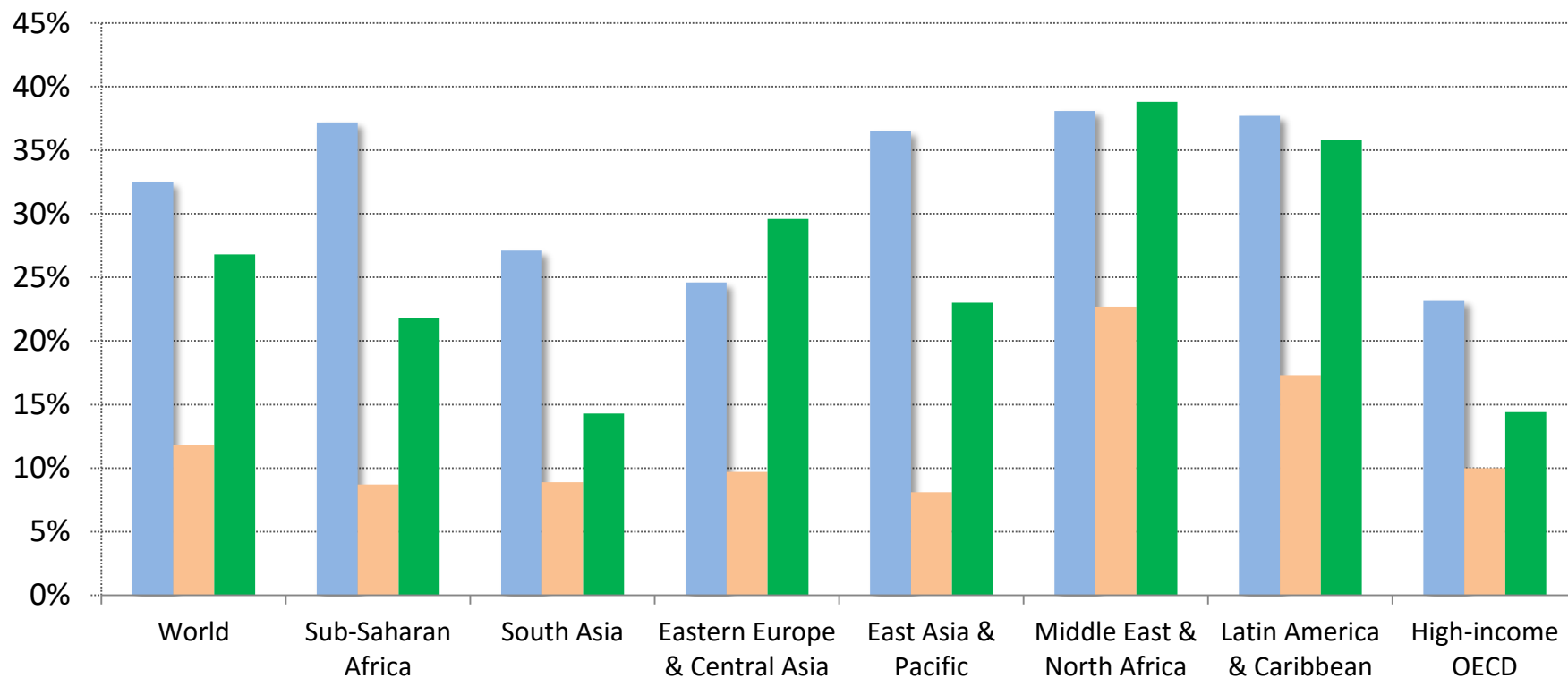

Unemployment rate

Youth (15-24) unemployment rate

Source: (UNESCAP, 2016)

Skills are Important Constraint for Businesses

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Legend:
- % unskilled workers, out of all production workers
- % firms identifying labor regulations as a major constraint
- % firms identifying an inadequately educated workforce as a major constraint

Categories: World, Sub-Saharan Africa, South Asia, Eastern Europe & Central Asia, East Asia & Pacific, Middle East & North Africa, Latin America & Caribbean, High-income OECD

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Source: Enterprise Surveys, 2010

Value Added by Sector:
Service Sector is Growing Sharply

Value added by sector (% of total value added) in 2003 and 2013
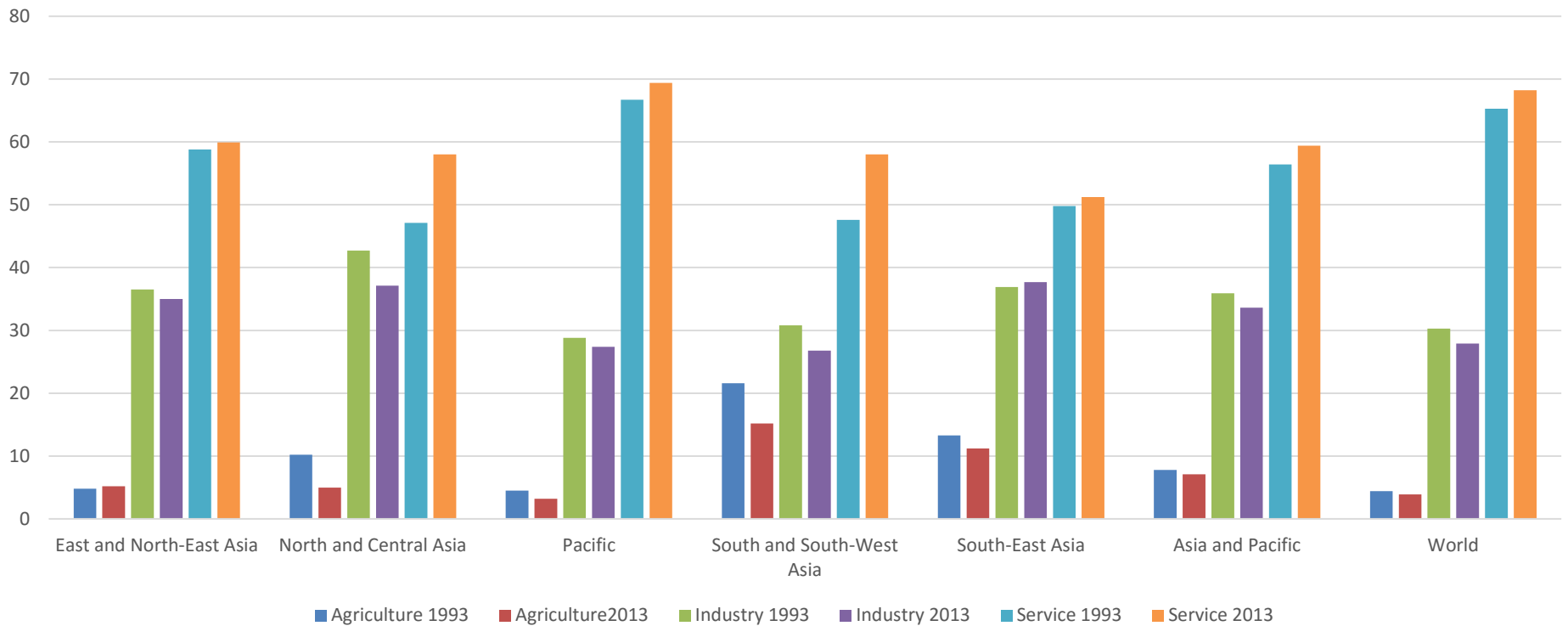
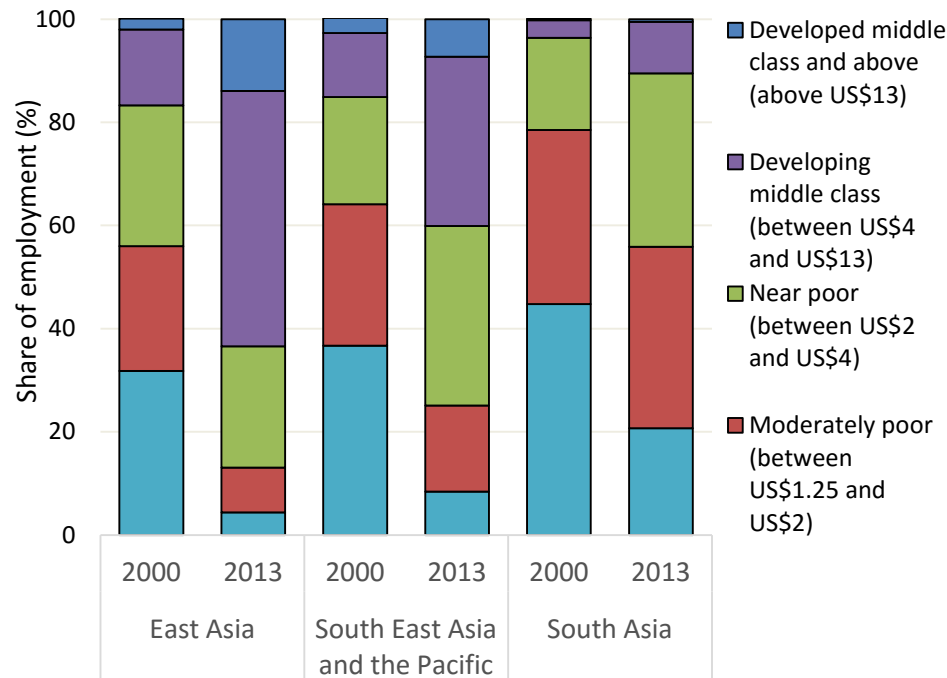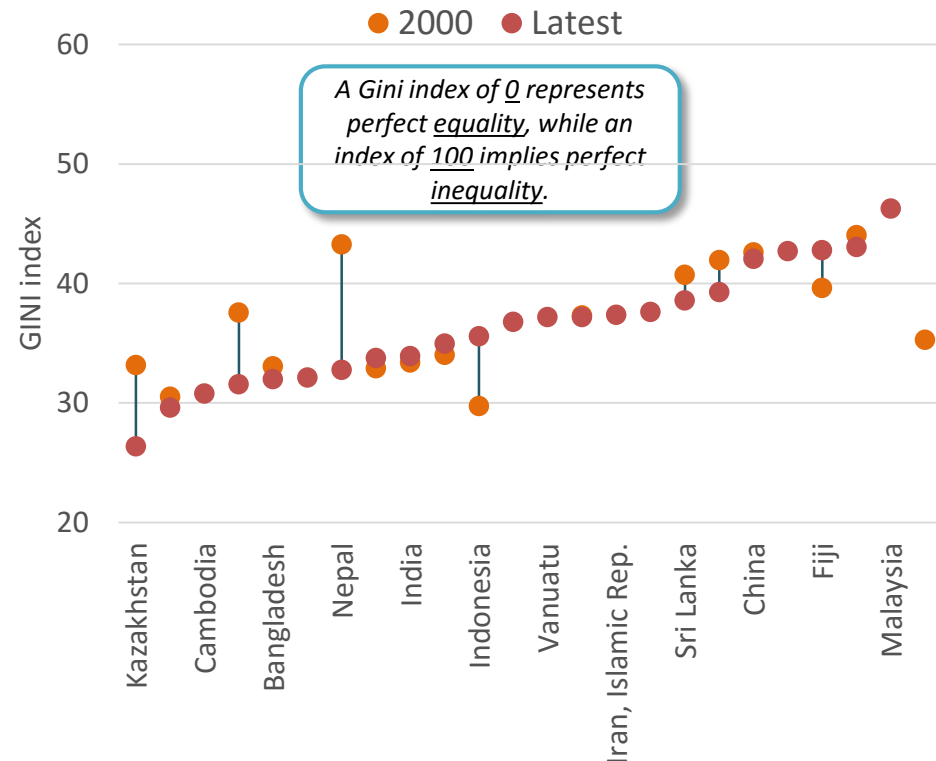Legend: Agriculture 1993, Agriculture2013, Industry 1993, Industry 2013, Service 1993, Service 2013

Categories: East and North-East Asia, North and Central Asia, Pacific, South and South-West Asia, South-East Asia, Asia and Pacific, World

Source: (UNESCAP, 2016)

In Asia Rising Middle Class but Inequality is still Prevalent

Share of employment by economic class*

- Developed middle class and above (above US$13)
- Developing middle class (between US$4 and US$13)
- Near poor (between US$2 and US$4)
- Moderately poor (between US$1.25 and US$2)

Source: *ILO, World Employment and Social Outlook 2015 database; **World Bank database , accessed in May 2016, adapted by UIS-AIMS, UNESCO Bangkok

GINI Index, in selected countries, 2000-2013

A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

*Note: **2000 data for Australia, Philippines and Nepal refer to 2003, Pakistan to 2001. 2013 data for Australia, Bangladesh, China, Indonesia, Nepal, and Pakistan to 2010.*

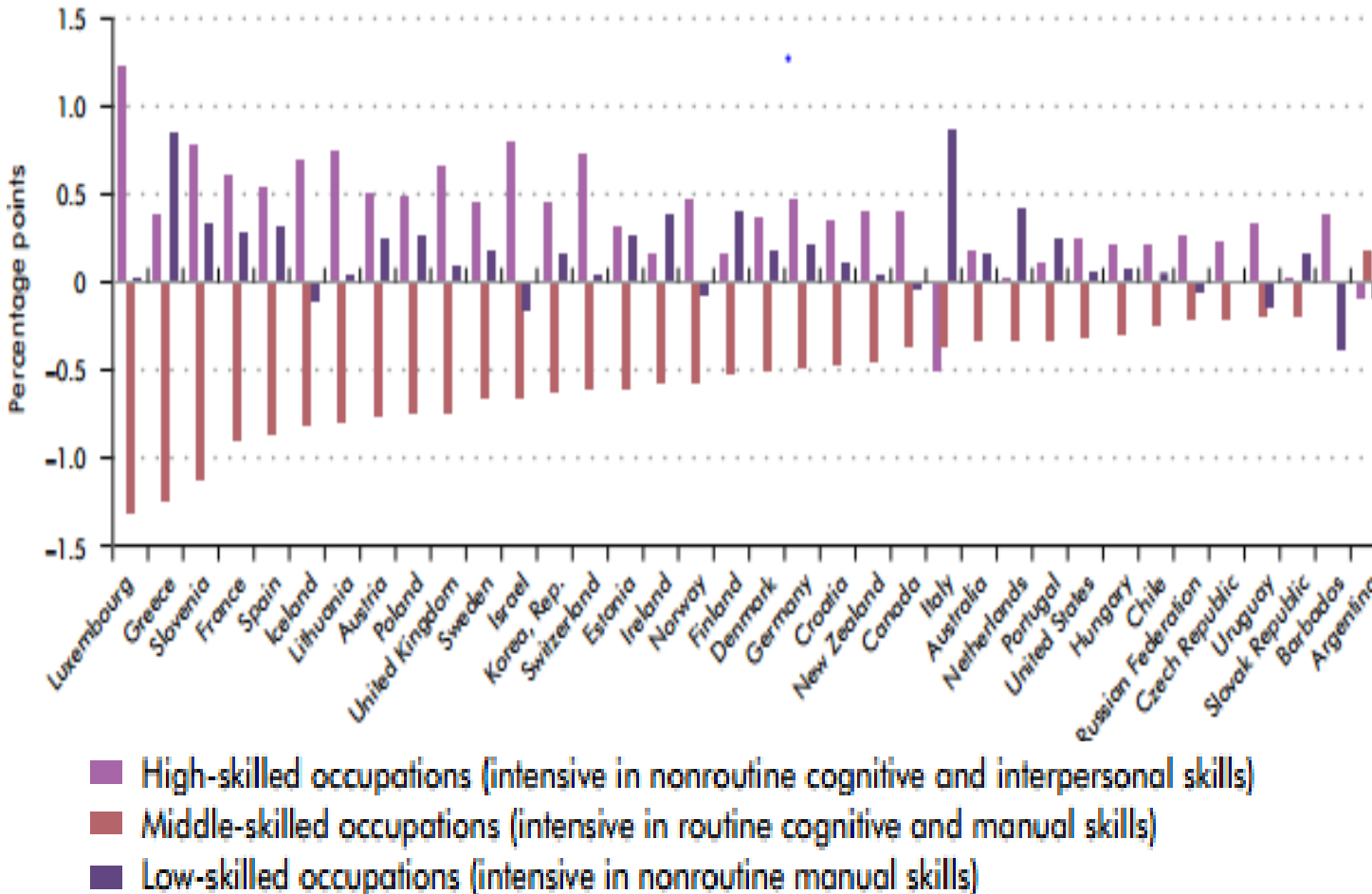- The share of 'extremely poor' has been reduced, while the proportion of 'developing middle class' has increased
- The GINI index has decreased in many countries in Asia-Pacific, but inequality is still prevalent

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Digitisation and Labor Market Polarisation

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a. High-income countries

Legend:
- High-skilled occupations (intensive in nonroutine cognitive and interpersonal skills)
- Middle-skilled occupations (intensive in routine cognitive and manual skills)
- Low-skilled occupations (intensive in nonroutine manual skills)

Y-axis: Percentage points

X-axis countries: Luxembourg, Greece, Slovenia, France, Spain, Iceland, Lithuania, Austria, Poland, United Kingdom, Sweden, Israel, Korea, Rep., Switzerland, Estonia, Ireland, Norway, Finland, Denmark, Germany, Croatia, New Zealand, Canada, Italy, Australia, Netherlands, Portugal, United States, Hungary, Chile, Russian Federation, Czech Republic, Uruguay, Slovak Republic, Barbados, Argentina

Technological advances can generate new **opportunities**, but also **risks**.

Many digitised economies face increasingly **polarized labor markets** and **rising inequality**.

Medium-skilled jobs can be at risk from automation.

Need to equip workers with **"new skills"** to meet demands of the new economy.
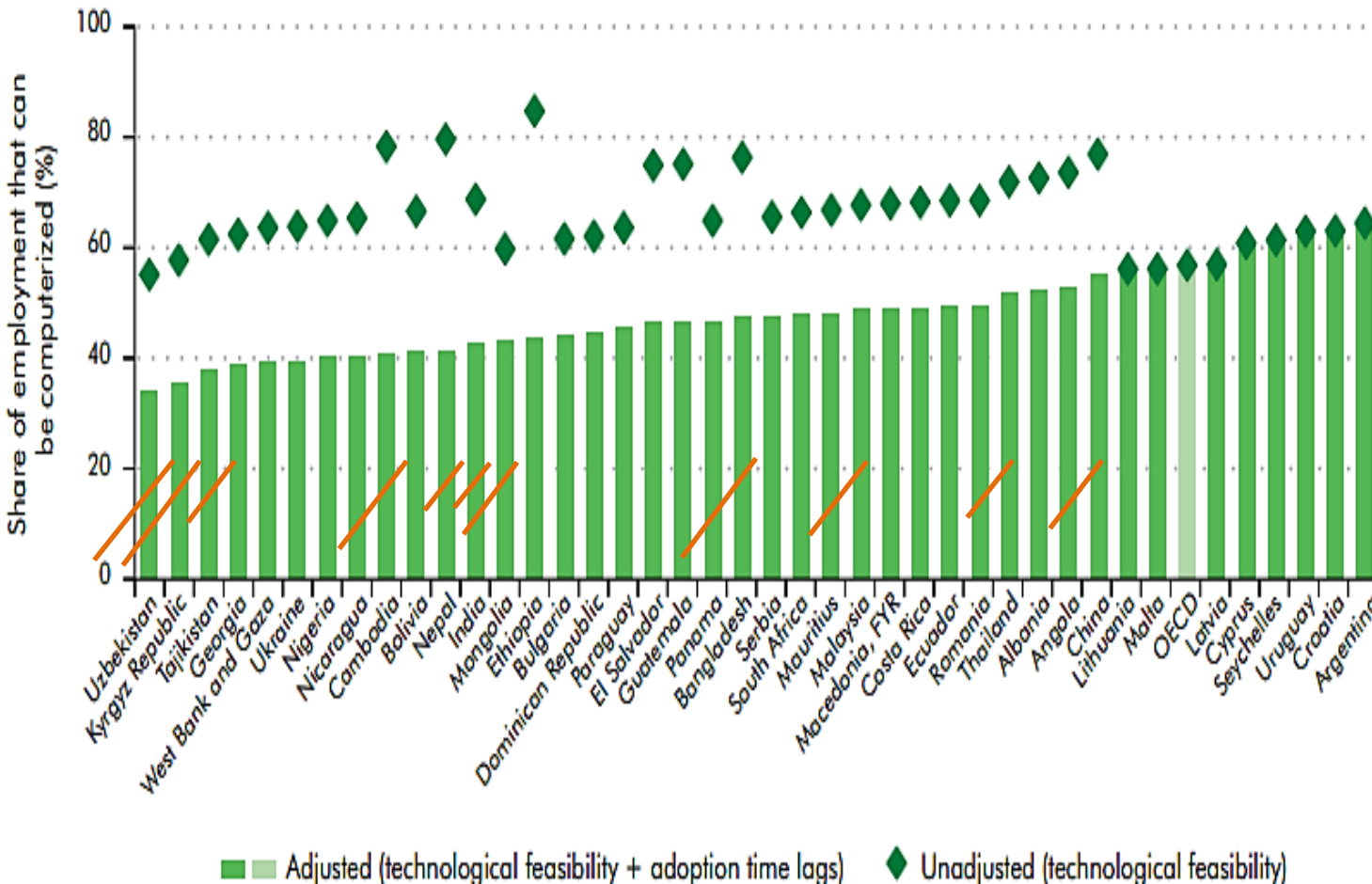
Digitisation and Labor Market Polarisation cont.

Estimated share of employment that is susceptible to automation (latest year)

Adjusted (technological feasibility + adoption time lags) ◆ **Unadjusted (technological feasibility)**

Technological advances can generate new **opportunities**, but also **risks**.

Many digitised economies face increasingly **polarized labor markets** and **rising inequality**.

Medium-skilled jobs can be at risk from automation.

Need to equip workers with **"new skills"** to meet demands of the new economy.

Source: WDR 2016 team. See figure 2.24 in the full Report for more details. Data at http://bit.do/WDR2016-FigO_18.

Source: World Development Report 2016: Digital Dividends

III. UNESCO'S STRATEGY FOR TVET

Changing the Role:
Three Analytical Lenses

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Transforming TVET

SUSTAINABILITY

Greening economies
Intergenerational rights
Global citizenship

Productivity
Employability
Employment
New modes of work

Redistribution
Inclusion

ECONOMIC GROWTH

SOCIAL EQUITY
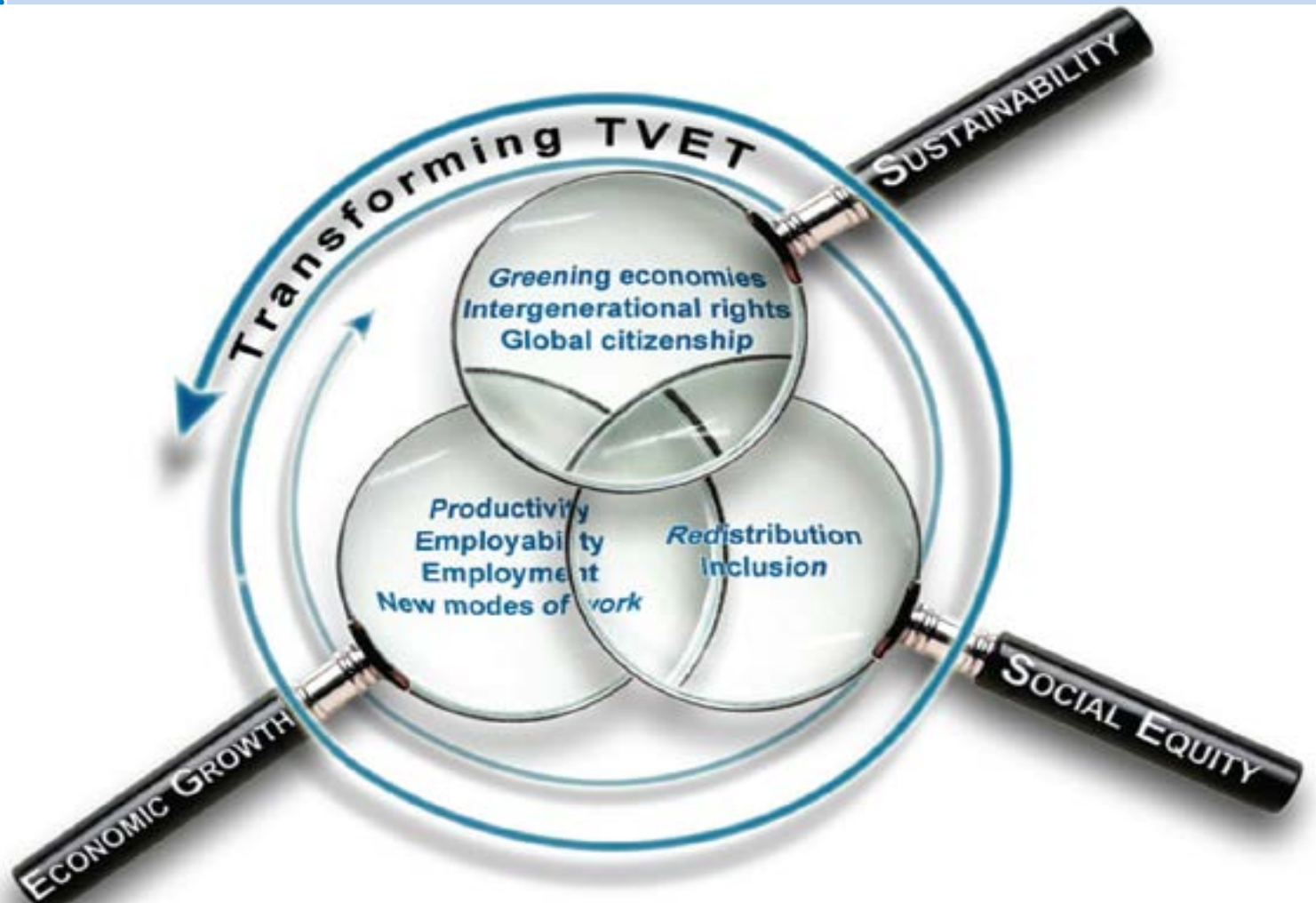
Source: Marope, M., Chakroun,B. & Holmes,K (2015)

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UNESCO: Setting the Norms and Standards in TVET

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Normative instruments

➢ Recommendation Concerning Technical and Vocational Education and Training (2015)

Reference Documents

➢ Transforming TVET: Building skills for work and life. The Shanghai Consensus (2012)

➢ Qingdao Declaration (2015)

UNESCO Strategy for TVET (2016 – 2021): Support the Efforts of Member States to Enhance the Relevance of Their TVET Systems

United Nations Educational, Scientific and Cultural Organization

Priority Areas

Fostering Youth Employment and Entrepreneurship

Promoting Equity and Gender Equality

Facilitating Transition to Green Economies and Sustainable Societies

Programmes

- Supporting policy reviews and policy development
- Promoting collaborative approaches and capacity building

- Promoting targeted policy measures for disadvantaged groups
- Enhancing women's and girls' access to relevant TVET and equal opportunities in the world of work

- Fostering cross-sectoral approaches of TVET
- Promoting green skills for smooth transition to greening economies
- Promoting skills for digitised economies and societies

Source: UNESCO Strategy for TVET (2016-2021) 37

UNESCO: Cross-cutting Issues in TVET

➢Anticipating demand for skills

➢Understanding mobilities and recognising skills and qualifications across borders

➢Monitoring and evaluating outcomes

IV. USING ICT IN TRANSFORMING TVET

Fostering Youth Employment and Entrepreneurship

Support Member States in Leveraging ICTs for youth employment and entrepreneurship

Provide support for initiatives that can :

➢ Significantly change the teachers' and learners' roles, practices and performance

➢ Improve access, equity, learning outcomes, employment and benefits to industry, the community, etc.

➢ Provide savings and efficiencies

➢ Are likely to be widely accepted, replicated and supported within the TVET system

Support Member States in Leveraging ICTs for enhancing access to TVET for disadvantaged groups, girls and women:

➢ Map learning strategies fostered by the use of ICTs impact special needs and disadvantaged students,

➢ Identify promising practices in addressing issues related to ICT use for special needs and disadvantaged students through teacher professional development activities,

➢ Examine the promising practices in using ICTs to attract and retain out-of-school and at-risk students (for example, through improved communication and provision of alternative modes of learning)

Anticipating Demand for Skills

➢ Conduct analysis regarding skills requirements for digitized economies and societies

➢ Making use of data analytics to enhance labour market intelligence

Supporting Mobility and Recognition of Skills and Qualifications

➤ Support student mobility and digitalization of learners records

➤ The future of Digital Student Data Portability

➤ Develop approaches for digitised skills passports

Monitoring and Evaluating Outcomes

➢Support Member States in developing TVET-MIS

➢Making use of data analytics to improve monitoring and evaluation of outcomes

Implementation Modalities

➢Leadership capacity development

➢Collaboration and networking particularly through UNEVOC Network

➢teaching staff Professional development

➢Mapping and sharing resources

➢Research and evaluation

Forthcoming Publications/Work

➢ *UNESCO-COL (forthcoming) - Using ICTs and blended learning in transforming TVET*

➢ *UNESCO (forthcoming) - Leveraging Digital Technology for Scaling-Up Work-Based Learning to Improve Employment and Entrepreneurship of Youth*

➢ *UNESCO (forthcoming) - Beyond Access: ICT-enhanced Innovative Pedagogy in TVET*

➢ *UNESCO-UNEVOC (forthcoming) - Using ICTs for TVET teacher training*

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World Bank. (2015). World Development Indicators 2015. Retrieved from http://data.worldbank.org/data-catalog/world-development-indicators/wdi-2015