EUROPEAN YEAR OF SKILLS

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European Training Foundation

SKILLS MISMATCH IN EU NEIGHBOURHOOD

MEASUREMENT, DETERMINANTS AND POLICY IMPLICATIONS

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SUMMARY

Measuring skills mismatch in the EU neighbourhood
What is the ETF evidence on skills mismatch?
How adequate/relevant is it today?
Which determinants for skills mismatch?
Who can be mismatched? What are the consequences?
Skills mismatch: the alternative policy lens

Framing the skills mismatch: What?/Why?/How?

Employing a *combination* of methods/metrics

And using *qualifications as proxies* for skills

Looking at *vertical/horizontal* mismatch

Based on Labour Force Surveys - *LFS data*

By *trading off* (inter)national taxonomies

And *aggregating* data into broad categories

Aiming at *harmonisation* and *comparability*

Splitting indicators: core/optional/desired

What kind of *indicators* do we use? Why? How long?

No indicator can solely capture the mismatch !

Core

Occupational (aka vertical)
Field of study (aka horizontal)
Over/Under-education
NEETs (contextual)
Unemployment rates (contextual)
Ratios (contextual)

Results available by age/sex/broad educational level/vet

Optional

Coefficient of variation
Variance of (un)employment rates
Duration of unemployment by educational attainment
Relative wages
Beveridge curve

MEASURING THE *HORIZONTAL / VERTICAL* SKILLS MISMATCH

DIMENSION	TYPE	DEFINITION	METHOD
Vertical	***Overeducation (overqualification)***	Worker´s level of education (**qualification**) exceeds the required level for the job (**occupation**)	Subjective Normative (refers to the level of skills (education) required to work in a specific occupation category Empirical (the statistical or realized matches method) using either the mean or the mode of education within a occupation category ; Job evaluation method
	Undereducation (underqualification)	Worker´s level of education (**qualification**) is lower than the required level for the job (**occupation**)	As above
	Overskilled	Worker´s level of education (**qualification**) exceeds the required level for the **job requirements**	Subjective (but rare to find datasets including questions such as “to what extent are your skills utilized in this work?”
	Underskilled	Worker´s level of education (**qualification**) is below the required level for the **job requirements**	As above
Horizontal	***Field of study to occupation mismatch***	The ***field of study*** does not match the ***occupational area*** of the job	Subjective (e.g. is your job matching your field of education?) Objective (using ISCO and ISCED-F codes)

SKILLS MISMATCH: WHAT DO WE KNOW SO FAR ?

Overqualified

Up to one in three adults

Up to 40% of youths are overskilled

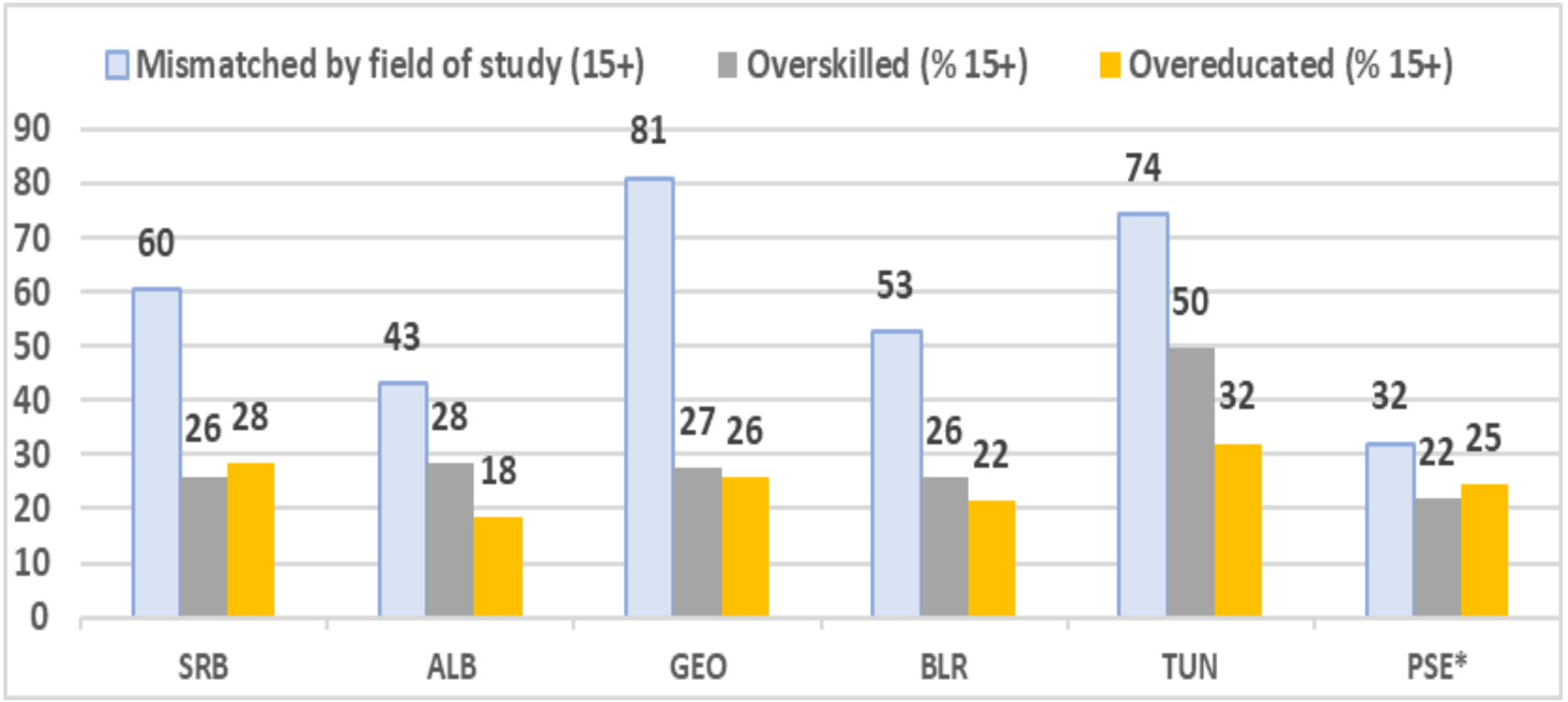
Mismatch by fields of studies

At least half of adults in most countries

VET graduates

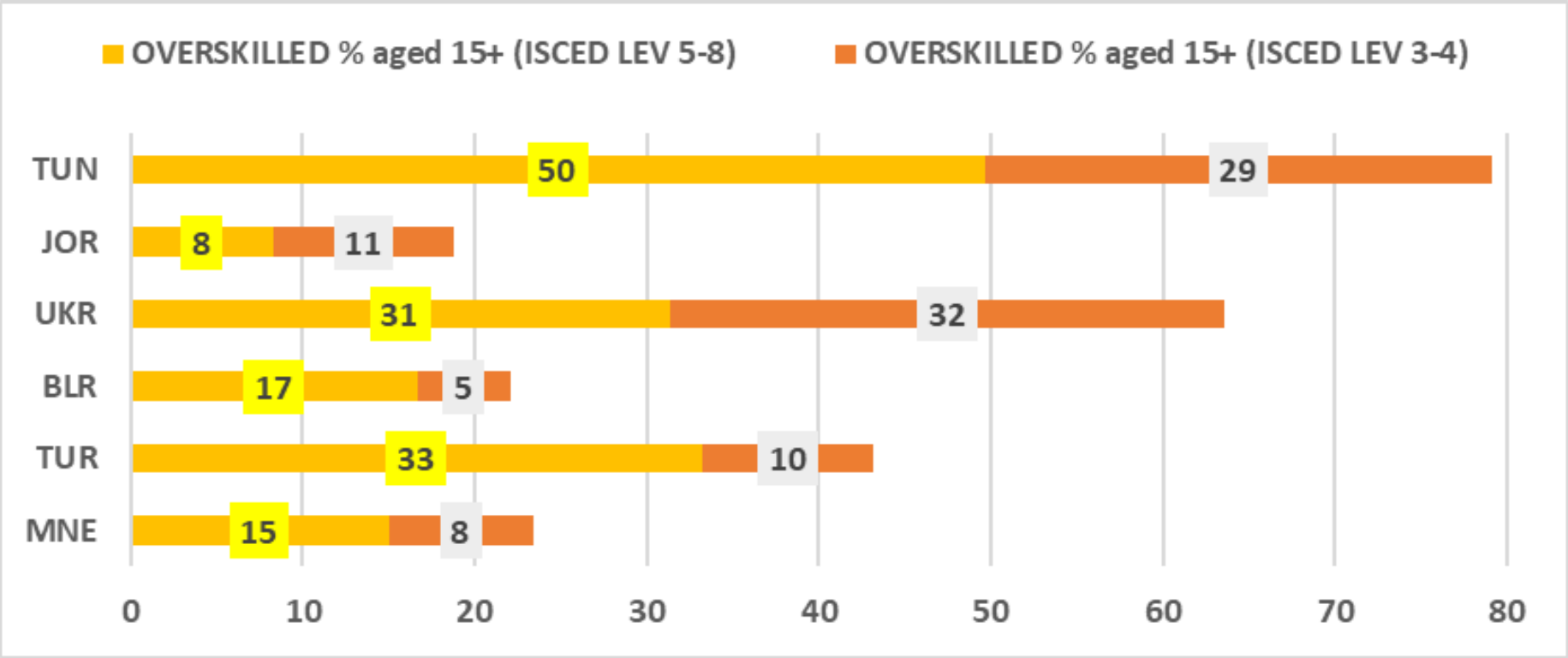
At least 1/3 are mismatched

Albania, Armenia, Belarus, Bosnia-Herzegovina, Egypt, Georgia, Jordan, Kosovo, Kyrgyzstan, Moldova, Montenegro, North Macedonia, Palestine*, Serbia, Tunisia, Turkey, Ukraine*



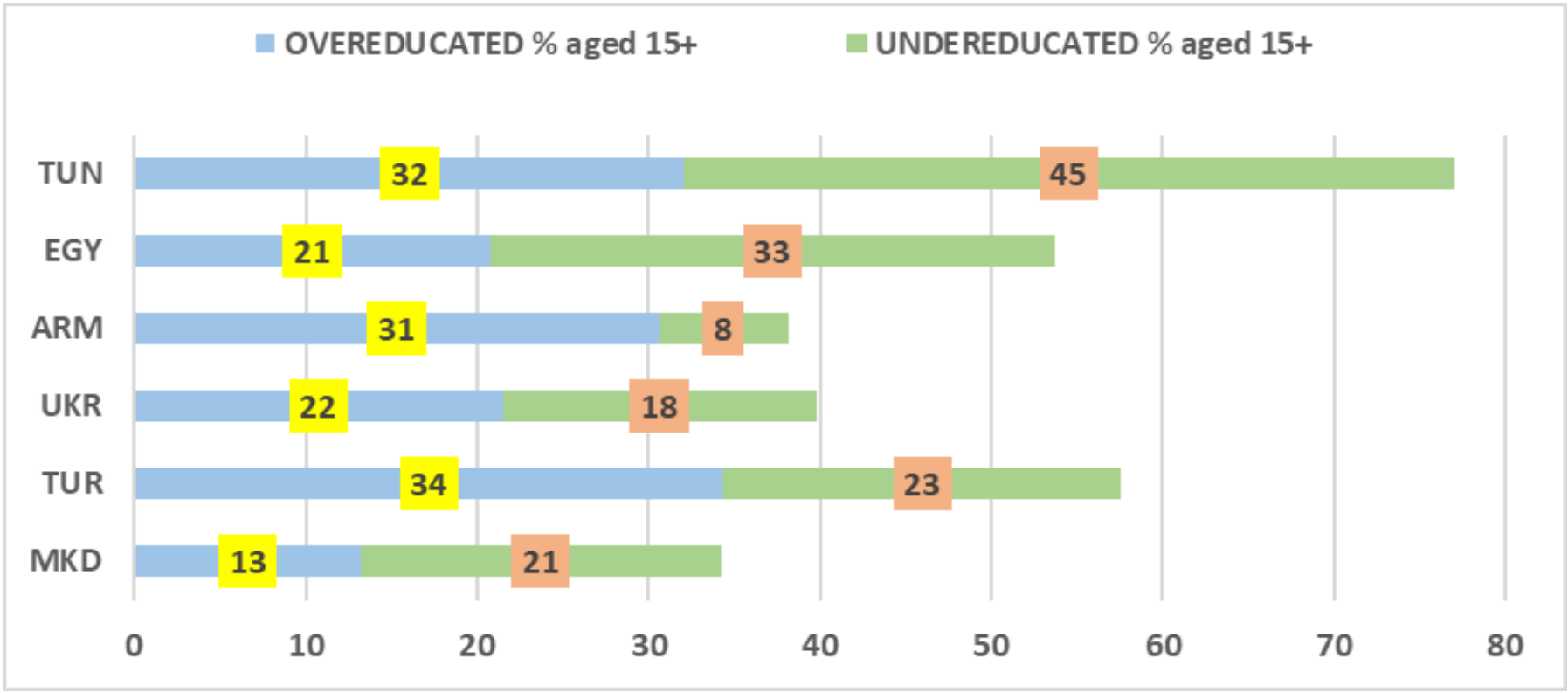
ETF DATA SHOWING A HIGH INCIDENCE OF MISMATCH IN ALL PARTNER COUNTRIES...

The overskilled individuals are those holding jobs requiring lower levels of their formal qualifications. Example for overskilled value in Serbia: one in four (26%) tertiary graduates (ISCED levels 5-8) were employed in semi-skilled occupations (ISCO-08 groups 4-8), usually requiring lower levels of formal qualifications. Overeducated individuals are those having a formal educational (ISCED) level which is above an identified value for a job/occupation in the country. The ETF estimations are based on a modal educational level in each occupational group in a country (i.e., the one identified most frequently), using the most detailed level information available (i.e. ISCO-08 1/2/3 digit-level data). Also known as the 'empirical method', the ETF definition is fully harmonised with ILO recommendations.



...WITH OVERSKILLING AFFECTING MOST WORKERS IN SOME COUNTRIES...

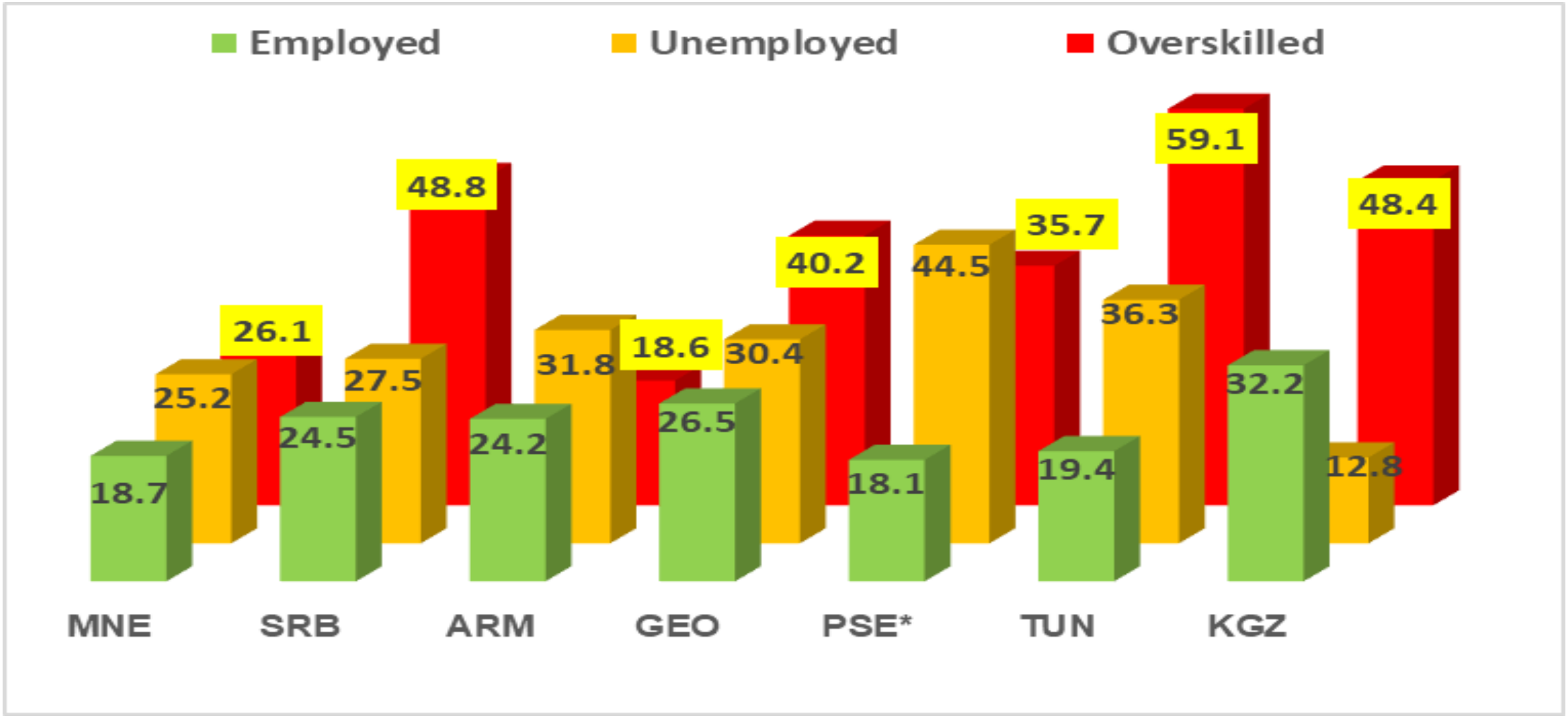
The overskilled individuals are those holding jobs requiring lower levels of their formal qualifications. Example for overskilled value in Türkiye: one in three (33%) tertiary graduates (ISCED levels 5-8) were employed in semi-skilled occupations (ISCO-08 groups 4-8), usually requiring lower levels of formal qualifications. Likewise, one in ten (10%) upper/post-secondary graduates (ISCED levels 3-4) were employed in elementary occupations (ISCO-08 group 9), usually requiring lower levels of formal qualifications. The ETF definition is fully harmonised with ILO recommendations.



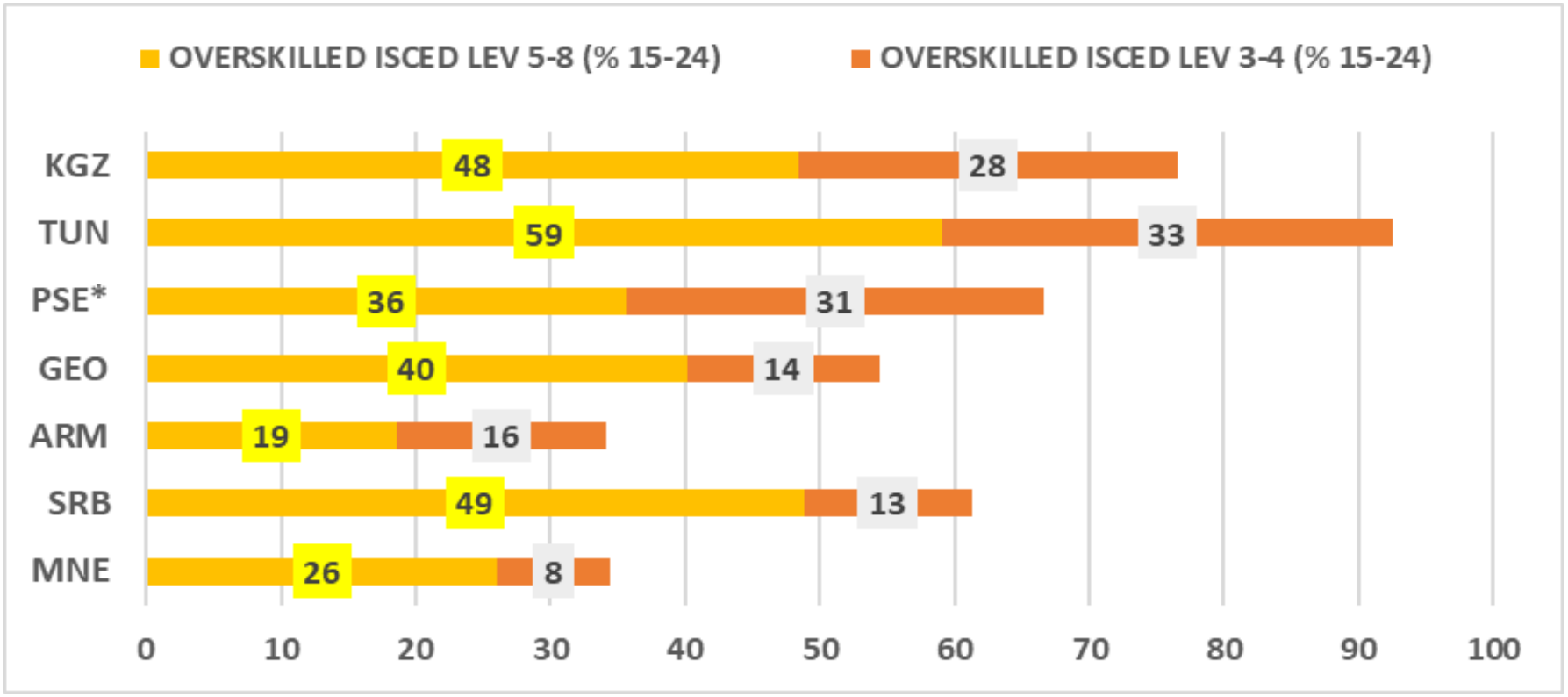
… & *OVER/UNDEREDUCATION ALSO AFFECTING WORKERS IN MOST COUNTRIES*

***Overeducated** individuals are those having a formal educational (ISCED) level which is above an identified value for a job/occupation in the country. Likewise, the undereducated are usually holding jobs for which the modal value in a job/occupation distribution in their country, is typically above their (ISCED) level of education. The ETF estimations are based on a modal educational level in each occupational group in a country (i.e. the one identified most frequently), using the most detailed level information available (i.e., ISCO-08 1/2/3 digit-level data). Also known as the 'empirical method', the ETF definition is fully harmonised with ILO recommendations.*

Starting work-life mismatched: a *sad reality* in ETF PCs



Source: ETF KIESE, Eurostat (2021 or latest)
Note: As a % of youth aged 15-24. Totals don't add up to 100 due to the various metrics used



...AND MOST YOUTH STARTING WORK-LIFE MISMATCHED IN MOST COUNTRIES...

The overskilled youth are those holding jobs requiring lower levels of their formal qualifications. Example for overskilled value in Serbia: half of recent tertiary graduates (ISCED levels 5-8) were employed in semi-skilled occupations (ISCO-08 groups 4-8), usually requiring lower levels of formal qualifications. Likewise, one in ten (13%) upper/post-secondary graduates (ISCED levels 3-4) were employed in elementary occupations (ISCO-08 group 9), usually requiring lower levels of formal qualifications. The ETF definition is fully harmonised with ILO recommendations.

WHAT DETERMINANTS FOR SKILLS MISMATCH ?

MISMATCH TYPE COVARIATES*	OCCUPATIONAL	OVER-EDUCATION	UNDER-EDUCATION	HORIZONTAL
AGE	Mixed evidence with older workers less likely mismatched	Decrease with age in most countries but GEO/PSE	Mixed findings, no clear patterns	Mixed findings, more likely in EGY/ALB/SRB, less likely elsewhere
GENDER	Mixed evidence with men more likely to be mismatched	Men are more likely over-educated in all cases but EGY/PSE	Men more likely to be under-educated in all cases but GEO/TUR	Women more likely in SRB/PSE, men likely elsewhere but EGY
FULL-TIME JOB	Workers holding full-time jobs less likely to be mismatched	Less likely in EGY/TUR not significant in all other countries	Less likely in all cases but for PSE/GEO	More likely in all cases but ARM/PSE
JOB TYPE	Workers holding a permanent job less likely mismatched	Mixed evidence, more likely for ARM/GEO & not likely in SRB/TUR	Less likely in all cases but PSE/GEO	More likely in all cases but ALB
FIRM SIZE	Mixed findings, no clear patterns, in line with the literature	Mixed findings, rather not likely in all cases but EGY	More likely only in GEO/PSE not likely in all other cases	Mixed findings, likely in EGY/SRB/GEO/TUR

ETF (forthcoming) ***Skills mismatch determinants in the ETF partner countries. A cross-country analysis***

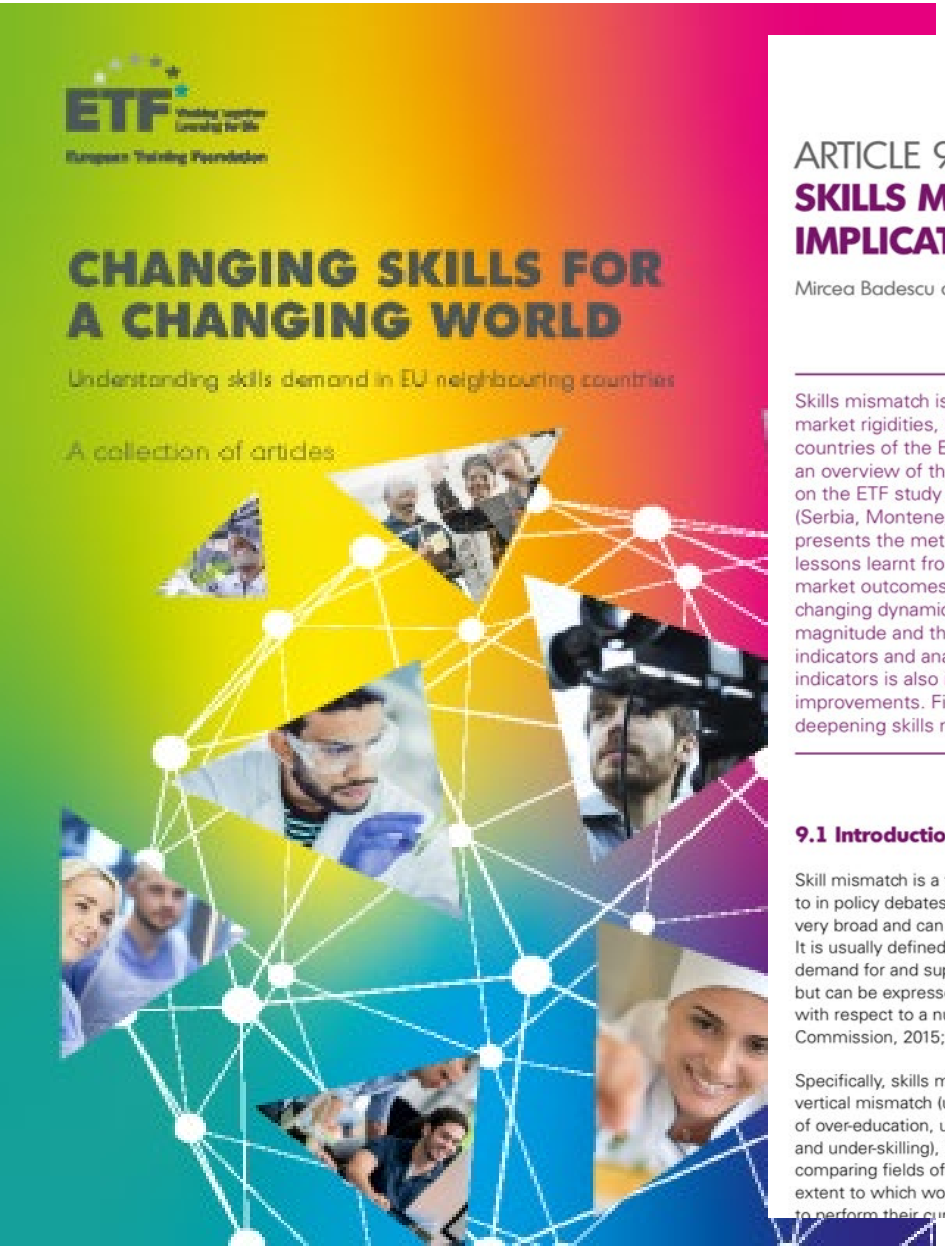
(*) Preliminary findings for Albania, Armenia, Egypt, Georgia, Palestine*, Serbia and Turkey

Skill mismatch: *alternative policy lens*

Conventional view	What about other evidence?
Skill shortages EU firms cannot find right skills Graduates are ill-prepared for changing world of work	
Skill mismatch: static Policies should aim to match skill supply with skill demand	
Activation: the low road Quick reintegration of jobless – 'work first'	
Lifelong learning: individual Individuals should be better informed, mobile, enhance employability	

Source: Cedefop

Useful references



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ARTICLE 9

SKILLS MISMATCH: MEASUREMENT AND POLICY IMPLICATIONS IN SELECTED COUNTRIES

Mircea Badescu and Cristina Mereuta

Skills mismatch is one of the explanations often given for high youth unemployment and labour market rigidities, but the exact extent of the problem is an unknown entity in the partner countries of the ETF. This article explains the concept and types of skill mismatch and provides an overview of the most promising methodologies for measuring mismatch quantitatively. Based on the ETF study skills mismatch calculation in 2017–18, carried out for seven partner countries (Serbia, Montenegro, North Macedonia, Moldova, Georgia, Egypt and Morocco), the article presents the methodological approach employed by the ETF, including the results, challenges and lessons learnt from its data collection and measurement process. The results show that labour market outcomes can be largely affected by skills mismatch, especially in the context of the changing dynamics of economies and societies. In order to measure and understand both the magnitude and the interrelatedness of the different forms of skills mismatch, a combination of indicators and analysis of results from different methods is required. A critical study of the various indicators is also included in this article, leading to suggestions for potential new methodological improvements. Finally, the article touches on the key policy implications for persistent or deepening skills mismatches.

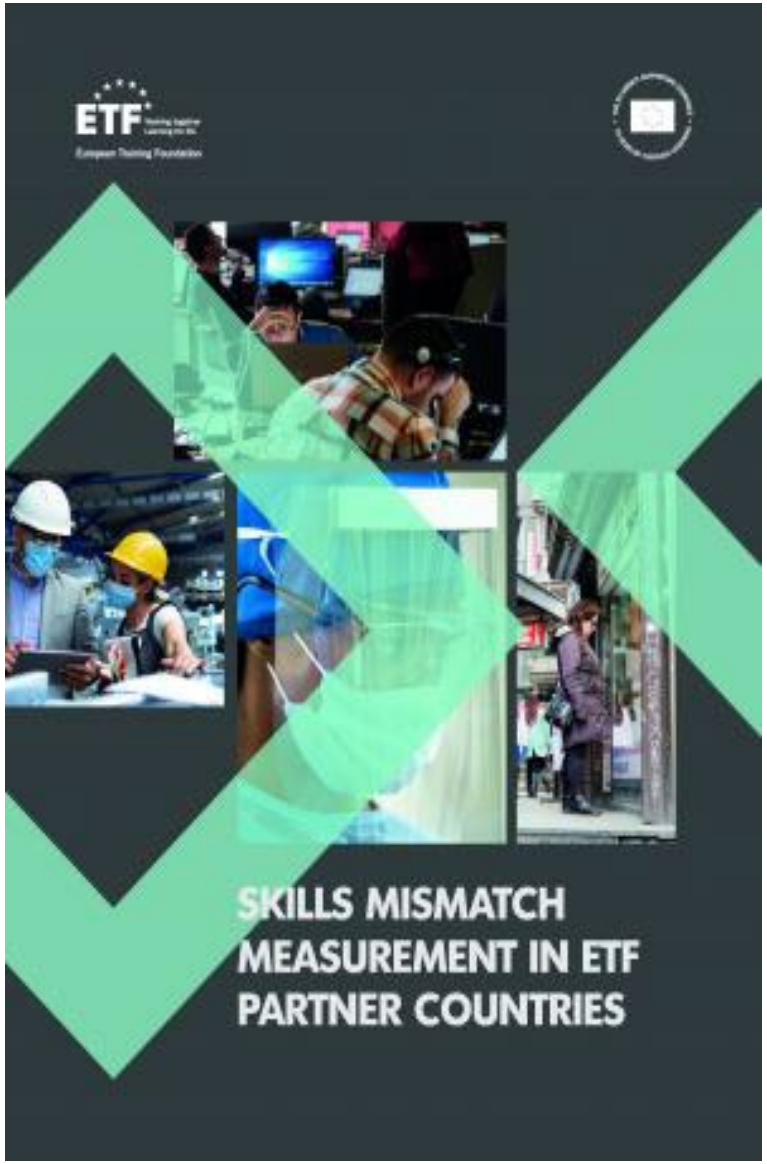
9.1 Introduction

Skill mismatch is a term that is frequently referred to in policy debates. However, the concept itself is very broad and can include a number of variations. It is usually defined as a discrepancy between the demand for and supply of skills in the labour market but can be expressed in many different forms and with respect to a number of dimensions (European Commission, 2015; Cedefop, 2015).

Specifically, skills mismatch can be used to describe vertical mismatch (usually measured in terms of over-education, under-education, over-skilling and under-skilling), horizontal mismatch (typically comparing fields of study and work), skills gaps (the extent to which workers lack the skills necessary to perform their current job), skills shortages

Skills mismatches are generally restricted to those impacting workers in employment or companies currently employing or seeking to hire workers. Many of the mismatch indicators adopted in the literature have a number of drawbacks, and various approaches used to measure the same type of mismatch are often poorly correlated. All of this suggests that the use of the term skills mismatch within a policy context is highly problematic.

Measures of mismatch can be most usefully subdivided into those that are gauged at the level of the individual's circumstances, and those that are assessed in terms of firm-level aggregates. Individual concepts of mismatch relate to the degree to which workers in firms possess skill or education levels that are above, below or poorly connected to the requirements of their current job.



Cross country event on skills mismatch | ETF (europa.eu)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