



TORINO PROCESS SYSTEM MONITORING REPORT: UKRAINE (2023)



TABLE OF CONTENTS

ACKNOWLEDGEMENTS	3
KEY TAKEAWAYS	4
1. INTRODUCTION	6
1.1 FOCUS AND SCOPE OF MONITORING	_
2. MONITORING RESULTS: UKRAINE	8
2.1 POLICY AND SYSTEM PERFORMANCE IN 2023: OVERALL RESULTS	10
2.2.1 Area A. Opportunities for lifelong learning: access and participation	
2.2.2 Area B (1). Lifelong learning outcomes: quality and relevance	15
2.3 HOW DID POLICIES AND SYSTEMS BENEFIT SPECIFIC GROUPS OF LEARNERS?	19
2.3.1 Female learners	
2.3.3 Populations who are long-term unemployed, economically inactive, and have low educational attainment	21
3. VET IN TIMES OF WAR: IMPACT AND MEASURES IN SUPPORT OF ITS RESILIENCE A	ND
RECOVERY	23
3.1 Martial law and international response to the war	
3.2 IMPACT OF THE WAR ON VET	25
3.3 VET SECTOR RESPONSES	
3.3.1 New priorities, rules, and regulations	
3.3.2 Specific measures: access and participation	
3.3.4 Specific measures: system management and organisation	
3.4 PROSPECTS FOR THE RECOVERY OF VET IN UKRAINE	
4. SUPPLEMENTARY SOURCES AND INFORMATION	39
4.1 LINKS TO BACKGROUND INFORMATION AND DATA	39
4.2 DEFINITIONS, TERMINOLOGICAL CLARIFICATIONS, METHODOLOGICAL LIMITATIONS	
4.2.1 Definitions and terminological clarifications	

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This monitoring report was prepared by a team led by Mihaylo Milovanovitch, Senior Human Capital Development Expert and Coordinator for System Change and Lifelong Learning at the ETF with key contributions by Ms Olena Lokshyna as national Torino Process expert for Ukraine. The report follows a proprietary monitoring methodology developed by the same team and is based on evidence collected, processed, analysed, and verified by the ETF and by national authorities in Ukraine.

KEY TAKEAWAYS

- Scope of system performance monitoring: The Torino Process monitoring covers three major areas of commitment to lifelong learners: access to learning (Area A), quality of learning (Area B), and system organisation (Area C). These areas are divided into eight monitoring dimensions: access and participation in Area A; quality, relevance, excellence, and innovation in Area B; and system management/administration and resources in Area C. In addition, the monitoring of Ukraine also covers the impact of the Russian invasion on VET policy and system performance in the period February 2022 April 2023, and the policies and prospects of development in response to that impact.
- Access and attractiveness: The monitoring results suggest that the VET system could do better
 in supporting lifelong learning, especially through the IVET subsystem. Access to initial VET
 programs and their attractiveness remain a challenge, but Ukraine outperforms other countries in
 access to CVET and to other learning opportunities for adults beyond VET. A range of new
 measures have been introduced to that end at are expected to gain traction over the next years.
- Quality and participation: The VET system offers limited permeability between learning pathways, and graduation from VET which would allow for progression and a successful transition may be out of reach for many students in VET, more so than in other countries participating in the Torino Process. Nevertheless, VET in Ukraine performs better than other countries in providing good quality learning and training to youth. Still, adults and adult learners in Ukraine dispose more than their peers in other countries and more than young learners of the basic skills and competencies commonly conceptualised as essential.
- Relevance and labour market outcomes: Employability of young and adult VET graduates in Ukraine remains modest, and the links to the labour market of learning opportunities they are offered could be stronger. Although Ukraine has policies for on-the-job training, more progress in this aspect is essential for a smooth and efficient transition from learning to employment. At the same time Ukraine is doing rather well with the incorporation of themes concerning the green and digital transitions into the curricula, but responsiveness of the program offering to labour market developments and demands is only average in terms of performance scores. Disadvantaged learners struggle to gain basic skills required for the labour market.
- Excellence and innovation: Ukraine's VET system performs relatively well in promoting
 excellence in program content and implementation, but it lags in promoting excellence in pedagogy
 and the professional development of teachers and trainers. The VET system is also committed to
 innovation and successful at innovating, but the benefits of innovation are yet to reach VET learners
 across the system.
- System management and organisation: Participatory governance stands out as a domain of system operation which participants in VET describe as performing at a satisfactory level. Financial and material resources allocated to VET are relatively high in international comparison, but problems with the adequacy of teaching and learning materials and infrastructural investment seem to be a bigger challenge than the sheer amount of resources allocated to VET.
- Quality and reliability of monitoring evidence: The monitoring results of Ukraine are somewhat
 more internationally comparable than those of other countries, on average, but they are also more
 susceptible to bias in international comparison. Ukraine tends to be somewhat more self-critical

about the performance of its VET system than other countries participating in the Torino Process monitoring.

- Impact of the war on VET in Ukraine: The Russian war against Ukraine has had far-reaching
 consequences for the Ukrainian VET system. These include civilian casualties, internal
 displacement, economic decline, and challenges for the VET infrastructure and workforce. Many
 VET facilities have been destroyed or damaged, resources repurposed, and staff affected by
 relocation and conscription.
- VET sector responses to the war: The VET sector in Ukraine has responded to the war's impact with a range of measures and initiatives to ensure the resilience and innovation of the system under war conditions and align it with European integration goals. The priorities include creating a safe educational environment, guaranteeing access to VET for all applicants, assuring learning participation and graduation, enhancing the employability of the unemployed, improving the quality of education, and aligning graduates' skills with market demands.

Efforts to support access include streamlining the procedure for regional training directives and allowing individuals to obtain professional qualifications at any point in their lives. The digital transformation of VET has been accelerated with the launch of an online learning platform and the provision of electronic textbooks.

To support participation and graduation, an internal academic mobility program allows students to continue their training at partner institutions. State-standard VET documents are issued to graduates in conflict-affected areas and those residing abroad. Initiatives have been introduced to support the employability of the unemployed, including vocational training programs and expanded voucher eligibility.

In terms of quality and relevance, the dual education system has been expanded to align graduates' skills with employer needs. Qualification centres have been established to assess and recognize learning outcomes, and efforts have been made to harmonize the national qualifications system with international standards.

System management and organization have been addressed through the implementation of the electronic VET management system (EMIS) to improve data management. Safety measures have been implemented in VET institutions, including equipping civil defence facilities. The internationalization of VET is a priority, with efforts to synchronize the Ukrainian National Qualifications Framework (NQF) with the European Qualifications Framework (EQF). Furthermore, Centers of Vocational Excellence, funded by the European Investment Bank, aim to enhance the learning environment, and expand educational services.

• Prospects for the recovery of VET in Ukraine: The prospects for VET recovery in Ukraine involve a comprehensive reform that focuses on human capital development. Guided by the Conceptual Framework for the Development of Human Capital in VET, the reform aims to support the country's reconstruction and European integration. Key objectives include modernizing VET content, strengthening institutional capacities, and creating a new network of high-tech and inclusive VET institutions. For 2023-2024, the goals include restoring VET infrastructure, aligning education with regional labour markets, digitalizing VET through distance learning platforms, and promoting VET and working professions through communication campaigns and career counselling. In conclusion, despite the war the VET system of Ukraine continues its reform in alignment with its new mission the development of human capital for the purpose of rebuilding Ukraine and integrating it into the EU.

1. INTRODUCTION

1.1 Focus and scope of monitoring

This report summarises the results of monitoring VET system performance in Ukraine, initiated in the context of the Torino Process in 2022 and completed in 2023.¹ "Performance" describes the extent to which the VET system delivers against a targeted selection of national and international obligations (commitments) to learners and other stakeholders in support of learning through life (lifelong learning - LLL). "VET system"² refers to the network of institutions, people, policies, practices, resources, and methodologies in a country and the way in which they are organised to provide individuals of any age with the practical skills, knowledge, and competencies needed for specific occupations, trades, or professions.

The focus of monitoring is on the contribution of initial and continuing VET (IVET and CVET) to the learning activities of youth and adults in any learning setting (formal and non-formal), undertaken to improve their knowledge, skills, competences, and qualifications for personal, social and/or professional reasons. The monitoring of Ukraine also covers the impact of the Russian invasion on VET policy and system performance in the period February 2022 - April 2023. The purpose of monitoring is to provide decision-makers, practitioners, donors, and stakeholders with a reliable basis for informed decisions about policy improvement, resource allocation, strategy design, and follow-up actions in support of lifelong learning in Ukraine in the aftermath of the war.

The monitoring framework which underpins this report covers three major areas of commitment to lifelong learners: access to learning (Area A), quality of learning (Area B), and system organisation (Area C). These areas are divided into eight monitoring dimensions: access and participation in Area A; quality, relevance, excellence, and innovation in Area B; and system management/administration and resources in Area C. Within these areas and their dimensions, the Torino Process tracks a total of 30 system deliverables (outcomes)³ - the extent to which they are being delivered and how equitably they are distributed to thirteen groups of learners according to age, gender, socio-economic background, labour market and migration status, and typical learning setting.

The monitoring provides information in the form of a system performance index (SPI) for each of these outcomes and the learner groups they serve to a total of 82 indices.⁴ The indices describe VET system performance in Ukraine in formal and non-formal learning settings for youth and adults, females and males, disadvantaged learners, long-term unemployed jobseekers, economically inactive populations, and first-generation migrants. The indices include also an international average score⁵ for reference purposes.

This monitoring report showcases a selection of key monitoring results based on the 82 SPIs of Ukraine, as follows: overall performance by broad monitoring dimension (Section 2.1), performance by

¹ The Torino Process is a multiannual review of vocational education and training (VET) in countries in East and South-East Europe (including Turkey), Central Asia, and the South and East Mediterranean region, which the ETF is carrying out in partnership with countries in these regions on a regular basis since 2010. For more information see https://www.etf.europa.eu/en/what-we-do/torino-process-policy-analysis-and-progress-monitoring

² This report may use "VET", "VET system", and "system" interchangeably.

³ Further in the report "outcomes" and "deliverables" are used interchangeably.

⁴ In rare cases where both qualitative and quantitative evidence is missing, the number of SPIs for a country can be lower.

⁵ "International average" refers to the average for countries participating in the Torino Process. At the time of preparation of this monitoring report, the evidence collection for some countries was still ongoing. As additional countries complete the monitoring exercise, the international averages shown in this report may change.

specific area and system deliverable (Section 2.2 and subsections), and performance in support of specific groups of learners (Section 2.3).

The impact of the war on VET providers and learners in Ukraine, and the efforts of national and regional authorities to remedy that impact and plan for the post-war future of the country are documented in the third section of this report. The fourth and final section provides an overview of methodological limitations, links to the data used for calculation of the performance indices for Ukraine, and links to the Torino Process technical report which describes the monitoring framework and how the monitoring data was collected and processed.

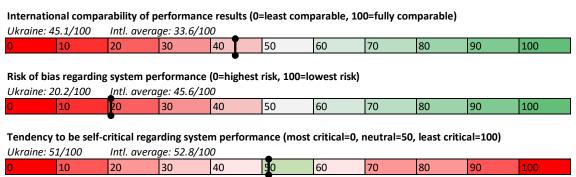
1.2 Evidence collection, and comparability and reliability of monitoring data

The evidence for this monitoring report was collected and analysed in several steps from September 2022 until April 2023. After an initial round of collecting internationally comparable indicators for each of the system outcomes and learner groups covered by the monitoring framework, the ETF compiled a supplementary questionnaire for national authorities and stakeholders in Ukraine to gather information about outcomes and groups of learners for which such indicators were missing. The responses to the questionnaire were quantified and integrated with the rest of the monitoring data into a repository of mixed evidence, which was then used to calculate the system performance indices presented in this report.

To account for the particular situation of Ukraine as a country defending itself in a war of aggression, national authorities and the Torino Process team supported by a national expert embarked on the preparation of a supplementary chapter, which documents the impact of the war on VET in Ukraine and the policy responses of authorities to that impact. The chapter was compiled in April 2023 and was vetted by national authorities as accurate and detailed enough to be included in this monitoring report.

In addition to messages about system performance and war impact and war-related remedies, the monitoring delivers information about the international comparability of results of each country, the extent to which these results may be susceptible to bias, and how self-critical a country is when it reports about its policy and system performance for external monitoring purposes. This is possible because the monitoring methodology foresees the keeping of accurate records about the availability, origin and type of evidence used to calculate the 82 performance indices and corresponding results for each country, including Ukraine. The results are shown in Figure 1.

FIGURE 1. COMPARABILITY AND CONSISTENCY OF MONITORING RESULTS: UKRAINE (2023)



The evidence suggests that the monitoring results of Ukraine are more internationally comparable than those of other countries, on average, but they are also more susceptible to bias in international

comparison. Ukraine, however, tends to be somewhat more self-critical about the performance of its VET system than other countries participating in the Torino Process monitoring.

2. MONITORING RESULTS: UKRAINE

2.1 Policy and system performance in 2023: overall results

The Torino Process monitoring draws on multiple, often disparate, information sources and data. To facilitate a quick, efficient, and focused communication of key messages despite the diversity of information collected, the reporting of monitoring results aggregates the evidence in ways which facilitate a quick overview of system performance without sacrificing too much detail.

The eight monitoring dimensions mentioned in the previous section are the top layer of reporting in this respect. They capture VET system performance in various domains, the selection of which is aligned with national and international country commitments and reform and development priorities concerning learning. These eight dimensions are described as follows:

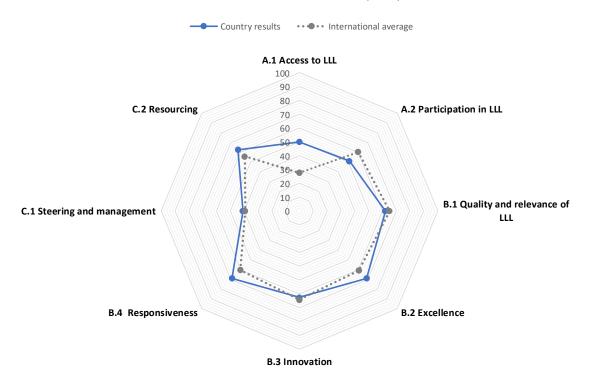
TABLE 1. DIMENSIONS OF POLICY AND SYSTEM PERFORMANCE MONITORING THROUGH
THE TORINO PROCESS

No.	Dimension	Description
1	Access to learning	This dimension captures the degree to which initial VET (IVET), continuing VET (CVET), and other adult learning opportunities to which VET could contribute, are accessible and attractive for learners irrespective of who they are and why they wish to engage in learning.
2	Participation in learning	This dimension captures the likelihood of VET learners to survive and thrive in the education and training system by looking at its vertical and horizontal permeability, that is whether learners can switch between general and vocational pathways and between formal and non-formal learning, as well as whether they complete their learning.
3	Quality and relevance	This dimension captures the extent to which learners in IVET and CVET are provided with basic skills and key competences, whether their learning has exposure to, and is relevant for, employment, and also whether they are provided with adequate career guidance.
4	Excellence	This dimension captures the presence of system-wide policies and measures to promote highest quality practices and results in teaching and training, content design and provision, governance and VET provider management, and equity and social inclusion.
5	Innovation	This dimension captures the presence of innovative practices and priorities on system level in the areas of access to learning, support for successful completion of learning, and quality of learning and training outcomes.
6	VET system responsiveness	This dimension captures the extent to which curricula for youth and adults consider themes of significance for sustainability, climate change awareness, and digitalisation, as well as whether the IVET and CVET systems are responsive to labour market needs, demographic changes, and socioeconomic developments.
7	Steering and management	This dimension captures the availability of evidence for informed decision-making, the degree to which governance of VET is participatory, the presence and transparency of quality assurance arrangements, the quality and capacity of staff in leadership positions, and the degree of internationalisation of IVET and CVET.
8	Resourcing	This dimension captures the adequacy and efficiency of human and financial resources in IVET and CVET, and the extent to which the material base for learning and training is adequate, that is – conducive to effective teaching, training, and learning.

This section of the monitoring report presents the system performance of Ukraine in the eight dimensions of monitoring and system performance.

The findings suggest that in terms of overall performance, lifelong learners in the country are likely to benefit from education and training which prioritizes the promotion of excellence across the VET system (Dimension B.2). With an SPI of 69 versus 61 for the international average, Ukraine outperforms other countries by some margin in this dimension of performance. The VET system of Ukraine is also considerably more open to change in response to external developments and needs, such as those coming from the labour market (Dimension B.4), and it is on par with other countries in terms of openness to innovation for better quality, relevance, and access to VET (Outcome B.3). Ukraine performs somewhat better than other countries also with respect to the human and financial resources it invests in VET: although there are shortages, they do not seem to affect VET quite as much as they do in other countries participating in the Torino Process (Dimension C.2).

FIGURE 2. INDEX OF SYSTEM PERFORMANCE BY MONITORING DIMENSION, UKRAINE AND INTERNATIONAL AVERAGE (2023)



Theoretical⁶ index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

However, at the time of monitoring the benefits of excellence, innovation, and resourcing did not seem to reach a critical mass of lifelong learners yet – the quality and relevance of learning provided

⁶ The Torino Process makes a distinction between theoretical index range and index range used for reporting purposes. For reporting purposes, rare instances of extreme values on the low end (SPI < 10) and on the high end (SPI>90) of the index scale are truncated at the upper (10) and lower (90) decile end. This means that the reporting does not discriminate SPI values below 10 and above 90.

through VET and other avenues of learning for adults was lower than in other participating countries, on average (Dimension B.1).

Perhaps because of these positive features, VET in Ukraine appears to be a considerably more attractive option for prospective learners than it is in other countries, on average (Dimension A.1), but with an SPI of 50, VET access and attractiveness (Dimension A.1) are still the second lowest domain of policy and system performance in the country.

Learners who nevertheless manage to join a learning opportunity through VET are not guaranteed to also participate in that learning successfully, as the completion of their learning and especially the transition to another learning opportunity may pose a challenge. In fact, participation in VET (Dimension A.2), understood as the likelihood of learners in VET to progress to other levels and pathways in education and to graduate successfully, is the domain where the VET system of Ukraine shows weaknesses as well (SPI of 51), both compared to the other dimensions of monitoring and in international comparison, with the average international score reaching an SPI of 60.

These systemic weaknesses are aligned with weaker results in the dimensions of management and resourcing of IVET and CVET in Ukraine (Dimensions C.1 and C.2). With SPI of 41, steering and management are the weakest domain of performance, which may suggest deeper challenges with the quality of leadership of VET providers, the management of institutions, and/or the overall steering of the system on different levels of governance.

2.2 Policy and system performance in specific areas of monitoring and against specific outcomes

VET performance in Ukraine in the eight monitoring dimensions presented above is driven by 30 policy and system outcomes. It is through these outcomes that the IVET and CVET subsystems work to meet the needs and expectations of stakeholders, particularly of youth and adult learners. This section of the monitoring report presents findings about system performance on the level of these deliverables.

To facilitate reading and the navigation of content, the section groups the presentation of the 30 outcomes by the three major areas of commitment to learners, which were introduced in the first section of this report: access to learning (Area A), quality of learning (Area B), and system organisation (Area C). Reporting in Area B, the largest by the number of outcomes, is divided into B (1) and B (2).

2.2.1 Area A. Opportunities for lifelong learning: access and participation

In Area A (Access and participation in opportunities for LLL), the Torino Process tracks the first two of the monitoring dimensions presented in Section 2.1 – access/attractiveness and participation, with a total of six system outcomes. These outcomes include access to IVET, CVET, and other opportunities for lifelong learning, the vertical and horizontal permeability of the VET system, as well as the prospects of learners in IVET and CVET to graduate and - where relevant – progress to subsequent levels of education and training. The outcomes included under Area A are described in Table 2.

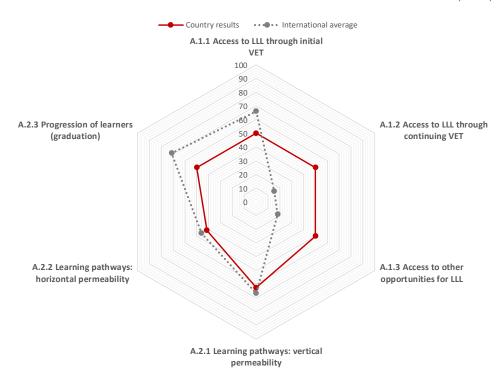
The VET system of Ukraine performs at an average level with the delivery of the six outcomes included under Monitoring Area A (Figure 3). Despite some variations in performance between outcomes, the results in this area indicate that both the IVET and CVET subsystems could do more to support lifelong learning, especially the CVET subsystem as its contribution to lifelong learning is weaker than that of IVET.

TABLE 2. POLICY AND SYSTEM OUTCOMES INCLUDED UNDER MONITORING AREA A: ACCESS AND PARTICIPATION

Code	Deliverable (outcome)	Description
A.1.1	Access and attractiveness: initial VET	This outcome captures the degree to which initial VET is an attractive educational choice in comparison with other learning alternatives, and whether that choice is accessible to various target groups of learners.
A.1.2	Access and attractiveness: continuing VET	This outcome captures the degree to which continuing VET is an attractive choice in comparison with other skills development alternatives, as well as whether that choice is accessible to various target groups
A.1.3	Access to other opportunities for LLL	This outcome captures access to other opportunities for lifelong learning not covered by outcomes A.1.1 and A.1.2 and VET, such as active labour market policies (ALMPs)
A.2.1	Flexible pathways: vertical permeability	This outcome strives to capture the vertical permeability of the education and training system vis-à-vis initial and continuing VET, understood as possibility for transition between consecutive tracks of education and training (general and vocational).
A.2.2	Flexible pathways: horizontal permeability	This outcome strives to capture the horizontal permeability of the education and training system vis-à-vis initial and continuing VET, understood as the possibility for transition between parallel tracks of education and training (general and vocational), and between formal and non-formal learning settings
A.2.3	Progression and graduation of learners	This outcome refers to the degree of success (graduation, progression) of learners in VET, for instance in comparison with other education and training alternatives

With an SPI of 50, access to initial VET programmes and the attractiveness of these programmes is an area where Ukraine underperforms compared to other countries (Outcome A.1.1). The same holds for the policy and system outcomes regarding access and attractiveness of CVET (Outcome A.1.2), which are on the same level of performance.

FIGURE 3. PROMOTING ACCESS AND PARTICIPATION IN OPPORTUNITIES FOR LLL - INDEX OF SYSTEM PERFORMANCE, UKRAINE AND INTERNATIONAL AVERAGE (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

It must be noted that in response to the war, Ukraine only recently introduced new measures in support of access to VET for youth and adults in the form of amendments to its Law on Vocational Education and through other measures, such as support to certain groups of learners, i.e., those affected by the war through vouchers, professional development opportunities, and access to free VET programmes.⁷ At the time of monitoring, however, these measures were yet to gain traction and thus, they impact may start manifesting itself only in subsequent rounds of Torino Process monitoring.

Although not satisfactory, the results concerning access and attractiveness are interesting in international comparison. They show that the VET system of Ukraine underperforms where other countries are doing better (access to initial VET), and that it outperforms where they are doing considerably worse, such as access to CVET and to other learning opportunities for adults beyond VET, for instance access to active labour market measures (Outcome A.1.3).

Some of the self-reported reasons behind the better performance with the latter outcome include a favourable legislative framework, a growing social responsibility movement among private businesses which increasingly often start to operate their own training centres in cooperation with public VET providers, as well as a number of short-term courses by donors, civil society organisations, and businesses to provide adults with the skills anticipated to be in demand for the reconstruction of the country.⁸

Despite these positive developments, like in other countries but to a greater extent participants in VET in Ukraine are stuck in a system which offers limited permeability between learning pathways (general and vocational, Outcome A.2.2). System performance in support of VET graduates who wish to continue their education on subsequent levels of general education is slightly above the midrange (SPI of 63). Obstacles to better performance are due not so much to structural limitations. Rather, graduation from VET which would be successful enough to allow for progression and also for a successful transition to the labour market, may be out of reach for many students in VET, more so than in other countries participating in the Torino Process (Outcome A.2.3).

2.2.2 Area B (1). Lifelong learning outcomes: quality and relevance

Monitoring Area B (Quality and relevance of LLL outcomes) includes two more of the dimensions presented in Section 2.1: quality (including relevance) and responsiveness of VET. Combined, these two dimensions comprise a total of eight policy and system outcomes. These outcomes cover the quality of learning of youth and adults in VET in terms of key skills and competences, the exposure of learners in VET to the world of work, the employability of graduates from IVET and CVET, the availability of career guidance for them, as well as the relevance of learning and training content in VET. Under relevance on the other hand, the monitoring records the responsiveness of the VET programme offering to demographic, labour market, and socio-economic developments, as well as the inclusion in VET curricula of themes pertaining to the green and digital transition. The outcomes included under Area B (1) are described in Table 3.

The previous section discussed the performance of VET in delivering quality and relevance to young and adult learners. A more detailed scan of the monitoring results reveals a sizeable discrepancy in the degree to which these two broad groups - youth and adults - dispose of the basic skills and competences required for successful participation in the economy and the society.

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⁷ Source: 2023 Torino Process self-assessment questionnaire of Ukraine.

⁸ Ibid.

TABLE 3. POLICY AND SYSTEM OUTCOMES INCLUDED UNDER MONITORING AREA B (1): QUALITY AND RELEVANCE

Code	Deliverable (outcome)	Description
B.1.1	Key competences for LLL, quality of learning outcomes	This outcome captures the extent to which the education and training system succeeds in the provision of basic skills and key competences for learners in formal education (including IVET), as defined in regular international surveys and international assessments
B.1.2	Adult skills and competences	This outcome captures the extent to which adults in working age dispose of basic skills and key competences, as captured by regular international surveys.
B.1.3	Links between learning and the world of work	This outcome reflects the pragmatic relevance of IVET and CVET programmes through the lens of participation in work-based learning (WBL) and the share of programmes with outcomes/objectives that include a WBL component
B.1.4	Employability of learners	This outcome refers to the labour market relevance of opportunities for LLL as captured through evidence of labour market outcomes of graduates from IVET, CVET, and other forms of LLL with a VET component
B.1.5	Opportunities for career guidance	This outcome strives to capture the timely availability of up-to-date information about professions and education programmes, which information allows prospective and current students in VET to take informed decisions concerning their education and employment paths
B.4.1	Relevance of learning content: green transition	This outcome captures the extent to which curricula for youth and adults consider themes of significance for sustainability and climate change awareness, including "green skills" for sustainable economies
B.4.2	Relevance of learning content: digital transition	This outcome tracks the extent to which curricula for youth and adults incorporate themes concerning digitalisation, and the extent to which learners are provided with basic digital skills as a result
B.4.3	Responsiveness of programme offering	This outcome captures the degree and speed of responsiveness of initial and continuing VET systems to the needs of the labour market and to other changes concerning demography and socio-economic developments

On average, VET in Ukraine performs better than VET in other countries participating in the Torino Process with the provision of basic skills and key competences to young learners (Outcome B.1.1, SPI of 59 for Ukraine versus SPI of 43 for other countries on average). However, the performance of Ukraine drops against a more global selection of countries and youth. For instance, students included in the OECD PISA sample of Ukraine in 2018 (close to 30% of which were enrolled in VET)⁹, performed well below their peers in OECD countries, on average. The quality and relevance of learning outcomes of youth in VET in Ukraine are also much lower than those of adults and adult learners (Outcome B.1.2). Adults in Ukraine dispose more than their peers in other countries of the basic skills and competencies commonly conceptualised as essential for thriving in information-rich societies, i.e., IT and literacy.

The employability of young and adult VET graduates remains modest as well (Outcome B.1.4, SPI of 50). In addition, the learning opportunities they are offered are populated with programmes which have weak links to the labour market in terms of availability of work-based learning (Outcome B.1.3). Despite recent efforts to improve access to and the quality of career guidance for learners (Outcome B.1.5). e.g., through various campaigns, the introduction of a digital platform about professions, and the operation of a career guidance portal, career guidance remains a domain of weaker system performance and in need of attention.

To strengthen links to the labour market and to provide work-relevant experiences, in addition to career guidance Ukraine has devised policies concerning on-the-job training for students in IVET programs. The training is in a format providing compulsory industrial practice. In the CVET system, the Employment Centre is responsible for organising on-the-job training directly at the employer's

⁹ Source: 2023 Torino Process self-assessment questionnaire of Ukraine and Національний звіт за результатами міжнародного дослідження якості освіти PISA-2018 at https://testportal.gov.ua/wp-content/uploads/2019/12/PISA 2018 Report UKR.pdf

premises.¹⁰ According to national authorities, more progress in this aspect of the VET system is essential as it needs to be further consolidated for a smooth and efficient transition from learning to the labour market.

Country results · · ◆ · · International average B.1.1 Key competences for LLL (youth) 100 90 80 **B.4.3** Responsiveness of B.1.2 Adult skills and competences programme offering 70 60 50 40 30 20 10 B.4.2 Relevance of learning B.1.3 Links between learning and content: digital transition the world of work B.4.1 Relevance of learning **B.1.4** Employability of learners content: green transition **B.1.5** Opportunities for career guidance

FIGURE 4. SUPPORTING QUALITY AND RELEVANCE OF LLL - INDEX OF SYSTEM PERFORMANCE, UKRAINE AND INTERNATIONAL AVERAGE (2023)

Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

The Torino Process monitoring framework considers the relevance of learning content also in a longer-term perspective by looking at the extent to which curricula consider forward-looking, emerging themes such as the digital and green transitions. Quite in line with its self-reported openness to innovation (see next section), VET in Ukraine is doing rather well with the incorporation into the curricula of themes concerning the green (Outcome B.4.1) and digital (Outcome B.4.2) transitions. For both outcomes, the monitoring results of Ukraine are higher than the average for other countries in the Torino process, by wide margin.

It is notable that the VET system in Ukraine appears more responsive to forthcoming themes and challenges, such as greening and digitisation than to more imminent, present-day demands emerging from the labour market and the economy in general. System performance in terms of responsiveness of programme offering to shorter term, imminent expectations and demand (Outcome B.4.3) is only mid-range (SPI of 50) and below the international average score of 61.

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¹⁰ Source: 2023 Torino Process self-assessment questionnaire for Ukraine.

2.2.3 Area B (2). Lifelong learning outcomes: excellence and innovation

In the second part of Area B (Excellence and innovation in support of lifelong learning), the Torino Process monitors two performance dimensions – excellence and innovation, which accommodate a total of eight system outcomes. These outcomes include excellence in pedagogy, learning content, governance, and inclusion into learning, as well as systemic innovation supporting access, participation, quality, and relevance of learning and training. The outcomes included under Area B (2) are defined as follows:

TABLE 4. POLICY AND SYSTEM OUTCOMES INCLUDED UNDER MONITORING AREA B (2): EXCELLENCE AND INNOVATION

Code	Deliverable (outcome)	Description
B.2.1	Excellence in pedagogy and professional development	This outcome captures the extent to which excellence in teaching and training is an acknowledged policy priority, as well as the extent to which its implementation is bearing fruit across the education and training system, including in the domain of professional development of teachers
B.2.2	Excellence in programme content and implementation	This outcome captures the results of efforts to promote excellence in the content and implementation of VET programmes, with a specific focus on bringing them closer to the world of work (i.e. through work-based learning), on prioritising greening in curricula and teaching, as well as on promoting excellence in learning.
B.2.3	Excellence in governance and provider management	This outcome captures the results of efforts to promote excellence in the domains of financing, leadership, and governance, as well as the extent to which these examples are systemic or not
B.2.4	Excellence in social inclusion and equity	This outcome captures the results of efforts to promote excellence in the domain of equity and social inclusion in education and training, as well as the extent to which these examples are systemic or not
B.3.1	Systemic innovation: access to opportunities for LLL	This outcome captures the presence of innovative practices and policy solutions in the domain of access to opportunities for lifelong learning.
B.3.2	Systemic innovation: participation and graduation	This outcome captures the presence of innovative practices and policy solutions in the provision of support for participation in (and graduation from) opportunities for lifelong learning, and the extent to which they are systemic (or not)
B.3.3	Systemic innovation: quality of learning and training outcomes	for raising the quality of learning and training in terms of the knowledge, skills, and abilities acquired by learners
B.3.4	Systemic innovation: relevance of learning and training	This outcome captures the presence of innovative practices and policy solutions for raising the labour market relevance of knowledge, skills, and abilities acquired by learners

This report defines excellence as the presence of system-wide policies and measures to promote highest quality practices and results in various domains of policy and system delivery.

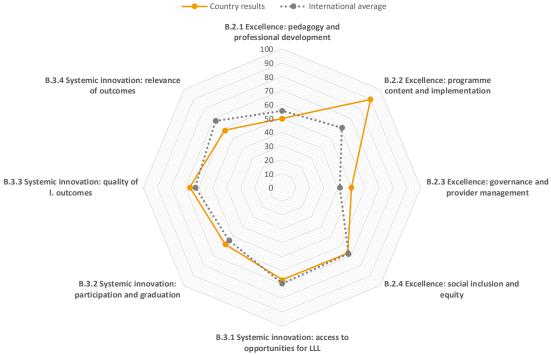
The first of these domains of excellence is pedagogy and the professional development of teachers and trainers (Outcome B.2.1). The average score of Ukraine in this domain is mid-range (SPI of 50) and below the average for other countries. On the other hand, the promotion of excellence in programme content and implementation (Outcome B.2.2) is one the most successful areas of VET system performance in Ukraine.

Taken together, these two results suggest that there may be a degree of disbalance between the attention paid to the content of VET programmes and the expectations on how they should be taught on one hand, and the capacity of teachers and trainers in VET to live up to these expectations on the other. The data behind the system performance index for Outcome B.2.1 show that only about a fifth of

teachers in VET and general education participate in regular professional development and that the availability of professional training for teachers in CVET is considered inadequate.¹¹

In the context of system performance monitoring within the Torino Process, excellence and innovation represent distinct yet interconnected domains. While excellence refers to the pursuit of highest quality practices and outcomes in various, mainstream domains of vocational education and training policy and delivery, innovation focuses on the presence of pioneering practices and policy solutions within these and related domains. Innovation in the context of monitoring is a proxy for the adaptability, creativity, and forward-thinking approach in the VET system in responding to the evolving needs of learners and labour markets.

PERFORMANCE, UKRAINE AND INTERNATIONAL AVERAGE (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

The Torino Process monitoring gauges systemic innovation regarding access to lifelong learning opportunities (Outcome B.3.1), participation and graduation (Outcome B.3.2), quality of learning and training outcomes (Outcome B.3.3), and relevance of learning and training (Outcome B.3.4). The emphasis Ukraine places on innovation is more consistent between these different outcomes.

The regulation and legislation surrounding the area of innovation in education are manifold. The priorities in the policies and actions undertaken by the government include the creation of an innovative learning environment, the introduction of innovative teaching technologies into the educational process,

¹¹ Indicators I56 and I62, Torino Process database. Sources: PISA 2018 database for I56 and UNESCO GRALE3 database for I62.

and financial support for students. Identifying and considering the improvement of education and training is seen as a priority within state policies in VET is already an important achievement and relevant for the VET performance in support of labour market needs.¹²

Efforts to innovate in support of access to VET (Outcome B.3.1) and quality of VET (Outcome B.3.3) seem to bear more fruit than innovation in other areas such as participation, graduation, and relevance of learning outcomes, despite an overall satisfactory performance of systemic innovation. It is important to recognise the challenges and the fact that the current state of VET does not fully support the quality of educational services for training competitive graduates who should meet the skills according to employers' requests. This awareness is already present in the actual strategy for developing Professional (Vocational and Technical) Education.

Further, the findings discussed in Section 2.2.1 on system performance for access and Section 2.2.2 on system performance for quality and relevance suggest that it is less certain whether and if yes, how evenly the benefits of innovation in these domains are reaching VET learners across the VET system.

2.2.4 Area C. System organisation

In Area C (System organisation), the monitoring framework accommodates the final two dimensions presented in Section 2.1 – steering/management and resourcing, in which the Torino Process tracks a total of eight system outcomes. These outcomes include the availability and use of data for informed decision-making, the involvement of stakeholders in VET policy, provider management, and resourcing, quality assurance and accountability, the internationalisation of VET providers, as well as the availability and use of human and financial resources in VET. The outcomes included under Area C are defined in Table 5.

TABLE 5. POLICY AND SYSTEM OUTCOMES INCLUDED UNDER MONITORING AREA C: SYSTEM ORGANISATION

Code	Deliverable (outcome)	Description
C.1.1	Data availability and use	This outcome refers to the availability of administrative and big data as covered by Level 1 of the monitoring framework, participation in large scale international assessments, as well as technical capacity to generate/manage evidence to support monitoring and improvement
C.1.2	Participatory governance	This outcome captures the degree of involvement of the private sector and other external stakeholders in consultations and decisions concerning opportunities for LLL through initial and continuing VET
C.1.3	Public accountability and reliable quality assurance	This outcome tracks the extent to which reliable and trustworthy quality assurance (QA) mechanisms and accountability arrangements are in place which cover learners, teachers, and providers, as well as the extent to which the QA results are publicly available
C.1.4	Professional capacity of staff in leadership positions	This outcome monitors the availability and professional capacity of qualified staff in leadership roles and in other key administrative roles on provider level
C.1.5	Internationalisation	This outcome monitors the degree of internationalisation in IVET and CVET, such as internationalisation of QA arrangements, curricular content, qualifications (i.e. recognition of international credentials, awarding bodies being active beyond their country of origin, etc.)
C.2.1	Adequate financial resource allocations and use	This outcome captures the adequacy of financial resources invested in IVET and CVET in terms of level of investment and allocation, as well as the degree of diversification of funding between public and private sources

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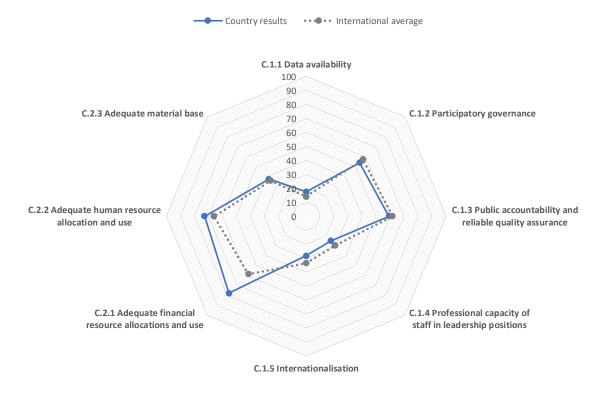
¹² Source: 2023 Torino Process self-assessment questionnaire.

C.2.2	Adequate human resource allocation and use	This outcome captures the efficiency of human resource management in terms of availability of teachers and trainers, and the adequacy of their deployment and career management
C.2.3	Adequate material base	This outcome captures the extent to which the material base for learning and training is adequate, including learning and training materials which are supportive of and promote effective teaching, training, and learning

In Ukraine, system performance in this area of VET monitoring is uneven. The outcomes with which the VET system in Ukraine struggles the most are the availability of reliable and comparable data for planning, policy analysis, and decision-making purposes (Outcome C.1.1), professional capacity of staff in leadership positions (C.1.4), and internationalisation of IVET and CVET (Outcome C.1.5). Internationalisation of VET providers and their teachers is a more acute challenge in Ukraine than it is in other countries in the 2023 Torino Process sample.

Participatory governance, on the other hand (Outcome C.1.2), stands out as domain of system operation which participants in VET describe as performing at a satisfactory level, presumably because of a tradition of consultation with, and involvement of, peers. Still, like many other countries, Ukraine reports of challenges in this domain, especially with the involvement of employers in steering and managing the VET system.

FIGURE 6. GOVERNANCE, PARTICIPATION, ACCOUNTABILITY, AND RESOURCES - INDEX OF SYSTEM PERFORMANCE, UKRAINE AND INTERNATIONAL AVERAGE (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

In Ukraine, the public and other stakeholders also seem rather aware of what and how IVET and CVET deliver for learners (Outcome C.1.3). The VET system is considered sufficiently accountable to

stakeholders and the messages it communicates about its own performance and results are publicly accessible. It is less clear whether this finding is indicative of a good enough quality assurance system in VET and whether the results the system delivers are trustworthy enough.

When it comes to the sufficiency of financial resources invested in VET and the proper management of human resources supplied to the system, Ukraine appears to somewhat outperform the international average (Outcome C.2.2). Similarly, VET in Ukraine scores high with the use and allocation of financial and other material resources (Outcome C.2.1).. However, this does not seem to translate into a satisfactory environment and material base for teaching and learning.

These findings do not imply that VET in Ukraine has sufficient financial and material resources. However, they do indicate that at the time of monitoring, problems with the adequacy of teaching and learning materials, and with the way in which financial resources are allocated (or not) for maintenance and infrastructural investment, are probably a bigger challenge than the sheer amount of resources allocated to VET.

2.3 How did policies and systems benefit specific groups of learners?

In this round, the Torino Process monitoring looks not only into the deliverables of national VET policies and systems in general but also into the degree to which they address the needs and expectations of present and prospective lifelong learners. The monitoring framework traces how well and equitably system outcomes are distributed to these learners depending on their age and gender, and by features which can be influenced by policy, such as socio-economic disadvantage, labour market status, migration status and learning setting/pathway.

The next sections provide an overview of how the IVET and CVET subsystems in Ukraine perform in a key selection of monitoring dimensions for the following key selection of learner groups: female learners (Section 2.3.1), disadvantaged learners (Section 2.3.2), populations who are long term unemployed, economically inactive, and have a low level of educational attainment (Section 2.3.3), as well as by their country of origin (Section 2.3.4).

2.3.1 Female learners

This section describes findings about VET system performance regarding access, participation, quality and relevance, and innovation to the benefit of female youth and adult learners in VET in Ukraine.

Despite some disadvantages for young women, the VET system in Ukraine is attractive and relevant for both young and adult females (Dimension A.1 – Access). A small bias is present in the weaker accessibility of VET for adult women, but once inside the system they have a better chance to participate and progress successfully.

Explaining the reasons behind this result goes beyond the scope of this report and the data collected. Still, it may be worth highlighting that national authorities report of policies and efforts in guaranteeing citizens have equal rights to obtain professional education in accordance with their abilities and inclinations. Examples include the qualification centres, which help increase attractiveness of the professional qualifications system. These entities have the authority to evaluate and recognise the results of individuals, including those obtained through non-formal or informal education, confirmation

of full/partial professional qualifications, and recognise professional qualifications obtained in other countries. 13

100 100 90 90 80 80 70 70 60 60 50 50 40 40 30 30 20 20 10 10 Ω Λ A.1 Access to learning A.2 Participation and **B.1** Quality and **B.3 Innovation: access** progression relevance and participation Female learners - youth ■ Female learners - adults -Average for the monitoring dimension

FIGURE 7. SYSTEM PERFORMANCE IN SUPPORT OF FEMALE LEARNERS IN SELECTED MONITORING DIMENSIONS, UKRAINE (2023)

Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

When monitoring the performance in the other aspects of the VET system present in Figure 7, the system seems to favour young female students over adult women. Females, young or old, perform less in both Outcome B.1 (quality and relevance) and Outcome B.3 (innovation) than the average outcome, hinting at some more difficulties in these groups.

2.3.2 Disadvantaged learners

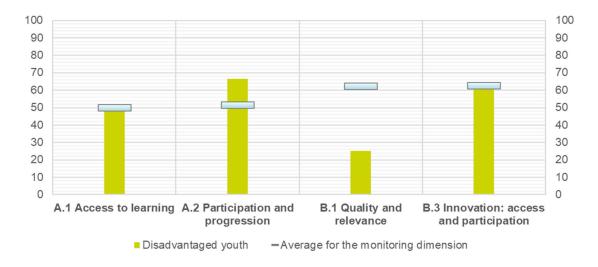
This section describes how well the VET system caters for the needs of socioeconomically disadvantaged youth when it comes to access, participation, and quality/relevance of opportunities for lifelong learning through VET. The section also examines whether efforts to promote innovation in VET access and participation benefit this specific group of learners in Ukraine.

The VET system in Ukraine does clearly sustain disadvantaged youth and is equally accessible to them as to any group of learners. Once enrolled in the VET programmes, disadvantaged youth is more likely than the average learner to participate and successfully qualify in these programmes. The socioeconomic background of learners in IVET and CVET does not constitute a barrier to accessing successive stages of education or to the possible switch between parallel paths in VET and general education.

FIGURE 8. SYSTEM PERFORMANCE IN SUPPORT OF SOCIO-ECONOMICALLY DISADVANTAGED YOUTH IN SELECTED MONITORING DIMENSIONS, UKRAINE (2023)

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¹³ Ibid.



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

The results regarding participation and progression (Outcome A.2) reflect the declared social orientation of VET in Ukraine. They also align with the presence of innovative practices in support of access and participation for this group of learners (Outcome B.3). And yet, despite a good outlook regarding access to and participation, youth from disadvantaged backgrounds do not receive the same quality and relevance of education like other learners in VET (Outcome B.1).

2.3.3 Populations who are long-term unemployed, economically inactive, and have low educational attainment

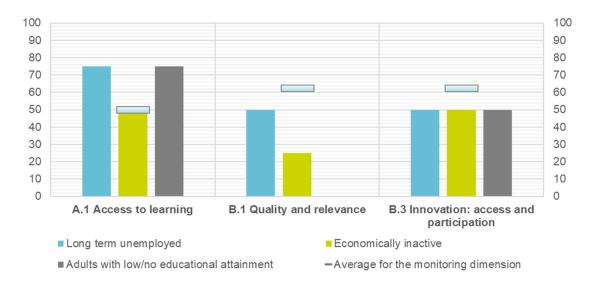
Section 2.3.3 presents findings about VET system performance from the perspective of three strategically important groups of adults: the long-term unemployed, the economically inactive adults, and those with low or no educational attainment. The selection of monitoring dimensions is narrower than the selection discussed in the previous sections, partly because some of these dimensions are not applicable and partly because of missing data for Ukraine.

Data collected by the Torino Process indicates that long-term unemployed adults and for those with low or no education have the same good prospect of accessing opportunities for learning (Dimension A.1). National authorities report that, indeed, adult education is in focus of many dedicated policies in the country (i.e., the law on "Adult Education", the law on "Employment of the Population", the law on "Professional Education", the active presence of the Ministry of Education and Science, etc.). The State Employment Service plays an important role too.¹⁴ In comparison, the economically inactive population appears more disadvantaged in terms of access to learning (Outcome A.1).

FIGURE 9. SYSTEM PERFORMANCE IN SUPPORT OF ADULTS WHO ARE LONG-TERM UNEMPLOYED, ECONOMICALLY INACTIVE, OR HAVE LOW EDUCATIONAL ATTAINMENT, UKRAINE (2023)

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¹⁴ Source: 2023 Torino Process self-assessment questionnaire for Ukraine.



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

The situation is more challenging for the long-term unemployed and especially for economically inactive people when they try to transit and find employment (Outcome B.1). Quality and relevance remain a problem despite the efforts to support learners through various efficient tools, such as the State Employment Service Platform for Career Guidance and Development to provide career guidance services to registered users.

Systemic innovation in access and participation is inclusive and supports all categories of learners listed in Figure 9. There are various policies and actions taking place with the clear objective of introducing new forms of vocational training centred on the learner, including distance technologies, with higher efficiency and flexibility. There are no strong biases against any of the categories described in this subsection, but there is still a need for improvement for each of these learner groups, and also for adult learners overall.

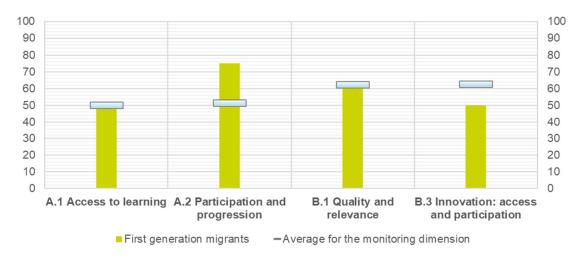
2.3.4 Learners by country of origin

The final section with monitoring findings discusses performance in the domains of access, participation, quality and relevance, and innovation in Ukraine for learners who are first-generation migrants.

Ukraine has a long-standing tradition of promoting policies (i.e., through the Law on "Vocational Education") which guarantee that learners with migrant background enjoy the same rights and opportunities like any other learner group in VET and beyond. In some aspects of system performance, these policies seem to work well. First generation migrants access VET and enjoy the same degree of quality and relevance of learning like their Ukrainian counterparts (Outcomes A.1 and B.1 respectively), and they are even more likely than them to participate and graduate successfully (Outcome A.2).

¹⁵ Source: 2023 Torino Process self-assessment questionnaire for Ukraine.

FIGURE 10. SYSTEM PERFORMANCE IN SUPPORT OF FIRST-GENERATION MIGRANTS IN SELECTED MONITORING DIMENSIONS, UKRAINE (2023)



Theoretical index range: min/low performance=0, max/high performance=100

Source: Torino Process monitoring database

The satisfactory situation of learners with migrant background in Ukraine may be one of the reasons why efforts to innovate in support of access and participation are not as intensive for this learner group as they are for other groups of VET learners in the country (Outcome B.3).

3. VET IN TIMES OF WAR: IMPACT AND MEASURES IN SUPPORT OF ITS RESILIENCE AND RECOVERY

This third section of the report was prepared by national authorities and experts in Ukraine and documents the impact of the war on the VET system of that country, the policies introduced by national and regional authorities to remedy that impact and ensure that youth and adults continue to have access to learning opportunities of acceptable quality and relevance, and that the inevitable disruptions which the war is causing to the organisation, management, and resourcing of the VET system, are addressed as swiftly and effectively as possible.

Section 3 is divided in four parts: martial law and international responses to the war of aggression (3.1), impact of the war on VET in Ukraine (3.2), the response of the VET sector to that impact (3.3), and prospects for VET recovery in Ukraine (3.4).

3.1 Martial law and international response to the war

Following Russia's invasion into Ukraine on February 24, 2022, Ukraine responded by enforcing martial law through Presidential Decree No. 64, titled 'On the Introduction of Martial Law in Ukraine.' This decree, ratified on the same day by Ukrainian Law No. 2102-IX, set the legal parameters for the enforced state of emergency.

The martial law was later extended for 90 more days, beginning February 19, 2023, as dictated by the President of Ukraine's Decree No. 58, 'On Extension of the Martial Law in Ukraine.' The Ukrainian law No. 2915-IX, enacted on February 07, 2023, confirmed the extension.

As Russia commenced its full-scale military assault on Ukraine, nations across Europe and around the world voiced their condemnation. On February 24, 2022, the European Union (EU) issued a joint press statement from European Council President Charles Michel and European Commission President Ursula von der Leyen, denouncing Russia's unprecedented and unprovoked aggression.¹⁶

Less than two weeks later, on March 4, the EU triggered its temporary protection directive, as established by Council Implementing Decision (EU) 2022/382, in response to the mass influx of displaced Ukrainians.¹⁷ That same year, the EU committed to a financial aid package of €7.2 billion in macro-financial assistance (MFA), supplemented by €620 million in budget support. From the onset of the conflict, the EU pledged to contribute a total of €25.5 billion, including an upcoming package for 2023, worth up to €18 billion, aimed at bolstering Ukraine's socio-economic resilience.¹⁸

The conflict also expedited Ukraine's integration into the EU. On February 28, 2022, Ukraine formally applied for EU membership, and a comprehensive questionnaire was prepared, evaluating both political-economic criteria and alignment of Ukrainian legislation with EU standards, specifically in education (Section 26) and science (Section 25). By May 9, 2022, Ukraine had submitted the completed questionnaire.¹⁹

On June 23, 2022, the European Council took a monumental decision to recognize Ukraine's EU integration prospects and confer upon Ukraine candidate status for EU membership. This was based largely on the European Commission's (EC) positive opinion issued on June 17, 2022. ²⁰ The EC report commended Ukraine's robust education system, near-universal literacy, substantial funding for education (5.7% of 2021 GDP), and high rates of tertiary education. However, it emphasized the need for stronger alignment between education, training, and labour market demands.

By February 1, 2023, the European Commission released an Analytical Report on Ukraine's EU membership application. The preliminary report affirmed that Ukraine's education and culture sectors were generally aligned with EU goals and policies, including those related to Vocational Education and Training (VET) and qualifications, and were deemed sufficiently fit for integration.²¹

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¹⁶ European Commission. (2022). Press Statement of President Charles Michel of the European Council and President Ursula von der Leyen of the European Commission on Russia's unprecedented and unprovoked military aggression of Ukraine. 24 February 2022. https://ec.europa.eu/commission/presscorner/detail/en/statement 22 1321

¹⁷ Council of the European Union.(2022). Document 32022D0382. Council Implementing Decision (EU) 2022/382 of 4 March 2022 establishing the existence of a mass influx of displaced persons from Ukraine within the meaning of Article 5 of Directive 2001/55/EC, and having the effect of introducing temporary protection.
ST/6846/2022/INIT. OJ L 71, 4.3.2022, p. 1–6. https://eur-lex.europa.eu/legal-

content/EN/TXT/?uri=uriserv%3AOJ.L .2022.071.01.0001.01.ENG&toc=OJ%3AL%3A2022%3A071%3ATOC

18 European Commission. EU Solidarity with Ukraine. EU assistance to Ukraine. https://eu-solidarity-

<u>ukraine.ec.europa.eu/eu-assistance-ukraine_en#strong-and-comprehensive-eu-response</u>

19 Yevrointegracijny`j portal. (June 17, 2022). EU questionnaire and answers to it for Ukraine's EU candidate status. <a href="https://eu-ua.kmu.gov.ua/istorii-uspikhu/opytuvalnyk-yes-ta-vidpovidi-na-nogo-dlya-nabuttya-ukrayinoyu-ukr

²⁰ European Commission. (17.6.2022). COM(2022) 407 final. Communication from the Commission to the European Parliament, the European Council and the Council. Commission Opinion on Ukraine's application for membership of the European Union. https://neighbourhood-enlargement.ec.europa.eu/system/files/2022-06/Ukraine%20Opinion%20and%20Annex.pdf

²¹ Cabinet of Ministers of Ukraine. (2022). Ukraine – Europe. Report on the implementation of the Association Agreement between Ukraine and the European Union for 2022 https://eu-ua.kmu.gov.ua/sites/default/files/inline/files/zvit_pro_vykonannya_ugody_pro_asociaciyu_za_2022_rik.pdf

3.2 Impact of the war on VET

The war destroyed the peaceful life of Ukrainians and halted the country's dynamic development:

- Between February 24, 2022, and March 12, 2023, the Office of the UN High Commissioner for Human Rights (OHCHR) documented 21,965 civilian casualties in Ukraine, including 8,231 deaths and 13,734 injuries.22
- As of May 5, 2023, the Prosecutor General's Office of Ukraine reported 477 child fatalities and 960 child injuries due to the conflict.²³
- The Ministry of Reintegration of the Temporarily Occupied Territories of Ukraine stated that, as of January 23, 2023, approximately 5.35 million citizens (including 1 million children) had received official status as internally displaced persons (IDPs). About 77% of these displaced children had witnessed shelling or bombing, and nearly 30% had experienced occupation.²⁴
- The UNHCR recorded 8,174,189 refugees from Ukraine in Europe by April 2023, 40% of whom were children. These refugees had all entered Europe since the conflict's escalation in February 2022.25
- The President of Ukraine confirmed in February 2023 that roughly 18% of Ukraine's territory remained under Russian occupation.²⁶
- World Bank data indicated a significant economic downturn in Ukraine, with a 29.2% decline in GDP in 2022. The poverty rate rose from 5.5% to 24.2%, pushing an additional 7.1 million people into poverty and reversing 15 years of economic progress.²⁷
- Unemployment in Ukraine spiked at 24.5% by the end of December 2022, up from 8.9% in 2021, according to World Bank data.28
- The conflict also led to a labour shortage, as voluntary enlistments in the Armed Forces of Ukraine and the mobilization of workers for military service reduced the number of available skilled workers.

The war has devastating consequences for the VET system in particular. Key among them are:

- Destruction or damage to Vocational Education and Training (VET) facilities.
- Reappropriation of VET resources such as machinery and equipment for defence purposes, as well as the conversion of dormitories and other spaces into shelters for internally displaced persons (IDPs).
- A diminished workforce in VET institutions due to factors such as relocation (including migration abroad), conscription into the Armed Forces of Ukraine, and residence in active conflict zones.

²² OHCHR. (13 March 2023). Ukraine: civilian casualty update. https://www.ohchr.org/en/news/2023/03/ukrainecivilian-casualty-update-13-march-2023

²³ Office of the Prosecutor General of Ukraine. Crimes against children https://www.gp.gov.ua/

²⁴.Ukrayins`ka Pravda. (February 18, 2023). How many IDP children survived the hostilities and occupation – study. https://life.pravda.com.ua/society/2023/02/18/252919/

²⁵ UNHCR. Operational Data Portal. Ukraine Refugee Situation https://data.unhcr.org/en/situations/ukraine

²⁶ Zelenskyy: 18% of Ukraine is still occupied by Russia https://portal.lviv.ua/news/2023/02/18/18-ukrainy-dosiokupovani-rosiieiu-zelenskyj

²⁷ The World Bank in Ukraine. Ukraine. Overview. Economy.

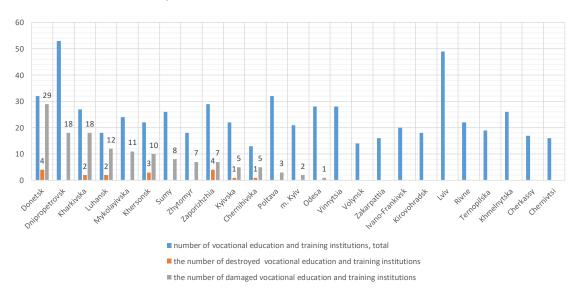
https://www.worldbank.org/en/country/ukraine/overview#3

²⁸ The World Bank, (February 21, 2023), Unemployment, total (% of total labour force) (modeled ILO estimate) – Ukraine. https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?locations=UA

- Failure to adjust training programs and study durations to accommodate the needs of students, the principles of lifelong learning, and the state's requirements for economic and infrastructure reconstruction and recovery.
- Disruption of relationships between VET institutions and businesses due to the destruction, closure, or relocation of enterprises to different regions.²⁹

As of March 30, 2023, seventeen VET institutions have been completely destroyed, with an additional 136 institutions bearing varying degrees of damage (refer to Figure 11). This damage ranges from shattered windows and compromised roofs to destabilized stairwells and support structures within VET educational buildings. Initial production workshops, administrative buildings, and dormitories have also been affected. Other facilities, such as stadiums, greenhouses, finished product warehouses, and garages, have sustained damage as well. The extent of damage and destruction within Ukraine's temporarily occupied territory and areas of active combat remains indeterminable.

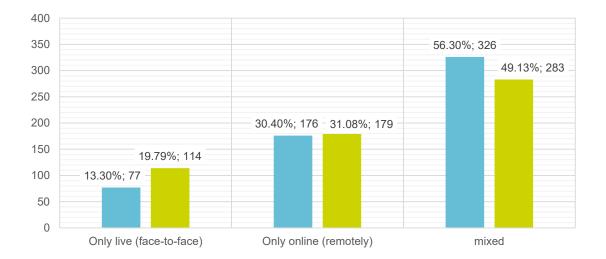
FIGURE 11. NUMBER OF VET INSTITUTIONS IN UKRAINE AS OF 30 MARCH 2023, BY REGION: TOTAL NUMBER, NUMBER OF DAMAGED AND DESTROYED INSTITUTIONS



At the start of the 2022/2023 academic year, over half of VET institutions (326 or 56%) adopted a mixed format for their educational programs, while 176 (30%) transitioned to an entirely online approach, and 77 (13%) maintained in-person instruction (See Fig. 2). However, as of January 1, 2023, these proportions had shifted. Institutions offering mixed-format education dropped by 43 to 283 institutions (49%), while those providing exclusively online education slightly rose by three to 179 institutions (31%). Institutions providing solely in-person instruction increased by 37 to a total of 114 institutions (20%).

FIGURE 12. VET INSTITUTIONS PROVIDING EDUCATION AND TRAINING IN SEPTEMBER 2022 AND JANUARY 2023 BY FORM OF INSTRUCTION (FACE-TO-FACE, REMOTE, HYBRID)

²⁹ Ministry of Education and Science of Ukraine. (2023). Transition book of the Ministry of Education and Science of Ukraine. https://mon.gov.ua/storage/app/media/news/2023/03/21/Transition.book.2023.pdf



Organization of the educational process in VET institutions for the beginning of the 2022/2023 year as of Sept. 13, 2022
 Organization of the educational process in VET institutions as of January 25, 2023

The VET system is grappling with a multitude of challenges, including a shortage of human resources, regional imbalances in staff distribution, an exodus of competitive teachers to foreign countries, and a deficiency in life and professional skills to handle students coping with war-induced psychological trauma. As of July 1, 2022, the general education sector employed 23,905 pedagogical staff, a decline from 31.9 thousand as of September 1, 2020. Within this count, 1,258 were internally displaced, 904 were residing outside Ukraine, 472 were on unpaid leave, and 654 were serving in the Armed Forces of Ukraine and the Territorial Defence Forces. During the period of martial law, an additional 372 teachers resigned from their positions.³⁰

3.3 VET sector responses

3.3.1 New priorities, rules, and regulations

Despite the war, Ukraine's education system has showcased remarkable resilience: Following an unavoidable pause at the onset of the full-scale war on February 24, 2022, the majority of educational institutions resumed teaching via distance learning technologies as early as March 14, 2022. The system's primary commitments during wartime encompass fostering safe and adaptable conditions for steady learning and teaching; assuring educational access and continuity irrespective of the security situation; devising and implementing a comprehensive psychological support system for those in the educational process affected by the war. In addition, the policy of digital transformation in education and science continues, with an emphasis on improving internet access, enhancing the digital educational environment, developing digital competencies, digitizing education management, and provisioning digital devices primarily for the most vulnerable groups of learners.³¹

³⁰ Ministry of Education and Science of Ukraine, State Scientific Institution "Institute of Educational Analytics". (2022). Education of Ukraine under martial law. Information and analytical collection.

https://mon.gov.ua/storage/app/media/zagalna%20serednya/serpneva-konferencia/2022/Mizhn.serpn.ped.nauk-prakt.konferentsiya/Inform-analityc.zbirn-Osvita.Ukrayiny.v.umovakh.voyennoho.stanu.22.08.2022.pdf

³¹ Ministry of Education and Science of Ukraine. (2023). Transition book of the Ministry of Education and Science of Ukraine. https://mon.gov.ua/storage/app/media/news/2023/03/21/Transition.book.2023.pdf

The commitments above can be unpacked into the following specific priorities, aiming to support the resilience and innovation in the VET system during martial law:

- Creating a safe educational environment: This involves the creation of civil defence facilities, makeshift shelters, and the customization of VET institutions' operations depending on the regional situation. The focus is on adopting the safest form of educational process, including remote learning.
- Guaranteeing access to VET for all applicants: This entails facilitating the submission of admission documents through the applicant's electronic office, enrolling students without mandatory residence registration in the relevant territorial community, as well as overseeing the completion of learning (graduation).
- Assuring learning participation and graduation from VET institutions: This includes the timely disbursement of scholarships and other statutory payments, the use of distance/online learning technologies for the theoretical part of instruction, deferment of practical training to post-martial law periods where necessary, and the introduction of an internal academic mobility program providing continuation of learning in relevant professions at partner VET institutions. Additional measures include the development of a nationwide distance learning platform, "Vocational Education Online" provisions for study interruptions or academic leaves, and the issuance of state-standard VET documents to graduates in areas of combat operations, under temporary occupation, blockade, or abroad.
- Enhancing the employability of the unemployed: A new Procedure for Vocational Training, Retraining and Professional Development of Registered Unemployed has been instituted. It provides for organising VET for the unemployed based on the "money follows the person" principle, expanding voucher eligibility for training and professional development, updating the Procedure for issuing vouchers to bolster competitiveness in the labour market for certain categories of citizens, and approval of an updated list of professions and specialties for which such a voucher may be issued.
- Improving the quality of education and aligning IVET and CVET graduates' skills with new market demands: This involves altering approaches to professional standards development (A new structure for professional standards has been endorsed, and the plan is for draft professional standards to be approved by a representative all-Ukrainian association of trade unions at the sectoral level), harmonizing Ukraine's occupational (state) classifier with international standards (ISCO-08), establishing qualification centres for assessment and recognition of learning outcomes, including those obtained through non-formal and informal learning. In 2022, the expansion of a dual education system was also evident as 210 VET institutions implemented a dual form of training across 316 professions.
- Crafting a positive image of modern VET and promoting working professions: Introducing a National Communication Campaign "Everything Works Thanks to Us" with the support of the Ministry of Education and Science of Ukraine and the campaign "Put Your Hand to...", and introduction of career counselling system.
- European integration: synchronization of the Ukrainian NQF with the EQF; development of a Centres of Professional Excellence network under the Financial Agreement "Program to Support VET in Ukraine" to attract EUR 58 million from the European Investment Bank; implementation of the European gender benchmarks within the framework of the Strategy for the Implementation of

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³² All-Ukrainian distance learning platform "Vocational Education Online" https://profosvita.online/

- Gender Equality in Education till 2030 (2022) and the Model Roadmap for Promoting Gender Equality in VET at the Regional Level (2022).
- Aligning the Ukrainian NQF with the EQF, establishing a network of Centres of Professional Excellence under the Financial Agreement "Program to Support VET in Ukraine" to attract EUR 58 million from the European Investment Bank, implementation of the European gender benchmarks within the framework of the Strategy for the Implementation of Gender Equality in Education till 2030 (2022) and the Model Roadmap for Promoting Gender Equality in VET at the Regional Level (2022).
- Redirecting the VET system towards a broader human capital development perspective: This includes modernizing educational content for youth and adults, harmonizing it with EU best practices, strengthening institutional capacities for VET management system implementation, and "smart rebuilding" - forming a high-tech, attractive, and inclusive network of educational institutions.

Since the beginning of the full-scale war, Ukraine has created an institutional and legal framework to ensure the IVET and CVET systems remain functioning and deliver against these new, resilience and innovation-oriented priorities:

- Law of Ukraine of 21 April 2022 No. 2220-IX "On Amendments to Certain Laws of Ukraine on the Functioning of Employment and Compulsory State Social Insurance for Unemployment during Martial Law".
- Law of Ukraine of 19 June 2022 No. 2312-IX "On Amendments to the Law of Ukraine "On Vocational (Vocational and Technical) Education" on Certain Aspects of Training Skilled Workers in the Conditions of Martial Law and Economic Recovery". The Law entered into force on 1 July 2022.
- Law of Ukraine of 21 September 2022 No. 2622-IX "On Amendments to Certain Legislative Acts of Ukraine on Reforming the Employment Service, Social Insurance in Case of Unemployment, Promoting Productive Employment of the Population, including Youth, and Implementing New Active Labour Market Programs".
- Resolution of the Cabinet of Ministers of Ukraine of 24 March 2023 No. 264 "On Approval of the Procedure for Vocational Training, Retraining and Advanced Training of Registered Unemployed Persons".
- Order of the Cabinet of Ministers of Ukraine of 29 April 2022 No. 329-r "On Amendments to the Guidelines for the Formation and Placement of a Regional Order for the Training of Specialists and Workers".
- Order of the Ministry of Education and Science of Ukraine of 26 March 2022 No. 273 "On Approval
 of the Regulation on Internal Academic Mobility of Vocational Education and Training Students
 Studying in Vocational Education and Training Institutions of Ukraine".
- Order of the Ministry of Education and Science of Ukraine of 10 June 2022 No. 541 "On Amendments to the Model Rules for Admission to Vocational (Vocational and Technical) Education Institutions of Ukraine".
- Order of the Ministry of Education and Science of Ukraine of 5 April 2023 No. 394 "On Approval of the Regulation on Interruption of Training by Students of Vocational (Vocational and Technical) Education and Granting Them Academic Leave in Conditions of Martial Law, Emergency or State of Emergency (Special Period) (submitted for registration to the Ministry of Justice of Ukraine).
- Letter of the Ministry of Education and Science of Ukraine No. 1/3377-22 of 7 March 2022 "On the organization of the educational process in vocational (vocational-technical) education institutions".

3.3.2 Specific measures: access and participation

Supporting access

In an effort to uphold the provision of the Constitution of Ukraine, which ensures accessibility to VET in state and municipal institutions, the Government streamlined the procedure for approving a regional directive for specialist and worker training. During the legal regime of martial law, it is proposed that these regional directives be formed by the education and science departments (divisions) of the regional and Kyiv city state administrations, without the need for approval by the regional VET councils. In 2022, the regional directives were fulfilled by 91%.

To guarantee VET access for all citizens, national authorities implemented a system allowing individuals to obtain full or partial professional qualifications without the need for simultaneous completion of a full general secondary education. This education can be obtained, free of charge, at any other point in their lives through any form of education.

Additionally, the government ensured the right for individuals to receive free VET in a different profession (or professions) throughout their lives, provided that they do so no earlier than three years after completing free VET in their previously acquired profession (or professions). Furthermore, individuals are guaranteed the ability to submit documents and enrol in VET institutions under the terms of a state or regional directive, even in the absence of registration of a person's place of residence within the territory of the relevant territorial community.³³

The onset of war has hastened the digital transformation of the Vocational Education and Training (VET) system, particularly in the realm of distance learning, to ensure continued access to education. In 2022, the all-Ukrainian distance learning platform, "Vocational Education Online" 34, was launched to facilitate online instruction. The platform, developed at the request of the Ministry of Education and Science of Ukraine and with support from the International Labour Organization, caters to VET students, teachers, and independent applicants seeking professional qualifications. It hosts 24 training courses. Furthermore, the digital library of the state institution, "Institute for the Modernization of Education Content," provides free access to electronic versions of textbooks for VET students.³⁵

To streamline the admissions process for VET institutions, applicants can submit applications and documents directly or through an electronic cabinet. These submissions are then registered in the admissions document registry. Applicants can also present an extract from the Register of Educational Documents of the Unified State Electronic Database on Education in lieu of certain educational documents that are unavailable due to exceptional circumstances, such as martial law, emergencies, or states of emergency. ³⁶

³⁵ State Scientific Institution "Institute for Modernization of Education Content". Catalogue of literature. Textbooks and manuals for VET students. https://lib.imzo.gov.ua/pdruchniki-ta-navchaln-posbniki-dlya-zdobuvachv-profesyno-tekhnchno-osvti/

³³ Verkhovna Rada of Ukraine. (2022). Law of Ukraine "On Amendments to the Law of Ukraine "On Vocational (Vocational and Technical) Education" on Certain Aspects of Training Skilled Workers in the Conditions of Martial Law and Economic Recovery". https://zakon.rada.gov.ua/laws/show/2312-20#Text

³⁴ Vocational education online. https://profosvita.online/

³⁶ Ministry of Education and Science of Ukraine (2022). Order "On Amendments to the Standard Rules for Admission to Vocational (Vocational and Technical) Education Institutions of Ukraine". https://zakon.rada.gov.ua/laws/show/z1021-22#Text

Moreover, the categories of individuals eligible for VET benefits have been expanded. Now, children of fallen, missing, or deceased defenders of Ukraine are guaranteed preferential long-term loans for vocational education.³⁷

To support adult education and the competitiveness of strategically important groups of **adults**, such as the unemployed, Ukraine has introduced the following measures:

- A new "Procedure for Vocational Training, Retraining, and Professional Development of Registered Unemployed Persons" has been approved. This policy implements the "money follows the person" principle, enabling the unemployed to select an educational institution for vocational training and, if needed, accommodations during their training period. Enrolment in VET and the provision of residential arrangements will be based on certificates of training and residence, respectively. The unemployed have the option to choose their place of study directly with an employer at the workplace in an individual training format or through an internship.³⁸
- The pool of individuals eligible for training and professional development vouchers has expanded. This group now includes working-age internally displaced persons without suitable employment; individuals who have been deprived of personal liberty as a result of armed aggression against Ukraine; and people who were wounded, concussed, injured, or fell ill due to military aggression while directly in the areas of military (combat) operations or in regions subjected to bombing, air strikes, and other armed attacks. These individuals are eligible regardless of their diagnosed disabilities, provided that there are relevant recommendations in their individual rehabilitation plan^{39,40} Tuition is covered by the Fund of Compulsory State Social Insurance of Ukraine for Unemployment.
- Changes to the "Procedure for issuing vouchers to support the competitiveness of certain categories of citizens in the labour market" have broadened the categories of individuals eligible to receive a voucher, defined the documents required to confirm eligibility, approved the application form for a voucher, allowed for the submission of voucher applications in both paper and electronic formats using technical means of electronic communication, and approved a new voucher form.⁴¹
- The Ministry of Economy of Ukraine issued Order No. 2040 on 11th April 2023, approving an updated list of professions and specialties for which a voucher may be issued.

Supporting participation and graduation

Introduced in 2022, the **internal academic mobility program** has served as a crucial tool in maintaining the numbers of VET students. This program facilitates the continuation of training in corresponding professions at partner VET institutions, inclusive of practical training such as internships and work placements. The program also ensures a safe learning environment, utilization of the

 ³⁷ Cabinet of Ministers of Ukraine.(2022). Resolution "On Amendments to the Resolution of the Cabinet of Ministers of Ukraine No. 673 of August 29, 2018". https://zakon.rada.gov.ua/laws/show/100-2023-%D0%BF#Text
 ³⁸ Cabinet of Ministers of Ukraine. (2022). Resolution "On Approval of the Procedure for Vocational Training, Retraining and Advanced Training of Registered Unemployed". https://zakon.rada.gov.ua/laws/show/264-2023-%D0%BF#Text

³⁹ Verkhovna Rada of Ukraine. (2022).Law of Ukraine "On Social and Legal Protection of Persons in respect of whom the deprivation of personal liberty as a result of armed aggression against Ukraine and their family members has been established". https://zakon.rada.gov.ua/laws/show/2010-20#Text

⁴⁰ Verkhovna Rada of Ukraine. (2022).Law of Ukraine "On Amendments to Certain Legislative Acts of Ukraine on Reforming the Employment Service, Social Insurance in Case of Unemployment, Promoting Productive Employment of the Population, Including Youth, and Introducing New Active Labour Market Programs". https://zakon.rada.gov.ua/laws/show/2622-20#Text

⁴¹ The Cabinet of Ministers of Ukraine. (2022).Resolution "On Amendments to the Resolution of the Cabinet of Ministers of Ukraine of March 20, 2013 No. 207". https://zakon.rada.gov.ua/laws/show/249-2023-%D0%BF#Text

educational, production, and sports facilities of a partner VET institution, retention of study place, receipt of scholarships and all other social benefits in accordance with the law, and the procurement of a document of the established form based on the educational qualification level achieved as a result of training. ⁴² In 2022, more than 300 individuals took advantage of the internal academic mobility program.

Given the large-scale displacement of VET students to other regions and/or outside Ukraine due to threats to life and health, residence in areas of military (combat) operations or temporary occupation, and encirclement (blockade), students are provided with the option to **interrupt** their studies and take **academic leave** during martial law, emergency, or state of emergency (special period). An academic leave of up to two years can be granted due to family or other circumstances upon personal application. VET students who have been granted academic leave are not expelled from the VET institution.

To assist VET students in successfully completing their training, regulations have been established for issuing state-standard VET documents to graduates of VET institutions located in areas of military (combat) operations, under temporary occupation, or encirclement (blockade). Specifically:

- In the event that it is not possible to obtain the signature of the head of a VET institution, the heads of educational authorities of regional and Kyiv city military administrations are authorized to sign state-standard VET documents.
- State-standard VET documents and supplements may be issued to graduates of VET institutions located in areas of military (combat) operations, under temporary occupation, or encirclement (blockade), who are temporarily residing in other regions of Ukraine. These can be issued to one of the parents or other legal representatives and other individuals by a notarized power of attorney.⁴³

Furthermore, VET students who were forced to seek asylum abroad have been given the opportunity to obtain VET documents issued under martial law in Ukraine.⁴⁴

3.3.3 Specific measures: quality, relevance, employability

Supporting quality and relevance

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In 2022, efforts to enhance the **quality of VET** and its alignment with labour market needs continued apace. The dual education system serves as a critical tool to align the competencies of VET graduates with the demands of employers. During the 2021-2022 academic year, a dual form of education was implemented in 316 professions across 210 VET institutions, involving 1371 enterprises, institutions, and organizations. In the same academic year, 12,030 individuals participated in dual-form education, from which 5,930 graduated, resulting in an employment rate of 70%.

⁴² Ministry of Education and Science of Ukraine. (2022). Order "On Approval of the Regulation on Internal Academic Mobility of Vocational Education and Training Students Studying in Vocational Education and Training Institutions of Ukraine". https://zakon.rada.gov.ua/laws/show/z0437-22#Text

⁴³ Ministry of Education and Science of Ukraine. (2022). Order "On Some Issues of Issuing Documents on Professional (Vocational) Education under Martial Law in Ukraine". https://zakon.rada.gov.ua/laws/show/z1103-22#Text

⁴⁴ As a result of amendments to the Order No. 538/192 of the Ministry of Education and Science of Ukraine and the Ministry of Foreign Affairs of Ukraine "On Approval of the Procedure for Interagency Cooperation on Issuing Documents on Basic Secondary, Complete Secondary and Vocational (Vocational) Education Issued under Martial Law in Ukraine to Education Applicants Located Outside Ukraine" dated 09.06.2022, graduates of VET schools will be able to receive documents.

The year 2022 also saw 47,000 **unemployed** individuals receive VET, assisted by the Employment Service. Of these, 29,000 were trained at the VET centres of the State Employment Service. Under martial law, 17 new IT educational programs were introduced, including courses on website development basics, creation of 3D graphics objects and scenes in 3DSMAX, software testing, and application creation in the Unity 3D C environment, among others. Short-term, purpose-specific courses also saw high demand. For example, a short-term course titled "Operator of an Unmanned Aerial Vehicle (drone)" was developed in response to the needs of employers during the war.

The **work-based learning** system also underwent transformations. With the significant number of internally displaced individuals in Ukraine's western regions, employers collaborated with employment centres to provide job opportunities for work placements or internships. As of 2022, nearly half of the registered unemployed individuals in the western regions participated in internships with employers. In the Ivano-Frankivsk region, this constituted 47.8% of the total number of registered unemployed individuals who received training. Despite these developments, numerous employers put employee training on hold in 2022, with a notable 42% of companies cutting back on expenditure for employee training in any form.⁴⁵

Supporting employability

In a bid to align the **national qualification system** more closely with European standards, a continued emphasis was placed on enhancing educational standards and aligning training content with employer needs. This led to a modification in approaches towards developing professional standards, including a new structure for these standards, the mandate that developers approve professional standards, the endorsement of draft professional standards by a representative all-Ukrainian association of trade unions at the sectoral level, and the establishment of procedures for developing draft professional standards containing information of restricted access.⁴⁶

The update of the national qualifications system is designed to help meet the needs of employers in terms of the list of professional skills and qualifications in times of war. In 2022, the most popular soft skills named by employers are responsibility (92.3%); stress resistance (77.6%); teamwork (72.4%); attentiveness (56.5%); computer skills (49.8%); foreign languages (48.5%); equipment operation (42.6%); learning ability (40.7%); creativity (35.1%). In the context of Ukraine's European integration, the importance of knowledge of the European standards and norms was note The modernization of the national qualifications system aims to better cater to employer needs regarding the range of professional skills and qualifications, especially in times of war. In 2022, employers prioritized soft skills including responsibility (92.3%), stress resilience (77.6%), teamwork (72.4%), attentiveness (56.5%), computer skills (49.8%), foreign language abilities (48.5%), equipment operation (42.6%), learning aptitude (40.7%), and creativity (35.1%). Additionally, in light of Ukraine's European integration, the importance of understanding European standards and norms was underscored.⁴⁷

Efforts were initiated to reform the National Classifier of Ukraine DK (State Classifier) 003:2010 "Classifier of Occupations", in order to harmonize it with international standards for classifying

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⁴⁵ Confederation of Employers of Ukraine, Ministry of Education and Science of Ukraine, European Bank for Reconstruction & Development, Solidarity Fund PL, EU4Skills: Better Skills for Modern Ukraine. (2022). Labour market in Ukraine: 2022 - 2023: Status, Trends and Prospects. Study of skills needs in Ukraine during the war. https://www.dcz.gov.ua/sites/default/files/ebrd_survey_20_04_23_0.pdf

⁴⁶ Cabinet of Ministers of Ukraine. (2023). Resolution "On Amendments to the Resolution of the Cabinet of Ministers of Ukraine No. 373 of May 31, 2017". https://zakon.rada.gov.ua/laws/show/1453-2022-%D0%BF#Text

⁴⁷ Confederation of Employers of Ukraine, Ministry of Education and Science of Ukraine, European Bank for Reconstruction & Development, Solidarity Fund PL, EU4Skills: Better Skills for Modern Ukraine. (2022). Labour market in Ukraine: 2022 - 2023: Status, Trends and Prospects. Study of skills needs in Ukraine during the war. https://www.dcz.gov.ua/sites/default/files/ebrd survey 20 04 23 0.pdf

occupations, professions, professional qualifications, and education, in line with the International Standard Classification of Occupations ISCO-08.48

In 2022, qualification centres authorized by the National Qualifications Agency commenced operations, offering assessment and recognition of learning outcomes, even those gained through nonformal or informal education. They also grant or confirm professional qualifications and recognize qualifications earned abroad.49

The first four qualification centres were established by employers at metallurgical enterprises in Kryvyi Rih, Zaporizhzhia, and Kamianske of the Dnipropetrovsk oblast. These centres enabled professionals such as locksmiths, sinter operators, crane operators in metallurgical production, electricians for repair and maintenance of electrical equipment, turners, electric and gas welders, and others to attain professional qualifications without attending educational institutions.50

As of March 2023, the National Qualifications Agency had accredited 14 qualification centres, with 9 more operating in line with the CMU Resolution of 18.03.22 No. 314. The accreditation of qualification centres prioritizes entities authorized to assess and recognize training results in professions that bolster Ukraine's resilience in the war against Russia. By January 2023, 517 individuals had validated their professional qualifications in qualification centres and received state-recognized certificates serving as a basis for employment.51

According to a study jointly initiated by the State Employment Service of Ukraine, the Federation of Employers of Ukraine, the Ministry of Education and Science of Ukraine, the Solidarity Fund PL, the European Bank for Reconstruction & Development, and the EU4Skills Programme "Better Skills for Modern Ukraine", confirming full or partial professional qualifications in qualification centres emerged as the most prevalent form of employee training in 2022.

The introduction of qualification centres proved instrumental in addressing staffing needs in sectors experiencing significant personnel shortages, such as the mining industry, utilities, and state-owned enterprises for housing and communal services.52

Improving career guidance

To facilitate the employment of VET graduates during wartime, career centres have been established within VET institutions since 2021. To date, 260 of these centres have been launched, including 38 in the year 2022 alone. Primarily, these centres are tasked with organizing and conducting career counselling for VET students and graduates, fostering entrepreneurial initiatives, and

⁴⁸ Cabinet of Ministers of Ukraine. (2022). Resolution "On the Establishment of the Interagency Working Group on Reforming the National Classifier of Ukraine DK 003:2010 "Classifier of Occupations" https://www.kmu.gov.ua/npas/pro-utvorennia-mizhvidomchoi-robochoi-hrupy-z-pytan-reformuvannia-s781-120722

⁴⁹ Ministry of Education and Science of Ukraine. (2022). Order "On Approval of the Model Regulation on the Qualification Centre". https://zakon.rada.gov.ua/laws/show/z0804-21#Text

⁵⁰ Government portal. Unified web portal of the executive authorities of Ukraine. (June 24, 2022). The first qualification centres were launched in Ukraine. https://www.kmu.gov.ua/news/v-ukrayini-zapracyuvali-pershikvalifikacijni-centri

⁵¹ https://blog.liga.net/user/yubalaniuk/article/48940

⁵² Confederation of Employers of Ukraine, Ministry of Education and Science of Ukraine, European Bank for Reconstruction & Development, Solidarity Fund PL, EU4Skills: Better Skills for Modern Ukraine. (2022). Labour market in Ukraine: 2022 - 2023: Status, Trends and Prospects. Study of skills needs in Ukraine during the war. https://www.dcz.gov.ua/sites/default/files/ebrd survey 20 04 23 0.pdf

enlightening the youth about predominant trends in the labour market and the requirements of employers.

Aiming to enhance the appeal of blue-collar professions, the Ministry of Education and Science of Ukraine initiated and executed the national communication campaign "Everything Works Thanks to Us" and the "Put Your Hand to..." campaign in 2022.⁵³ These efforts are designed to shift public attitudes towards VET and establish a fresh visual identity for VET institution admission campaigns. The campaigns feature eight narratives of young VET graduates who share their journeys into their professions, discussing the value and significance of their work. The campaign materials comprise a keynote video for television broadcast and eight in-depth videos featuring the stories of the individuals. Digital advertising, integral to the "Everything Works Thanks to Us" campaign, was rolled out on platforms such as YouTube, Instagram, and Facebook.

Influence marketing is a distinct component of the project, encompassing promotional activities on social media through bloggers and influencers. The new visual identity for the VET institution admission campaign "Put Your Hand to..." was created. After five months of promoting blue-collar jobs, by January 2023, the main YouTube video had amassed a million views, with Instagram and Facebook posts garnering around 50,000 views.

Moreover, a portal was developed as part of the nationwide project "Choose the profession of your dreams" that focuses on career guidance and career building.⁵⁴ This platform aims to assist high school students in identifying their dream profession, aiding them in realizing success and self-fulfilment within Ukraine.

3.3.4 Specific measures: system management and organisation

Data and management

The initiation of the electronic VET management system, EMIS, marks a significant stride towards automating the process of data management. Its objective includes automating the collection, verification, analysis, storage, distribution, and use of disaggregated data on both qualitative and quantitative indicators of Ukraine's VET system. This aims to enhance the system's efficiency analysis and management decision-making. EMIS is implemented as part of a collaborative program with the EU and its member states Germany, Finland, Poland, and Estonia, to aid the reform of vocational education and training in Ukraine.

Educational process: safety and flexible organisation

In light of recent events, the safety of all participants in the **educational process** is paramount. Accommodations are made for students who, due to martial law in Ukraine or specific localities, are compelled to change their residence or place of study. Provisions for these students include distance or online education in the safest form possible, and a guarantee for scholarships and other legal entitlements.⁵⁵

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⁵³ Ministry of Education and Science of Ukraine. (July 5, 2022). "The Ministry of Education and Science of Ukraine and PROJECTOR have created a new style for the VET institutions admission campaign". https://mon.gov.ua/ua/news/mon-i-projector-stvorili-novij-vizualnij-stil-dlya-vstupnoyi-kampaniyi-zakladiv-profosviti
⁵⁴ Choose the profession of your dreams. All-Ukrainian project on digitalization and career building. https://hryoutest.in.ua/#item-11

⁵⁵ Verkhovna Rada of Ukraine. (2017). Law of Ukraine "On Education". https://zakon.rada.gov.ua/laws/show/2145-19#Text

Considering the current state of some regions of Ukraine, it's recommended to structure the educational process according to the specific situation. Suggestions for **organising the educational process** are as follows:

- The theoretical aspects of the educational program should ideally utilize distance learning technologies, negating the need for physical attendance.
- Practical components of the program (industrial training and internships) should utilize training workshops, laboratories, training grounds, and internship placements. If this isn't possible, these elements can also be conducted using distance learning technologies. Any uncompleted practical training should be deferred until the termination of martial law.⁵⁶

Efforts to secure a **safe educational environment** in VET institutions are underway, with ongoing initiatives to equip civil defence facilities. According to the Ukrainian Ministry of Education and Science, 31 VET institutions host 38 civil defence structures (4.53% of the total number of VET institutions). Facilities such as basements, shooting ranges, and recessed premises are being equipped for use as simple shelters, traffic signs and signs at the entrance to protective and other structures are installed on the routes to shelters; warning systems, including loudspeaker devices, are available, and stockpiles of necessary materials and equipment are available.

Specifically, essential materials and supplies, such as tools, water, and medical aids, have been procured for outfitting civil defence facilities. Additionally, a range of equipment including boilers, sinks, washing machines, beds, mattresses, blankets, pillows, and kitchen utensils has been acquired. These items were distributed across more than 200 VET institutions, enhancing their capacity and facilities. Furthermore, 18 buses and 20 fully equipped IT laboratories, comprising computer classrooms with requisite furniture, have been added to these institutions. Simultaneously, 43 robust emergency points, referred to as 'invincibility points,' have been established within these VET institutions.

Internationalisation of VET

Ukraine's EU candidate status has accelerated the **European integration of Ukraine's VET system**. A comparison of the Ukrainian NQF with the EQF was conducted under the Council Recommendation on the comparison of third countries' national and regional qualifications frameworks with the EQF (2017), ⁵⁷ supported by the European Commission and ETF.

The comparison report⁵⁸ indicates that the objectives of the Ukrainian NQF and the EQF are quite aligned. Both support employability, education reforms, learning outcomes, transparency, portability and comparability of qualifications, and their recognition. Over time, the Ukrainian NQF's level descriptors have evolved to resemble those of the EQF more closely, while also supporting the validation of learning outcomes obtained in various settings.

content/uploads/2022/04/%D0%9B%D0%B8%D1%81%D1%82 %D0%9C%D0%9E%D0%9D 1 3377 22 %D0 %BE%D1%80%D0%B3%D0%B0%D0%BD%D1%96%D0%B7%D0%B0%D1%86 %D0%BE%D1%81%D0%B2 %D1%96%D1%82 %D0%BF%D1%80%D0%BE%D1%86%D0%B5%D1%81%D1%83.pdf

⁵⁶ Ministry of Education and Science of Ukraine. (2022). Letter "On the organization of the educational process in VET institutions". https://nmcpto.sumy.ua/wp-

⁵⁷ Council of the European Union. (2017). Council recommendation of 22 May 2017 on the European Qualifications Framework for lifelong learning and repealing the recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning (OJ C, C/189, 15.06.2017, p. 15, CELEX. https://op.europa.eu/en/publication-detail/-/publication/ceead970-518f-11e7-a5ca-01aa75ed71a1/language-en

⁵⁸ European Commission. (2023). Comparison Report of the European Qualifications Framework and the Ukrainian National Qualifications Framework. https://europa.eu/europass/en/node/2036

This harmonization of the Ukrainian NQF with the ECF is crucial for the over 7 million Ukrainians displaced by the war, who now have the right to live and work in accepting countries. This allows their qualifications to be recognized for both employment and education in Europe.⁵⁹

In 2022, the "Support Program for Vocational Education and Training (VET) in Ukraine" Financial Agreement was ratified, securing a promising investment of EUR 58 million from the European Investment Bank. This funding is earmarked for the establishment of a network of Centres of Vocational Excellence, while an additional EUR 8.5 million has been committed for the broader development of VET from the EU Neighbourhood Investment Platform.

These Centres of Vocational Excellence are envisioned to serve as shining examples of superior VET institutions. They are designed to facilitate interaction between diverse stakeholders, including other educational institutions, businesses, governmental bodies, and citizens. Moreover, they aim to pioneer the introduction of new professions and broaden the range of educational services offered, extending their reach to encompass the adult population as well.

The initiative has targeted the creation of nine such centres across Ukraine, specifically in the regions of Chernihiv, Donetsk, Dnipro, Ivano-Frankivsk, Odesa, Ternopil, Volyn, Zakarpattia, and the city of Kyiv. This transformative endeavour is expected to significantly enhance the learning environment, potentially benefiting over 10,000 students and teachers across the nation.⁶⁰

A supplementary agreement has been signed to extend the initiative titled "EU4Skills: Better Skills for Modern Ukraine." This program, serving as a segment of the larger project "EU4Skills: Modernization of the Infrastructure of the VET System in Ukraine," is temporarily deferred due to ongoing military conflicts.⁶¹

In parallel to this, the EU4Skills: "Better Skills for Modern Ukraine" program has made strides in promoting gender equality in education. Aligned with the 2030 Strategy for Gender Equality in Education, initiated in 2022, and strengthened by the support of the European Union and its member states - Germany, Finland, Poland, and Estonia - this initiative has successfully developed a Model Roadmap for Promoting Gender Equality in Vocational Education and Training at the Regional Level during 2022. This blueprint aims to systematically advance gender equality within the sphere of regional vocational education and training.⁶²

3.4 Prospects for the recovery of VET in Ukraine

The necessity to reconstruct the country gives priority to the reorientation of VET towards a more encompassing view of human capital development. Reforming VET in Ukraine implies a broad scale "reset" of the system, one that focuses on the immediate needs of the country and its prospective

37

⁵⁹ European Commission. (2022). Proposal for a COUNCIL IMPLEMENTING DECISION establishing the existence of a mass influx of displaced persons from Ukraine within the meaning of Article 5 of Council Directive 2001/55/EC of 20 July 2001, and having the effect of introducing temporary protection. COM/2022/91 final. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022PC0091&gid=1646384923837

⁶⁰ Ministry of Education and Science of Ukraine. (January 3, 2023). Main achievements of the Ministry of Education and Science in the field of European integration in 2022. https://mon.gov.ua/ua/news/golovni-dosyagnennya-mon-u-sferi-yevropejskoyi-integraciyi-u-2022-roci

⁶¹ Ministry of Education and Science of Ukraine. (January 3, 2023). Main achievements of the Ministry of Education and Science in the field of European integration in 2022. https://mon.gov.ua/ua/news/golovni-dosyagnennya-mon-u-sferi-yevropejskoyi-integraciyi-u-2022-roci

⁶² EU4Skills: Better skills for modern Ukraine. (2022). Model roadmap "Promoting gender equality in the system of vocational education and training at the regional level". https://mon.gov.ua/storage/app/media/news/2022/12/22/Modelna_dorozhnya_karta22.12.2022.pdf

reconstruction. The reform is grounded in the Conceptual Framework for the Development of Human Capital in Vocational Education and Training, which was sanctioned by the Board of the Ministry of Education and Science on December 19, 2022. This document is designed to enact the Recovery Plan of Ukraine, formulated by the Government of Ukraine, and introduced at the International Conference on the Recovery of Ukraine in Lugano, Switzerland, on July 4-5, 2022. Moreover, the document anticipates the continuation of the Concept for the Implementation of State Policy in the Field of Vocational Education and Training "Modern Vocational Education and Training" up until 2027.

The Conceptual Framework envisions the evolution of a resilient, robust, inclusive, and flexible VET system, contributing significantly to the recovery, sustainable economic development, and European integration of Ukraine.

The primary aims of the VET reform up to 2027 include:

- The modernization of VET content for young individuals and adults, and harmonization with EU best practices to enhance the quality of education.
- The strengthening of institutional capacities for the proficient implementation of the VET management system.
- "Smart Rebuilding": the shaping of a qualitatively new network of VET institutions that are hightech, attractive, and inclusive.

The goals and objectives of the VET reform for 2023-2024 have been specified as follows:

- The **restoration and development** of the VET network/infrastructure, notably:
 - Reconstruction of VET institutions impacted as a result of hostilities
 - Organization of civil defence structures in VET institutions following the established norms
 - Creation of training and practical centres within VET institutions (upgrading of workshops and laboratories)
 - Repair and arrangement of social infrastructure (dormitories, canteens, spaces for youth development)
 - Creation of architectural accessibility of VET institutions for individuals with disabilities
 - Transfer of VET institutions' property from state to municipal ownership.
- Ensuring that the content and quality of education align with the needs of regional labour markets, specifically:
 - Enabling the acquisition (retraining) of professional skills by the adult population under the state/regional order for worker training
 - Development of contemporary state educational standards for working professions and educational programs/courses for adults and individuals with disabilities
 - Engaging businesses in the process of training specialists in VET institutions via dual education.
- **VET digitalization,** incorporating the organization of distance learning through the Vocational Education Online platform:
 - Development/adaptation of online courses/simulations for distance learning and their subsequent integration into the Vocational Education Online platform
 - Enhancement of the functionality of the electronic office for VET institution applicants
 - Development of an education management information system (EMIS).

⁶³ Cabinet of Ministers of Ukraine. (2019). Order "On Approval of the Concept for the Implementation of the State Policy in the Field of Vocational Education and Training "Modern Vocational Education and Training" for the Period up to 2027". https://zakon.rada.gov.ua/laws/show/419-2019-%D1%80#Text

- Popularization of VET and working professions via a communication campaign for VET institution admissions:
 - Introduction of an effective career counselling system
 - Organization of VET Week in Ukraine and the communication campaign "Everything Works Thanks to Us".
 - Training of VET institution representatives in social media management, content creation, career counselling, etc.

In conclusion, the VET system in Ukraine, despite the war, continues its reform in alignment with its new mission - the development of human capital for the purpose of rebuilding Ukraine and integrating it into the EU.

4. SUPPLEMENTARY SOURCES AND INFORMATION

4.1 Links to background information and data

The system performance indices presented in this report were calculated based on a selection of international quantitative indicators for Ukraine and the qualitative responses of stakeholders where such indicators were missing.

The full collection of quantitative indicators collected for Ukraine for this 2023 round of monitoring can be found here:

 $\underline{https://docs.google.com/spreadsheets/d/1BR8N55Kl9Up022suGH0WMObCzOwOveVW/edit?rtpof=true\&sd=true\#gid=1588958483$

The full collection of qualitative responses to the country-specific questionnaire for Ukraine can be found here: https://docs.google.com/document/d/1BabfKq-LbgXPcLeQOdfv2kz-K6ewOmkY/edit?rtpof=true&sd=true&pli=1

A full technical report about the monitoring framework and process in 2023 can be found here:⁶⁴ https://drive.google.com/file/d/1FNwlKtlhp4y-Hx02AiFtwJLM8ubQQ7PK/view

General information for the Torino Process as well as the reports and data of other participating countries, can be found here: https://www.etf.europa.eu/en/what-we-do/torino-process-policy-analysis-and-progress-monitoring. 65

4.2 Definitions, terminological clarifications, methodological limitations

4.2.1 Definitions and terminological clarifications

This section provides an overview and definition of key terms in the Torino Process monitoring framework.

Youth: Population in the official age of entrance and participation in initial VET programmes.

⁶⁴ Release date for the report is 1 July 2023 upon completion of monitoring for all participating countries.

⁶⁵ The Torino Process monitoring reports and data will be released gradually in the period March-May 2023 in the order in which countries submit their evidence and the reports are being finalised with them.

- Adults: Population of working age (15+ years of age) not enrolled in initial VET programmes.
- Disadvantaged youth: This refers to socio-economic disadvantage and describes youth with access to below-average levels of financial, social, cultural, and human capital resources.
- Long-term unemployed: Long-term unemployment refers to the number of people who are out of work and have been actively seeking employment for at least one year.
- Inactive populations: Adults of working age who are outside of the labour force, meaning that they are neither employed nor registered as unemployed (that is, seeking employment)
- Lifelong learning: any learning activity undertaken throughout life, to improve knowledge, skills/competences and/or qualifications for personal, social and/or professional reasons.
- System performance: describes the extent to which the VET system delivers against a targeted selection of national and international obligations (commitments) to learners and other stakeholders in support of learning through life (lifelong learning LLL).
- Initial VET: Vocational education and training carried out in the formal system of initial education (usually upper or post-secondary) before entering working life.
- Continuing VET: Formal or non-formal vocational education and training carried out after initial
 VET and usually after the beginning of working life.
- Adult education: Adult education or learning may refer to any formal, non-formal, or informal learning activity, both general and vocational, undertaken by adults after leaving initial education and training.

4.2.2 Methodological limitations

The system performance indices developed in the framework of the Torino Process, are based on a rich methodological framework. This framework relies on various principles and theoretical underpinnings to ensure that the design, implementation, and evaluation of the indices is plausible in terms of theoretical foundations, technical reproducibility, and statistical fitness. The primary aim of these indices is to offer insights that can guide the monitoring of countries and inform their policy planning, not to promote their comparative ranking.

While various options were available during the different phases of the construction of the indices, the final choices represent a series of decisions which were deemed adequate and appropriate to promote reliability and avoid bias, in full awareness that by their very nature, indices like those require constant refinement. Therefore, the construction and calculation of the performance indices will remain an ongoing process to address the following limitations:

- 1. Refinement of aggregations and analysis: the current version of the indices represents a sub-set of the national systems under analysis. While these are sufficient for the formulation of initial findings, future cross-country analysis will include a larger number of countries with possible alternative (dis)aggregations i.e., at regional or development level, which may also affect the formulas using in the calculation of the indices as well as their values. The methodological framework of the Torino Process monitoring allows for such extensions and refinement without jeopardizing the validity of results which have been released already.
- 2. Choice of evidence: while the goal of this exercise is to monitor equally the different areas of interest, their dimensions and related outcomes, different countries may rely on a different, country-specific mix of qualitative and quantitative indicators from a predefined list for all countries. This also

applies to the last available (reference) year for the quantitative indicators, which may vary between indicators and countries within a five-year limit.