



INDUSTRY OUTLOOK

EMPLOYERS THEMATIC COMMITTEES

«Vocational training & skills development»

FINAL REPORT

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List of Acronym

BSOs	Business Support Organizations
CSOs	Civil Society Organizations
CEDEFOP	Centre européen pour le développement de la formation professionnelle
ETF	European Training Foundation
EU	European Union
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
ILO	International Labor Organization
KPIs	Key Performance Indicators
MENA	Middle East and North Africa
NEET	Not in Education, Employment and Training
SMEs	Small and Medium Enterprises
TVET	Technical and Vocational Education and Training
VET	Vocational Education and Training
UNIDO	United Nations Industrial Development Organization
USAID	United States of America International Aid

1. Executive Summary

The overall objective of this regional paper is to provide a comprehensive picture of the Vocational Education Sector (VET) and Skills Development across the Mediterranean countries. The paper will identify the main challenges of the VET sector and highlight its major trends and provide a set of recommendations and proposed actions to further develop the VET sector in the Southern Mediterranean Countries in particular.

Based on the review of several reports on the VET sector (ETF, CEDEFOP, UNESCO, ILO, OECD, UfM, etc.), the paper will synthesize the major challenges and critically assess their impact on the VET sector development. Also, the present will highlight the major trends in the VET sector by conducting a comparative analysis with major VET projects in Europe. The comparison aims at underlining similarities between countries as well as differences in ways these countries tackle the VET sector reform/development. The goal is to gather relevant empirical findings on best practices, lessons learnt and way forward in the VET sector development.

The study will examine the impact of the donors' and projects' reform/development on the VET sector and will conclude that international interventions to reform the VET sectors of the developing countries positively impacted on its development. The study will posit that such reform endeavors are taking the VET sector to the right path, however, more reform initiatives need to be undertaken to fully reform the sector.

Finally, the paper will suggest a list of recommendations to help address the VET sector challenges and will capitalize on the sector achievements to align its recommendations accordingly.

2. Introduction

The VET sector is frequently perceived as a solution to the social inclusion of youth in the developing countries. It can tackle many pressing issues such as unemployment, low productivity, and weak private sector competitiveness. Vocational skills development opportunities can dramatically improve the employability of youth especially those who are in NEET category. Developing vocational skills through the VET sector is essential to guarantee an inclusive socio-economic growth and increase productivity.

The VET sector is also perceived as a valuable instrument of sustainable socio-economic development that has impactfully participated in developing and delivering skilled labor force globally. During the last two decades, the labor market has seen major changes and skills needs have shifted from production and manufacturing towards more digital and service-based occupations which usually require higher skills. Indeed, there is an apparent increasing demand for skills coupled with economic, social, and technological developments.

A plethora of studies, analyses, policy papers have been conducted to explore the role of the VET sector to align skills required by employers in the present and future labor market to improve productivity and competitiveness in the sectors which are critical for the achievement of national employment and development goals. However, vocational education remains a secondary choice for young people aspiring for a successful career and the significant skills mismatch and the increasing unemployment rate in developing countries pose considerable challenges for the VET sector. Therefore, it has become urgent for national policy makers and VET stakeholders to work on improving the VET sector role in coping with rapid technological changes, matching labor market demand for higher skills, attracting youth enrollment in VET programs and rendering the VET sector an instrument to reduce poverty, promote economic growth and increase competitiveness.

The present paper aims to explore ways to improve vocational training development opportunities to boost business productivity and competitiveness and positively impact on economic growth and job creation. It also aims to support the 2030 agenda for sustainable development and its number of ambitious targets under SDG 4 on quality education and SDG 8 on decent work and economic growth. The study will make some recommendations to provide innovative responses from the VET sector in developing countries that enables it to become a catalyst in the vicious loop of job creation and economic growth.

Moreover, the Covid 19 pandemic has engendered significant complications to the education sector, including the VET sector which has faced challenges in maintaining a learning continuity plan through online and distance learning solutions quickly introduced to mitigate the risk of the pandemic by adopting social distancing measures. It was difficult for the VET sector to provide hands on practical training using online solutions. In addition, not all countries had the infrastructure in place and well-trained instructors able to rapidly shift to online instruction. The bad infrastructure that characterizes VET centers in developing countries did not facilitate the adoption of the new normal. Factors including limited internet connectivity, absence of learning platforms, limited number of digital devices and unprepared

instructors to adopt the online teaching are behind the unsuccessful adoption of remote learning in the VET sector.

Although the pandemic accentuated the vulnerability of the VET sector, it has also encouraged many governments to turn to their VET sector and to suggest urgent solutions to reform the sector which remains a valuable instrument of sustainable socio-economic development as it has actively participated in developing and delivering skilled labor force globally. In addition, the labor market has seen major changes during the last two decades and skills needs have shifted from production and manufacturing towards more digital and service-based occupations which usually require higher skills. Indeed, there is an apparent increasing demand for skills coupled with economic, social, and technological developments. Amid the ever-challenging context of globalization, technological progress and market economy development have dictated the upskilling and the reskilling of the existing and upcoming workforce to be able to improve productivity and enhance competitiveness.

The pandemic has accelerated the need for skills development, and it has become urgent for national policy makers and VET stakeholders to work on improving the VET sector role in coping with rapid technological changes, matching labor market demand for higher skills, attracting youth enrollment in VET programs and rendering the VET sector an instrument to reduce poverty, promote economic growth and increase competitiveness.

This regional paper attempts to reconstruct the new VET model that has been developed in Southern Mediterranean countries following the implementation of the European dual model. The hypothesis used in this research states that the dual model implementation resulted in a new VET model that permeated with the actual realities and challenges of the country. This new model is characterized by improved curricula tailored according to the need of the private sector, trained instructors, private sector engagement through their representative chambers and business associations, and enhanced image of the VET sector which increased its attractiveness amongst youth. However, the reform process that the VET sector followed remains partially implemented and has not yet impacted on the whole VET sector and its stakeholders. Impactful VET reforms are selective and are qualified as pilot projects that are difficult to scale up at the national level.

3. Literature Review

During the initial phase of the present study, a thorough review of the literature on the subject matter was conducted to address major issues around the development of the VET sector in the last decade. The review outlined the main topics raised including the role of the VET sector as a solution to youth unemployment as well as the ways to develop the VET sector by tackling issues such as funding VET, improving its quality, aligning VET curricula with skills demand, and engaging both private and public stakeholders in improving the VET sector and raising its attractiveness among youth.

The desk research examined recent literature (between 2015-2021) including research articles, technical reports, donors' reports and surveys, policy papers, etc. Some older and frequently cited references are also mentioned.

One of the major findings from the desk research includes trends of policy recommendations. Several studies and papers (CEDEFOP, UNESCO, UFM, ETF, ILO and OECD) strategically outlined ways to develop the VET sector and increase its attractiveness for youth. These papers highlighted the importance of the VET sector as a solution to reduce the skills gaps. It has been posited that the VET sector can improve the capabilities of the young workforce in search for a sustainable job in a region where unemployment rates among youth is soaring.

Also, many studies promoted developed countries best practices in the VET sector and highlight the parameters that were available to make the VET success happen. Usually, best practices emanate from countries such as Germany, Switzerland, Netherland, UK, and France. These countries have opted for the dual model to develop its VET sector and vetted that private sector engagement and market-led training interventions are key to the VET sector success.

Several reports highlighted the major challenges the VET sector faces. Most developing countries seem to face the same kind of challenges which range from weak governance, insufficient infrastructure, less qualified trainers, outdated curricula, negative perception of the VET education amongst youth and parents, precarious engagement of the private sector, significant increase of the informal sector and recurring global recessions caused by the financial crisis of 2008 and the pandemic.

According to the recent report (October 2020) published by the World Economic Forum, by 2025, 15% of the workforce role may become redundant. Positions such as data entry clerks, administrative assistant, general operation managers, assembly workers will disappear. Also, 13.5% of emerging jobs may grow. These jobs are related to the technology sector and concern positions such as data analyst, big data specialist, Fintech engineers, etc. The automation that characterizes the fourth industrial revolution and the recession caused by the Covid-19 pandemic may cause the displacement of at least 85 million jobs. On the other hand, there may be around 97 million new roles that will emerge because of job opportunities that will arise from technology related businesses.

These figures confirm that skills gap is going to become more obvious soon. Existing employees will find it difficult to cope with the rapid pace of the new labor market skills needs if they do not readjust their profile and quickly acquire the new skills. Recent graduates who are searching for new career opportunities will encounter more challenges as they will be unable to match their acquired skills with the new labor market demands for technology related skills.

Results of the future of jobs survey conducted by the World Economic Forum suggest that 40% of workforce need reskilling or upskilling. This means that employers must invest in reskilling their employees if they plan to upgrade their businesses. This also means that initial training at both tertiary and vocational levels need to review their curricula and adjust them to the requirements of future jobs. As a matter of fact, those who maintain their jobs will need to reskill themselves to be able to match their profiles with new jobs. Those who will lose their jobs will need to reskill themselves to be able to find a new job. Those who are in the process of choosing their career path must be advised to choose paths of new jobs and they should

consider taking specific courses to upskill themselves. It seems that initial and continuing education are no longer able to keep up with the rapid pace of labor market skills needs and there is an urgent need for a flexible educational system that can swiftly bridge the skills gap in an efficient and cost-effective manner. 2

The literature review conducted in the study covered a variety of resources on the VET Sector. The researcher reviewed several meta-analyses and qualitative studies on the VET sector, including (CEDEFOP, 2015, 2017, 2018, 2019, 2020), UNESCO-UNEVOC (2013), Advisory Committee on Vocational Training (2018), European Training Foundation (ETF), International Labor Organization (ILO), the Organization for Economic Co-operation and Development (OECD), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Bank (WB). The European Commission (EC), the African Development Bank (AfDB) and the Asian Development Bank (ADB), among other recent publications on the subject matter.

The tools designed in these analyses provide systematic assessment of the VET sector and exposes what works and what does not work to meet the demand for skills in the labor market and improve the employability of youth. This survey considers the conclusions and assumptions reported by these previous works and uses as a baseline the information gathered in previous research conducted about the VET sector in Northern and Southern Mediterranean countries. In addition, the desk research helped gain knowledge and broad understanding of the current situation of the VET sector in these countries. It therefore highlights the major findings which are structured into six major topics tackled in the reviewed literature. In the following subsections, each topic is briefly described:

VET system as a solution to youth unemployment and skills mismatch: Little is known about the impact of the VET system on youth employability, economic growth and social inclusion. Countries have dedicated special commissions to investigate this issue. Some reported that the VET system can have an enormous potential to impact on development and others reported that the VET system is expensive, inefficient, and unresponsive to economic growth and sustainable social development.

Since Shanghai consensus on the VET system issued in 2012 (UNESCO 2012), there is no doubt that globally, countries have realized that investing in the VET system is of paramount importance for economic growth, sustainable development, and social inclusion. In Northern and Southern Mediterranean areas, developed and developing countries have investigated whether the VET system can be determinant of youth employment and a driver that can impact on youth labor market situation. Recently, several studies conducted by Cedefop, ETF, UNESCO-UNEVOC, and many others have revealed that there is a high probability that the labor-market oriented VET system can considerably contribute to reducing the skills gap and accelerating the employability of youth. These studies demonstrated how the VET sector can be a solution to tackle the double challenge of youth employability and unemployment and how it can close the skills gap, accelerate the labor market insertion of job seekers and lead to considerable reduction of the mismatch between skills offer and demand. In addition,

In addition, the ongoing coordination between members of the Inter-Agency Group on Technical and Vocational Education and Training (IAG-YVET group¹) have made encouraging developments that have significantly enhanced the knowledge-sharing and the understanding of the key issues related to the VET sector. Such consortium has leveraged the work accomplished by its members and facilitated the design and implementation of more effective VET policies and recommendations to improve the VET sector role and to attain better economic productivity and prosperity. The VET sector has gained significant interest and it is seen as a potentially powerful solution to increase productivity, accelerate growth and create a more balanced and resilient society.

The VET sector role is to supply skills in demand by the labor market, however, the level of demand needs to be increased in the first place to effectively allow the VET sector support to impact on the VET workforce. In the current situation, with the dual constraints caused by the recession and the Covid19 pandemic, the labor market is disrupted. The demand for skills is usually triggered by industries' increased competitiveness and steady growth which leads to job creation. This highly uncertain outlook of the labor market increased the burden of the skills suppliers. Due to recent economic recession caused by the pandemic, millions of jobs have disappeared, and thousands of new ones are emerging. Both current workers who saw their jobs disappear and future workers who see no job opportunity amidst this crisis will need support. They need to be reskilled and upskilled to be able to fit into the new jobs that emerged during the pandemic and will continue to expand during the upcoming years.

It seems that the pandemic has created an opportunity for the vocational sector to thrive. Indeed, the pandemic seems to have accelerated the advent of future jobs and imposed on employers the pressing need to reskill their workforce to be able to cope with the technology-induced economic growth and competitiveness.

The recent World Economic Forum report on the future of jobs (October 2020) revealed that the double disruption caused by the pandemic and the accelerated technology pace made future jobs available today and increased the need to reskill the actual workforce and upskill the upcoming workforce. One of the most efficient ways of approaching the workforce upskilling and reskilling is to use the VET system to build the capacity of the workforce in a cost-effective and effective manner.

Funding and reforming the VET system: The reform of the VET system requires the creation of well-articulated curricula with modularized courses that focus on the skills needed in the workplace. The VET sector must offer 'just in time' training to enable youth to acquire skills in demand by the private sector. To target systemic improvements in the quality and market-relevance of curricula in key skill areas. Targeted vocational areas of focus must be effectively informed by input that private sector firms report about skill gaps in key economic sectors.

In several countries, successful attempts to reform the VET sector depend on the types of funding adopted which can be donor's funding, joint funding, or public funding. Funding the

¹ IAG-TVET group was convened by UNESCO in 2008 to coordinate efforts in delivering policy advice and research on TVET. Its members are UNESCO, ILO, UNIDO, ADB, IDB, CEDEFOP, ETF OECD and EC.

VET sector entails upgrading the infrastructure and rendering it technology friendly. In addition, some sectors require heavy investment in equipment and machinery needed to conduct practical training.

For instance, the automotive sector requires equipping VET schools with car parts or allowing VET learners to conduct their apprenticeship in the automobile factory. BMW group, for example, has recently signed an agreement with a Hungarian vocational school to implement the German dual vocational training concept by allowing the schools' learners to use BMW facilities in Hungary to practice and apply their knowledge and gain on-the-job experience.

This has been supplemented by stakeholder feedback from public and private-sector partner institutions, such as BSOs, chambers of commerce, private sector firms, Ministries of vocational and tertiary educations, Ministries of employment, etc. This multifaceted partnership establishes an organic feedback loop between private sector firms, vocational training institutions, and third-party stakeholders to address the mismatch between the market demand in each economic-sector and the supply of skills-training providers from vocational institutions.

Skills development and skills forecast: Unemployment coexists with an unmet demand for skills combined with unfulfilled vacancies because there are delays in adjustment in the VET sector (e.g. Engineering tracks and Admin business tracks, services, hospitality, manufacturing, etc.). Several VET-focused commissions have been active in skill mismatch research and analysis such as Cedefop, ILO, UNESCO. In a recent publication by Cedefop (2018), it has been reported that "*Cedefop's European skills forecasting model projects that by 2025 about 48% of all job opportunities in Europe will need to be filled by individuals with tertiary-level qualifications*". In addition, World Economic Forum's 2020 report on the future of jobs revealed that 97 million new roles may emerge and that 40% of workforce need reskilling. This indicates that countries need to take action to provide the existing and future workforce with the new skills needed to perform future jobs.

Both MENA and EU employers have been facing an exacerbated skill mismatch that continues to grow and create a huge gap that is adding burden to the employment and employability of youth in addition to growing cases of underemployment of adults. Countries with high rate of unemployment have been dealing with many forms of skills mismatch: experience workforce that is not using the skills acquired through the job, junior workforce that lack the basic skills required by the job and experienced workforce that finds it difficult to adjust to the new requirements of the job. These situations where both skills in demand and skills supplied diverge and lead to *considerable waste of skills and human potential* (Cedefop 2018) and ask for immediate actions of upskilling and reskilling to reduce the impact of the skills mismatch in addition to a robust skills development program to upgrade VET schools and training centers curricula.

It is of paramount importance to balance between what employers' request in terms of skills needed to accomplish the jobs they created and what skills are acquired by the workforce to fulfill this request. This can be accomplished with a sound skills forecasts system that inform policymakers and other stakeholders (vocational institutions and ministries) about future

labor-market needs. Future jobs that require skills development are technology related and they include machine learning, big data analytics, the internet of things and advanced robotics. These new fields of interest generate millions of jobs and require specific vocational skills. Also, the global value chains are also reshaping the world of work and require specific skills development. Future generations must be introduced to these new skills and adults must be reskilled to adopt to the changes in the workplace. The VET sector can help improve the matching of labor supply and demand by offering new upskilling and reskilling solutions. Although research drew a negative portrait of the skills mismatch issue, there is still hope that the VET system has an immense potential to prepare future and current workforce to acquire and develop the skills in demand in the labor market.

Quality assurance in the VET sector: Quality assurance in the VET sector is a constant process that aims at developing the VET sector and at the same time maintaining its quality standards. According to ETF (2015), a *Good VET* has the following features:

- responds to labor market, societal and individual needs.
- leads to nationally, or even internationally, recognized qualifications or credentials.
- provides access to decent jobs and sustainable employment.
- is attractive, inclusive, and accessible, i.e., all citizens have access to VET.
- fosters capabilities that enable progression to further learning.

Countries that plan to improve the VET sector need to monitor its development by examining whether it responds to features of a *Good Vet* system. In addition, Quality assurance in VET is an effective way of monitoring whether the countries' strategic plan towards improving the VET system is appropriate and is leading to the VET sector improved attractiveness, matching labor market skills demand, developing qualified workforce, effectively spending public funds, regularly upgrading training curricula, using technology-based pedagogical solutions and qualified instructions to deliver training and engaging with the private sector to secure valuable apprenticeships.

Policy dialogue, policy papers, research in the VET system: One way to improve employability of youth and reduce the skills gap is to encourage governments to adjust their policy dialogues and reposition their strategic vision towards empowering the VET sector role. Policy dialogues bring together major stakeholders to discuss effective ways of enhancing knowledge sharing about skills needs. Countries strive to leverage its engagement with both youth and employers in the private sector to achieve systemic impact on the VET sector by addressing major policy challenges that can help foster a more demand-driven VET system.

Research endeavors conducted by research groups such as the IAG-TVET group is a role model that illustrates how a working group can create efficient mechanisms to carry forward work on priority issues in the VET sector. The group regularly publishes policy papers, research papers, bulletins, books, articles, etc. regarding the opportunities of the VET sector and ways to consider the sector as a major solution to youth unemployment.

Country policy regulations may participate in improving the VET systems as it is the case in most developed countries of Northern Mediterranean region, or it can sadly contribute to the deterioration of the VET system due to lack of any strategic as it is the case in major developing countries of the Southern Mediterranean region. Policy papers and policy dialogue can significantly contribute to raising awareness of the importance of the VET sector and promote the urgent need to multi-stakeholders' collaboration to develop the sector potential to tackle skills development and youth employability issues.

The VET sector in the digital age: The dual challenge of the pandemic induced economic recession and the increasing use of automation caused by the accelerated pace of technology significantly affected the labor market and boosted the demand for digital jobs. These jobs require more qualified workforce from the existent workforce that faces the challenge of keeping pace with the ongoing need for more digital skills. In addition, these jobs represent a challenging opportunity for new entrants in the labor market who will need to adjust their skills to be able to match them with the skills requirements of future digital jobs.

On one hand, the VET sector seems to be the adequate educational system that can drive the effective skills development of the current and future workforce and adequately upskill and reskill the workforce according to the demands of the future jobs. On the other hand, technology seems to impose on the VET sector to upgrade its learning and teaching techniques and adjust its pedagogical engineering to the digital age. Online courses and virtual classrooms are replacing the conventional classroom settings. The VET sector requires robust technical provisions to adjust to these new trends.

4. Research Methodology

The study conducted a quantitative and qualitative research to explore the VET sectors in the selected countries of the Mediterranean Region. Research questions were outlined to limit the scope of the research. Empirical data were gathered from an online survey and several focus group discussions which enabled the researcher to gather authentic data from VET major stakeholders such as VET trainers, VET center managers, VET experts, private sector representatives and BSOs members. Also, comparison with EU countries that are top achievers in the VET system such as Switzerland, Germany, and Netherland were conducted.

Research Questions: The study outlined a number of research questions to limit the research scope and to focus on the research main issues. The following questions served as guidelines to tackle the issue of VET Sector and Skills Development in the Mediterranean Region:

- What are the factors behind the success/failure of VET programs in the EU countries?
- What are the major challenges of the VET sector in EU countries and SNC countries?
- What are the opportunities of the VET sector in SNC countries?
- How important are skills development in the VET sector?
- Why is it difficult to establish a demand-driven VET system in developing countries in the Mediterranean region?

- To what extent Southern Mediterranean countries VET programs have education-employment linkage?
- How can the VET sector mitigate the impact of skills mismatch on underemployment and unemployment?
- What is the role of apprenticeship in reducing skills mismatch and guaranteeing a rapid labor market insertion of VET graduates?
- How can apprenticeship become a significant component in the VET sector of developing countries where the informal sector is significantly dominating the economic sphere?
- To what extent the new skills agenda for Europe improved skills alignment at the VET sector? What are the major actions implemented to reduce skills mismatch?
- What are the effects of the COVID-19 crisis on the VET sectors and skills development systems and how to build further equitable, resilient, and labor market-responsive VET systems to mitigate the pandemic impact on workforce?

Research Hypotheses: The hypothesis of this study states that the VET sectors in the developing countries of the Mediterranean region are in the process of being reformed using mainly the dual model. The implementation of the dual model resulted in a new VET model that permeated with the actual realities and challenges of the developing countries in the same manner. This new model is characterized by improved curricula tailored according to the need of the private sector, trained instructors, private sector engagement through their representative chambers and business associations, and enhanced image of the VET sector which increased its attractiveness amongst youth. However, the reform process that the VET sector followed remains partially implemented and has not yet impacted on the whole VET sector and its stakeholders. Impactful VET reforms are selective and are qualified as pilot projects that are difficult to scale up at the national level.

Online Survey: The present study designed an online survey dedicated to inquiring about the VET system in the targeted countries. The survey was shared by stakeholders from business associations and employers' confederations, Private Sector actors, VET specialists, VET graduates and VET policy makers (ref. annex 1)

Focus Group Discussions: To gather authentic data concerning private sector perspective on the VET sector and its role in future skills development, a focus group discussion was organized to gather viewpoints of several business associations representatives from Egypt, Tunisia, Morocco, Lebanon, and Portugal.

Results and Findings: Review of the abundant literature on the role of VET sector in skills development and the analysis of empirical data gathered on the subject matter revealed that there are promising prospective of the role of the VET sector in reducing the skills mismatch and develop youth and adult skills through upskilling and reskilling measures.

Comparative analysis: The present study conducted empirical research to gather data and gain knowledge on the status of VET systems and to determine whether VET systems in the targeted countries have a strong linkage between employers and the VET system and compare the results across countries that do have a strong linkage. Strong linkage between education

and employment system shows a solid partnership between both actors and responsible engagement that indicates shared power and governance over skills development and employability of VET graduates and optimized graduates' skills matching with labor market skills needs.

5. VET Challenges

The present report posits that attempts to reform the VET system in Southern Mediterranean Countries are triggered by donors-engagement in the VET reform process. However, it seems that efforts made by donors-funded programs to reform the VET systems have not succeeded in attaining the level of proficiency achieved in European countries such as Germany, Austria, and Switzerland. The reform process faces several economic challenges such as the weakness of the private sector and the scarcity of funds to undergo deep reform programs. It also faces social challenges such as the low attractiveness of the VET system and the increasing number of NEET population and political challenges such as the ongoing political unrest in most Southern Mediterranean Countries in addition to unstable governments.

Moreover, and from a practical perspective, donors-funded initiative to reform the VET system encountered specific challenges that characterize the socio-economic context of Southern Mediterranean Countries. The present report attempts to list some of these major challenges faced by donors' led VET reform initiatives.

Recently, the VET sector has been facing major challenges mainly due to the impact of the Covid-19 pandemic and the disruption it caused to the learning continuity of vocational institutions. The automation that characterizes the fourth industrial Era accelerated the pace of technology adoption. Many technology-related jobs have recently been created and there is an increasing demand from employers to hire digitally skilled workers to handle these new jobs. However, current workers are not equipped with the needed skills and skills gap has become wider than ever before.

National investment in the VET sector: VET institutions are usually faced with lack of investment and funding to update its infrastructure and equip its educational premises with the needed equipment to provide the best learning experience for its learners. Public expenditure on the VET sector varies from a region to another. In countries where the VET sector seems to have a high rate of attractiveness amongst youth, public expenditure allocates considerable amount of funding to the VET sector. Countries such as Germany, Switzerland, and Netherland invest in the VET sector and prioritize it over other educational levels. In these countries, the promotion of the dual system and the attractiveness of the VET sector amongst youth has led to the success of the VET sector as an effective solution to reduce skills mismatch and address the jobs transition through upskilling and reskilling initiatives.

VET sectors without ongoing reform initiatives: in countries where the VET sector is not an attractive career pathway, the VET sector is challenged by an outdated curriculum and under qualified instructors and managers. This weak vocational input leads naturally to an anemic output that does not attract employers and does not respond to their expectations.

Linguistic context: VET institutions in developing countries usually use the local language as a medium of instruction in VET classes. VET learners usually cannot pursue vocational studies in a foreign language. For this reason, the reform of the VET curricula required development of course modules in the local language to facilitate learners' understanding. This translation process reduced the possibility of a total immersion in the original culture of the VET system as it has been developed in European countries such as Germany, Austria and Switzerland using the German and English Language. For instance, in MENA countries, curriculum development is conducted in Arabic which required either translating original modules or developing new curricula that resembles the ones developed in Europe using local expertise for this matter.

VET trainers status: The VET sector cannot provide regular capacity building programs to its instructors and develop continuous professional development programs that focus on pedagogical and technical skills. The lack of qualified trainers in the VET sector makes it difficult for developing countries to continuously upskill VET instructors. Donors usually provide international experts to offer consultancy and training to VET stakeholders in the beneficiary country. Due to the high cost of these technical expertise, VET institutions cannot afford contracting international VET experts to train the large number of VET instructors.

Sustainability of the reform project interventions: One of the main challenges of donors' funded interventions in the VET sector is the lack of sustainability and engagement of local VET stakeholders. This challenge tends to weaken the impact of the VET reform interventions. Due to the limited budget of donors' funds, VET reform interventions focus on pilot projects where only selected VET stakeholders benefit from these interventions that can take the form of consultancies or capacity building and training. According to donors' approach, to scale up the reform project, local VET stakeholders must carry on the reform activities once the donors' project life cycle comes to an end. However, VET local authorities do not make provisions to take over donors' project and use their own human and financial resources to scale up the reform project. In addition, donors do not plan an exit strategy that clearly indicate the specific roles of project partners.

Absence of incentives for private sector partners: There is no doubt that a successful VET system relies on private sector enterprises engagement which takes several forms including conducting apprenticeships, teaching VET learners, and co-designing the curricula, etc. However, private sector firms will not be engaged in fulfilling all these activities if they are not incentivized or if they do not see a win-win situation. In Switzerland, private sector companies are required to contribute to the corresponding VET value chain that they belong to by financing the VET fund. This fund covers the costs of the apprenticeship, the ongoing development of VET courses, the promotion of new courses/programs, etc. VET fund is mandatory for all companies. Host companies intervene in the learning and training process. Part of the training is delivered during the apprenticeship. As a return on investment, companies find qualified labor that corresponds to its skills needs and boosts its competitiveness. In Southern Mediterranean countries, the VET sector legal framework does not impose strict engagement terms on the private sector and does not offer any incentives to encourage companies to participate in the promotion and development of the VET system.

The VET path attractiveness: There is a general belief that VET education has a negative image, and that society undermines the VET education path and perceives it as the ultimate path for low achievers. Youth tend to undermine the VET education path because it does not guarantee a successful career and is likely to limit them in a low social standing. There is a general preference toward selecting academia as an alternative pathway. It seems that there is a misconception of the VET education that, over time, has negatively impacted on the attractiveness issue which has become deeply rooted in the historical/cultural background of a given community. The stigma surrounding the VET education led to reducing it to a second choice to academia. In addition, VET reform initiatives are challenges but the lack of attractiveness of the VET sector. Some donors funded programs tend to allocate considerable budgets to improve the image of the VET sector and design a promotional campaign to attract youth to join VET educational paths. These campaigns try to associate VET training to employability and career success.

High unemployment rate in the Southern Mediterranean countries: Unemployment has become a challenge for youth in Southern Mediterranean Countries and MENA region in general because youth is not equipped with the necessary employability skills to enter the labor market. The educational system has failed to provide youth with the necessary skills set to respond to private sector needs. The private sector faces significant challenges because of the declining economic environment and the scarcity of qualified labor capable of driving private sector growth and competitiveness. Unemployment appears to be in the 20-35% range, and youth unemployment is an endemic issue across the MENA countries' economies and job growth is stagnant, worsening social and political tensions and heightening institutional vulnerability to extremist influences.

Reforms of the VET sector have been triggered by the need to mitigate the increasing unemployment rate of youth in Southern Mediterranean Countries and MENA in general. Reforming the VET sector is one way to reduce skills mismatch and to prepare youth to master life/work skills that make them more employable.

Lack of infrastructure: Recently, governments realized the important role of the VET sector in significantly reducing the endemic skills deficit and the soaring youth unemployment rate. Public funding and donors' engagements through European Commission funding and World Bank funding programs among others have recently prioritized their funding agenda to the development of the VET sector. Funding involves rebuilding the VET infrastructure to align it with technological needs of today's knowledge economy. It also includes developing new curricula that responds to the economic sector skills needs, training and upskilling instructors and VET administrators, and other related interventions aimed at developing the VET sector.

In developing countries, public expenditure is geared towards realizing economic growth and poverty reduction. Globally, public expenditure on education comes first and so is the case in developing countries with a particular focus on vocational education because it is considered as the adequate solution to realize social inclusion for excluded youth (NEET) as well as realize social resilience for women who face some form of social injustice such as GBV and who need to be socially and economically empowered.

Moreover, donors have been calibrating their funds to adjust to developing countries' priorities by injecting more money to realize significant impact on selected interventions. For this matter, we have seen more focus from major donors on issues related to education and vocational education. For instance, the German donor, GIZ, the German Society for International Cooperation, utilizes its funds to promote the German dual system in developing countries in MENA and Africa when funding economic development and social inclusion projects. These funds are used to train the trainers, fund VET schools' infrastructure, hire VET experts to support in developing VET curricula, support private sector firms to grow and create sustainable jobs for youth.

6. VET Trends

There are mainly two trends that characterize the current VET sectors in the developing countries: (1) the increasing role of the VET sector in mitigating the impact of the pandemic on the issue of skills mismatch and (2) the new status of the VET sector that appeared following significant donors' funded reform programs.

The role of the VET sector to mitigate the impact of the Covid-19 pandemic on the issue of skills mismatch: Prior to the double disruption caused by the Covid-19 pandemic and the digitalization age, the skills mismatch was a question of unbalance between what the labor market demands for skills and what the workforce offers. This mismatch caused difficulties in matching job seekers with the current jobs and led to an increasing rate of unemployment. Nowadays, it seems that the widening skills mismatch caused by recent global disruption has led to job transition where destructed jobs have been replaced by newly created jobs. This transition requires an urgent intervention to reskill and upskill current and future workforce. The VET sector seems to be an adequate solution to tackle this issue of reskilling and upskilling the workforce to handle job transition issue.

The new status of the VET sector that appeared following significant donors' funded reform programs: Reform projects that were developed to improve the status of the VET sector in developing countries was impactful and considerably helped in promoting the VET sector and tackling some of the pressing issues of the sector. The implementation of the dual model as a strategic approach to the VET sector reform paid off in most of the developing countries where such approach was adopted. However, donors' reform initiatives remain pilot projects that cannot be easily scaled up if it is commissioned by the sector stakeholders at the national level and in coordination with regional and local bodies.

Vocational education seems to be the essential educational solution to streamline upskilling and reskilling activities. Vocational schools can adapt to the skills development process given the flexibility and accessibility with which they are characterized. New courses can be easily included in the vocational programs. Educational authorities' approval is quite fast and straightforward. Financial investment for newly acquired courses is reasonable. Besides, private sector businesses can show interest in supporting vocational education providers in developing new curricula to upskill and reskill the future workforce.

The VET sector seems to be the fast solution to develop important skills needed to mitigate the impact of the Covid-19 pandemic and the accelerated pace of the adoption of automation and technology-based skills. In addition, several stakeholders are willing to partner to support the VET sector reinforce its value proposition. Governments are willing to fund reskilling of current workforce, private sector firms are ready to provide reskilling services for their employees, and organizations of all kinds (BSOs, CSOs, Unions) are conscious of the impact of the future of jobs on current and future workforce and willing to embark in strengthening the capacities of the VET sector.

The following table outlines major donors' funded projects that focus on developing the vocational sector through skills development and private sector engagement through various economic sectors targeting youth and women employment in the Southern Mediterranean regions.

Table: Summary of some projects in the Southern Mediterranean Countries that focus on youth employability and skills development across sectors and regions

Donor	Implementer	Project Title	Timeline
European Commission	UNESCO	NET-MED	2014-2018
European Commission	UNESCO	Youth Employment in the MED (YEM)	2018-2020
European Commission	Several partners	YEP MED	2020-2023
UfM	European Institute for Local Development (EILD)	MAST project	2021-2022
UfM/ Med 4 Jobs	GIZ	You Match	2016-2018
UfM/ Med 4 Jobs	BDC	Maharat Med	2020-2023
UfM/ Med 4 Jobs	Réseau Med des Ecoles d'ingénieurs	Homer	2015-2020
UfM/ Med 4 Jobs	UNIDO	Promoting Women's Empowerment for inclusive and sustainable industrial development in the MENA region	2015-2017
UfM/Med 4 Jobs	Italian National Institute of Oceanography and Applied Geophysics - OGS	Blue Jobs and Responsible Growth in the Mediterranean throughout Enhancing Skills and Developing Capacities	2019-2023

UfM/Med 4 Jobs	European Institute for Cooperation and Development (IECD)	Mediterranean New Chance	2015-2019
EU	UNIDO, ETF	Skills for Enterprise Development	2020-2023
EU	ETF	Skills Lab	2020-
EU	ETF	Creating new learning	2020-2023

The table above illustrates the variety of EU funded projects that focus on improving the employability of youth in the Mediterranean region and developing their vocational skills. There is a focus on the important role of the vocational sector in rapidly upskilling youth to increase their employability and help them find a sustainable job opportunity. Most projects focus on specific sectors such as blue economy, ICT sector, etc.

7. Recommendations

The VET sector has the potential to upskill and reskill the current and future workforce to become resilient and respond to the challenges of job transition. However, the VET sector needs support to effectively engage in skills development initiatives. We suggest the following recommendations to develop the VET sector and strengthen its resilience to better respond to the challenges imposed by the pandemic and the fourth industrial revolution:

1. **Linkages between the VET sector and the private sector:** Strengthen linkages between VET institutions and employers' associations: VET institutions must involve private sector firms, through their employers' organization in the VET curriculum development and reform. VET authorities should approve the integration of soft skills and entrepreneurship skills in the VET curriculum. Such partnership can create a dynamic within VET institutions by organizing extra-curricular activities, creating incubators, and developing partnerships with business centers and technology-based hubs.
2. **VET teachers and managers' capacity building programs.** Develop and reinforce capacities of VET teachers and managers by providing them with continuous professional development and upskilling their technical and pedagogical skills. VET managers should be equipped with management and leadership skills that help them drive the VET institution towards a more resilient model of operations.
3. **Skills forecast and skills development:** Improve skill forecasts to reduce prevailing skill gaps and mismatches and help build a bridge that enable the VET sector to contribute to adapt the skill offer to the skill demand. Several stakeholders can be

involved in the skills forecast activities: BSOs, private sector firms, governmental agencies, donors, CSOs, etc. Also, skills forecast, and skills development should take into consideration the importance of the blue and green economies which have a great potential to create jobs and foster jobs of the future. A close look at the skills required to successfully obtain a job in these two promising economic sectors is of paramount importance. In the Mediterranean region, a closer look at the job opportunities created because of the nearshoring trend is important. This requires a rapid assessment of the skills needed to strategically train the young workforce to take the jobs generated by the nearshoring measures.

4. **Increase VET attractiveness:** Promote the labor market perspectives of VET. Increase the VET sector attractiveness amongst youth and parents and help improve its image to become a sound career choice that can guarantee a future job. VET authorities must develop communication tools that can disseminate knowledge about the career perspectives offered by VET institutions. Promote the efficacy of the VET sector in rapidly adapting to the current economic and social situation by highlighting its impact on efficiently upskilling and reskilling the workforce and significantly contributing to reducing skills mismatch.
5. **Awareness raising campaigns:** Organize awareness raising campaign by governments, donors, Civil Society Organizations and Business Support Associations. The aim is to sensitize the education sector of the importance of aligning training to the new needs of the labor market. Awareness raising campaign could share surveys and skills forecasts on the future of jobs with youth, businesses, public stakeholder, and whoever is involved in the skills development of the workforce.
6. **Upskilling existing workforce:** Encourage private sector firms to invest in upskilling the existing workforce through intensive and continuous professional development and capacity building initiatives. The return on investment for firms is to retain their qualified workforce and avoid facing the issue of skills mismatch that has a significant impact on the company productivity.
7. **Donors' engagement:** Engage donors, governments, CSOs, and BSOs in funding and implementing upskilling and reskilling interventions for future workforce through pre-employment training programs, review, and upgrade training curricula, etc. Also, donors can be involved in the development of VET projects. This can take the form of investment in the infrastructure of the VET schools, conducting training of trainers' programs, promoting solutions of market intermediation mechanisms such as career centers, and upgrading the training curricula to accommodate industries' needs for specific skills.
8. **Regional dialogue on skills development:** Continue promoting dialogue between several stakeholders involved in skills development, employability of youth, workforce productivity, skills mismatch, and other relevant issues that concerns the

employability of youth and women. There is an urgent need to expeditiously plan for a robust game plan for skills development. This should not only be conducted at the national level but also at the regional level. In the MENA region, this can take the form of a robust partnership between Northern and Southern Mediterranean countries, where best practices from Northern European countries such as Germany, Switzerland, Norway and Finland can be piloted in Southern Mediterranean countries.

9. **Private sector engagement:** The VET solution consists in aligning suitably adequate courses and linking them with the labor market skills demand. The VET solution calls for close and solid collaboration with the private sector, the major creator and recruiter of the jobs of the future. Private sector businesses should not only have a consultative role in helping vocational institutions set up new courses, but they should also be involved in developing those courses and delivering practical workshops and hands-on activities. They should also promote apprenticeship opportunities for new graduates searching for new career and should offer more skills development and training for existing employees to allow them to upskill their profiles.
10. **Quality assurance in the VET sector:** Promote quality assurance mechanisms in the VET sector in a manner that sustains the reform programs. Provisions of quality assurance include VET curriculum content, training delivery, instructors' qualifications, private sector engagement, etc. Devoting time and energy in attaining certain quality assurance standards may have a significant impact on the development of the VET sector.
11. **E-learning solutions for further development of the VET sector:** Capitalize on e-learning and virtual classroom solutions which have been tested during the Covid-19 pandemic and showed that we could put in place business and learning continuity plans using remote work options and virtual classrooms. This mechanism should further be exploited as an immediate solution to scale up and sustain upskilling and reskilling programs.
12. **VET governance and multi stakeholder approach to VET reform management:** Adopt a multi stakeholder collaboration to successfully implement a robust skills development program and pursue a holistic approach to create active linkages and partnerships between education providers (VET and Academia), Businesses, public employment agencies, CSOs and BSOs. Such efforts can positively impact on the VET sector which will become more resilient and will be apt to offer quality skills development and training to private sector companies looking to support their current workforce and planning to prepare for their future workforce. opt for a strong governance model of the VET system and a strict leadership to oversee the VET system and govern, control, and monitor the implementation of the strategic plans to improve the VET sector. At the same time, establish an effective coordination mechanism to follow up with the development of the VET system. Adopt a solid vertical and

horizontal coordination to effectively improve performance in VET policy making and policy implementation.

8. Proposed Actions for BSOs and SMEs

Business Support Organizations (BSO) can play a crucial role in engaging the private sector in reforming/developing the VET sector through a plethora of activities. They can be involved in the promotion of the apprenticeship opportunity among private businesses. They can collaborate with VET stakeholders to develop new curricula tailored to the needs of the private sector. They can be mandated to implement donors' funded projects designed to support employability of youth. They can organize employability and career event to connect employers with job seekers. They can conduct skills forecast surveys and assessment of skills needs by sector and by geographical location. They can be invited to participate in policy dialogue about the importance of the VET sector. In collaboration with private sector firms, they can start up and run innovative training centers dedicated to upskilling and reskilling current and future workforce according to the skills needed for future jobs. They can promote and raise awareness of the VET sector role in workforce skills development. They can also contribute to obtaining professional certifications and accreditations for VET schools.

During the Covid-19 Pandemic, the VET sector was unable to rapidly respond to the lockdowns and switch its learning delivery to the virtual/online mode for several reasons outlined in the previous sections. Although the VET sector encountered many difficulties during the pandemic, it remains the preferred solution to reduce the growing pace of skills mismatch. In their attempt to tackle the skills mismatch issue, private sector stakeholders claim that an urgent reform of the VET sector can dramatically support governments' strategies to reduce skills mismatch and prepare current and future workforce to the new jobs.

Private sector engagement with the VET sector is key. This engagement can take several forms, but the result is to create a solid and sustainable partnership that allows both parties to continuously report the skills needs to adjust VET training accordingly. Private sector firms and business organizations can be involved in curriculum development and reform. They can have a consultative role where they can review course contents and course delivery mode. Also, private sector firms are the main providers of internship/apprenticeship opportunities. These on-the-job trainings have a significant impact on the skills development of the apprentices. They represent an opportunity to learn soft skills and practice the technical skills that are usually acquired in a theoretical manner in the vocational schools because of the lack of the needed equipment or the qualified technical experts.

Business support organizations (BSOs) have also a key role in mitigating labor market disruption and they can be systematically involved in the skills development process. BSOs have the capacity to address the issue of job transition and work on the skills development agenda to help future workforce adapt to this transition. BSOs can encourage their partner firms to engage with the VET sectors in providing apprenticeship/internship opportunities

and actively participate in the curriculum reform interventions and organize career related events such as job fairs and career guidance workshops. BSOs also have the expertise to carry on labor market survey to identify labor market skills demand. They are also entitled to conduct skills forecasting and report skills and jobs needed by sector and region. Moreover, BSOs can run their training centers, be involved in certifying and examining VET graduates and play a role in helping VET school obtain professional accreditations.

On the macro level, BSOs can be involved in policy dialogues about the importance of the VET sector in skills development and successful job transition. They can contribute to highlight the importance of the private sector in fostering skills needed in the workplace and encourage their engagement in the VET curriculum reform and training of trainers' initiatives. They can raise awareness of the importance of promoting the VET career pathway for youth as an attractive and successful career choice. BSOs can implement donors' funded project designed to promote youth employability programs.

In Europe, BSOs redefined their roles and developed successful programs to support young graduates and job seekers overcome job matching/transition issue. For example, the AC4SME (Apprentice Coaches for SME) is a large European project coordinated by Eurochambers and implemented by the 12 chambers of commerce and industry in Europe. The aim of the project is to involve a large number of SMEs in apprenticeship. The project created a cadre of trainers within the chambers who are now able to coach SMEs on the importance of apprenticeships for the growth of their businesses.

Other European BSOs developed other initiatives to promote private sector support to the VET sector. Bretagne chamber created a platform called *Contrat d'alternance en Bretagne* to give access to both employers and job seekers to look for a candidate or an apprenticeship opportunity. The role of the chamber is to fund and manage the platform and to promote its network amongst employers in the region and young graduates. In Italy, *Excelsior of Union Camere* is also a best practice model of a platform managed by the Italian BSOs. It offers several services to employers and job seekers. Its most important tool is the skills forecast that is constantly updated by region and sector and which allows job seekers to target their job search in a more efficient manner.

In the MENA region, BSOs are also working on promoting partnership between private sector firms and the VET sector. Focus group discussions with BSOs representatives from several Chambers of Commerce highlighted some key programs that aims at promoting such collaboration. In Beirut for instance, several donors' funded programs have been implemented by Beirut Chamber of Commerce. The following impactful programs have been recently implemented by the Beirut Chamber of Commerce:

- **The DSME: Promoting Vocational Education & SME Development with GIZ/GOPA & MEHE:** The DSME Program aims at improving the vocational and technical education in Lebanon by strengthening its practice and market-oriented aspects. It created an advisory service for decision makers and promoted the implementation of the dual system.

- **DACUM: Developing Professional Curricula within DSME program:** Bridging the gap between theoretical learning in vocational schools / institutes and the professional market skills requirements. The program focused on two vocational skills: cooking and car mechanics.
- **Active collaboration with the European Training Foundation (ETF):** The Beirut Chamber of Commerce participated in the Torino process and was a partner in the GEMM initiative (Governance and employability of youth & women). It also participated in the data collection on skills needs to conduct the employers' survey initiative by ETF as part of its skills for the future program.
- **IFC: the Mashreq Gender Facility (2020-2021):** It is a Peer Learning Platform to raise awareness regarding women's participation and economic empowerment. Series of online trainings for female talents are organized. They offer tools and knowledge needed to increase gender parity at company level and address sexual harassment and bullying in the workplace. The aim of these series is to create inclusive, flexible, family-friendly workplaces.
- **ENI CBC programs: YEP MED (2020-2023):** The program aims at matching the labor market skills needs generated by the port logistics sector. It helped develop young resources in port-logistics through VET and created dual learning programs for NEETS. It also supported SMEs to create jobs and set up collaborative national and transnational PPPs in port-logistics operations. The program succeeded in creating a pioneer VET program on port logistics related professions in Lebanon.
- **ENI CBC programs: INTERNISA (2020-2023):** The program help develop a network of synergies to increase the number of digitally skilled women via matching demand and supply in the labor market. The program help increase digital skills for NEETS in IT, Agro Food, textiles, and innovation sectors. It also offered training in digital skills for vulnerable women which increase their employability.

9. Conclusion

To conclude, initiatives undertaken by donors-funded projects have considerably improved the VET sector in various Southern Mediterranean Countries, however, the implementation process, the particularities of the socioeconomic context of these countries coupled with the challenges facing donors throughout the project implementation phases shaped the VET reform initiatives and created a new form of VET that can attract youth to pursue a vocational path and guarantee a sustainable career. Recent reforms of the VET sector enabled developing countries governments to promote the VET sector as an educational path that can contribute to the social stabilization, economic development, and growth provided that a multi-stakeholder's strategy is developed, and a collective governance is implemented. The engagement and the involvement of the private sector is key to ensure the success of the apprenticeship scheme and the role of social partners is important to raise awareness of social and economic actors to get involved in the VET sector to encourage youth and women to take the VET path and guarantee a smooth transition to work. In addition, implementing a collective governance will further strengthen stakeholders' engagement in the VET system.

The VET sector stakeholders in the Southern Mediterranean region should seize the current opportunity to continue reforming the VET sector by scaling up donors' initiatives. The study revealed that donors' initiatives to reform the new VET system in Southern Mediterranean countries resulted in the creation of an improved version of the VET sector that resembles the European model implemented in Germany and Austria, but it is not necessarily characterized by the key features responsible for the success of the European model. The analysis showed that the socioeconomic context of the Southern Mediterranean Countries has shaped the VET reform initiatives. The qualitative analysis conducted through the organization of focus group discussions with private sector partners of the VET sector and online interviews conducted with VET stakeholders revealed that the particularities of the VET context dictated and shaped the reform. Although donors tried to duplicate the European Model of the VET system known as the Dual System, they reported the development of a modified version of the VET system. A new VET model where the private sector remains a precarious sector that needs technical support to be more competitive to create jobs and where the informality remains the prevailing business model. In addition, the low attractiveness of the VET education amongst youth and the weak governance of the sector have not facilitated the adoption of the new VET model. Besides, most donors' initiatives have limited funds to overhaul the whole VET sector and they usually underestimate the importance of prioritizing a sound exit strategy to guarantee the sustainability and scalability of the project by local stakeholders.

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11. Annexes

Annex 1: Online Survey

Three questionnaires were developed to gather empirical information about the VET stakeholders: one for employers, one for Business Associations and one for VET experts. Questionnaires will be design online using Kobo toolbox (<https://www.kobotoolbox.org/>).

Questionnaire for Employers

Company's Name

Location

Company sector of operation

Number of Employees

1. Do you workers possess the needed skills to effectively perform their tasks? Yes/No
2. If not, could you mention which type of skills your workers need to know to be able to perform their tasks effectively? Please specify the skills.
3. What can you advise to VET schools to improve the quality and standards of VET graduates? Please specify.
4. When was the last time you offered on the job training to your workers? Please specify.
5. What kind of training did you offer? Technical/Soft/other, please specify.
6. How do you train your workers?

On-the-Job Training/Internship

Apprenticeship

Training from supplier of technology

In-country training by private training experts/institutions

Training from a public training institution

Overseas training

i. Others, specify.....

7. What are the major challenges you face that hinder offering continuous professional development and training for your workers to have a team of skillful workers in the future?
 - i. Lack of training funds
 - ii. Lack of courses
 - iii. Lack of suitable instructors
 - iv. Lack of staff motivation regarding training

- v. Frequent mobility of labor force
- vi. Lack of time for training
- vii. No challenges
- viii. Others, specify

8. How do you collaborate with VET schools?

- i. No cooperation
- ii. We only use On-the-Job Training/Internship
- iii. Experienced staff serve as instructors in vocational centers
- iv. Instructors of VET schools are invited for training in the company
- v. We recruit graduates from VET schools
- vi. We participate in curriculum development
- vii. We fund the VET schools
- viii. We send out our expert to train VET graduates
- ix. Regular exchange about training needs and occupations required with VET schools
- x. Others, specify

9. How do you think collaboration between private companies and VET schools can be improved? Please specify.

10. If vacancies were not filled, what did your establishment do to cope?

- i. Trained existing staff
- ii. Increased the salary and benefits to make the job more attractive
- iii. Outsourced to other companies
- iv. Recruited foreigners
- v. Invested in technology
- vi. Enhanced recruitment procedures/ways
- vii. Paid overtime for existing workers
- viii. Hired less qualified applicant
- ix. Used temporal labor
- x. Improved on incentive to retain workers
- xi. Others, specify.....

Questionnaire for Business Associations

1. Are private sector firms engaged with VET schools in your country?

Strongly Agree Agree Undecided Disagree Strongly Disagree

2. Do you think that private sector firms play a key role in improving the training quality of VET schools?

Strongly Agree Agree Undecided Disagree Strongly Disagree

3. Do you think that skills mismatch is caused by the weak linkages between private sector firms and VET schools?

Strongly Agree Agree Undecided Disagree Strongly Disagree

4. What is the key role of Business Associations in encouraging private sector firms engage with VET schools? Please specify

5. Do Business Associations need to provide financial incentives for private sector firms to strengthen linkages with VET schools?

6. Which party needs such linkages more? VET schools or private sector firms?

7. Which party can benefit more from such linkages? VET Schools or private sector firms?

8. Can business associations interfere in VET policy reform projects? YES/NO

9. What could be the role of Business Association in VET policy reform projects? Please specify.

10. How can Business Associations promote a more sustainable apprenticeship system in VET schools promoted by private sector firms? Please specify.

Questionnaire for VET experts

Informant Name

Position

Age

Gender

Country

1. Do you think that you have received enough continuous professional development opportunities to be a skillful VET expert/trainer? YES/NO

2. What are the major challenges that the VET sector faces?

Lack of qualified trainers

Expensive training fees

Lack of partnership with private sector

Lack of partnership with public sector

Lack of funding to equip VET schools with technology

Difficulty to get apprenticeships for graduates

Low level of students

Outdated curricula

Unstructured policy reforms

3. How can VET schools encourage private sector engagement? Please specify.
4. Why are private sector firms unwilling to collaborate with VET schools? Please specify.
5. Is there an important difference between private VET sector and public VET sector in your country? YES/NO
6. What is the main reason behind the skills gap? Who is responsible?

Lack of collaboration between private sector firms and VET sector

Lack of qualified trainers

Poor infrastructure in VET schools

Low level of students in VET schools

Absence of jobs created by private sector firms

Absence of matching services to match graduates' skills with private sector firms' skills needs

7. Can Business Associations play an active role in promoting sustainable partnership between private sector firms and VET schools? YES/NO
8. What is the major role of VET policy makers in promoting strong linkages between private sector firms and VET schools? Please specify.
9. What is the status of VET schools in your country?

Highly respected

Respected

Not respected

Not respected at all

10. How can the VET sector increase its popularity and appeal among youth? Please specify.

Annex 2: Sample Country Analyses

Swiss Model

<i>Swiss Model: Main Features</i>
<ul style="list-style-type: none"> • The VET sector provides youth with solid foundation in one of the 240 occupations available. • The VET sector follows the dual system: training content is divided between different learning locations (part-time classroom instruction at a vocational school, part-time workplace training at a host company and for some occupations also branch courses at a branch training center). • The VET system is very flexible: learners may pursue more advanced education and training opportunities, switch from vocational/professional pathways to general education/university pathways and later change the course of their working lives with relative ease. • Only professional competences that are required by the labor market and are in demand are offered in VET training. These professional competences are determined by the private sector. • The VET training content is distributed across two (or in some cases three) different learning locations: vocational schools, host companies and branch training centers managed by the professional organizations.
<i>Private Sector Engagement</i>
<ul style="list-style-type: none"> • All companies in the private sector are required to contribute to the corresponding VET value chain that they belong to by financing the VET fund. This fund covers the costs of the apprenticeship, the ongoing development of VET courses, the promotion of new courses/programs, etc. • VET fund is mandatory for all companies. • Host companies intervene in the learning and training process. Part of the training is delivered during the apprenticeship.
<i>Public Expenditure and Existing Forms of Funding</i>
<ul style="list-style-type: none"> • VET is a major public undertaking. It is ranked second after social security. • Professional organizations provide both services and funding for the Swiss. • VET learners receive a monthly apprenticeship salary from the host company where they undertake their apprenticeship. • The Confederation, the cantons and professional organizations fund the VET sector. The cantons provide at least three-fourths of public funding. The professional organizations fund the sectoral courses.
<i>Governance of VET sector</i>
<ul style="list-style-type: none"> • The Vet system is dictated by the Federal Vocational and Professional Education and Training Act (VPETA) and the Vocational and Professional Education and Training Ordinance (VPETO) form the legal basis for maintaining the quality of the VPET system. • The VET system is collectively governed by the Confederation, the cantons, and professional organizations. These three main partners work together to maintain a high level of quality within the VET system. • They work together to ensure that there is a good supply of apprenticeship positions and training options. • The tripartite partnership is regulated by the Federal Vocational and Professional Education and Training Act • The State plays a mediating role in ensuring that apprenticeship opportunities are available for all VET learners and that general conditions are met and that host companies are encouraged to offer apprenticeship positions.
<i>Quality Assurance</i>
<ul style="list-style-type: none"> • Quality assurance and Quality management is governed by the Confederation, the cantons, and professional organizations. • The providers of VPET are responsible for maintaining quality referring to the Federal Vocational and Professional Education and Training Act (VPETA) that sets out the basic quality standards and • They monitor the provision of VET at the three places of learning (schools, training centers, host companies). • They set the requirements relating to qualification procedures. • They regulate the education and training of VET professionals. • The Confederation and the cantons are responsible for the provision of education and training and for quality in the areas assigned to them.
<i>Labor Market Intermediation Mechanisms</i>
<ul style="list-style-type: none"> • VET graduates start receiving career guidance to find an apprenticeship opportunity. This service is supported by the Cantonal career guidance schools. • VET learners receive coaching and mentoring services, and they are guided during their VET training to improve occupational and social skills and optimize their CVs. Coaching and mentoring programs are sponsored by cantons and private organizations. • VET graduates are offered career guidance to find an entry level job. They are given advice on job search techniques. They are informed on the jobs available in their cantons. They are invited to attend employability events.
<i>Attractiveness of the VET Sector and its Image Amongst Youth and Society</i>
<ul style="list-style-type: none"> • Two third of young learners coming out of compulsory education enroll in VET. • Private sector companies recruit essentially from VET graduates. • Families and youth have positive image of the VET sector. • The VET sector represents the future jobs and skills.

Jordanian Model

<i>Jordanian Model: Main Features</i>
<ul style="list-style-type: none"> The VET public sector is facing skills mismatch challenges. The sector is suffering from outdated curricula and archaic pedagogical skills. There are several strategic projects conducted by the ministry of vocational education and funded by donors to develop market-relevant vocational curricula, however, the lack sustainability and scalability provisions which significantly reduce their impact. VET training is mostly supply driven with weak linkages with the labor market. Absence of an updated national qualifications and occupational standards framework for all sectors that indicates the skills and qualifications required by the labor market.
<i>Private Sector Engagement</i>
<ul style="list-style-type: none"> There has been attempts to apply the dual system at the VET sector, but the weak engagement of the private sector and the absence of a collaborative governance led to weak results. The Jordanian private sector is composed mainly of SMEs that are growing at a slow pace and are not creating many jobs. This is mainly due to the recurrent economic difficulties that Jordan has been facing, The culture of apprenticeship is not deeply rooted in the Jordanian private sector. There is a fragile collaboration between the VET sector and the private sector except for the textile, automotive and light manufacturing sectors where impactful partnerships to train and recruit workforce are frequent. Private sector VET schools, such as Luminus College of Technology, represent pilot projects that apply the dual system. These private sector initiatives succeeded in attracting youth to enroll in the VET education and guaranteed their employability in addition to offering market-driven and sector specific training diplomas tailored to the needs of the labor market.
<i>Public Expenditure and Existing Forms of Funding</i>
<ul style="list-style-type: none"> Major sources of funding of the VET sector are: annual public budget, international donations and loans and contributions from trainees. Most VET sector development and reform projects are donors funded. Private sector initiatives to create private VET schools is increasingly growing. These initiatives reflect a sound investment in a sector that has the potential to reduce the impact of skills mismatch on the employability of graduates. Jordan currently invests 0.3%of GDP in TVET, while international levels stand at around 1.5 to 2.0%of GDP
<i>Governance of VET sector</i>
<ul style="list-style-type: none"> The VET sector has been through several stages of reform led by the VET public stakeholders; however, the reform initiatives are governed based on a top-down approach and no collaborative governance is put in place at the regional/governorates levels. The top-down governance of the VET sector does not yield positive returns. The VET sector governance is fragmented which leads to the duplication of the work and the reform projects without significant impact on the sector development. The Jordan National Employment-Technical and Vocational Education and Training (E-TVET) Strategy and the CAQA, Centre for Accreditation and Quality Assurance, only have influence on the public and private VET schools but do not collaborate closely with the VET ministry and has no authority on the latter.
<i>Quality Assurance</i>
<ul style="list-style-type: none"> The CAQA center is working on development performance indicators of the VET sector that needs to be monitored at several levels: the VET management level, the instructors level, the infrastructure level and the course level. There is a lack of leadership and autonomy of the quality assurance body which weakens its contribution in assessing the situation of the VET sector and recommending areas of improvement. There is work in progress to update the occupational standards and associated manual to identify the skills in demand by sector. This initiative is limited to 10 sectors.
<i>Labor Market Intermediation Mechanisms</i>
<ul style="list-style-type: none"> Social actors (chamber of commerce, Business associations) have limited role in organizing employability events and promoting linkages between the VET sector and the businesses. Absence of labor market information analysis and skills forecasting surveys implemented by BSOs or public stakeholders. Employability units had no contribution in improving job matching mechanisms and donors' funded career centers projects were not sustainable initiatives. Private VET schools are investing in labor market intermediation mechanisms. They conduct skills forecast surveys to identify the skills needed by specific industries. They engage businesses in the trainings offered (apprenticeship programs, practical trainings, pre-employment trainings). These initiatives remain small scale best practices and are not scaled up across the country.
<i>Attractiveness of the VET Sector and its Image Amongst Youth and Society</i>
<ul style="list-style-type: none"> There is an apparent lack of attractiveness of the VET sector among youth and their family due to its lack of career perspective. Tertiary education remains more attractive for youth, although tertiary graduates suffer one of the highest unemployment rate in the region.

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