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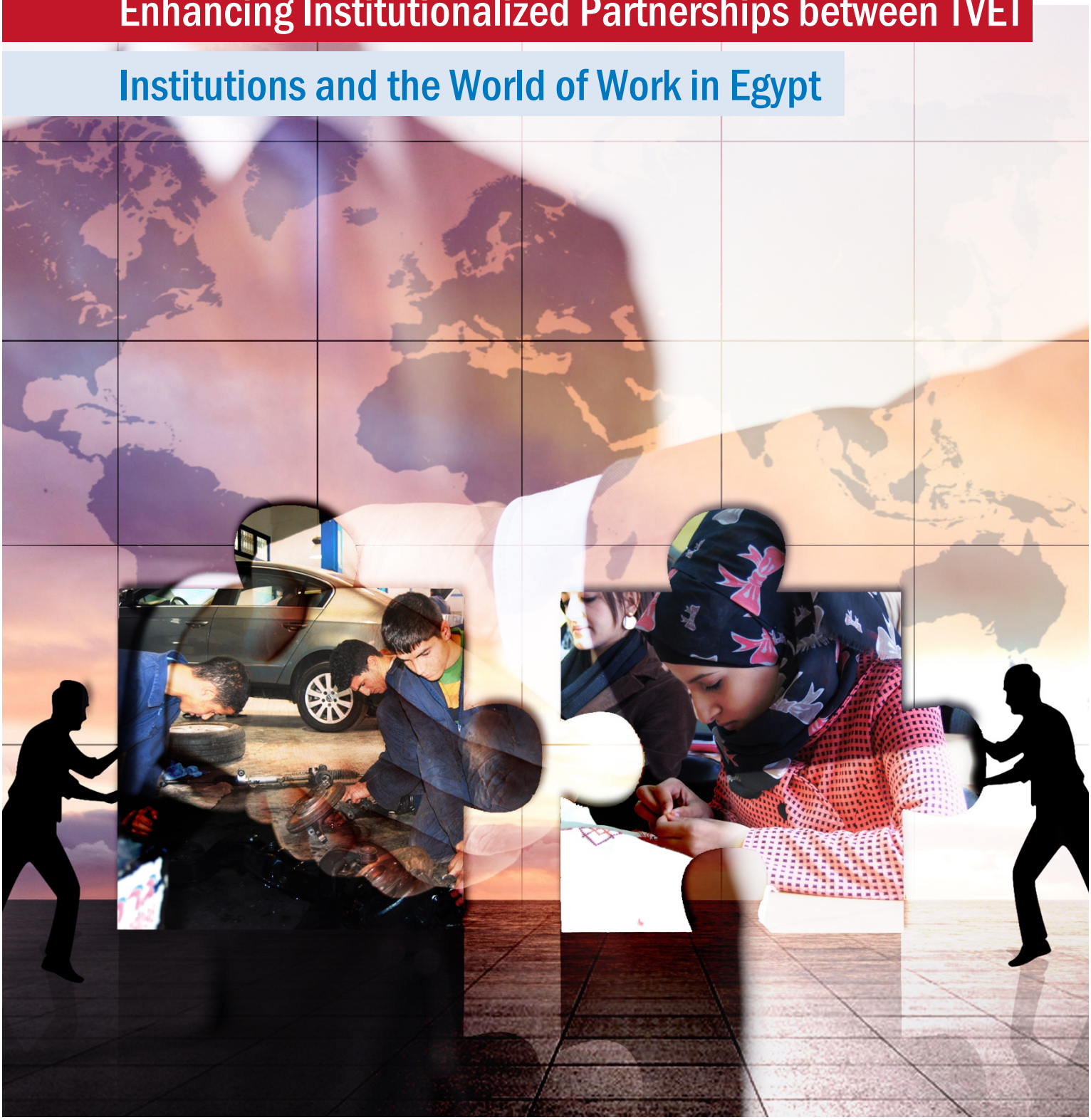
Enhancing Institutionalized Partnerships between TVET Institutions and the World of Work in Egypt



Education 2030

Enhancing Institutionalized Partnerships between TVET Institutions and the World of Work in Egypt

This report, a UNESCO initiative, examines Partnerships between Technical and Vocational Education and Training (TVET) Institutions and the World of Work in Egypt. The information collected and research conducted follows the methodology and guidelines of UNESCO for the national reports on enhancing institutionalized partnerships between TVET institutions and the world of work in the Arab region. This report aims to support partners in the design and implementation of relevant Technical and Vocational Education and Training (TVET) policies that can contribute to employment.

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Foreword

In line with its TVET Strategy, UNESCO promotes TVET as an integral part of education. The Organization strives to support the efforts of Member States to enhance the relevance of their TVET systems and equip youth and adults with skills required for employment, decent work, entrepreneurship, and lifelong learning.

In the Arab region, TVET's landscape is changing fast in response to social, political and economic factors, demographic developments and labour market trends driven by technological and work processes developments. To provide access to quality TVET, member States must define and strengthen regulatory frameworks for TVET to define roles, rights, obligations, and accountability of public and private actors, encourage stakeholders' participation, and foster partnerships. Effective governance models for TVET involve relevant local stakeholders and business associations and in particular, close partnership between TVET institutions and the world of work - public-private partnerships (PPP).

The adoption of PPP within the TVET sector in Arab countries has received varying levels of attention and prioritization. In some cases, PPP are embraced nationally, and in other cases, they are ad hoc, scatter-gun and dealt with at the municipal level. It is however increasingly clear, the private sector (PS) has demonstrated a keen interest in this modality and that some countries are having more success at harnessing PS dynamism, commercial know-how, and resources to their advantage than others. There is a need to understand i) how PPP in TVET can better serve the national interests of Arab countries and ii) which models best result in quality, affordable, inclusive and sustainable training.

This study on Egypt, part of a series, investigating PPP in three countries: Egypt, Jordan and Palestine, builds on the Egypt - TVET Practical Partnership project. The project had the aim to support Egypt TVET stakeholders to explore practical options to strengthen and improve TVET governance and implementation in Egypt.

A new kind of industrial revolution is happening all over the world and Egypt is becoming a middle-income country. TVET needs to support the country's medium and long-term targets for human capital development, crucial for achieving not only the Sustainable Development Goals (SDGs) but also economic growth. As both have common interests, it makes sense that the public and private sectors partner together to modernize the technical institutions and develop a skilled workforce.

Acknowledgments

The work for this study was coordinated by Salim Shehadeh, Programme Specialist for Technical and Vocational Education and Training (TVET) at UNESCO Beirut, within the framework of UNESCO Strategy for Technical and Vocational education and Training (TVET) 2016-2021.

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1. Background and Introduction

UNESCO's TVET strategy promotes TVET as an essential part of education, which is a human right and an important element of peace-building and inclusive sustainable development. With its humanistic and comprehensive approach to education, UNESCO works to influence the efforts of Member States to enhance the relevance of their TVET systems and equip youth and adults with skills needed in the labour market and hence improve levels of employment, decent work, entrepreneurship, and lifelong learning.

Member States must define and strengthen regulatory frameworks for TVET to define roles, rights, obligations, and accountability of public and private actors, encourage stakeholders' participation, and foster partnerships. This effort requires strengthening the technical, administrative, and institutional capacities for governance, management, and financing of TVET institutions. The recommendations also emphasize that governance models for TVET should involve relevant local stakeholders and business associations in particular to partnerships between TVET institutions and the world of work[1], hence, Public Private Partnerships (PPP).

Member States have agreed upon key guiding principles to increase private sector participation in TVET. These principles include; the alignment of public policies, support for social dialogue, responsibility, accountability, and efficiency[2]. In addition, TVET policies should recognize the diversity of the private sector including large, medium, small, micro, and household enterprises engaged in the economy.

TVET's landscape is changing fast, as new programmes and new roles are emerging. Changes in TVET are the result of political and structural changes in the overall education and training system, this is particularly the case in Egypt, which as we will see in this report is undertaking a comprehensive and ambitious transformation of its pre-university education system including technical education. They are also the result of external social, political and economic factors, notably youth unemployment, demographic developments and labour market trends driven by technological and work processes and organizational changes, as well as the recent political turmoil in the Arab region[3].

Consequently, UNESCO's strategy for TVET (2016-2021) promotes a whole government approach to TVET that better connects and aligns relevant policy areas, including education, employment, industrial and economic development, and social policy. It calls for the creation of co-operative projects with the private sector. The strategy highlights the need to include private sector contributions to the national TVET funding strategies. UNESCO plans to create national, regional, and sectoral stakeholder platforms to facilitate private sector participation and communication between the worlds of education and work. A participatory approach that includes ministries, TVET institutions, development partners, and the private sector will help implement the proposed interventions.

This report is part of a regional study (for a select number of Arab States including Egypt, Jordan, Lebanon and Palestine) and a planned regional forum to help address some of the current TVET challenges in the region with a particular focus on the current state of public-private partnerships (PPP) in TVET and how this can be enhanced to impact on the whole TVET system in each country. The forum will serve as a platform for the exchange of experiences, perspectives, and best practices on mechanisms and tools of modern partnerships, and orientations on policies involving the strengthening of institutional partnerships between TVET providers and the private sector.

[1] UNESCO, Certified copy of the Recommendation concerning Technical and Vocational Education and Training (TVET), 2015
[2] UNESCO, Certified copy of the Recommendation concerning Technical and Vocational Education and Training (TVET), 2015
[3] UNESCO, Review of Work-based Learning (WBL) in Egypt, 2018

The current report aims to provide a detailed overview and analysis of the status-quo of the partnerships and collaboration between TVET institutions and the world of work represented mainly by the private sector in Egypt. We start with an overview of the national context, including the economic, demographic and social perspectives in Egypt, then we take a closer look at the characteristics and challenges of TVET delivery in Egypt, followed by an overview of PPP in general, outlining related policies and governing legislation. The following sections of the report address specific examples of PPP in TVET, good practice, challenges and resources available to address these challenges. Then we compare PPP initiatives in TVET in Egypt with international examples and finally the report will summarize the key findings and recommendations concluding with a proposed comprehensive PPP model in TVET in Egypt.

The methodology used in the drafting the report included a thorough review of available literature, interviews with decision-makers on both the supply and demand side, site visits to PPP schools as well as review of international good practice.

2. The National Context

To understand the Technical and Vocational Education and Training (TVET) landscape in Egypt in general and Work-based learning structures and initiatives, in particular, and to assess their importance and potential for improving the country's competitiveness and economic development, one must first look at the overall political, socio-economic and labour market context as well as the complex structures in which they operate.

The revolutions of January 2011 and June 2013 have changed the landscape of the Egyptian political and social system. There were numerous motivations for the first uprising: the frustration of the society towards its government system, in particular towards corruption and the violation of human rights, and the aspirations of the society for effective democracy. In addition, an economic dimension has to be taken into consideration: the growth and relatively good economic functioning that Egypt had enjoyed in the few years before the first revolt (as a result of deep restructuring and changes since 2004) led to wealth concentration in certain segments of the society, excluding middle and lower levels. SMEs, who represent more than 90 per cent of the employment in the country, had not managed to benefit from the same developments as larger companies. With a large amount of the population living below the threshold of poverty, the wide regional differences (among Governorates, but in particular also between cities and rural environments), the unequal distribution of wealth and the high youth unemployment all triggered the final stream of the protests.

The recent political dynamics set down both opportunities and challenges for democratic, economic and social progress. The revolution period was characterised by a great degree of uncertainty and instability: political tensions (e.g. terrorist attacks), but on the other hand, it led to economic and social developments, having an impact on major government policies, such as the integrated Vision 2030 for sustainable development including education reform and employment promotion initiatives. These changes have also put great emphasis on social equality and youth empowerment in all aspects of society. Successfully tackling youth unemployment remains one of the most urgent challenges of the country and a high priority on the political agenda.

2.1 The Economic Perspectives

From the mid-2000s to 2011, the Egyptian economy grew at a rapid pace. Yet, this economic performance has not significantly improved the country's overall competitiveness[4], nor has this growth provided more decent jobs to the Egyptian population. In 2004, the Government of Egypt embarked on a structural reform programme of liberalization and privatization, which, combined with high oil prices, booming economies in the Gulf countries, and strong global economic growth, led to real GDP growth of over 7% per year between FY06 and FY08. The subsequent global financial, food, and fuel crises dampened economic growth in Egypt to an average of 5% in FY09 and FY10, a strong performance according to international standards. However, between 2011 and 2014, the macroeconomic picture deteriorated due to unresolved political tensions and policy inflexibility. However, despite the continuing economic and security challenges, since 2014, the government embarked on implementing a bold and transformational reform program, aimed at spurring the economy, enhancing the country's

[4] Despite this economic growth, Egypt remains modestly competitive, according to the 2009/2010 Global Competitiveness Index (GCI), ranking, it ranked 70th out of 133 countries and further declined to 115th out of 138 countries in the GCI for 2016/2017. This poor ranking is mainly owing to low scores for macroeconomic environment (134th out of 138 countries) labour market efficiency (135th out of 138 countries) and for education and training at all levels (112th out of 138 countries). The Egyptian labour market also receives low rankings in the GCI, primarily as a result of over-regulation. (sources from Global Competitiveness Index Report 2016/17).

business environment and staging a balanced and inclusive growth. The first wave of reforms package focused on rebalancing the macroeconomic aspects, which included difficult policy choices that were adopted simultaneously; such as the VAT Law, reducing energy subsides, containing the high growth of the wage bill and the liberation of the Egyptian Pound. The second wave of reforms targeted improving governance and investment climate, which includes the Civil Service Reform Law that was passed in October 2016, in addition to a set of undergoing reforms targeting to removing investment barriers and attracting local and foreign investments, such as the Industrial Licensing Law, the Investment Law and the Company Law[5].

This reform program is widely endorsed by key Development Partners, including the World Bank, IMF and the African Development Bank. The implementation of reforms along with the gradual restoration of confidence and stability are starting to yield positive results. According to the World Bank's country overview[6], the economy is gradually improving with the annual rates of GDP growth reaching 5.3% for FY18, compared to an average of 4.3 % in the three years before and up from an average of only 2% during the period 2010/11-2013/14. "This pickup in growth has been driven by public investments, private consumption, and exports of goods and services, while the private sector response is delayed". The current account deficit narrowed to 2.4% of GDP in fiscal year 2018, down from 6% in the previous year, driven primarily by strong remittances and the recovery in tourism[7]. Following the floatation of the local currency at the end of 2016, the exchange rate has initially displayed some volatility, but has subsequently started to strengthen, notably with the strong foreign investor demand for local debt instruments.

To alleviate the adverse effects of the economic reforms on the poor and vulnerable, the government has adopted a package of social protection/social safety net mitigating measures and intensified its effort to move away from inefficient and generalized subsidies to more efficient and better poverty targeted social safety nets[8].

Egypt and its current government will need to build on the future economic strengths and diversity of the country to come out rapidly of the present macroeconomic situation. There will be a need to balance short-term remedies to address urgent social problems with long-term sustainable and strategic development and economic stimulation. In mid March 2015 the government organised a successful and high profile international economic development conference attracting a large number of domestic and foreign investors. The conference unveiled plans for a number of mega projects that may lead to new job opportunities in sectors like construction, logistics, energy, tourism, manufacturing and retail, within the next 15 years. If they materialize, great emphasis will be placed on education and training in general and TVET in particular, in order to prepare youth for these new opportunities[9]. We will look at the challenges of the TVET sector later in this chapter, after a sub-section on the current characteristics of the Egypt's demography and labour market.

[5] http://www.worldbank.org/en/country/egypt/overview
[6] http://www.worldbank.org/en/country/egypt/overview
[7] http://www.worldbank.org/en/country/egypt/overview
[8] http://www.worldbank.org/en/country/egypt/overview
[9] UNESCO, Review of Work-based Learning (WBL) in Egypt, 2018

2.2 Demography and Labour Market Characteristics[10]

With a population of more than 100 million in 2018[11], Egypt ranks as the most populous among the Arab countries[12]. With an estimated annual growth rate of more than 2.4%, it has one of the fastest growing populations in the world. Some 60% of the total population is under 30 years of age. At the end of the fourth quarter 2015, the labour force was estimated to be 28.4 million, compared to approximately 23 million in 2005[13]. It will continuously grow, with approximately 850,000 new entrants to the labour market each year[14]. Since the 2011 Revolution, the unemployment rate has been constantly growing: from 9% in 2010 to 12% in 2011, rising again to 12.7% in 2012 and reaching 12.5% by mid of 2016. This represents about 3.5 million jobless Egyptians. However, according to labour market experts, actual unemployment is probably substantially higher than reported by official figures and underemployment (population working less than full time, involuntarily) has also dramatically increased.

Youth (between 15-30 years) and women are particularly affected by unemployment. Compared to the overall official unemployment rate, the average women's unemployment rate reached almost 23%, exceeding even 60% for the group of young women between 15-25 year olds[15]. Compared to other countries, Egypt has a very high record of unemployment among highly educated job-seekers, followed by those who completed their middle and above-middle education (especially graduates of TVET). Almost 44% of highly educated people, being less than 30 years old and 38% of graduates of technical education are unemployed[16]. In contrast, those with lower educational achievements face relatively fewer problems in finding a job, but are mostly employed by the (more vulnerable) informal sector.

For those who succeed in finding employment, transition from education and unemployment to employment usually takes a long time. Approximately half of the male graduates have to wait between two and seven years before they can find their first job. For female school graduates, the situation is even worse (about 16% only!), especially taking into account that in the end only one of four female school graduates ever succeed in finding a job. The consequences are severe, especially for those who have no other choices than to work for free within their family network. Furthermore, the low labour market participation rate gives an indicative number of people Not in Education, Employment and Training (NEET) sectors: labour market participation rate for 15 to 19-years-old is 17%, 52% for 20 to 24-years-old and 62% for 25 to 29-years-old. Consequently, many young men and even more young women completely withdraw from the labour market.

On the other hand the employment challenge in Egypt is represented not only by the low number of jobs, but also by their specific characteristics. Especially in the formal sector, despite expectations, only a limited number of job opportunities have been created. This is primarily the consequence of the current structure of the Egyptian economy. Investments in dynamic sectors (mainly petrochemicals, cement, gas, and telecommunication) have been capital-intensive and have resulted in a decrease in labour utilization. Some of the main economic activities (Suez Canal, petroleum and gas) only create few jobs. It is estimated that only 10% of the labour force is employed in the modern sectors, vis-à-vis 90% in traditional and government sectors, this also presents even further challenges for the education and training sector to introduce and expand work-based training and apprenticeship initiatives as these companies are less motivated to do so than the larger companies. Although millions of jobs have been

[10] This section is mainly adapted and in some parted updated form the UNESCO, Review of Work-based Learning (WBL) in Egypt, 2018 by the same author of this report.
[11] www.capmas.gov.eg
[12] http://en.wikipedia.org/wiki/Central_Agency_for_Public_Mobilization_and_Statistics (March 2015)
[13] www.capmas.gov.eg
[14] El-Ashmawi, A., TVET Profile – Background Paper on Assessing Responsiveness of Education and Training Systems to the Demand for Skills, World Bank, 2011
[15] ENCC/TVET Reform Programme/ETF, Building a Competitiveness Framework for Education and Training in Egypt, 2010
[16] According to the Minister of TVET in a TV interview on March 25th 2015 on CBC Channel.

created during the last decades, most of these jobs are in the informal sector and are dominated by low productivity as well as low job quality (not decent work, e.g. low pay etc.[17]). The Oxford Business Group estimated that almost 75% of the jobs created between 1998 and 2006 were in the informal sector. In 2006, about 58% of those who were employed in the private sector were in the informal sector[18]. In addition, only one-third of total youth in paid jobs have legal contracts[19], of which those having a social or medical insurance represent only 30% and 21% respectively. Furthermore, only 15% of them are members of a labour syndicate or a union and just 23% are entitled to paid holidays and sick leave.

2.3 Culture and Society[20]

In addition to the above-mentioned characteristics and challenges, there is a very strong and negative attitude within the Egyptian society towards manual blue-collar work and technical education (including WBL and apprenticeship). This type of work and education is considered a last resort option for students and parents, preferring academic streams, university degrees and government or desk jobs even if the demand for some of these disciplines in the labour market is limited. Despite the increasing need for more technical and vocational skills, TVET careers are not considered attractive for both social and economic reasons, and students with high grades opt for general and academic education rather than vocational or technical streams. The unattractiveness of TVET is due to the poor image of technical and vocational careers, the wages and working conditions, and the expectations that young and unemployed people have regarding wage levels and professional careers.

Furthermore, there is a vicious cycle of negative image, low quality and low self-esteem related to TVET, its students and even its teachers in the Egyptian society and culture. This phenomena, is well documented and acknowledged however very little is being done to create awareness to change this. Deficiencies regarding adequate guidance and counselling opportunities, since there is no placement service provided within the education and training system and there are also no adequate placement services for the unemployed. While in the past, many stakeholders and policy makers assumed education and training were most likely to solve the problem of youth unemployment, there is a growing understanding of the importance of addressing other major labour market imbalances such as greater employer engagement in TVET reform, consistent, reliable and institutionalised labour market information systems in the framework of which not only data is being gathered but which also provide suitable analysis and disseminate the results to the relevant policy makers and practitioners for TVET planning and reform purposes. Furthermore, there is a lack of communication and collaboration involving public, private and civil society stakeholders, because of the complex and fragmented TVET structure.

[17] Almost one third (30%) of unemployed youth refused a job because it did not match their level of qualification; GiZ EPP Evaluation report (2015) unpublished.

[18] Said (2014) even assumes a large increase in irregular work since 2006, and more: First jobs are dominated by informal private wage work!

[19] It is reportedly also common practice in many private enterprises to force their new job applicants to sign their resignation beforehand in order to be able to dismiss these workers any time and deny them their legal rights.

[20] This section is mainly adapted and in some parted updated form the UNESCO, Review of Work-based Learning (WBL) in Egypt, 2018 by the same author of this report.

2.4 Education and TVET in Egypt[21]

Basic compulsory education in Egypt extends for a total duration of nine years (primary stage (6 years duration) + preparatory stage (3 years duration). Students passing the primary end of level exam move on to preparatory school, while those who do not pass after two attempts move to vocational preparatory or withdraw from education. Based on their performance in the preparatory level exams, students may go to general secondary, technical secondary, private sector technical secondary schools, PVTD, or withdraw from formal education. Graduates from general secondary schools may be eligible to enter university, depending on their scores on the secondary end-of level exams; while almost all technical secondary graduates enter the workforce, (the top 5% only may attend Higher Institutions or University for further training).[22]

2.4.1 Technical and Vocational Education and Training

Technical and Vocational Education and Training (TVET) is widely recognised as a major challenge before the country's efforts to reduce unemployment, create social equality and enhance the country's global competitiveness. To understand the low quality and relevance of the TVET system, one must first look at the system as a whole, and understand its complex and malfunctioning governance structure. This, in an attempt to trace the policies and activities that highlight the tension and often contradicting functions of TVET as (1) a traditional instrument to address the failure of general education and provide a less than favourable alternative to social inclusion and the more modern function of (2) fostering a knowledge-based economy and improving the competitiveness and dynamism of enterprises.

TVET in Egypt is a term understood in a Life-long Leaning perspective. It encompasses: technical education at preparatory, secondary and post-secondary technical education levels, vocational education, vocational training, continuing training and retraining. However, there is a traditional separation between the concept and system of technical and vocational education and that of vocational training. In 2009 there was an attempt to bridge this separation to a certain extent through the development of a TVET strategy by all key stakeholders, which applied to all sub-sectors. However, at the implementation level and due to the fact that this strategy was never approved or mobilized, most of the dichotomy between education and training still subsists[23]. Subsequently, this separation in direction and vision has been further emphasized by the launch, in September 2011, of the Ministry of Education's strategy for technical education. In this same period, the EU funded "TVET Reform Programme" drafted a comprehensive National Strategy for TVET reform in Egypt and there was little evidence of any link or synergy between the work that was done on both ends. In early 2014 a strategy for Pre-university Education 2014/2030 including technical education was developed as well as a decree to establish an Executive Council for TVET under a new National Council for Human Resource Development, under the leadership of the Prime Minister; however, these initiatives are still not functioning or meeting. In March 2015, a new Ministry of Technical Education and Training (MoTET) was established, for the first time in Egypt. The Ministry was working with international partners like the EU[24], World Bank and UNESCO to develop a comprehensive TVET strategy. However, this Ministry was dissolved in September 2015 and its technical education functions re-integrated within the Ministry of Education and vocational training back to the different ministries, which reemphasises the fragmentation of the system again.

[21] Some parts of this section is adapted and in some parted updated form the UNESCO, Review of Work-based Learning (WBL) in Egypt, 2018 by the same author of this report.

[22] Net education enrolment ratios amount to 95.8% in primary, 77.6% secondary and 30.4% tertiary. Yet, a substantial number of primary school age children are out of school (198.836 children) feeding informal apprenticeship and child labour. Primary completion rate is 98.5%, but quality is questionable. Youth (15-24) literacy rate is 84.9% and school life expectancy, Primary to Tertiary, is 11.7 years. (Badawi, Apprenticeship Review, 2012)

[23] ETF, Torino Process Report- Egypt, 2010

[24] Through the EU-funded TVET II reform project.

At present, the most important feature that characterises the Egyptian TVET system is its extreme complexity. The lack of clear leadership and high fragmentation of the institutional framework for education and training, with more than 30 ministries and entities involved in the governance and provision of TVET, leads to a high degree of miss-coordination and ineffectiveness of the allocation and management of limited resources. This includes the two Education Ministries (MoETE and MoHE), as well as around 17 Ministries active in vocational training. In addition, there are several other agencies operating in this sector, like the recently cancelled Supreme Council for Human Resource Development (SCHRD)[25], the National Authority for Quality Assurance and Accreditation in Education (NAQAAE), the sectoral Training Councils (Industrial, Building and Construction), the Education Development Fund (EDF), the National Training Fund (NTF), just to mention a few.

In addition to the fact that there is no clear leadership for TVET in Egypt, there is also no formal role occupied by employers from the private sector, although they are occasionally involved in boards or committees at all levels. The system looks as if it has all the elements and components of an effective TVET landscape, yet at the implementation level there is little coordination, almost no evidence-based impact assessment, and most pilots (including those related to WBL and apprenticeships) remain as such, with no attempt to mainstream successes.

2.4.2 TVET System: Provision, Organisation and Stakeholders

By absorbing more than 52 per cent[26] of young people at the secondary level, the technical secondary education pathway and its agricultural, industrial, commercial, hospitality and dual system streams (three- and five-year programmes) represents the larger part of the Egyptian education system at this level. The Ministry of Education and Technical Education (MoETE) is by far the largest TVET provider in the system, administering around 1,300[27] industrial, commercial, agricultural and dual system Technical Secondary Schools (TSSs) with more than 1.8 million students enrolled in three-year technical diploma or five-year advanced technical diploma tracks[28]. Most TVET graduates are directly obliged to enter the labour market and have very limited (around 5%) opportunity to access higher Education.

Since the 1950s, although not under the MoETE, but under the Productivity and Vocational Training Department (PVTD) of the Ministry of Trade and Industry (MoTI)[29] there exists a formal apprenticeship scheme. At the end of this three-year-long scheme, students receive a diploma, recognised by the MoETE and equivalent to the TSS diploma. There are around 22,000 students enrolled in around 45 VTCs across the country. In addition to this long-term programme, considered as a type of vocational education, the PVTD also offers short courses for public and private sector employees and job seekers. Furthermore, it recognises the need to expand its marketing department, in order to create more awareness regarding its services, traditionally provided to the declining public sector.

On the higher education level, there were 45 middle technical institutes that were integrated into 8 regional technical colleges, administered by the Ministry of Higher Education (MOHE). The TVET system also includes four Industrial Education Colleges (IECs), supervised by the MOHE, offering four-year-long programmes to train technical teachers for technical secondary schools, leading to a Bachelor of Technology. The IECs accept graduates from technical secondary schools (both three

[25] On paper and based on a prime ministerial decree and currently in the draft Labour law, it has been replaced by the National Council for Human Resource Development

[26] EEDS Planning Workshop (GiZ), 2019

[27] This number sometimes is quoted at 2000 schools when one considers the adjacent technical classes in non-technical schools.

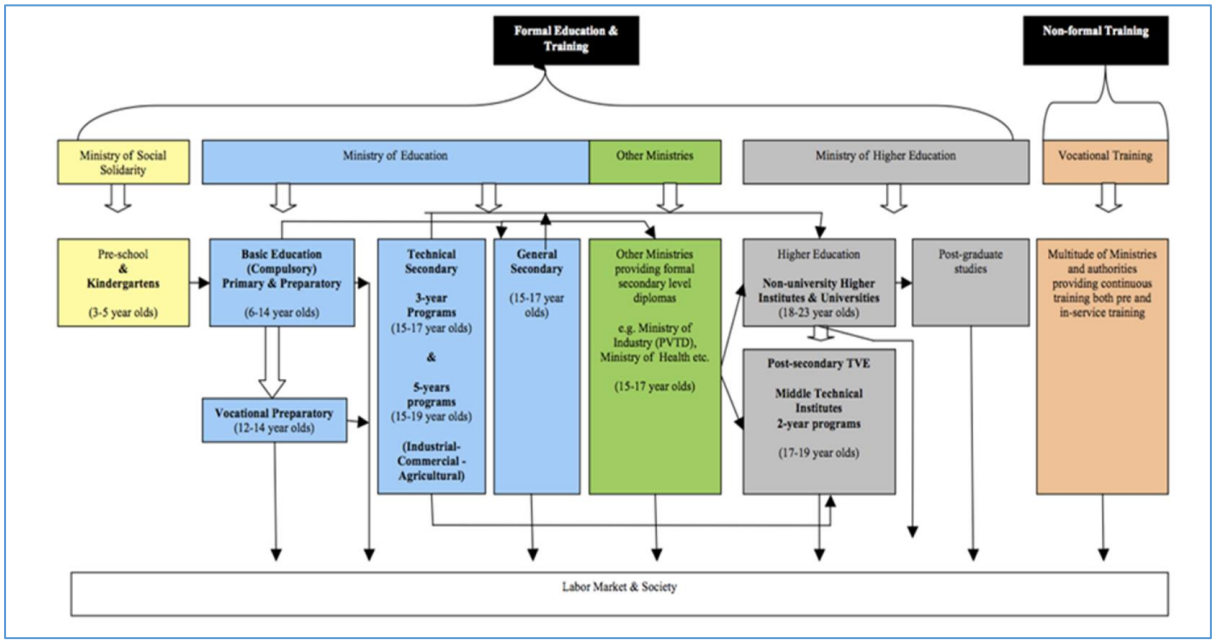
[28] MoETE, Technical Education Strategy Report, September 2011

[29] In May 2015, the affiliation of the PVTD was transferred to the new Ministry of Technical Education and Training and then in September 2015 transferred back to the Ministry of Industry.

and five-year systems) and graduates from the industrial technical institutes. Institutes of postsecondary vocational education in Egypt can be classified into eight different categories. All of the PVE institutes have two-year programmes sanctioned by a diploma; an exception is the faculties of IECs, with four-year programs sanctioned by a Bachelor degree. Currently, the MoHE is finalising the approval of a draft law to establish Technological Universities which will open the educational pathway for technical education secondary school graduates to higher education. The initial plan is to establish eight such universities with three in Cairo, Quesna and Bani Suef set to open their doors in the academic year 2019/20.

It should be noted that graduates from the 5-year programme (under the MoETE) of the technical secondary education have the same degree and level as the graduates from the technical colleges (under the MoHE). Yet the curricula and requirements are not synergised or coordinated by both ministries. Figure 2.1 illustrates the education and training structure in Egypt.

Figure 2.1
Pathways through the Formal Education and Non-formal Training System by Responsible Ministry



Source: World Bank SABER (2014) Workforce development report- Egypt.

While technical education provided by the Ministry of Education and Technical Education can be considered the most prominent, in terms of number of students and schools, it is at the same time the most inefficient in terms of outputs. It mainly (with some exceptions) focuses on the social inclusion function of TVET, rather than its quality. On the other hand, TVET encompasses other middle-level technical institutions, affiliated to other ministries, providing technical education and training specific to their sector. Other forms include training through industry attachments or cooperative education (e.g. dual system and apprenticeships schemes under the PVTD), in-service training and re-training of both employed and unemployed workers in the labour force. Entry-level vocational training is provided to around 480,000 trainees a year in about 823 (600 public and 223 private or semi-private, owned by NGOs and regulated by the Ministry of Social Solidarity) and vocational training centres (VTCs), managed by several, sectoral ministries[30].

[30] El-Ashmawi, A., TVET Profile – Background Paper on Assessing Responsiveness of Education and Training Systems to the Demand for Skills, World Bank, 2011.

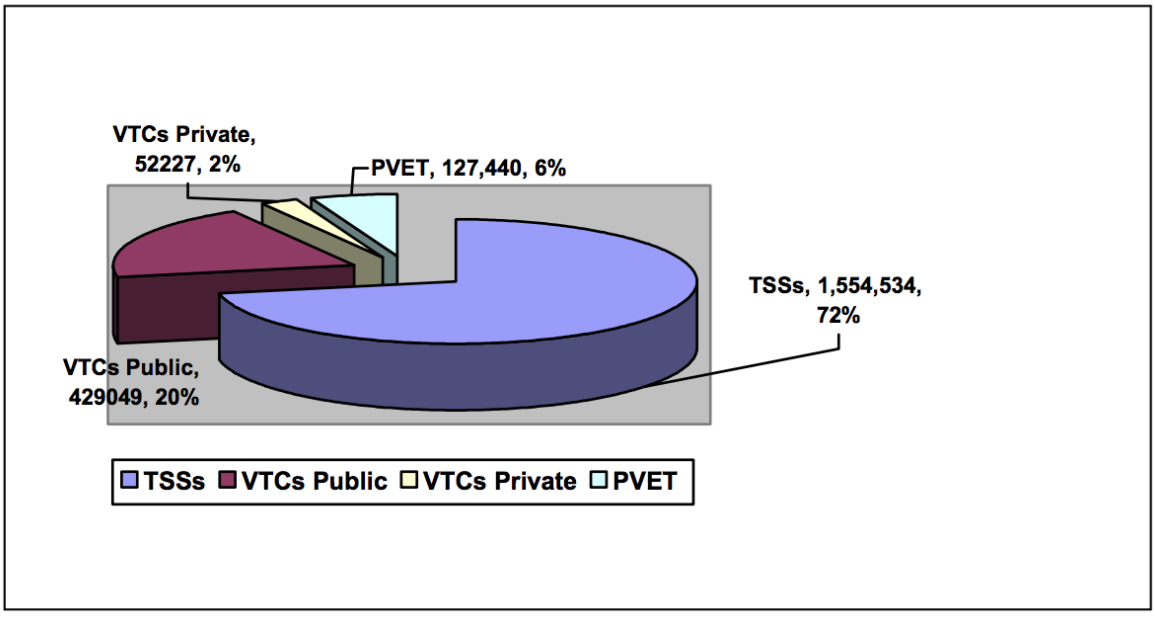
The 600 public sector VTCs and institutes are divided into 317 formal or systematic training centres offering long training programmes (minimum one year) issuing technical diplomas, and 283 non-formal training centres offering short technical courses (less than one year). These centres served around 69,500 trainees in formal training and 359,500 in non-formal vocational training during the academic year 2009/10[31].

The so-called 223 private sector VTCs include 219 non-formal training centres and around 5 formal training centres and schools. In 2010, they provided training to around 700 trainees in formal programs and 51,500 in non-formal courses[32]. Most of these short courses target disadvantaged groups, particularly women, disabled and unemployed youth and are conducted within community-based centres, designed to meet community development needs.

Figures 2.2 and 2.3 below summarise the numbers and percentages of students and trainees enrolled in all the different types of TVET mentioned so far, as well as the number and percentage of schools and training centres for 2009/10. To conclude, the largest number in terms of students and schools are the MoETE TSSs with 72% of all students and 58% of all schools. Private sector VTCs have the lowest number of students: 2% of students are trained in 10% of centres. Although the data is somewhat outdated (as more recent figures could not be obtained) the trend and percentages are still relevant today.

Figure 2.2

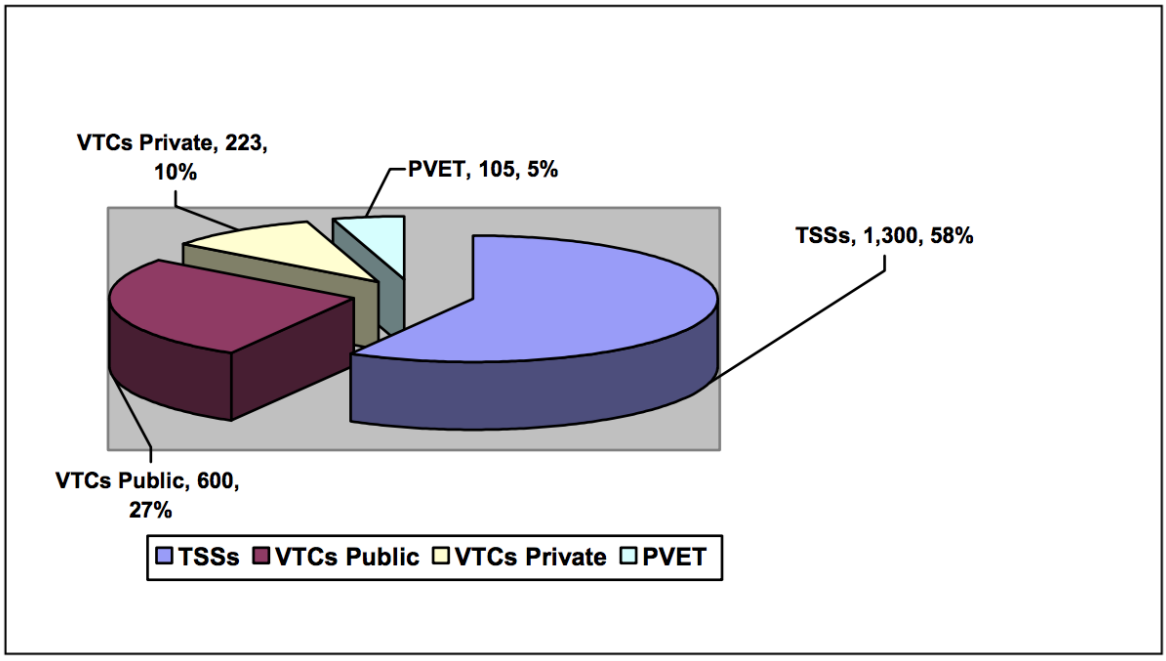
Number & Percentage of Students enrolled in all Types of TVET (2009/10)



Source: various sources, including MoETE Technical Education Strategy and PVET Country Background Report, 2011

[31] PVET in Egypt Country Background Report, 2011
[32] PVET in Egypt Country Background Report, 2011

Figure 2.3
Number & Percentage of Schools & Training Centers in all Types of TVET (2009/10)



Source: various sources, including MoETE Technical Education Strategy and PVET Country Background Report, 2011

Given that the majority of TVET providers are from the (large) public sector, considerable investments need to be done to achieve the required reform. Given the large expenditures on wages[33], the key challenge is related to the few resources available to cover developmental expenses and investments in reform initiatives (teaching and learning materials, equipment and infrastructure status). Without sustained additional mid-term funding, there will be no option but to put in most of the available budget into recurrent expenditures (wages) with almost no budget left for development of programmes to offer quality mainstream education. As a result, schools will continue to be under-financed, which has a severe effects on quality and equity. Another challenge for the Egyptian system is to use funds in a cost-efficient way. There is reason to say that the running of the education system as a whole costs more than necessary. The available capacity is far from being fully used due, among others things, to the management and pedagogical organisation structure, the official working hours of school, etc.[34].The MoETE is currently embarking on an ambitions reform initiative called Technical Education 2.0 Transformation and a main pillars of the reform include partnership with the private sector to look into this issue of investment and funding.

2.4.3 Quality of TVET programmes

Although the figures above may indicate a positive trend in terms of diversity and number of TVET provision, the fact is that the quality and relevance of the TVET system at large is very low. In this section we summarize the main features of the quality assurance system in TVET.

TVET has traditionally made an implicit choice for access rather than quality. TVET, being considered as a second choice option (in relation to general education, which paves the way for university), fell

[33] The share of wages and salaries in total sector expenditure has steadily increased, from 71% in 2000/01 to 83% in 2006/07. At the same time the share of other recurrent expenditure (mainly student-related and school operation-related expenditure) has declined to 12% in 2006/07.

[34] ETF, Torino Process Report, Egypt, 2010

in a vicious circle of low esteem, low quality, low results, which is not yet completely overcome. In addition to working on its image and status, the system needs to have:

1. A unified National Qualifications Framework;
2. A well-developed well communicated standardisation, accreditation and certification framework;
3. Standardised methods of updating and reforming curricula into competence based education a move form content driven material to competence based delivery and assessments
4. This will require also different and effective teaching methods, more practical learning;
5. Rationalising of the number and type of specialities;
6. Investments in upgrading the capacity of teachers, trainers and managers as well as their career conditions;
7. Upgraded infrastructure and equipment.

The establishment of the National Authority for Quality Assurance and Accreditation in Education (NAQAAE, as an independent quality assurance and accreditation body with administrative and financial autonomy linked to the Prime Minister, is seen as part of a greater emphasis on accreditation mechanisms and processes, aiming at improving the delivery of education. NAQAAE focused on quality assurance in education covering technical schools as well as general education ones. Currently, it does not cover vocational training centres affiliated to other ministries, including the PVTD.

NAQAAE started its operations in 2005 and by the end of 2009 accredited 200 schools (mostly general education schools) from 270 which applied. This means that around 30% of schools didn't meet the requirements. In the academic year 2009/2010 about 800 schools applied for accreditation[35]. The work of this body has the potential for contributing to the overall quality assurance and accountability framework within which schools could be granted increased substantive and procedural autonomy. The accreditation framework developed and adopted by NAQAAE is in line with international benchmarks. There are 9 areas covered by the Quality Assurance Framework:

1. Vision and mission of the institution;
2. Leadership and governance;
3. Human and financial resources;
4. Civil society participation;
5. Quality improvement and accountability;
6. Learner;
7. Teacher;
8. Curriculum;
9. Education environment.

Every area is then supplemented by specific criteria and described through specific set of indicators[36]. This indicates that there is a political commitment to support the quality assurance system and the institution leading this process. A clear evidence is the decision taken in 2010 by the Prime Minister to entrust NAQAAE in leading the work on the development of a national qualifications framework (NQF), although some stakeholders have expressed concerns regarding the absence of a participatory approach and the limited dissemination of information adopted by NAQAAE regarding NQF.

[35] NAQAAE, Education in Egypt. Downloaded from www.naqaae.org 2010.
[36] ETF, Review of Secondary Education in Egypt, July 2010

Taking into account the time and policy pressures, the lack of resources and expertise, there is a risk that NAQAAE will not be able to conduct more than a cursory investigation on most institutions, given the number of education and training institutions in the country. For example, in its report on education in Egypt, NAQAAE mentions as main challenges for its operations: legislative constraints, resistance of academic staffs to change and the adoption quality assurance concepts and regulations, shortage of financial resources and lack of engagement of NGOs and civil society organizations on education outcomes. Another major weakness of NAQAAE institutional role concerns the organizational setup of NAQAAE and the lack of transparency of its reporting systems: reports on the accreditation of institutions are not published, nor shared with the MoETE and the schools. In this way, access to lessons learned on proven processes, best practices and overall progresses are not shared and made available to other education institutions and stakeholders.

Furthermore, with regards to the assessment and awarding of qualifications, there is an on-going lack of clarity about roles and responsibilities. In most cases accreditation and quality assurance mechanisms are not based on outcomes-based qualifications or competency standards, and have a far greater focus on more traditional aspects, which have come to be known as 'inputs', such as curricula and duration, qualification of staff, and so on. This is the case for higher education and secondary education including TVET. Development of quality assurance is not linked to changes in qualifications development and validation, certification and assessment systems. In fact, certification currently happens through ministries, with separate systems for each awarding ministry, and this is likely to continue. There is only a unified certification system for secondary vocational education issued and organized by the Ministry of Education, which also approves the three-year diplomas issued by Don Bosco and PVTD.

In Egypt, the number, diversity and complexity of the qualifications offered is wide. This arises from historical attempts of ministries and other institutional bodies to respond to the needs of a broad range of learners (for example school drop-outs, low achievers, job seekers, adults, etc.). This diversity in qualifications leads to inconsistencies that reduce quality, confidence and trust. The bodies offering the qualifications are also diverse and this leads to weaker cooperation between them. The following table lists the key players within the Egyptian qualifications system, dealing with Technical education, vocational training or both:

Table 2.1: Key Institutions and Functions in the Egyptian Quality Assurance Landscape

Name of Organization/Initiative	Function(s)	Remarks
National Qualifications Framework (NQF) **under NAQAAE**	Describes all qualifications and other learning achievements and defines the relationships between these in a coherent way	Still not extensively implemented, only in a few sectors and not very participatory.
National Authority for Quality Assurance and Accreditation in Education (NAQAAE) **under the Prime Minister**	Provides quality assurance and accreditation for all elements of the formal educational process (TSS, etc.)	Important institution, however lacks resources to cover its mandate and it transparency is sometimes questioned. Doesn't extend its function to vocational training institutions, just technical education.
National Skills Standards Project (NSSP) Under ITC until 2017 and now IMC (MoTI)	Develop standards, catering for workers' certification referring to their abilities and	Despite the great effort exerted in this project and the current initiatives in involving chambers

Name of Organization/Initiative	Function(s)	Remarks
	competencies; transferable credits that carry students across education/training routes; and objective independent assessment mechanisms and accreditation procedures	and expanding these standards into PVTD and MoMM, there are still differences in terms of achievements in the different sectors. Some sectors are not addressed as well as they have not been "officially" recognized as the one and only national standards although they have been benchmarked with the SQA.
National Council for Vocational Accreditation (NCVA) under establishment **under MoMM**	• Approves and issues National Skill Standards • Approves and issues standards for jobs, occupations, trainers, exams, as well as licenses for testing regulations	Not adequately functioning.
Sectoral Chambers **(under the Federation of Egyptian Industries)**	Identifies the needs of industry in terms of jobs and occupations, as well as the requisite skill levels for each.	Only involved if they are paid by ITC, otherwise they are not effective or active.
Enterprise-TVET Partnership (ETPs) **under MoTI**	• Provides work analyses and develops Job & Occupational Profiles • Currently establishing certification units to certify personnel working in certain occupations in specific sectors of industry. ETPs are preparing to be accredited by EGAC as certifying bodies.	The ETP concept as a link between industry and TVET providers linked with the chambers is a sound and needed function in the system; however the implementation of some of these ETPs needs review and the roles must be well defined. The certification units, although needed, have still to be agreed upon by most stakeholders especially the training councils.
Egyptian Accreditation **Council (EGAC) under MoTI**	Provides accreditation (based on ISO standards) for bodies that certify training workshops and personnel.	EGAC is the only Egyptian body mandated to accredit any national certification body. Although it has a good track record in these activities, it's still in the process of receiving international recognition, in order to extend them to HR-related fields.
Technical Secondary School & VTCs under **MoETE and many other ministries**	Implements all the education and training process (formal, non-formal and informal)	These are ministry-specific awards, not subject to accurate or external validation processes (with the exception of MoETE).

Source: Adopted from the table on Egyptian Institutions involved in Standardization, Accreditation and Certification from the TVET Reform Programme's study on National Occupational Standardization, Accreditation and Certification System, 2011

Table 2.1 above, outlines the number of institutions affiliated to the different stakeholders, one can only again conclude that the TVET system has all the components, yet it lacks coordination and clarity in determining the responsibilities and mandates of all its players. To address this issue of fragmentation in the TVET system, President El Sisi announced in July 2018 the intention to establish a quality assurance and accreditation authority for TVET. The new authority is intended to take over all issues related to quality from all the above initiatives. The draft law for this new authority is currently under review by the Prime Minister and we will discuss it in more details later in the report.

2.5 The Context of Public Private Partnerships in Egypt

Egypt has a long history of cooperation and partnerships with the private sector even before the term Public Private Partnership (PPP) was derived[37]. Perhaps one of the first and most prominent examples of a now common type of PPP called Build-Operate-Transfer (BOT) was the Suez Canal project. In 1858 the Universal Company of the Maritime Suez Canal (France) was formed with authority to build a canal and to operate it for 99 years, after which ownership would transfer to the Egyptian government. The project was inaugurated in 1869 and according to Levy, it was "The first successful modern BOT project". The successful French participation in Suez Canal project encouraged the Egyptian government to replicate this model with another French private partner; La Compagnie du Lebon who had implemented successful lighting projects in Europe. The prominent gas tycoon Charles Lebon was awarded two important concessions. The first concession was the lighting of Cairo using the illumination gas in 1893; the second was generating electricity for the first time in Egypt at Alexandria governorate in 1895[38].

The Egyptian government continued to cooperate with the private sector, local or foreign, in different manners until the 1952 revolution which introduced nationalizations laws, thus undermining the role of the private sector participation in the Egyptian economy to unprecedented levels in favour of large state-owned enterprises. This policy of public sector dominance continued but the mid 1970 when the government adopted the open door policies "Infetah". Egypt economic policy compass was redirected to capitalism instead of the socialism and the Egyptian economy achieved a remarkable growth till 1986, when Egypt experienced remarkable budget deficit of 14% of the Gross Domestic Product (GDP) (CBE 1987). In 1990 the budget deficit increased to reach 17.2% of the GDP, when the balance of payment deficit was running at a rate of 11.4 billion Egyptian Pounds, and the inflation rate was 15% (CBE 1991). The Egyptian Government commenced discussions with the International Monetary Fund (IMF). In 1991 the government announced the Economic Reform and Structural Adjustment Program, designed with guidance of IMF and the World Bank. The program's essential targets are increasing Egypt's creditworthiness transforming the Egyptian economy to a market-based economy rather than the socialist pattern (IMF 1991). The following period saw a clear policy towards privatization although it was ad-hoc and received strong public opinion opposition which led the government to consider PPP models and in 2006 established the Public Private Partnership Central Unit (PPPCU) as a part of the Ministry of Finance.

The main purpose of establishment the PPPCU was to coordinate the PPP projects stages across the concerned public authorities or ministries. The main responsibilities of the unit are; attempting to anchor a clear single PPP policy among the state ministries or authorities, managing the PPP transaction in its early stages, provide technical advisory support to the concerning public bodies, and supervising Tendering Committees Performance to insure compliance with legislative framework. However, the legal framework in Egypt was not complying with the new nature of PPP projects, so the PPPCU required the government to solve this problem by enacting the law # 67 for PPP for 2010[39] (please see Annex 1).

[37] Montaser (2017).
[38] Montaser (2017).
[39] Montaser (2017)

The executive regulations and by-laws of the law # 67 for PPP were enacted in January 2011 consisting of 95 articles covering all the PPP project stages, tackling the tiny details, and creating a healthier environment for PPP in Egypt. However only two days later, the 25th of January uprising started, resulted in ousting the president and his cabinet, disbandment of the parliament, and imposing a status of political instability. The political instability caused the sole PPP working project activities to delay till the mid of 2012, created a market panic that pushed a lot of investors to withdrawal from PPP or even traditional delivery projects announced by the Egyptian consecutive governments. However, the relative political stability now and the ambitious economic development plans including mega projects will require greater private sector involvement alongside the government. The law covered many issues related to the PPP arrangements, and tried to bridge many gaps that appeared through the previous experiences. On the other hand the law included some disadvantages that resulted in the reluctance from different public authorities to consider PPP. The law is limited to the PPP contracts not less than one hundred million EGP. Such a condition caused many public authorities that have projects less than that amount to evade the law, either by announcing their projects in traditional project delivery method, or by applying the PPP in their own way, this is particularly relevant to TVET as we will see in the following sections. Law 67 forces the public authority to hire transaction advisors from different specialties such as technical, financial, environmental, or any other specialty, which seems to be important to project transaction. Hiring transaction advisors forms an additional burden on the public authorities already suffering lack of finance in general. In this regard, the PPPCU or the public authority itself may try to get some kind of financial support from international bodies such as the European Bank for Reconstruction and Development (EBRD) or Middle East and North Africa Transition Fund. The law gave the PPPCU great powers against different public authorities in spite of permitting them to establish satellite PPP units whenever needed. The law stipulates the inevitability of the entire supervision by the PPPCU on the PPP project to obtain the approval of the Supreme Committee for PPP affairs, headed by the Prime Minister[40].

According to Hannoura form the Ministry of Finance, PPP is defined as follows:

> *PPP is a long term contractual relationship between the Public Sector and the Private Sector for the purpose of having the Private Sector deliver a project or service traditionally provided by the Public Sector. It is a performance-based contract under which the private sector supplies public services over time and is paid by the Public Sector, end-user or a hybrid of both. Output is specified by Line Ministers while input is the responsibility of the private sector*[41]

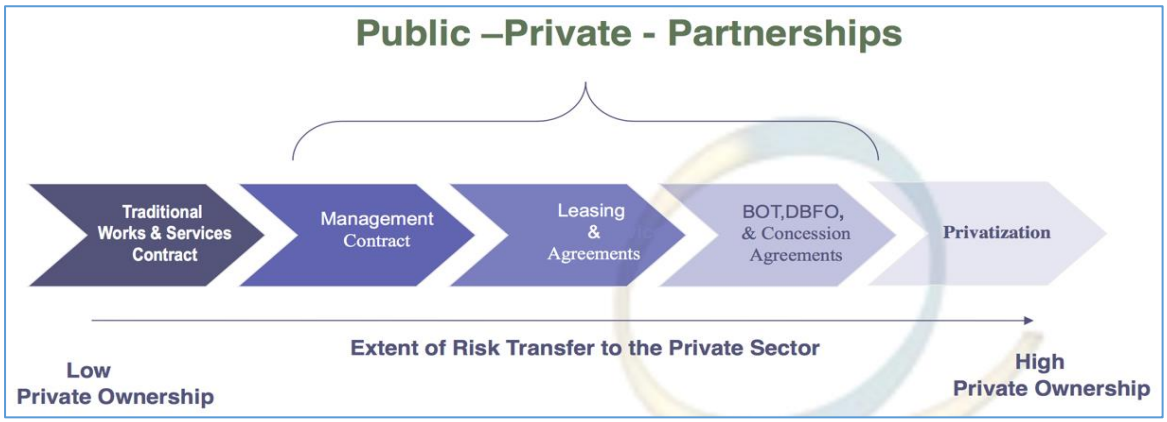
It is important to note that according to the law, PPP projects do not minimize Line Ministries' responsibility to improve public services, only the procurement methodology is different. The objectives or drivers of PPP are very important to the current Egyptian context and include the following:

PPP has two basic drivers, the first one is considered to be a technical one which is the exploitation of the private sector's expertise and technical capabilities in the delivery of a more developed public service. The second one is a financial driver that allows the public sector to be able to make a capital investment without incurring any borrowings[42], this second driver is particularly important for Egypt in the current and future period as the level of public debt has increased tremendously since the 2011 revolution.

Figure 2.4 below illustrates the different methods and levels of private sector involvement and related risks as is available in the current PPP law in Egypt and as implemented by the PPPCU within the Ministry of Finance. The common feature between all the different methods and levels of PPP in Egypt is that the private sector partner of contractor is in partnership to make profit, as we will see in the following sections of this report, this is not necessarily the case when it comes to partnerships between the two sides in TVET.

[40] Montaser (2017)
[41] Hannoura (2013)
[42] Heba Samir (2018)

Figure 2.4
Different Methods and Levels of PPP



Source: PPPCU, Ministry of Finance Presentation April, 2013

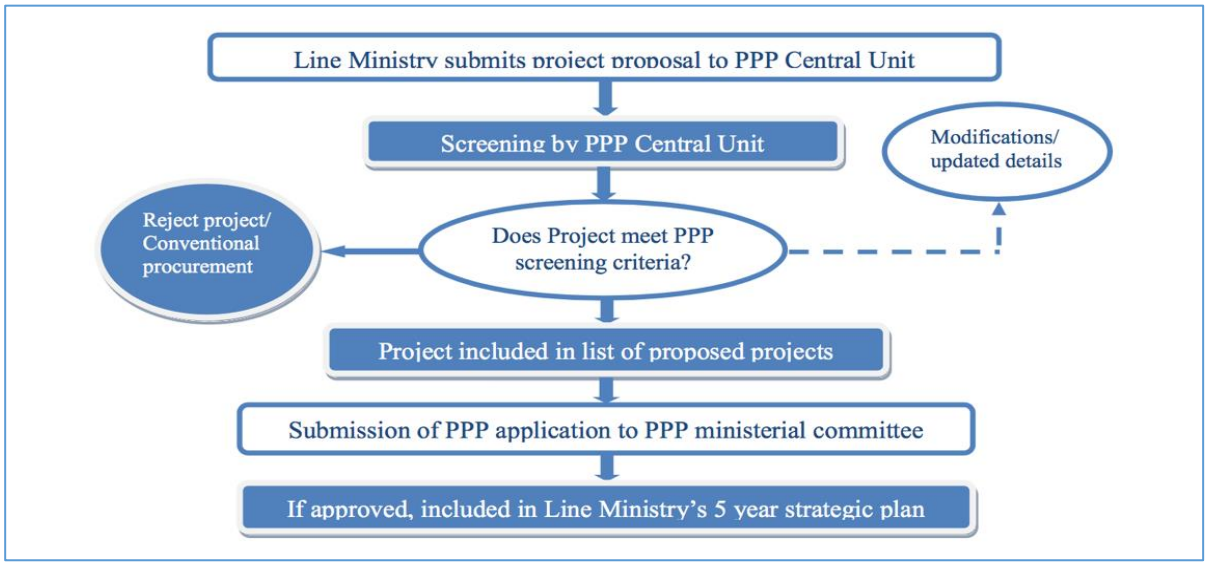
The PPPCU acts as the PPP center for support and expertise and is responsible for the development of a national PPP policy framework for implementation serving the needs of the public sector. According to Mohy el Din (2017) the PPPCU's role includes the following:

- Set PPP guidelines and methodologies appropriate to Egypt
- Assist the line ministries to identify potential PPP projects as part of line ministries' five year strategic plans
- Draft and issue standard project documents, contracts and PPP laws
- Provide technical advisory support to line ministries on project development and transaction implementation
- Monitor project implementation post contract closure
- Coordinate PPP program activities among line ministries, private sector partners and service providers, and the capital funding market
- Identify and resolve issues that may delay successful development of Egypt's PPP program
- Serve as a capacity building center for PPP knowledge and expertise in Egypt

The role of the PPPCU starts from project screening, tendering and procurement, and bid selection to post award monitoring. Therefore, it works with line ministries closely to implement PPP projects. As shown in figure 2.5 below, during the screening and approval project phase, PPPCU provides technical assistance to select bankable projects that meet the needs of the public sector and are attractive to the private sector[43].

[43] Mohy el Din (2017)

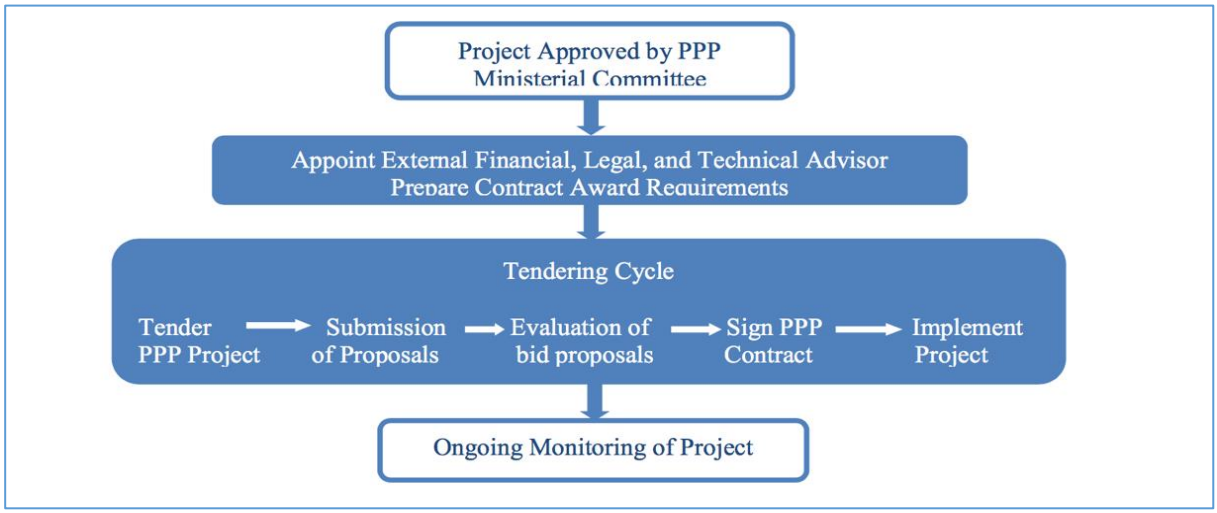
Figure 2.5
The start of a PPP project – Step 1



Source: Mohy El Din (2017)

Figure 2.6 below shows the steps once a PPP project is approved by the Ministerial Committee; it goes to the tendering and monitoring project cycle. The PPPCU at this stage assists awarding authorities in the selection of service providers and ensures public sector contributions to a PPP project are optimized and monitored throughout the project life.

Figure 2.6
Approval of PPP project - Step 2



Source: Mohy El Din (2017)

Based on the discussions with stakeholders, PPP is considered to be on the top of the Egyptian economic reform agenda. A cursory analysis of developing economies such as Egypt reveals that the infrastructural services (that have always been provided by the public sector) have been without evidence of substantial achievements, on the contrary an obvious deterioration has been noticeable over the past few years in specific. This indicates that the public sector does not have the adequate solutions for the emerging challenges facing a developing economy such as Egypt. This gap necessitates the emergence

of alternative solutions for handling such inefficiencies and ineffectiveness of these services. One of the most viable alternatives is to depend (partially) on the private sector and this can be done through PPP which can lead to a better accomplishment of projects and delivery of services (especially the infrastructural services) that have been poorly provided by the public sector as a result of poor management or even because of imbalances that result from the increase in population in addition to budget deficits. Dependence on long term PPP contracts can contribute to better construction and maintenance of infrastructure. The private sector participation provides a full range of designing, financing, construction, operating, management and maintenance of the facility during the contract period ranging from 15- 30 years, taking into account that financing and maintenance are obligatory for the private sector. According to these contracts, the Egyptian government is supposed to retain strategic control on the projects and follow up their implementation until they return to the government at the end of the contract period.

Accordingly, there is a wide spread consensus that exclusive dependence on the government is not viable; on the other hand, complete reliance on private sector will not produce desired and optimal outcomes due to the initial investment needed if they do it alone. PPPs bring together consortia including developers, investors, constructors and other service providers to finance, construct, operate and maintain assets through long term contracts for the development of high quality infrastructure.

It is clear that the PPP witnessed success and failure case in Egypt throughout its history. Despite the issuance and regulations of the PPP through issuing law 67 that was acted on in 2011 to regulate the projects environment under PPP, however, the political stability and economic instability after the January revolution has a negative impact on PPP. Egypt has been facing the challenge of moving its gear again in all sectors after the impact of the January revolution, so, there is a crucial need from the part of the government in the coming period to strengthen the public private partnership.

The most important in all these projects for the government of Egypt are the lessons learnt from the success and failure projects to be able to sustain its success with the PPP projects. The success cases in the previous PPP like Marsa Allam airport should be maximized through replicating the success factor and spreading the awareness with it among public and private entities and also counteracting the failure factors in previous projects like EL Allamain airport project.

It should be considered that the success of the PPP in Egypt will depend to some extent on the environmental factors having to do with political and economic stability and the legal framework. There is a strong need to develop a shared vision between both the public and private entities which can be built using the following:

- good governance,
- proper management
- accurate feasibility study,
- transparency,
- commitment, trust, loyalty, fairness, team work,
- proper negotiation,
- attention to details
- Milestone follow-ups and periodic monitoring and evolution during the durations of the projects.
- The concept of win-win relation should always be the intention of both parties.

Since the establishment of the PPPCU in 2006 and the enactment of the PPP law in 2010, around 40 PPP contracts have been signed and started operation or in the pipeline in sectors like wastewater treatment plants, airports, infrastructure, health care, energy, ports and general education (please see table 2.2 Below).

Table 2.2 List of some of the main PPP projects in Egypt

Project Name	Owner	Status
New Cairo Wastewater Treatment Plant	Ministry of Housing	Contracted, 2009
Mowassat Specialized University Hospital	Ministry of Higher Education	Contracted, 2012
Smouha Maternity University Hospital	Ministry of Higher Education	Contracted, 2012
Abu Rawash Wastewater Treatment Plant Project	Ministry of Housing	Contracted, 2015
Cairo Contact Centers Park in Ma'adi	Ministry of Communication	Prequalification
Commercial Registry Offices Development and Automation	Ministry of Supply and Internal Trading	Prequalification
Development and Operation of Nile River Bus Ferry in Cairo	Cairo Governorate	Prequalification
Building and Operation of Advanced Language Schools (100 schools in the first stage)	Ministry of Education	Prequalification
Notarization Offices Development and Automation	Ministry of Justice	Prequalification
Safaga Port Development	Ministry of Industry and Foreign Trade	Prefeasibility
Safe Disposal of Medical Waste	Ministry of Health	Prefeasibility

Source: Ali Montaser (2017)

As we can see from the above table, there are no projects signed or planned under the PPP law for TVET services, the following chapter of this report we will look into the reason behind this and examine the examples of PPP in TVET.

2.6 Key Messages of this Chapter

- *Key message 1:* Since the revolution of 2011, Egypt has been facing political and economic challenges, however these changes have put great emphasis on the reform of education and training to better address the miss-match between the supply of and demand for skills within the growing labour market;
- *Key message 2:* The TVET landscape in Egypt is complex and highly fragmented with many players. The Ministry of Education and Technical Education has the responsibility for the largest number of TVET schools, 1.8 million students, while vocational training is divided between a multitude of ministries and authorities;
- *Key message 3:* there are existing but weak links between TVET institutions and employers and other social partners, something that makes the expansion of WBL even more challenging;
- *Key message 4:* There is a historic disconnection and there are only weak linkages between (i) general education and technical education (with the latter having a less favourable image in society) on one hand and (ii) technical education and vocational training on the other hand;
- *Key message 5:* The TVET quality assurance system in Egypt is fragmented and thus weak, with many of the features like accreditation, standard setting, and certification still underdeveloped and uncoordinated.
- *Key message 6:* Egypt has a long history of PPP projects.
- *Key message 7:* There is a PPP law in Egypt since 2010 that governs very large projects a minimum value of LE 100 Million, however none of the projects are in TVET.

3. The Nature and Extent of Public Private Partnerships in TVET

This chapter of the report looks into the nature and extent of PPP in TVET in Egypt, and provides some of the examples that are currently being provided and are planned within the TVET system.

3.1 PPP in TVET- Models of Partnerships and Examples of Work-based Learning

Many of the of the stakeholders interviewed for this report as well as international analysts consider work-based learning (WBL) schemes in TVET as a form of public private partnerships aimed at improving the outputs of the system and bridging the gap between supply and demand for skilled workers.

Egypt has a long history of providing apprenticeship and work-based learning schemes both informal and formal and is currently providing a variety of models mostly for young learners with limited pilots for adult apprentices. Annex 2 of the report summarizes the different WBL and apprenticeship schemes is Egypt. In the following subsections we highlight some of these schemes that could be considered close examples of public private cooperation or partnerships in TVET.

3.1.1 Dual system under the Ministry of Education and Technical Education

Formally known as the Mubarak Kohl Initiative (MKI-DS)[44], the Dual System (DS) was introduced to Egyptian technical secondary schools in 1994, with the support of the German Federal Ministry for Economic Cooperation and Development, through a bilateral Egyptian-German technical cooperation programme[45] which kept providing technical assistance until 2007. It is highly influenced by the German model of dual system and it is the largest formal WBL scheme in Egypt in terms of number of students and schools. The Dual system in Egypt combines two days of formal schooling at the school with four days of in-company training, giving the students the necessary theoretical understanding[46] and the hands-on experience demanded in the market[47]. Today, the DS is a fully integrated scheme within the Egyptian education system, with both corporate and public sector institutions responsible for its governance and outcomes. The three-year apprenticeship scheme is offered in 24 out of 27 governorates in Egypt, with 21 dedicated DS schools and 198 DS classes within traditional technical secondary schools[48]. Around 4000 companies (out of 25,000 registered companies) accommodate and train students every year. In 2017, almost 42,000 students were enrolled in 47 different occupations (covering the four main sectors: industrial, commercial, tourism and agriculture).

The programme encourages collaboration between education and world of work. Private companies (mainly medium and large) join an investors' association that participates in the implementation of a technical education programme through the Regional Units of the Dual System (RUDS). Participating companies are responsible for the practical training component, during which students spend four days a week in factories/enterprises and two days at school. Apprentices receive a monthly allowance of around EGP300 (USD 17) during the first year, EGP400 (USD 22) during the second year and EGP500 (USD 28) during the third year of study. Companies pay administrative fees to the RUDS (up to EGP40- USD 2.27) per student per month, and many also

[44] The name was changed after the January 2011 revolution that was considered an uprising against President Mubarak and what he represented.
[45] Amin G., Legal Review of Apprenticeship in Egypt, ILO, 2013
[46] In addition to compulsory cultural subjects like Arabic and some English languages, religion and social studies
[47] Amin G., Legal Review of Apprenticeship in Egypt, ILO, 2013
[48] Source: Interviews with Deputy Ministry of Education for Technical Education and the Head of the Dual System at the Ministry of Education.

cover apprentices' transportation. Tuition is free, students only pay minimal registration fees as in other public schools. Although there is no direct profit that private sector makes out of this partnership, many consider the trainees on the production line as cheap labour since they are paid much less than the minimum wage especially in the small size enterprises.

At the end of the three years, the graduates receive a certificate from National Centre for Human Resource Development (NCHRD) affiliated to the Egyptian Federation of Investors Associations (EFIA) and a diploma from the Ministry of Education[49]. It has been reported that over 56% of the trainees have been offered jobs in the companies involved in their training, however because the DS students are generally better performers than their counterparts in the traditional technical secondary school system, the majority (around 80%[50]) opt to bridge to middle technical colleges and universities thus exiting the blue-collar labour market for a while or even pursuing university degrees outside their original specializations. According to the 2009 tracer survey conducted by CID consulting for GiZ, 56.8% of the sample were pursuing further studies with a high percentage of those doing this while working. The discrepancy between figures indicate the lack of systematic data collection and analysis.

According to a number of focus group sessions conducted by the author of this current report for the World Bank in 2011 between students and graduates of the DS and the traditional technical secondary school system with no WBL components, it was clear that the DS yielded better results. This included; (i) better links with labour market needs, (ii) better character building for students who were more confident and had a better idea what they wanted for their careers and addressing their needs even within the workplace, (iii) companies were more content with the skills of DS students, (iv) DS graduates had better work opportunities as well as further learning options and (v) better understanding by DS students and graduates of working ethics and conditions (El-Ashmawi 2011).

However, the system is not perfect and has its limitations often sighted by experts including; firstly, the number of participants remains quite small compared to the total number of potential students (representing only 1.9% of all secondary technical education students), which raises questions about the critical mass of the programme and the feasibility of extending it to the rest of the system. An assessment in 2010[51] projected that an increase to cover 60,000 students should be possible until 2020, however there are no indications that this will happen despite the MoETE's plans to expand this system by 10% (around 200,000 students by 2030)[52]. Secondly, there are historic and on-going tensions between the MoETE and the RUDS in managing the system, not enough sharing of information for planning and in most cases MoETE assessors and supervisors are not welcomed at the enterprises. Thirdly, there are a lot of question marks about the quality assurance process, especially that related to assessments taking place at the enterprises, no unified system. Fourthly, there are no established qualifications and training on in-company tutors and mentors despite the agreement on standard curricula. Finally, some companies do not comply with the agreed study plans and durations sometimes asking students to undertake tasks outside the agreed curricula.

Although the Dual System is not a typical PPP example when compared with the PPP law as there is no formal contract with the government and the private sector supervised by the PPPCU in the Ministry of Finance, there is a tri-partite contract that is signed between the school, the company that trains the student and the legal guardian of the student.

[49] Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.
[50] Based on the interview with the Deputy Minister of Education for Technical Education, October 2017
[51] Adams. 2010. The Mubarak Kohl Initiative-Dual System in Egypt. An assessment of its impact on the school to work transition, GIZ.
[52] Ministry of Education, Technical Education Transformation Pillars (2019).

Annex 3 of this report provides a case study of one of the positive examples of the Dual system where three schools are dedicated to Americana, a major group of companies in the food processing and fast-food restaurant business. The agreement provided the company with the flexibility to develop a unique curriculum with the support of the UK awarding body City and Guilds, to determine the optimum way to divide the time between school and enterprise, and a process of student selection. This example has also proven very successful and appealing to students and parents because apprentices are almost guarantees a job in one of the company's 1400 restaurants in Egypt and the Gulf region.

3.1.2 Productivity and Vocational Training Department (PVTD) Administered by The Ministry of Industry

One of the main Egyptian apprenticeship schemes, the Productivity and Vocational Training Department (PVTD) was created by the Ministry of Industry, through enterprise-based work and training within the industrial sector. The operation of the PVTD is covered by the presidential decrees of 1956 and 1964[53]. According to Amin (2013), "In Arabic its title is *Talmaza Sina'eyah" (closest translation to apprenticeship) "*but it is commonly referred to by the acronym of the organising department PVTD". These 45 centres, geographically distributed among 17 governorates across the country, were originally designed to meet the needs of large public enterprises, from the industrial sector. However, since the private sector started to gain ground as an important employer, it has also been able to participate in these schemes[54].

Students enter the programme, typically at the age of 15[55]. The programme lasts for three years, of which the first two are spent in a vocational training centre and the third year the majority of the time is spent in an enterprise with one or more days a week spent in a training centre (the number of days vary according to vocation). The content of the programme is heavily vocational and practical, with roughly one-third of the total time represented by enterprise-based work and training, one-third by practical work in the training centre, one-fifth by vocational theory, and slightly less than 10% being general education[56]. Apprentices sign a training contract devised by the PVTD[57], to which the employer and the training centre are also signatories. According to Amin (2013), "Apprentices are paid a small allowance, around 15% to 25% of the wage of an adult worker (negotiated between the PVTD and the employer), to help them with transport and food costs". Off-the-job costs are covered by the PVTD.

The in-company training lasts for 44 weeks, each for 5 days during the third year. Training curricula is designed and monitored in cooperation between PVTD and the training company. Curriculum covers general subjects, general technology and occupation-specific technology (Badawi, 2012). PVTD organizes its own annual examination for all third year apprentices over its 45 centers. Although the programme is not administered by the Ministry of Education, it still leads to a certificate issued by the PVTD that has equivalent legal status to a technical secondary school certificate. Thus it can qualify a small percentage of best performers in the final exam for higher education, and it can shorten the duration of military service and lead to defined pay grades in the civil service. Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.

[53] Amin G., Legal Review of Apprenticeship in Egypt, ILO, 2013
[54] Amin G., Legal Review of Apprenticeship in Egypt, ILO, 2013
[55] According to Child law No. 126, the minimum age for work is 15.
[56] Amin G., Legal Review of Apprenticeship in Egypt, ILO, 2013
[57] Although training contracts are signed between the apprentice and the training company in the 3rd year of study, the role of PVTD in organizing this process makes it more of a placement than a contract as classified by Smith '*in training-provider-based apprenticeships, on-the-job training takes place in work placement rather than as a formal employment contract*' (Smith, 2010).

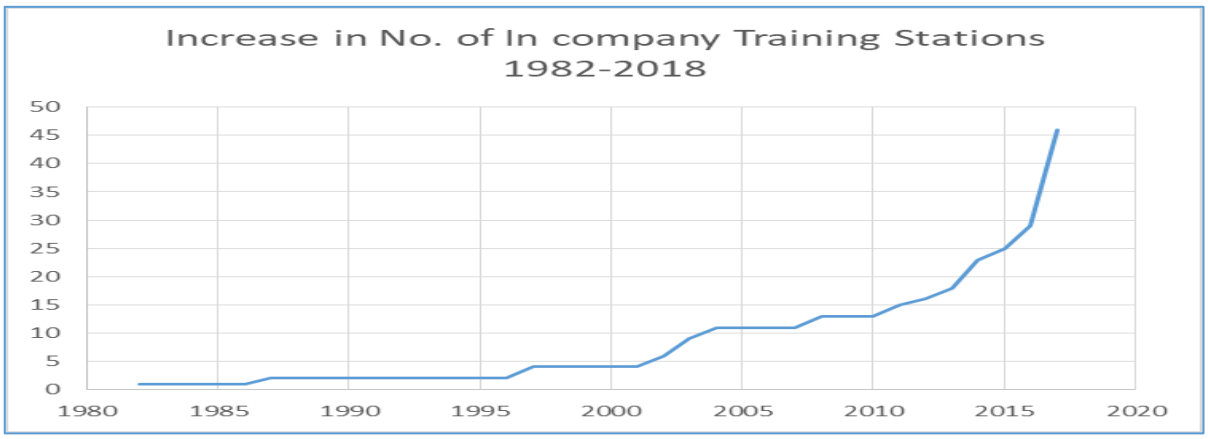
The capacity of the Productivity and Vocational Training Department is slightly over 22 000 participants (10% female[58]), representing around 1% of all students in secondary vocational education, which remains a very small programme in the Egyptian context. PVTD offers 40 occupations in the industrial sector (engineering occupations, ready-made garments, automotive, printing, leather just to mention a few) and it has its own Staff Training Institute (STI). In the past (until the mid 1980s) all instructors were formally required to have a minimum of three years practical experience in industry, although still articulated in the regulations, this is no longer applied at the recruitment phase. There is a general shortage of qualified trainers as the most qualified are on long-term leave working in the private sector or abroad and government recruitment is very limited. In some of the governorates where industry in limited, the student attachments is very difficult to guarantee and is compensated for in the PVTD training centres (El-Ashmawi 2016).

Another model within the PVTD relevant to PPP is known as The "Training Station", or "ma7ata". The model was introduced to the PVTD in 1982, via a ministerial decree, allowing the PVTD to form collaboration with, both public and private enterprises for the delivery of a 3-year programme. This programme, similar to that offered by the PVTD VTCs; targets youth, typically at the age of 15, who have just acquired the preparatory degree. However, in this model, the students spend 100% of the programme within the enterprises, who are taking the responsibility for the provision of both theoretical and practical curriculum, while also adopting the PVTD's system of theoretical vs practical skills.

Similar to the programme offered by the VTCs, it leads to a certificate issued by the PVTD and acknowledged by the MoETE as equivalent to a technical secondary school certificate. Successful completion is also assessed on the basis of the national examination that includes both theoretical and practical work, administered and monitored by the PVTD.

Since 1982, the model has been expanding, however, in the first 20 years (from 1982 to 2002), the PVTD was very conservative in pursuing the establishment of more training stations and therefore by 2002 there were 6 training stations in total, mostly established within public sector enterprises. Between 2003 to 2017, the number of training station increased to 46, where 50% of which were introduced in the academic year 2016/2017.

Figure 3.1
Number of PVTD Training Stations from 1982-2017



Source: Amin (2018)

[58] Badawi, 2012

According to PVTD data, the number of students enrolled in the 46 training stations in the academic year 2017/2018 reached 6,695 students in 32 different specializations. The highest enrolment is in Computer and Computer Maintenance (27.2%), Ready Made Garments (15.5%), Electronics (8.5%), Cooling and AC (7.6%) and automotive maintenance (6.2%).

The main characteristics of the Training Stations Model (Amin, 2018):

- Private or public sector companies may apply to the PVTD expressing interest in establishing and operating a training station within their premises. The request is assessed by a specialized committee, operating at the central level, composed of PVTD staff[59].
- A protocol agreement is signed between the PVTD Director and the company's management. This protocol sets the operating procedures for the training stations.
- Students are admitted according to PVTD's admission procedures and regulations, after reviewing students' documents and conducting standard physiological assessment for students.
- The company is responsible for hiring and paying for teachers and trainers capable of delivering the programmes developed by the PVTD for each specialization, including both theoretical and practical curricula. Some SMEs are collaborating with NGOs to administer the teachers, where the cost is shared among a number of SMEs.
- The PVTD, through its regional offices (supported by the central level), plays a supervisory role for administrative and technical issues.
- PVTD is responsible for conducting and administering examinations at the company premises, correcting exams, and producing certificates.
- Students are tested/assessed in compliance with the general PVTD testing/examination systems (exams are sealed and PVTD exam observers are present during theoretical and practical exams/assessments)
- Certification is produced by the PVTD
- Depending on the programme/specialization, students either pay tuition fees that are considerably higher than PVTD's, or are paid a monthly allowance during their three- year enrolment in the training station. This depends on the objectives of the private sector partners, whether to make a profit (or at least cover the cost of training in most cases and depending on the initial investment made by the company and the specificity of the sector) or to ensure a supply of trained workers for their business.

The following are the main concerns and observations from the field visits conducted by Amin and co-aurthers in 2018 during the study for the Institutional Strategy and Organizational Restructuring of PVT:

- The protocols[60] between the companies and the PVTD do not set standards for the teachers and trainers qualifications, nor does it require the teachers and trainers to be trained or assessed by the PVTD Staff Training Institute nor any similar institute, as a prerequisite for working in the training stations.
- Programmes offered within the training stations are not necessarily related to the companies' main industrial activities, raising concerns regarding these companies' ability to equip students with the relevant technical competencies (example of a weaving company offering diploma in Car maintenance).
- Some training stations have developed into purely academic institutions delivering services against relatively high tuition fees, however, this may raise a concern regarding graduates' accessibility to labour market and the legality of such institutions who are deriving their legal status from the PVTD's Protocol.

[59] Please note that this is different from the general PPP legal framework which required a formal bidding process administrated by the PPPCU.

[60] Copy of the standard protocol for training stations provided by the PVTD

- There is inconsistent quality among training stations, offering the same vocational diploma with varying quality. The variation in quality of services could surely be attributed to the qualifications and level of involvement of the company's management.

On the other hand, there were a number of positive observations:

- Companies operating training stations are not obliged to apply the PVTD staff grading systems nor their salary scales, therefore are capable of attracting and recruiting higher calibers of teachers and trainers. (Monthly salaries in training stations were found to be double that of the VTCs; LE 8000 ($ 444) for training station management compared to LE 4500 ($ 250) in VTCs and LE 6000 ($ 333) for teachers and trainers in training stations compared to LE 3000 ($ 166) within the PVTD.
- Through the training stations some companies, triggered by their skills needs, have initiated and supported the development of new specializations, examples of such new specializations are: computer programming accredited by Oracle, optical technician operating fishing gear, metallurgical laboratory assistant, and printing machines repair.
- The fact that some of these stations are receiving comparably high tuition fees for vocational education (between LE 2500 and LE 5000 annually), to cover the cost of what is perceived as higher quality education, is a precedent in the Egyptian TVET system that may extend an opportunity to the reform of the Egyptian TVET system and encourage the concept of PPP in TVET where profits are one of the driving factors to motivate more private sector partners to be involved.

Another different model within the PVTD which could be considered a close example of PPP in TVET is that of the partnership with a leading industrial company in the automotive industry. In this model, the PVTD is collaborating with GB Auto and ETAMCO (Ghabour), through a protocol agreement for operating a vocational training centre in Embaba, Giza (with two more signed but not yet in operation through the partnership in Alexandria and Gharbia) offering vocational diplomas in automotive maintenance, body repair and painting. The agreement is signed and operated by the corporate social responsibility (CSR) foundation of the company, Ghabour Foundation. The Foundation has in turn contracted a German training provider, called Saxony International School (SIS) to provide technical support. SIS is responsible for curriculum development, teacher training and retraining, providing management support for the PVTD VTC management as well as conducting an additional assessment of students, qualifying them for an internationally recognized certification offered by Saxony and the German Arab Chamber.

In this model the private sector partner is co-managing and operating the VTC which is owned by the PVTD (a public sector partner) to provide skilled workers to their company and the automotive sector at large. The staff of the VTC is recruited by the PVTD (however Ghabour provides a top-up on the salary based on performance and can also contract trainers, something which is quite difficult at present for government organizations) and the equipment in the VTC is provided by the PVTD, but maintenance and raw material for training is provided by Ghabour.

The partnership commenced in Embaba VTC in the academic year 2017/18, admitting 150 students per year, and they were charging annual fees of LE 5000 per student and this was increased to LE 8000 the following year (compared to LE 150 per year previously charged by the PVTD as registration fees). Even with this huge increase in fees charged by the private sector company, they are still not making profits due to the expenses paid for the running costs and for contracting the German technical partner and staff and providing training opportunities for the students in the company and the limited number of students. The duration the agreement is three years which leaves a lot of questions about the sustainability of the partnership.

3.1.3 Integrated TVET scheme under the Ministry of Education and Technical Education in collaboration with public and private companies (Joint School Initiative)

The Integrated TVET Scheme, also now known as the "School within Factory" is usually regulated through protocols and collaboration agreements drafted between MoETE and individual private or public companies, where joint schools are established within the premises of the partner company or as a part of the company training centre. Although this type of WBL models started in 1972, with a limited number of public sector[61] companies and then in 2008 the private sector was introduced through one of the largest ready-made garments companies. By 2012 there were 12 privates sector agreements and in 2017 there are around 50 schools within factories teaching around 8,000 learners (6% female[62]).

The number of trainees is matched to the needs of the participating company, which limits the enrolment capacity of the initiative compared to that of TSSs. Joint schools are usually three years leading to a TSS diploma, level 3 or five years for level 4. The training is, in most cases, organized following the dual system model (4 days in the company and two days in school), yet the company-based training is not governed by the RUDS, but by ETPs (when they existed), construction and building authority, power stations, water stations, or the individual employer. As all other secondary school programmes, admission is limited to students who have successfully completed the 9-year basic education. Specializations and curriculum are jointly designed and implemented between MoETE and the company. Students gain practical experience through training in various company workshops and sites, as part of their educational offer, and, according to their programme, sit for national diploma examination before graduation with a 3-year diploma. When graduating, students receive a diploma certificate from MoETE and a practical experience certificate from the company. Students sign contracts with the company for the full duration of the programme and, in many cases, almost all graduates are offered contracts in the same company.

Financing arrangements are also similar to those of the dual system. The training company covers the cost of their on-the-job training and that of the trainee, while MoETE (the school) covers other costs. In some cases where the training company does host the school on its premises, they also cover its costs, not including salaries of staff that must be provided by the MoETE like general subject teachers and the school principle, however some companies top-up these salaries.

Contracts are signed for the total duration of the programme (3 or 5 years), yet learners are considered students rather than apprentices, and receive at minimum the same as Dual system students but some companies pay more per month.

When this model was introduced to the private sector in 2008 it was a natural transition from the dual system as most of the companies involved were involved in the DS but were not able to get the number of students needs so they decided to establish their own schools in cooperation with the MoETE. This has benefited the companies a lot in sourcing the needed workers with the required skills, however there are some challenges mentioned by stakeholders, these are listed below:

- The need to reduce the time between any initial theory input and starting to undertake practical work for students;
- The fact that in Egypt you cannot delay going to higher education for secondary school students If they do not take up their place at the time it is offered, which is age related, they lose the chance and have to apply/qualify again. It would be better if a system where higher education could be delayed to allow trainees to gain more practical working experience.

[61] The first was the Ministry of Transportation (railways and river transportation occupations) and extended to a number of public sector companies and governmental bodies.

[62] Badawi, 2012

- There is no culture of acquiring a range of skills in Egypt. Examples in Germany show trainees experiencing a number of technical disciplines but students in Egypt resist this so currently they are moved only on a yearly basis to a new discipline e.g. from welding to elsewhere. The reluctance of students to move is partly based on not wanting to switch supervisors/trainer and partly because once they are skilled in one trade they can get a job in that area outside of the company.
- There is a need for a quality assured education certificate.
- On-the-job training is not a familiar concept to Egyptians and in-company trainers are not skilled in this area; there is a need to provide training to the trainers so they can offer a step by step learning process for the tasks required.

Companies in this scheme do not charge fees, on the contrary, they pay students during the on-the-job training which means the scheme is not a typical PPP model and put a question mark on the sustainability especially if the company meets its needs of skilled workers they may stop operations.

3.1.4 Applied Technology Schools (ATS)- The New Flagship Brand of Schools by the Ministry of Education and Technical Education

The Ministry of Education and Technical Education is currently establishing a new brand of schools called Applied Technology Schools (ATS) in partnership with large private sector companies. Three ATSs[63] started operations this academic year 2018/19, a further seven are in the pipeline to operate in 2019/20 and the plan is to establish 100 such schools by 2030[64].

The main features or guiding principles on which this model was built include the following:

- Quality - The system is built on an uncompromised focus on quality through partnership with international awarding bodies which the private sector partner contracts.
- WBL - The new system maintains a balanced equation between work-based learning and classroom learning to produce a competitive human being with a balanced personal character and skills foundation.
- Demand-Driven - Employers becomes a real and committed partner in the system to ensure it continues to be driven by first hand local and global industry demands trends and priorities.
- Learner-centered - The new system will produce a productive, competitive locally and internationally worker as well as a good leader in his community.
- Real change - Industry enhances the management of the school to promote a culture change in the system where work ethics of productivity, efficiency and quality are the norm.
- Partnership with industry - this new competency based partnership model will play a major role in enhancing the business environment itself with a new developed workforce that targets transforming Egypt into a global manufacturing destination.

The partnership is based on a protocol agreement signed between the Minister of Education and Technical Education and the private sector company for a duration of between 6 and 10 years (with possibility of extensions for the same period as the initial contract duration). Based on this agreement, the responsibilities of each partner are as follows:

- Responsibilities of the Ministry of Education and Technical Education
  1. Provide and existing or new school and training equipment and labs in good condition.
  2. Continues to cover basic utilities costs for the school.

[63] The first is Al Araby Applied Technology School in Quesna, the second is Metwaly Shaarawy Applied Technology School in New Cairo in partnership with Talaat Moustafa Co. and the third is Badr Applied Technology School in Badr City with Elmaco and Egytrafco who formed a consortium to manage the school.

[64] Ministry of Education, Technical Education Transformation Pillars (2019).

3. Provides pool of teachers and administrators for selection by a joint committee from the MoETE and the partner company. Including an Academic Manager for the school
4. Cover current salaries for selected MoETE teachers and administrators
5. Facilitate all bureaucratic processes and permits, issue relevant laws and decrees to empower the new system and to enable the partners to engage and commit like have a special admission and selection criterion for the students.
6. Partners with international accreditation body to provide international level accreditation and certifications for the new schools and their graduates.
7. Partners to set up qualification units to help qualify the teachers and staff to the required standards
8. Create new branding and communication identity for the new brand of Applied Technology Schools to improve the image of technical education to attract the best students.

- Responsibilities of the Private Sector Partner
  1. Recruit an Executive manage for the school to manage the operation with the Academic School manager provided by the MoETE.
  2. Develop a business plan in collaboration with Schools Management Council that ensures the financial sustainability of the school while maintaining its not-for profit nature.
  3. Cover running costs of operations according to the business plan (including bonuses and incentives for the MoETE teachers, salaries for new teaching personnel according to performance)
  4. Facilitate the work-based learning and on-the-job training portion of the study programme for all students, whether at own establishments or at others within school geographic vicinity
  5. Support and promote the employment opportunities and networking for the school graduates.
  6. Upgrade the school facilities, educational resources and equipment if needed to meet the appropriate standards of operation.
  7. Promote the school amongst the business community and other stakeholders to secure on-the-job training placements and scholarships for the students.
  8. Support HR development and capacity building of school teams (e.g. teachers and administrative personnel certifications, periodic training and professional development, etc.)
  9. Cover the cost of International Accreditation.

The private sector partners may employ professional staff (like the Executive School Manager mentioned above) or professional educational entity (another experienced school, NGOs, Educational Funds, Education Association or private sector service provider) to undertake the Operational and Management Responsibilities which includes the following:

- Institute a management and operational structure for the school that follows the business plan and the required quality standards.
- Qualify the teachers and manage their continuous development.
- Provide the management oversight to ensure for the school maintains it accreditation
- at all times.
- Prepare and manage the evaluation of the students in cooperation with the MoETE Assessment Unit
- Manage and operate the school training facilities according to approved business
- plan.
- Manage the employment unit of the school to link graduates with work opportunities.

The new Applied Technology Schools model has three implementation options depending on the size of the partner(s), also the partner does not have to be from the private sector but large public sector organizations with the need for technical education graduates can also take part in this type of agreement[65]. The three implementation options are as follows:

- **Full Partnership Agreement:** The private sector partner undertakes the full scope of responsibilities stated above including those of the school management. The Industry Partner has the option between utilizing one of their qualified employees as the Executive Supervisor/manager of the school or select and hire a professional school management entity to undertake this responsibility in cooperation with the school principal who is affiliated to the Ministry of Education. The appointment of the Executive Supervisor in both cases will be approved by the Ministry of Education. This option is suitable for large and labor-intensive companies as well as with mega national projects.
- **Consortium Partnership:** This option works well for medium size enterprises that could cooperate together as a consortium from same sector. The Consortium of Enterprises enter into an agreement between them to distribute responsibilities of the Industry Partner, cost sharing rules, and leadership roles. The Consortium of Enterprises can choose to appoint an Executive Supervisor or a professional service provider to undertake the operational and management responsibilities on behalf of the Consortium in partnership with the school and MoETE.
- **Associate Partnership:** This option allows small and micro enterprises that are interested to participate and take advantage of the apprenticeship programmes but do not have the resources or capacity to take on the responsibility of managing a school. They thus become Associate Partners in one of the Applied Technology Schools in their geographic vicinity by providing on-the-job training for the students and paying for the students during the training, thus sharing in the cost.

Students in the model do not pay fees and receive an allowance during the on-the-job training (the value depends on the company but a minimum is set in the agreement). The following are some of the photos from the three current ATSs that illustrate the branding and transformation of the schools:





[65] Negotiations are in process with the National Railway authority to partner with their technical school and another one with the Ministry of Military Production.

The Applied Technology Schools model is the closest model to the general PPP model in terms of scope and procedures. However, there are some messing elements in terms of the sustainability and business model for the private sector. This report will address this in the proposed PPP model in Chapter 8 of this report.

3.2 PPP vs. Private Sector Investment in TVET

In this section of the report we look at the private sector investment in TVET. Although it may not be considered PPP due to the absence of direct involvement of the public sector beyond providing permits and recognizing certificates as well as some cooperation in terms of training teachers or students on a limited scale. Looking into private TVET providers also gives insight on the motivations and the business models which could be useful when developing a sustainable and profitable PPP model for TVET.

In the following sub-sections we look at two examples of private investment in TVET, the first is a formal three-year technical education school for young students and the second example is a training provider delivering short training courses for in-service employees and job-seekers. Annex 4 of the report provides a third example of El Sewedy Technical Academy which is part of the CSR initiatives of El Sewedy Foundation.

3.2.1 Private Sector Technical Schools (e.g. German Hotel School in El Gouna)

Although there are some private technical training centers operating in Egypt, very few offer apprenticeship schemes. The German Hotel School El Gouna was founded in Egypt in 2002 as a joint venture of Orascom Holding and the Egyptian German Academy for Economics and Technology, an affiliated association of the Academy of Economics Dr. P. Rahn & Partner Ltd. After completion of the founding stage, the school was officially transferred to ORASCOM by the Egyptian German Academy and comes now under the authority of the German Society for Education. It offers very high quality dual education according to German curricula and standards but also recognized by the Egyptian MoETE. The fees are quite high relative to other TSSs (LE 30,000- USD 1,650) but most of the students earn scholarships from various public and private institutions and foundations, however even with this amount the school is not making any profits due to the high quality and the international staff that are permanently employed in Egypt. Despite this relatively high fee, according to the school management they are not making any profits due to the high quality international teaching staff employed and the running costs of the school, however the owners of El Gouna are attaching good hotel companies because the school offers qualified workers according to international standards.

The aim of the school is the implementation of the Dual Training System for the hotel industry on the Red Sea. Egyptian and international trainees are given the chance to acquire a professional education in the hotel sector. At the end of the three-year training period, the German Chamber of Industry and Commerce conducts the examination of the trainees. If the trainees are successful, they are granted the German diploma of the Chamber of Industry and Commerce. Student are trained 4 days of the week in the hotels in El Gouna resort city and two days at the school.

A special aspect of the school in El Gouna is the fact that lessons in all hotel specific subjects take place in German. Extensive instruction in the German language in the first year forms the base of further successful schooling for all Egyptian students.

A highly qualified body of Egyptian and international teachers ensure the professional training of the students. Years of subject related experience alongside with formal requirements are mandatory for the entire teaching staff. Classes are limited to a maximum of 24 learners. The school houses spacious classrooms, a modern computer lab with internet access, a fully equipped kitchen with an adjacent restaurant, a sample hotel room for training purposes, an American cocktail bar as well as a hotel reception desk.

3.2.2 Private Sector Vocational Training Centers (e.g. National Academy for Science and Skills- NASS)

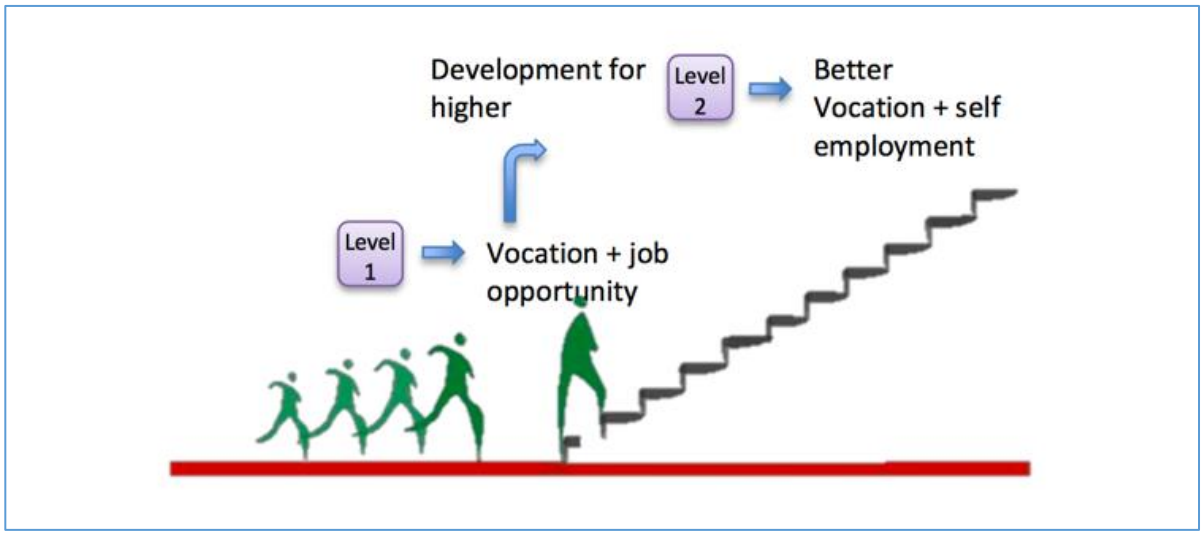
The National Academy for Science & Skills – NASS was established in 2012 by Industrial Development Group (IDG), one of the subsidiaries of Samcrete Investments - Sami Saad Holding. The company at that time wanted to celebrate its 50 years in business with an initiative that would serve the community, however it was built on a business model that would also serve the industrial parks built by the company with qualifies workers and thus the academy was established as a private sector company in 6th of October industrial city and not as a CSR foundation. The company's initial capital was 4 million EGP and it includes a state-of-the-art facility.

NASS is an innovation-focused, people-centered organization specialized in training and continuous development, offering tested channels towards leadership and competitive productivity to both companies and individuals. They offer vocational courses under the following main areas:

- Industrial Technology
- Automotive Technology
- Building Technology
- Facility Management
- Renewable Energy
- Innovation & Entrepreneurship

NASS Academy in partnership with leading industry partners like Schneider Electric, Steep GmbH, Siemens, and EGIC, developed and continued to refine a professional qualifications programme with the objective of qualifying world-class technicians for the Egyptian market who meet international standards and benchmarks. Their programmes have been developed to provide a professional growth path that enables them to grow into several professional positions depending on their individual aspirations and abilities.

Figure 3.2
NASS Students Growth Path



All training programmes are designed to have a combination of technical and non- technical components. The idea behind this is to make sure that it is not enough to qualify the trainees in the technical knowledge and skills of the field, but more importantly it is essential to prepare them to enter the culture of professional work. Accordingly, each programme is designed to contain the following:

- Technical modules – 70% practical and 30% theoretical
- Soft Skills – employability skills, work ethics & culture
- Basic computer skills – operating systems, basic office package
- Basic technical English – to prepare them for dealing with the terminologies and manuals of the equipment
- Training aids (videos, examples, etc.)

It is their objective that NASS graduates be competitive with their counterparts anywhere in the world. Accordingly, their competency-based qualifications are benchmarked against the highest of international standards for all programmes. For this reason they have created international partnerships that ensure that the outputs of all programmes maintain their international relevance. Their local relevance is maintained through the local industry partnerships that influence the job profiles each step qualifies for.

To ensure a level of respectability and credibility for the graduates, NASS partners with industrial key players in the market to co-accredit the graduates, to add to their credibility through their association with the values of quality and professionalism reflected in this international industry leader name.

To ensure a verifiable process NASS has developed an Operation and Management system that ensures that all data related to the qualifications process is maintained correctly. Verifying this information is part of the assessment process that NASS conducts.

NASS Partners include:

- Siemens AG for Automation and Mechatronics programs o Schneider Electric for Electrical Systems programs
- Steep GmbH from Germany for Automotive programs
- EGIC in Sanitary Systems
- Steep GmbH in Facility Management

NASS is accredited by City and Guilds UK, the global leader in vocational skills development and accreditation. Diploma programs and Skills Proficiency Testing at NASS are accredited in following sectors:

- Automotive
- Electrical Systems
- Electronics
- Air Conditioning
- Housekeeping

In the mechatronics field Siemens offers one of the most prestigious professional certification programs globally. NASS is the only organization accredited to deliver the SMSCP certification program in mechatronics. NASS is the lead center delivering the Siemens SITRAIN certifications.

NASS Academy is one of the consultants to the Ministry of Education and Technical Education in Egypt, working with them to develop and implement the new Applied Technology Schools system (outlined above in section 3.1.4 above) as an initiative to reform the Egyptian Technical Education System.

NASS launched during 2018 the first School of Applied Technology model in Egypt in Building Construction Technology sponsored by Talaat Mostafa Group and under the supervision of Ministry of Education and Technical Education, where Nass is developing and managing the school. The model constitutes a public private partnership between the Ministry and the private sector, who is given the responsibility of managing and operating the Ministry school so as to produce internationally accredited graduates. The model ensures that the educational programmes address the needs of industry in addition to meeting the standards of international accreditation bodies.

NASS Academy is responsible for managing the school, developing the academic programmes, training the teachers, and bringing up the performance standards of the school to meet the accreditation requirements of City & Guilds UK on behalf of the Talaat Mostafa Group who are sponsoring the school and providing the practical apprenticeship opportunities for the students.

NASS Academy is now working with the Ministry to scale up the model and develop a network of Applied Technology Schools with different partners in other specializations.

Despite the above success, NASS is still not making any financial profits out of the operations despite opening another branch in Mokatam in Cairo and working on the third in East Port Said but they are gambling on scale and expansion and creating a critical mass in partnership with the MoETE in their Applied Technology Schools model outlined above.

3.3 The Nature of PPP in TVET vs PPP in General

It is important to state here and based on the discussions with stakeholders and analysis of the existing examples of PPP in TVET and based on the characteristics of the PPP law and methods outlined above in section 2.5 of this report, it is clear that what exists in TVET could not really be considered a PPP model according to the governing law, but rather a form of cooperation or joint management driven by the need to decrease the mismatch between supply and demand for skills and not a business venture or investment even from the side of the private sector partner. To clarify this, table 3.1 below, compares what PPP elements followed by the PPPCU in the Ministry of Finance and governed by Law # 67, to what is currently being implemented in TVET and could be considered something close to public private partnerships.

Table 3.1 Comparison between General PPP law and PPP in TVET

Elements of Public Private Partnerships according to the PPPCU and governed by the PPP Law # 67	Elements of existing examples of Public Private Cooperation in TVET
All PPP contracts are regulated by Law 67 and monitored by the PPPCU	Protocol agreements (not contracts) are signed between the public sector and the private sector partners and these agreements are not regulated by law 67 or monitored by the PPPCU
Formal contracts are signed with a minimum project value of 100 million EGP and up to 30 years.	Value of all agreements are much less than 100 million EGP and durations are less than 10 years
Public and transparent bidding process is required to award a contract to the private sector	No bidding is required to sign a Protocol agreement with the private sector

According to the PPP law the private sector partner must establish a company to manage and operate the PPP project	The private sector partner is not required to establish a separate company for the PPP project. Some establish non-for-profit foundations to manage the project however this is not mandatory
Private sector partners are driven by the business model and making profits	Private sector partner is not driven by making direct profits from the education project but is rather driven by improving the skills of workers in their company or sector. Other partners are driven by their Corporate Social Responsibility, philanthropy or for political marketing of the company shareholders
Government partners are driven by improving services and reducing financial burdens	Government partners are driven by reducing the gap between supply and demand for skills, thus improving their outputs and services and sharing the financial burden
Private sector in most cases have full management authority and control	In most examples the private sector partner doesn't have full management responsibility or control of the public TVET institution, it could be shared. They have full control of the training part that takes place in the private sector establishment
Public Sector Partners still own the assists	The Public Sector partner has full ownership of the public TVET institute. In some examples the private sector build or establish new private TVET institutions and they own it and do not have to transfer it to the public sector later
Privatization of public sector entities is an option and has happened in the past	No examples of privatization of TVET institutions is available
Existing models of BOT, BOOT and concession agreements	No examples of BOT, BOOT or concession agreements.

Source: Developed by the author of this report

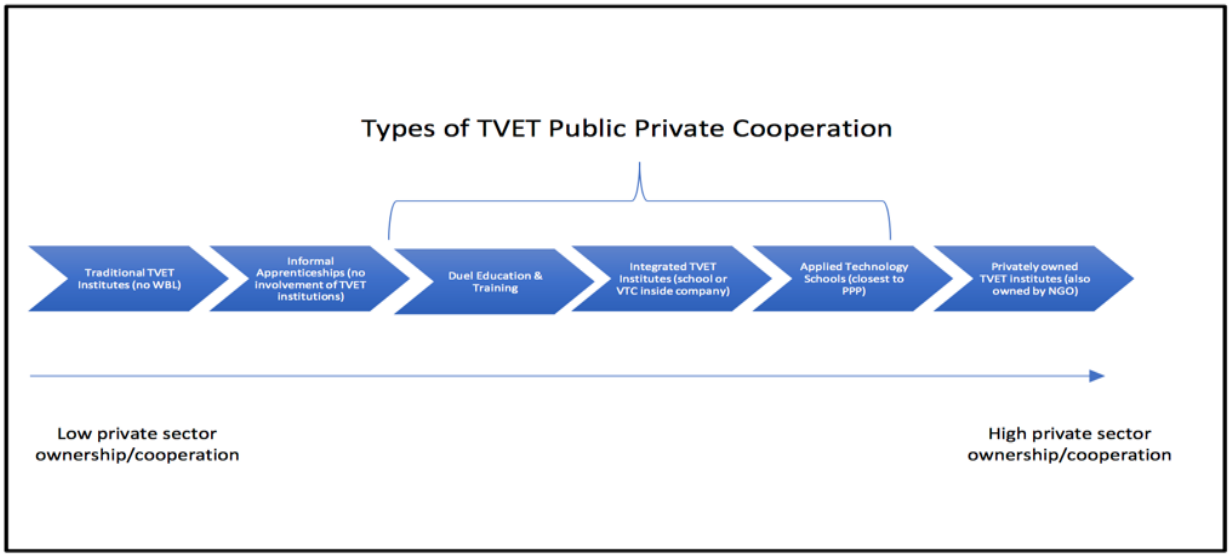
As shown in the above table, public private cooperation in TVET does not elevate to the level of a complete PPP project. The main missing elements in the PPP formula include; the type of legal contracts associated with PPP, the business model and the fact that private sector partners involved in TVET are until now not interested in PPP for direct financial gains, PPP projects in TVET are not large initiatives in terms of monitory value or duration as well as the fact that the modes of delivery are not those typically used in the large PPP projects. The only apparent similarity between general PPP agreements and what currently happens in TVET is the government's objectives of improving the outputs or services and sharing the financial burden with the private sector.

This does not mean that the current initiatives in TVET are not valuable or important, on the contrary they are crucial to the development of the TVET system in Egypt by making it more demand-driven and they come in different models and levels of cooperation. It is important to mention now that a lot of the stakeholders interviewed considered WBL in TVET and the engagement of the world of work in the

TVET system as a form of PPP. Annex 2 provides details of the different WBL initiatives available in Egypt in addition to the examples outlines earlier in this chapter.

As we outlined in the previous chapter, TVET delivery in Egypt is quite diverse and fragmented with many initiatives and stakeholders including the private sector and the civil society. Figure 3.3 below, maps the main types of TVET institutes against the level of private sector involvement and highlights the types that this report will consider falling under Public Private Partnerships/Cooperation.

Figure 3.3
Level of Private Sector Cooperation in TVET



Source: Developed by the author for this report

From the above figure we can see that there are examples of public private cooperation in TVET as well as purely private TVET institutes as we saw earlier in this chapter.

3.4 Key Messages of this Chapter

- *Key message 1:* Clearly there are many examples and pilots of WBL including apprenticeship in Egypt following different international models, most stakeholders consider WBL models as a form of PPP;
- *Key message 2:* The TVET PPP model is not aligned with the general PPP law or the work of the PPP Central Unit at the Ministry of Finance due to the relatively low value of the contracts and due the absence of the commercial aspect of the partnerships in most cases.
- *Key message 3:* The main motivation of PPP in TVET is to improve the outputs, address the miss-match in the skills where individual companies want to secure a source of skilled workers through these partnerships or because of their CSR initiatives;
- *Key message 4:* The quality assurance system especially during on-the-job training is weak and very few apprenticeship models involve the training on in-company tutors and mentors;
- *Key message 5:* PPP in TVET is still limited in numbers compared to the potential in terms of the size of a country like Egypt;
- *Key message 6:* The main challenge facing PPP in TVET is the sustainability and the formulating the right business model for both partners.
- *Key message 7:* There will be challenges in Egypt regarding how the government will achieve the scaling-up of WBL and PPP in TVET form the current 3% to 10% of the system.

4. Legislation , Regulation and Policies of PPP in TVET

In section 2.5 of this report we looked at the policies, legislation and regulations for large scale Public Private Partnerships (PPP) in general in Egypt. This chapter of the report focuses on the policies and legal aspects that govern PPP in TVET including WBL/apprenticeship which is usually considered a form of PPP within TVET in Egypt. The first part of the chapter looks at examples of the contractual agreements between public TVET providers and private sector employers. The second part looks at the legal review of existing apprenticeship schemes in Egypt conducted by the ILO office in Cairo in 2013 and updated in 2017, in addition to interviews with key stakeholders. The third part of this chapter briefly looks at some of the future policies announced by the government in terms of expanding PPP in TVET and WBL/apprenticeship in the attempt to bridge the gap between supply and demand for skilled workers by engaging employers. The final part of the chapter looks at the quality assurance and accreditation mechanisms planned to manage TVET in general including PPP and WBL.

4.1 Examples of Legislation and Regulations in PPP within TVET

The protocol agreement that governs the legislative and regulatory aspects of the Applied Technology School example, outlined earlier in section 3.1.4 of this report, can be summarized in the following list:

- Protocol agreement signed by the Minister of Education and Technical Education and the Chairman of the private sector company (it could be more than one company);
- The protocol "Preface" outlines the objective of the agreement and the background stating the importance of collaboration with the private sector to develop technical education according to the needs of the labour market and the advancement of technology and according to national economic plans and sustainable development vision 2030.
- The "Preface" clearly states that the private sector's involvement is based on their commitment to CSR and the benefits they will get from a better trained workforce. It also clearly states that no party will seek to make financial profits out of this agreement.
- The agreement is based on the joint scheme of Applied Technology Schools based on international quality standards and the Dual Education system within the Ministry (a form of WBL);
- The "Preface" refers to Ministerial Decree # 103 for 2018 which details the establishment of the Executive Council for the Establishment and Operation of Technical Education Schools that Implement International Standards and refers to the quality assurance unit within this council responsible for monitoring the operations of these schools.
- Clause One of the protocol specifies the occupations to be delivered in the ATS agreed by both parties and gives the private sector the option to change or add occupations in agreement with the Ministry;
- Clause Two of the protocol states that the Executive Council for the Establishment and Operation of Technical Education Schools that Implement International Standards is the body responsible for drafting the partnership agreements and endorses the school action plans;
- Cause Three of the agreement states that the Executive Council is responsible for setting performance standards and the standards for the educational programme, teachers and staff and authorization of the entities that train the teachers and staff. The council will accredit the school during the first and second years of operation and then every two years after that. The Council is also responsible for setting the standards for assessing students before issuing certificates and is responsible for establishing the assessment committees for students. The private sector partner has the right to contract an international awarding body to accredit the school and the certificates to raise the value for the students and graduates;

- Clause Four outlines the duration of the programmes and the certificates issues according to the dual system and the education law # 139 for 1981.
- Clause Five states that the private sector partner will support the school administration by recruiting a full time Executive Manager to support the Academic Manager recruited by the Ministry. This Executive Manager is endorsed by the Executive Council and the private sector partner should inform the Ministry of any changes in this manager. The private sector partner is required to deposit any financial revenues collected or any activity under this agreement in a specialized account created for the school within the Educational Support Fund and that all revenues be used for the reform of the school and will not be used for anything outside the school according to the Fund's by-laws annexed to the agreement. A School Steering Council will be established and the head selected during the first meeting and the council will consist of the following members:
    1. Representative for the Ministry of Education and Technical Education
    2. Representative for the private sector partner(s)
    3. Executive manager of the School
    4. Representative for the Educational Support Fund
- Clause Six outlines the admission procedures of students which should be agreed in good time before that start dates and advertised. The admission guidelines include; competitiveness, transparency, grades, interviews and practical tests. It also includes some career guidance and counseling to ensure that students select the most appropriate programmes for them.
- Clause Seven of the agreement outlines the selection and recruitment process for teachers and staff in the school. The quality assurance unit for the Executive Council for ATSs mentioned earlier is responsible for setting the selection standards for teachers and staff, priority is given to Ministry employees who apply according to a competitive process and the set criteria. The unit also certifies the selected teachers every two years and makes sure they attend the required training for the job. If none of the ministry staff meet the requirements then the private sector partner can recruit and pay for non-ministry teachers and staff. The Private sector partner is also responsible for providing financial and non-financial incentives for teachers and staff based on performance.
- Clause Eight lists the responsibilities of both parties: The responsibilities of the Ministry include:
    1. The Ministry is the owner of the school and the ATS educational system referred to in the agreement;
    2. Providing the school in good condition at the start of the agreement
    3. Providing the school infrastructure and equipment
    4. Provide a pool of teachers and administration staff to select from for the different programmes
    5. Paying the current ministry salaries of all selected teachers and staff from the existing ministry staff
    6. Facilitate all the procedures required to issue certificates
    7. Provide all permits to operate the school
    8. Issue all legislation and decrees needed to operate the partnership
    9. Pay for all the usual basic utilities to operate the school (water, electricity etc).

The Responsibilities of the private sector partner include the following:

- Cover the cost of international certificates for students (if applicable);
- Develop a sustainability plan for the school to be presented to the Executive Council;
- Develop an action plan in cooperation with the Ministry to guarantee the smooth operations and the upgrading the skills of the students;
- The opportunity to establish a vocational training center within the school to serve the surrounding community as well as students and teachers and to generate income to be used for the school development. The private sector partner will cover the cost of

establishing and equipping this training center;
- Provide all the necessary procedures and equipment for industrial health and safety including safety tools, equipment and uniform for students in the practical lessons;
- Capacity building for teachers and staff;
- Ensure practical on-the-job training for students either in the partner's establishments or similar establishments within the vicinity of the school;
- Coordination of the Ministry in providing international expertise in the process of capacity building for students
- Cover the cost of maintenance of the school infrastructure and equipment to ensure that the school meets the accreditation standards
- Promote the school and students within the business community;
- Recruiting and paying for a professional team to manage the school;
- Establish an incentive scheme for teachers and staff, including tipping-up od basic salaries based on performance;
- Ensure that the school is constantly keeping to the accreditation standards
- Manage an employment unit within the school to facilitate the employment of school graduates;
- Cooperate with curricula development experts to continuously review and update curricula and introduce new ones;
- Employ the best performing graduates in the company according to the companies needs and procedures and to support them in getting employment in other companies
- Issue a certificate of experience from the company to students.

- Clause Nine states that all Applied Technology Schools will follow a unified curriculum framework endorsed by the Ministry of Education and Technical Education to ensure a minimum of educational outputs and the private sector partner has the right to take part in the study plans in the school in conformity with the international accreditation requirements.
- Clause Ten of the agreement focuses of the practical training part for the students which takes place at the partner company or third parties identified by the partner company and in coordination with the school and according to the agreed curricula. This part also specifies the supervision, the assessments through specialized committees and the need for the in-company tutors/trainers to get the required training by an approved Ministry provider.
- Clause Eleven governs the relationship between the partner company and the student and includes the tri-partite contract between the school, company and parent, the minimum allowance during the practical training (LE 300 per months with annual raise of 5%), the possibility of summer internship after the consent of the parent and with additional incentives, uniform, safety equipment and transport to and from the company.
- Clause Twelve outlines the policies and procedures which will govern the students discipline and punishment within the company and the school and this will be jointly developed by both parties.
- Clause Thirteen states that possibility of increasing the number of school under this agreement with mature agreement which will be annexed to the current protocol;
- Clause Fourteen states that the intellectual property of the programmes, material and training courses developed and delivered by the private sector partner in their companies are owned by them and is prohibited to be used by others without written consent and that the Ministry will guarantee this.
- Clause Fifteen states that the Ministry is responsible for student insurance according to the Ministry laws for this programme and that the company is responsible for insurance against work-related accidents for the students during the period of practical training in their companies.

The final nine clauses of the agreement look into the role of the Executive Council, the students' rights in terms of safety and insurance, respect of all laws and by-laws, the duration of the protocol (6 years with the ability to renew for a similar period), respect to the child law and regulations for resolving disputes and ending the agreement.

Although the above agreement is for the ATSs within the Ministry of Education and Technical Education a similar one applies for the PVTD and the private sector although not as detailed and not signed by the Minister but by the Chairman of the PVTD.

As seen above the agreement leaves little not mentioned and provides a clear path for both parties and while it specifies that no profits are to be made by any party, this does not mean that the sustainability through income generation is not possible which this report will look into in the last chapter.

4.2 The Legal and Regulatory Base for Formal Apprenticeship/WBL in TVET

As stated earlier in the report several times formal WBL and apprenticeship schemes are often considered as a form of PPP in Egypt due to the string links with the private sector in delivering part of the training for students and apprentices. This is section we look at the laws and regulation governing formal apprenticeships and WBL.

Like the overall structure of the TVET sector in Egypt with all its fragmentation and inconsistency in quality and relevance, the laws and bylaws governing TVET in general and apprenticeship in particular is also fragmented and decided between several laws and ministerial decrees. The creation of a TVET Ministry in 2015 sparked hopes for more concerted action on unifying TVET in Egypt and plans for a draft TVET law commenced as well as, a National Conference on Strengthening Apprenticeship was held in this spirit. However, when the new Ministry was dissolved soon after, stakeholders had to reposition themselves, yet holding on to a joint vision for more coherence. The current strategy of the Ministry of Education foresees an increase in dual system education to 10% of all schools by 2030. A new TVET law would provide a unique chance to unify legislation on apprenticeship, foster tripartite dialogue and agree on incentives for both employers and young people to participate in a collaborative spirit, however, currently there seems no champion or leader in the government willing to spearhead the drafting and approval of the TVET law. However the Ministry of Education and Technical Education is currently reviewing the Education Law and in particular the sections that address technical education and the Dual system as well as PPP will be addressed as the current education law (# 139 for 1981) does not refer to the dual education system at all.

To meet the legal requirement for awarding a certificate equal to the technical secondary schools TSSs certificate, the duration of most formal apprenticeship schemes (including those run by education and industry ministries as detailed earlier) are three years after passing the basic preparatory school certificate (9-years). Modern apprenticeship is perceived by some as an alternative to secondary schools and a possible back door entry to tertiary education. Other than some professional occupations, like physicians and lawyers, there is no mandate to complete work-based training to be eligible for employment in any of the skills' fields.

At present, in Egypt, apprenticeship is defined as follows[66]:

> "Vocational apprenticeship means engaging the apprentice in the stage of (12-18) years of age with the employers for the purpose of learning a certain vocation during a specific time period according to an agreement to be concluded between the worker or his guardian and the employer for that purpose. It shall be prohibited to engage the apprentice to learn the vocations that the children are prohibited to work therein, according to the ministerial decree issue in this respect."

Currently, the legal base for Egyptian apprenticeship[67] is derived from a number of documents valid for different conditions and circumstances under the broad term of apprenticeship, these including:

- **Presidential Decrees 1956 and 1964** covering the operation of the Productivity and Vocational Training Department, (MoTI), which runs one of the main formal apprenticeship programmes in Egypt.
- **Ministerial Decree no. 162 of 2011**, complementing Ministerial Decree No. 62 of 2007 for "Regulating and Developing Procedures and Controls for the dual education and training system in secondary technical education three years"
- **The Labour Law no. 12 of 2003**, and the **Ministerial Decree No. 175 of the Year 2003** Concerning the Rules and Procedures Regulating Vocational Apprenticeship, which refers to apprenticeship and the relationship between apprentices and employer, with the intent of regulating formal apprenticeship.
- **The Child Labour Law no. 126 of 2008**, Amending Provisions of the Child Law no. 12 of the year 1996.
- In addition to a number of **protocol agreements** issued between a number of stakeholders with the purpose of implementing and/or piloting an apprenticeship scheme.

There seems to be a high level of coherence between the Labour Law (sections on apprenticeship and Infants Employment) and the Child Labour Law in terms of employment:

- Age: both laws define child/infant as being below 18 years of age (complying with ILO C182)
- Prohibiting employment of children below 15 years of age (complying with ILO convention C138), but an exception is allowed in the child law to those reaching 12 years of age provided that a special permission is acquired from the governor.
- Prohibiting making children/infants work overtime, during holidays or at night.
- Prohibiting making children/infants work in a job that would put the health and safety or morals of the child in danger or in any of the worst forms of work for children (Complying with ILO C182).
- Insuring the child/infant on the job.

On the other hand, the Child Law does not mention apprenticeship, and hence is not aligned with specific regulations pertaining to apprenticeship.

Finally, some variations exist between the two Laws which fosters limited clarity and leaves some for those responsible for managing apprenticeship programmes to interpret this according to their understanding and reference, these are outlined below and some are compared against stipulations in ILO instruments:

- The minimum age for training (apprenticeship) in the labour law is 12, while in the child law it is 13 years of age (training). ILO C138 specifies 14 years of age for apprenticeship if carried out in accordance with conditions prescribed by the competent authority and as a part of an approved training programme.

[66] Decree No. 175 of the year 2003 (article 1), concerning the rules and procedures regulating vocational apprenticeship.

[67] Apprenticeship was introduced to Egypt with the establishment of the Productivity and Vocational Training Department and centres in 1956 by a Presidential Decree, then introduced in the Labour Law 91 of the Year 1959. In the same year, the Ministry of Social Affairs and Labour issued the decree 197 for the formulation of a National Committee for Apprenticeship, followed by decree 112 for the year 1961 establishing the Supreme Council for Industrial Apprenticeship and Vocational Training.

- Medical examination prior to employing a child is required by the Child Law, while not required in the Labour Law.
- The Child Law stipulates 7 extra days of leave for children, while the Labour Law does not clarify whether this applies to apprentices.
- The Labour Law speaks of a maximum of 8 working hours per day for apprentices while the Child Law speaks of 6.

4.3 Current Expansion Policies of PPP in Technical Education

As mentioned earlier in this report, there is no unified TVET law or strategy that also incorporates PPP, apprenticeship or WBL. However, there are many separate draft policies and strategies led by different authorities and stakeholders within the system. The most recent and prominent of these are the Ministry of Education and Technical Education's Technical Education 2.0 Transformation Strategy 2018-2030 which includes five clear transformation pillars for technical education however it does not include vocational training. There is also Egypt's Sustainable Development Vison 2030 which places great emphasis on TVET and the involvement of the private sector and in talking responsibility for part of the education and training provision. There are also several strategies being led by donor-funded projects like the EU-funded TVET Reform Programme (TVET- Egypt). All these policy related documents although not yet nationally endorsed by the government place PPP and WBL as a priority for TVET reform.

The following are the five pillars of Technical Education 2.0 transformation strategy[68]:

- T1-Transformed Quality of Technical Education
- T2-Transformed Relevance of Technical Education by Transferring to Competency-based Curricula
- T3-Transformed Teachers through Training & Qualification
- T4-Transformed Schools through Employer Engagement through Developing & Expanding Work-based Learning
- T5-Transformed Image of Technical Education through Changing Social Perception

Through pillar number four above, the MoETE intends to expand PPP through the expansion of Applied Technology Schools to 100 such schools by 2030. Furthermore, the MoETE, which is the largest provider of technical education including WBL has explicitly stated within its new strategy the intention to expand the Dual System from its current 2% of learners to 10% (200,000 students) in terms of number of students and schools by 2030. To support these initiatives and the expansion plans in PPP and WBL, Egypt is working with the EU, USAID and more specifically the German government to expand the Dual system but in a quality perspective, looking at policy and legislation that will ensure that quality and quality move that the same pace. To achieve these ambitious plans, Egypt will need to work on incentives schemes for SMEs like tax reliefs, salary subsidies or even commencing a campaign to improve the image of TVET and WBL within society and the business community.

All the above quantitative expansion must also be done in parallel to huge investments in improving the quality of the system in terms of on-the-job assessments, training of in-company tutors, developing a NQF to facilitate recognition of prior learning for adult apprentices. The task is very challenging in the short to medium term, however these are all addressed in the MoETE's Technical Education 2.0 Strategy, and in the next sub-section we look at the quality assurance and accreditation policies planned in Egypt.

[68] MoETE, Technical Education 2.0 Principles, Pillars, Priorities and Planning, 2019.

4.4 Quality Assurance Policies of PPP in TVET Including NQF and Accreditation

While section 2.4.3 of this report looked at the quality assurance and accreditation landscape in TVET and the fragmentation and lack of clarity in the system, this section looks at some of the current policies and initiatives that are taking place both at the national level and at the Ministry of Education and Technical Education which is considered the largest provider of TVET. Although there are no specific policies looking into PPP provision in TVET, these new plans and initiatives if properly implemented would positively impact PPP and WBL provision in TVET.

As mentioned in Chapter 2 of this report, NAQAAE is currently responsible for the quality assurance and accreditation of all educational institutions in Egypt, however, during a Youth Conference of July 2018, the President of Egypt announced the government's intention to establish a new authority for the quality assurance and accreditation of TVET institutions and programmes. The draft law for the new authority (named the Egyptian TVET Quality Assurance and Accreditation National Authority- ETQAAN) has been reviewed by all relevant ministries and is currently at the Prime Minister's office waiting to be sent to Parliament for approval and endorsement. ETQAAN will report to the Prime Minister and will be responsible for the quality assurance and accreditation of both technical education and vocational training providers and programmes including PPP, WBL and private providers. This new development reflects the government's commitment and priority for TVET in Egypt which will undoubtedly improve provision in TVET including PPP initiatives.

At the level of the MoETE, and as specified in the Technical Education 2.0 strategy, quality is a main pillar of this strategy focusing on establishing an Central Unit for Quality Assurance and Accreditation Support (CUQAAS) which is an internal unit established to support the ministry's schools in getting accredited by the new ETQAAN authority once established. The Ministry's vision is that those schools applying first for accreditation would be the PPP schools known as Applied Technology Schools. In addition to CUQAAS, the ministry is also in the process establishing a specialized training academy for technical teachers and assessors. This Academy will also be responsible for setting standards and qualifying in-company trainers within the PPP and WBL schemes.

The following are the outlines of the new MoETE bodies under establishment to overlook the quality and teaching within MoETE schools including the PPP and dual system schools[69]:

- T1- Transformed Quality of Technical Education

  Key Priorities: Short-term (2019-2020)

  1. Establishment of the Central Unit for Quality Assurance and Accreditation Support (CUQAAS)
  2. Recruitment and provide capacity building for CUQAAS staff
  3. Sustainability strategy for CUQAAS
  4. Gap analysis of all TE Schools
  5. Internal restructuring of the TE sector, HR policies, review current legislation and prose new ones etc.
  6. Digital Solutions (Online database and communication portal/ Quality M&E software)
  7. Develop and launch a dynamic database/system of MoETE resources (Schools, equipment, teachers, experts)
  8. Quality control and assurance system within MoETE
  9. Establish a monitoring and evaluation system
  10. Develop new admission system for students of TE

[69] MoETE, Technical Education 2.0 Principles, Pillars, Priorities and Planning, 2019

11. Competitions for best students, teachers and schools
12. Creation and continuous development of a pool of internal verifiers and assessors

Medium Term (2021-2025)

13. Provide a model of the Technical Education best practices School that is of high quality and attractive to students, teachers, parents and the community
14. Improve internal school processes structured PPP
15. Accreditation of most schools and programmes by ETQAAN-Authority by 2030.

➢ T3-Transformed Teachers through Training & Qualification

Key Priorities: Short-term (2019-2020)

1. Establishment of the Technical & Vocational Education Teachers Academy (TVETA).
2. Recruitment and capacity building for TVETA staff
3. Train technical teachers and trainers (10% in 2019)
4. Capacity building and accreditation of Master trainers on technical skills
5. Competency-based training and awareness

Medium Term (2021-2025)

6. Qualification system for teachers including continuous development.
7. Language training and education for teachers and managers
8. Training of assessors and internal verifiers
9. Develop a TVET research unit within TVETA
10. Twinning agreement for TVETA
11. Set initial education standards for technical teachers and instructors training and qualification standards for in-company tutors and instructors
12. Training of teachers in-company trainers in the Dual system and ATS.

4.5 Key Messages of this Chapter

- *Key message 1:* Legislation and regulation in PPP in TVET is covered by protocol agreements between the relevant ministry and the private sector partner and not through national legislation;
- *Key message 2:* Protocol agreements mostly specify the "non-profit" aspect of the partnership which sheds questions on the sustainability of the PPP agreement;
- *Key message 3:* PPP agreements are aligned with national development plans as specified in the agreements;
- *Key message 4:* Plans are in place to establish quality assurance and accreditation mechanisms within TVET including PPP and WBL according to international benchmarks;
- *Key message 5:* Co-management by the private sector of the schools is an key feature of the new Applied Technology Schools scheme;
- *Key message 6:* Some of the laws and legislation are not aligned and there is no unified law for apprenticeship (as part of the TVET law) in Egypt;
- *Key message 7:* To expand WBL, there must be clear and practical plans and incentives for both learners (and their parents) as well as employers;
- *Key message 8:* Laws on regulating WBL and its assessments must be clarified and in most cases also imposed.

5. Challenges and Constrains in Implementing PPP in TVET

This chapter will start with a SWOT analysis of implementing PPP (including WBL) in the TVET sector based of the observations obtained through the process of drafting this report. Then we will look into some of the specific challenges and constrains in implementing PPP in TVET looking in particular to the underdeveloped role of employer and employee organizations as well as the lack of funding as well as the lack of consistent labour market information interventions to inform TVET and PPP development.

5.1 SWOT Analysis of PPP Implementation in TVET

The benefits of PPP (including WBL) in skills development in Egypt is well documented and acknowledged despite the weakness of evidence-based research to confirm this. These benefits include the following:

- Sharing the responsibility and the management of skills development and provision between the government and employers especially those in the private sector and bridging the gap between the demand for and supply of needed skills in the labour market;
- In a middle-income country like Egypt, PPP and WBL reduce public expenditure on updated equipment and raw material where these are substituted for by private sector investment or by the training that takes place at the workplace;
- PPP and WBL facilitates the transition from school/unemployment to employment providing learners with the needed skills and experiences required in the labour force and provides the needed mindset to adopt better to professional and technical responsibilities;
- PPP and WBL foster stronger loyalty and trust between employers and students/apprentices and future employees, something that is very important within the Egyptian context where the turnover of blue-collar workers is very high;
- WBL provides employers with an effective and constant supply of skilled workers for recruitment, thus reducing long-term recruitment costs and improves selection procedures;
- WBL provides learners from low-income families with the opportunity to learn and earn at the same time, thus also improving the negative perceptions associated with TVET especially if parents can see that their children will most likely be guaranteed a job after school;
- PPP and WBL provide better links between employers and employer organizations on one hand and between employers and training providers on the other although there is still room for improvement in this area in Egypt;
- PPP will improve the quality of TVET as public schools will be more business oriented and closer to the mentality of the private sector;
- Large scale PPP initiatives in Egypt can provide a critical mass of reformed schools, however this needs to be scaled up and a business model to include profit-making to be introduced.

There are also defects in the current system of PPP and WBL in Egypt, and these can be summarized in the following:

- Despite the availability of a PPP law, this has not been implemented in the TVET system due to the relatively small scale of the current project in PPP in TVET;
- The complexity and fragmentation of the TVET system as a whole does not allow for unified strategies for implementing PPP and WBL with low coordination, low quality assurance mechanisms and weak information and analysis for adequate planning;
- The structure of the Egyptian economy with a large proportion of employers either very small or informal makes it very difficult to convince these employers either to invest in TVET or to benefits from WBL and thus the low numbers of apprentices compared to learners in solely center-based TVET;

- Monitoring learners during on-the-job training is weak and inconsistent and requires a lot of self-discipline on part of the employer especially in complying with the agreed study plans;
- Training and qualifications of in-company trainers is still underdeveloped and often overlooked in the current system.

The following table provides more details of the PPP and WBL system's strengths, weaknesses, opportunities and threats based on the observations of this report.

Table 5.1 PPP and WBL SWOT analysis

Strengths	Weaknesses
• High-level government commitment in expanding PPP and WBL • Existence of a general PPP law that governs very large and long-term projects • Many different examples and pilots of PPP and WBL that if studied well could provide a good base for selecting an Egyptian national model • Long history of WBL and apprenticeship which makes it well established in the system • WBL is available at both formal and informal schemes and for both young learners and adults • Dedicated and long-term technical support by international donors for PPP and WBL expansion • Demand my private sector companies and investors to invest in TVET, including some employers already investing in establishing schools and centers within their enterprises and beyond which is a good example of private sector partnership in TVET. • Existence of employer organizations with experience in WBL and many others willing to support • PPP and WBL learners are better performers than their counterparts in the traditional technical school system which means better image of WBL especially with the fact that students also have a better chance to proceed in the education pathway and to earn while they learn	• No TVET law in place and exiting legislation is fragmented and sometimes contradicting, this lack of regulations for a national system leaves current PPP and WBL schemes as isolated Islands • Proportion of PPP and WBL schools and students compared to school-based TVET is very low • Systems need to be developed to better ensure consistency in quality. The quality assurance and accreditation system is weak and affects the implementation of WBL • No structure for training in-company tutors and instructors • Not enough impact assessments as well and surveys conducted on PPP and WBL on a regular basis by national bodies to improve decision making • Not enough structured marketing and promotion of PPP and WBL exists for learners and employers • Employer engagement in issues like curricula development is not consistent • Relationship and cooperation between government bodies responsible for delivering off-the-job and employer organizations responsible for monitoring on-the-job training is weak • The assessment system in general and within the on-the-job part needs restructuring • Funding mechanisms are not clear and inconsistent • No specific action-plans for expanding PPP and WBL according to the ambitious targets declared by government • No financial or non-financial incentives offered to employers to participate in PPP and WBL • The sustainability of PPP and WBL programmes that were initiated by donors is

	weak and questionable and many changes occur or initiatives are terminated once these projects end. • Private sector involvement in PPP or WBL is still steered by CSR and not bottom-line business incentives, which makes suitability of these schemes questionable.
Opportunities	**Threats**
• Support to TVET by the current government and donors is high • TVET reform is on-going which should benefit PPP and WBL • Foreign direct investment, mega project as well as exports has increased in the past couple of years, if this continues there will be need by employers to invest in skilled workers and thus PPP and WBL • Education law to be amended and will include PPP and WBL in TVET • Establishment of the new TVET Quality Assurance and Accreditation Authority (ETQAAN) may bring more coherence to the system and improve the quality of TVET provision including PPP and WBL	• The current political and economic stability is affected which will in turn discourage employers from investing in skills development through PPP and WBL • PPP law continues to be out of scope for TVET due to its relatively large size • Fragmentation of the TVET system still continues • The government realizes that the targets set for PPP and WBL are unrealistic and loses momentum in expanding PPP and WBL • The government continues to establish industrial and business parks far away from populated communities which makes it difficult for young apprentices to go to these workplaces for training • Learners and parents continue to value academic tracks rather than TVET and WBL • Donor coordination remains weak leading to duplications in some areas and neglecting others in the process of TVET reform including the provision of WBL and apprenticeships.

5.2 The Underdeveloped Role of Employer Organisations and Intermediary Organisations

The general ineffectiveness of the Egyptian education and training system and the long-lasting mismatch between supply and demand has been the drive for the initiation of a number of cooperation initiatives between education and training on one hand and the business community on the other. The existing modes and methodologies of cooperation include both long-established initiatives that have become a normal part of the country's technical education and training system, and other relatively recent, small initiatives that, in many cases, are still in the piloting phase.

International donor programmes, among them notably the German Dual Education and Training System, the EU Technical, Vocational Education and Training (TVET) Reform Programme, have provided platforms of experimentation for these initiatives and with their "bottom up approaches" have contributed to prove that reform of the education and training system cannot be carried out without the active participation of the private sector. In parallel to this, programmes promoted by the Egyptian Government (such as the National Skills Standard Project or bilateral agreements between Ministries and private sector, for instance), have also contributed to improve to a great extent the cooperation between education and business.

In order to understand the extent and nature of employer and employee organizations in Egypt and their involvement in WBL and apprenticeship, one must first understand the structure of the economy in terms of the formal economic sector and its parallel informal structure and the extent of employment in each.

Since the 1990s, the government has introduced economic liberalization policies for private sector expansion through privatization and new business development activities. More notably, in 2004, a series of macroeconomic reforms were launched, supported by a favorable external economic environment. This generated a significant acceleration in GDP growth for four successive years (from 3.2% in FY04 to 7.2% in FY08) and offered an enabling environment for doing business. Egypt's economy showed a solid level of resilience to the 2008 international economic crisis; GDP growth reached 4.6% in FY09 and an average of 5% for FY 2009 and FY 2010. Moreover, throughout the crisis, the banking sector remained strong. During that period also many employer organizations were developed and others established in many of the priority sectors as well as in the expanding industrial cities around the country. These organizations for formal registered businesses are organized as sectoral chambers at the national level affiliated to one of the main federations in industry, construction, tourism and commerce, then there are geographical investors associations that have members in different sectors but are linked due to their geographical affiliation. Also there are trade-specific associations or bilateral business associations (like the American Chamber of Commerce, British Egyptian Business Associations, etc.). Only the central federations require by law that all registered businesses must be members, the other associations are optional memberships.

The economic situation since 2011, however, has been a different story. The disruption to commercial activity and the prolonged closure of the stock market in 2011 undermined investor confidence: GDP growth for FY2011 came in at 1.8%, which is much lower than the 7% forecast of the Ministry of Planning. According to the Central Bank of Egypt (CBE), 2012 GDP growth was 2.5%, while the 2013 forecast was 3.5%, picking up recently to surpass the 4% in 2016. Tourism revenues fell in 2011 by more than 33% according to the Ministry of Tourism; FDI dropped to US$900 million in 2011 and, according to the CBE, international reserves fell sharply to the extent that, by early 2012, reserves were sufficient for only three months of imports, which is less than half of what was available before January 2011.

Although Egypt continues to face significant economic challenges, its diversified economy offers a range of policy options for decision makers. Its relatively balanced economy is diversified across agriculture (14.5% of GDP in 2012; industry (37.4%) and a significant services sector (47.9%). There are key potential growth sectors including agriculture and food processing, manufacturing, pharmaceuticals, information technology and communications, energy and renewable energy, financial and business services, transport and logistics, as well as the wholesale/retail sector. The construction and tourism sectors are well established, but are more volatile to economic and political shocks, both nationally and internationally (World Bank SABER report 2014).

However, all studies reveal that the size of the informal economy has increased over the past three decades, and that it represents an important segment of the Egyptian economy. Informal employment represents a substantial part of total employment and has been growing during the last decades. According to El-Mahdi (2012) the number of informal wage workers went up from 2.3 million in 1988 to 3.3 million in 1998 and reached 4.4 million in 2006. Currently, in Egypt, there are 8.2 million people employed without formal contracts. Of those, 68% are engaged in informal enterprises, 22% in legal enterprises, and 10% in street vending activities and the like[70]. This represents 67% of total private non-agricultural wage work. The wages of informal workers are extremely low, especially among females.

[70] http://www.eces.org.eg/MediaFiles/events/7045dd66.pdf

In addition, the estimated numbers of all Micro and Small Enterprises (MSEs) increased by 4.7% annually from 2.5 million economic units to 3.5 million economic units in 2006, which is by far a higher growth rate compared to that of the period 1988-1998, where it grew by 1.6% annually. Out of all MSEs, 82% are informal units. Moreover, the MSEs are the major training providers to young apprentices who join these enterprises. Extensive informal training takes place in MSEs, and this helps in endowing new young entrants to the labour market with new skills. The newly acquired skills go through different levels of proficiency, starting at an apprentice level and moving upwards until reaching master of the trade level (El-Mahdi 2012). However these informal enterprises are rarely affiliated to any form or employer or employee organizations (Hofmann, 2014).

This type of economic structure obviously impacts on the government's plans to increase large scale PPP projects in TVET as most of the companies in the economy are SMEs, however there is an important role that employer organizations and other intermediary organizations can play in grouping smaller companies in becoming partners in the TVET system.

Most of the above mentioned formal employer federations and associations are involved in one way or the other in skills development initiatives in general to support their members and often their representatives are members of high-level councils or committees working in the TVET sector, however only a few are specifically responsible for WBL or apprenticeship progarmmes. The following sub-sections of the report highlight some of the most prominent employer organizations managing apprenticeship programmes.

5.2.1 The National Centre for Human Resource Development (NCHRD)

The National Centre for Human Resource Development (NCHRD) was established in 2004 under the umbrella of the Egyptian Federation of Investors Associations (EFIA). It has a major role in the application of the Dual System (described in section 2.2.1 above) in technical and vocational education (TVET) in Egypt initiated by what used to be called the Mubarak Kohl Initiative (MKI) within the context of the partnership with the Ministry of Education and Technical Education (MoETE). The Egyptian Federation of Investors Associations (EFIA) is a non-governmental representative of the private sector. It is formed entirely by election. EFIA encompasses more than 45 Investors Associations (IA) in Egypt. NCHRD is the recognized entity for the 30 Regional Units for Dual System (RUDS) in technical and vocational education (TVET) in Egypt which are established in 24 governorates all over Egypt to supervise more than 42,000 apprentices training in 47 different trades/professions and deals formally with all related governmental bodies.

The activities and objectives of NCHRD are: Cooperating with the Investors Associations in raising awareness of the member enterprises concerning offering training places for the DS students. Standardizing rules and procedures in managing and assuring the quality of the Dual System in conformity with the ministerial decrees and related agreements. Strengthening the capacities of Investors Associations and the RUDS to provide specialized technical training to the member enterprises. Strengthening the capacities of the Investors Associations to have an active role in providing information on the local labour market. Contributing to the raising of awareness of society and the Egyptian youth on the value of work and the importance of the quality of production. Supporting entities concerned with TVET as well as employment in developing their services to meet the needs of enterprises of skilled labour (developing curricula, training of trainers, building Labour Market Information Systems (LMIS), career guidance and counselling etc.). The NCHRD and the EFIA have been the predominate private sector partner for the DS, constituting almost a monopoly on the system, until this year when the MoETE expanded this to include the Federation of Egyptian Industries (FEI) in their attempt to expand the DS enrolment and training places in enterprises.

In the past few years however, the role of the RUDS and the NCHRD has diminished and there is constant tension between the MoETE and the RUDS in supervising and managing the Dual system. Furthermore, the NCHRD is finding it more and more difficult to control and manage the work of the RUDS whose performance are varied and inconsistent.

5.2.2 Sectoral Enterprise TVET Partnerships (ETPs)

The EU-funded TVET Reform Programme (TVET 1) which started in 2006 and currently in its second phase established 12 ETPs as independent sectoral bodies to link employers and education providers with the main objectives of bridging the gap between the supply of and demand for skilled workers in the different priority sectors. The ETPs were directly linked by the relevant chambers and covered Industry (Engineering, RMG, Furniture, Food processing, Building materials, Leather, Printing, Chemicals), Tourism (2 ETPs) and Construction (2 ETPs). The ETPs were modeled after the British Sector Skills Councils and their boards were composed by two thirds private sector including the Chairperson all nominated by the relevant chamber and one third from the public TVET providers appointed by the relevant Minister.

They main role included supporting the development of TVET providers to meet the needs of employers in the sectors through providing labour market information, training of trainers, participation in setting standards, qualifications and curricula development. Part of their functions also included support in managing the apprenticeship programme known at the Alternance Programme.

Unfortunately, and since 2017, the ETPs ceased to exist (except the Ready-made garments one called Traintex) due to several reason but most important reason was their legal status which was not clear and there was no specific legislation to guarantee their sustainability even among the ministries that supported their establishment and thus once the TVET 1 project ended, they also ended shortly after.

The role of the ETPs in still important and relevant the TVET landscape and in particular when it comes to setting skills standards, market inelegance for the sector and validation of TVET programme provision and assessments. Therefore, the TVET 2 project is currently trying to reestablish them with the needed legislation in cooperation with the Federation of Egyptian Industries and to rebrand them under Sector Skills Councils. If established their role will also enhance the implementation of PPP and WBL in TVET as they would be the voice of the employers in the sector when it comes to TVET. While the TVET 2 project and FEI are taking a to-down approach trying to look at the national governance and funding structure of the new sector skills councils, the European Bank for Reconstruction and Development (EBRD) is currently investing in the electrical tools and cables sector and is supporting the Chamber of Engineering Industries within FEI to establish and operate a pilot Sector Skills Platform for this sub-sector as a bottom-up approach to test the concept. Some collaboration is underway between both parties.

5.3 The Underdeveloped Role of Employee Organizations

While government ministries in Egypt have historically refused to recognize any unions other than those affiliated with the state-controlled Egyptian Trade Union Federation (ETUF), after the revolution of 2011, there were signs that the situation for independent trade unions in Egypt would change. Some government officials signaled a more liberal embrace of independent unions, workers formed hundreds of unions unaffiliated with ETUF, and the 2014 constitution expressed explicit support for union organizing and collective bargaining.

In 2016, however, ETUF reacted to these developments by filing a court case asserting that independent unions are illegal in Egypt. While the case continues, the Ministry of Interior invalidated the use of independent union stamps on official documents. The ILO has determined that this decree effectively revokes the fundamental right to negotiate and publish collective bargaining agreements, and exposes union leaders to the risk of dismissal or arrest. In a letter to the president of Egypt, the ILO Director-General called on the recent ban on official recognition of independent unions to be revoked[71].

While unions have their own structural challenges, there was no documents and interviews that indicated a significant role for trade unions and other employee organizations in skills development and TVET policy and operations in general or apprenticeship in particular. There are also rarely represented on high-level councils or committees related to TVET reform although numinous donor-funded initiatives are constantly asking for this to be changed. Perhaps one of the main reasons why unions are not involved in apprenticeship programmes is that most of the programmes are targeting school aged students and are thus not considered employees even during on-the-job training.

5.4 Weak Labour Market Information and Advice to Students and Employers

Promoting PPP, WBL and apprenticeship schemes and providing the necessary information and advice to all parties including; students and their parents, employers on what is available and what are possible investments as well as information to TVET institutions to develop their programs according to labour market needs are all unstructured and inconsistent.

For students and parents, posters are available at schools when they come to apply and the information is provided to them. The best promotional tool they use is the information about learning and earning at the same time. There are no national campaigns about PPP and WBL despite the government intent to expand it. The RUDS who are responsible for managing the on-the-job part of the Dual system and finding placements in companies do promotional work and place posters in their communities and they go and visit the companies and advice both students and employers on the benefits of the Dual system. However, the initiatives are unstructured and career guidance and counseling at pre-secondary level is almost non-existent therefore students and parents depend on their limited knowledge as well as the experience of relatives and acquaintances.

Companies that operate schools in factories or co-manage schools with the MoETE or own their private technical school also do some promotion and information sessions and make good use of social media to attract students and their parents. However, most companies who can benefit from PPP and WBL schemes do not have the appropriate changes of information to know about the potential involvement for taking on students or investing in a school. Procedures are not documents and mostly depends on the word-of-mouth and the use of social media promotions of success stories of PPP schools including the Applied Technology Schools.

Donor-funded projects that support WBL also print promotional material and crate videos on YouTube. In 2012 the EU funded a twining programme between the PVTD and a Finnish TVET institute and the cooperation and technical assistance focused on developing the PVTD's marketing tools including its website. USAID also supported the MoETE to establish School-to-work transitional units at some schools (not necessarily the Dual system schools) and these units provide both information to employers and to students on apprenticeship schemes and are currently developing and implementing career guidance tools through the support of all donor-funded projects (GiZ. WISE-USAID, EU-TVET-2).

[71] http://www.fairlabor.org/report/independent-trade-unions-egypt

A common characteristic of advanced workforce development systems is regular assessment and timely review of the impact of funding on a range of training and labor market outcomes. To respond to ever evolving economic and technological conditions and skills needs, Egypt's workforce development system requires timely and actionable information. Central to this are functional labor market information systems that provide the analytical basis for adjusting or terminating programs according to labor market needs. While Egypt lacks a formal labor market information system (LMIS), organizations like the Central Agency for Public Mobilization and Statistics (CAPMAS), the Education, Training and Employment Observatory (affiliated to the Prime Ministry), and the information unit within the Ministry of Manpower have the capacity to carry out this role, albeit on an ad- hoc basis, and without formal links with training providers[72]. In recent years some initiatives have taken place that include the following:

- When the Industrial Training Council (ITC) existed and with technical and with the technical support of USAID begun the process of piloting a comprehensive LMIS for the manufacturing sector, which would have provided lessons to inform a path forward and subsequently be scaled up across the workforce development system, however, this never saw the light;
- GiZ are establishing several Regional Labour market observatory in some governorates and select some sectors and locations to conduct detailed labour market assessments through local stakeholders like the MoETE, MoMM and investors associations;
- WISE-USAID have conducted 11 labour market needs reports in 11 governorates.
- The EU-funded TVET 2 project has been working for four years trying to establish a national LMIS however, they have not yet been successful in getting the commitment of a national host institution to take over and operate the system despite the technical assistance and equipment available by the project.

5.5 Underdeveloped Funding Mechanisms including for PPP and WBL

According to the World Bank's SABER report (2014), Poor financial management, resulting from a lack of procedures to ensure that funds are appropriately allocated to achieve system efficiency and equity, and weak quality assurance are major challenges that need to be urgently addressed. Critical weaknesses in funding arrangements include the failure to link public funding to performance, limited investment by the private sector, underdeveloped regulations in resource utilization, and the absence of any formal monitoring and evaluation of the impact of training programs on beneficiaries.

Legislation is required to:

I. promote investment in education and training by non-state providers;
II. promote the autonomy of public institutions;
III. diversify funding sources, by restructuring the current training levy to meet the needs of both employers and employees;
IV. use funding mechanisms to create incentives for performance. Adopting this legislation should be complemented by a well-designed financial cost/benefit analysis tool.

The above messages are interrelated and are relevant to the PPP within the TVET system and require the government to work on a comprehensive system for quality assurance and financial management. This will require direction, leadership, and clarity in the roles of all existing institutions. The workforce development system cannot improve under the current state of fragmentation, overlap, and piecemeal approaches.

[72] World Bank SABER (2014) Workforce development report- Egypt

This sub-section of the report looks at the funding of PPP, WBL and apprenticeship programmes in Egypt both from the employers' side as well as the government which is the main provider of the off-the-job training part. However, it must be noted that obtaining accurate information on the government spending on PPP and WBL in isolation of the total budgets for technical educational and vocational training is quite difficult and often not updated so the mechanism of funding TVET in general will be outlined rather than the values.

5.5.1 Contributions of Employers in PPP, WBL and Apprenticeships

As illustrated in Annex 2, most employers involved in PPP and formal WBL programmes pay a stipend/wage for apprentices while they are training on-the-job. The range is from EGP300 (USD 17) to EGP650 (USD 37) per month within the dual system and up to EGP2000 (USD 114) per month within the Applied Technology Schools during the time they are in the company. These amounts progress from year to year during the formal apprenticeship programmes of 3 years and less than the official minimum wage for workers. As stated some of the employers pay more for students especially in the school in factory schemes and it is left up to their discretion however the basic stipend is set by the MoETE with advice form the RUDS for example in the case of the Dual System[73]. In the PVTD scheme, the apprentice receives between 15% and 20% of the minimum wage per month during the third year. According to Badawi (2012) apprentices may also receive other benefits (but not by all companies), such as transportation, work uniforms, recreation, social and sportive events. In addition to covering wages for students in the Dual system, PVTD, alternance and Applied Technology Schools model employers cover the cost of on-the-job training in terms of salary of in-company instructors, training material and equipment used and in some very rare cases mentioned some employers donate old equipment to the schools to be part of the off-the-job training.

In the Dual system model, employers also pay the RUDS a small amount (EGP40) for every apprenticeship per moths to cover the cost of the RUDS in managing the process with them.

Employers who manage schools in factories are responsible for covering the cost of establishing the classrooms for the theoretical and general subjects and while the MoETE covers the basic salaries of the school principle and general subject teachers. Within the Applied Technology Schools model, employers are contractually required to top-up teachers and staff salaries based on their performance.

Currently, there are no formal legislation or procedures in place where the government provides incentives for employers especially the private sector in participating in WBL schemes like tax incentives, wage subsidies and the like and the negations are based on the corporate social responsibility tolerance of the companies although often these companies mention the value they get in terms of better skilled workers trained according to their needs and thus directly affecting their financial bottom line. However, this is the case for lager companies who see the value of training and being involved, the challenge is convincing smaller employers of the value of PPP and WBL.

A financial business model needs to be developed where the amount paid during the academic year are analyzed and that it is distributed among the students, teachers and school as well as put a value to the benefits employers get in return for their investment. Once this is analyzed and developed only then will there be a potential for sustainability and expansion of PPP and WBL.

[73] There is no evidence that other employer organizations or trade unions are involved in setting these wages or of any systematic process of how they are set.

5.5.2 Funding Off-the-job Training within WBL

The government covers the cost of off-the-job training at schools or in the case of the PVTD at their training centers. As mentioned above, this is part of the financing of TVET in general and it is difficult to differentiate the WBL part of the budget, therefore we outline here the funding of TVET including WBL based on the 2014 World Bank Saber assessment of the funding of TVET.

Public institutions enroll 93% of pre-university education students, rendering the government the main source of financing for education and TVET at large. Public expenditure on education[74] reached EGP33.7 billion (USD5.02 billion) in FY08, representing 12% of total public expenditure. The ratio of public education expenditure to GDP decreased from 5.3% in 2000 to almost 3.7% in the two years before the revolution. Average public expenditure per student in Egypt in purchasing power parity terms was estimated to be (constant 2005 international dollars) 282, 405, 394, and 902 in primary, preparatory, secondary, and tertiary education, respectively, all of which are below corresponding values in comparable countries in the region or with similar demographic or developmental characteristics[75]. It is reported that the real expenditure on education may be almost double this figure of EGP 33.7 billion by including private tutoring expenditures paid by families. It is estimated that combined private tutorial costs may equal the budget of the MOETE.[76] Not all families have the resources to pay for private lessons, introducing a potential source of inequality in access to education and jobs related to family income.

Technical secondary education (including apprenticeship) receives a lower level of expenditure per student compared to general secondary education. This is despite the greater costs associated with technical education, given the equipment, maintenance, raw materials, and lower student-teacher ratios usually required for technical courses. Table 5.2 below describes expenditure differences between technical and general education. However, they are both much less than the private sector, the average cost per student in German Hotel technical school in El Gouna is around EGP30,000 per year. The bias towards general secondary education is also evident in the quality when comparing numbers of students per school. There are around 6000 general secondary schools serving 862147 students and 1300 technical secondary schools serving 1,554,534 during the academic year 2009/10.

Table 5.2 Comparison between Expenditure in Technical and General Secondary Education[77]

	*Total Budget (2005/06) LE (billion)	Percentage of Secondary education budget	**Total # of Students (2005/06)	Average expenditure per student (LE)	Percentage of students (2005/06)
Technical Secondary	2.743	60%	1,974,391	1,389	62%
General Secondary	1.828	40%	1,239,189	1,475	38%

Sources: * Education for All: Mid-term Evaluation 2000-2007
**PVET in Egypt, Country Background Report, 2011

[74] The 2014 Constitution, Article 19 states that "The state commits to allocating a percentage of government spending that is no less than 4% of the GDP for education. It will gradually increase this until it reaches global rates."
[75] Countries include Chile, India, Jordan, Malaysia, Peru, and the Philippines.
[76] ENCC/TVET Reform Programme/ETF, Building a Competitiveness Framework for Education and Training in Egypt 2010.
[77] Although the data is not updated but the analysis is still valid, according to interviews with MoETE officials, the proportion of Technical School students has decreased slightly to 55% of all secondary school students.

As for financing vocational training, a National Training Fund has been set up by the Labour Law of 12/ 2003, raising contributions from employers (1% of net profit) for financing continuing training. However, shortly after it started collecting revenues, an issue of potential unconstitutionality of the Fund was legally raised, which interrupted its operations. The Ministry of Manpower and Migration (MoMM), its umbrella ministry has recently studied mechanisms and solutions for making this Fund more effective in collaboration with the EU TVET Reform Programme. The Programme commissioned an international expert who after consultations with groups of employers from different geographic and sectoral backgrounds made a proposal for a change in the law to make the Fund based on a certain percentage of the payroll and that 80% of the collected money will be invested in training in the same proportion of the sectors that paid them and the remaining 20% will be spent on cross-cutting initiatives. This proposal was presented to the MoMM in 2010 but due to the political unrest no decisions were taken. While this proposal would improve the situation and encourage employers to contribute, it requires legislative reform in terms of change of the law which will take some time but a law is currently under review by parliament that will restructure the National Training Fund.

Additionally, line ministries, most notably the Ministries of Tourism, Industry, and Housing, subsidize numerous training initiatives through training councils, while non-governmental organizations (NGOs) also subsidize employment initiatives.

Funding for workforce development in Egypt is mostly based on historical expenditure data, with no links to performance and no consideration of national socioeconomic priorities. In general, there are no formal reviews of the impact of funding on training program beneficiaries.

Additionally, there is limited investment by the private sector in workforce development at the national level. However, some recent positive developments include: (i) increases in education and training budgets; (ii) efforts to decentralize the management of budgets to the governorate level; and (iii) several ministry-driven efforts to fund training in partnership with sector federations and in alignment with market needs. An example is the Ministry of Tourism, which has been funding training in the sector over the past 10 years. This initiative is managed by the Egyptian Tourism Federation and has to date resulted in the training of around 140,000 workers (however, including very limited apprenticeship schemes if any). There are no regular and timely formal reviews of the impact of funding on the beneficiaries of training programs. As a result, public TVET providers in Egypt fall into a vicious cycle of low quality and low esteem because employers do not associate these public providers with good quality services, while providers continue to provide supply-driven programs. In the absence of the necessary tools, the government is unable to assess performance, and thus cannot justify increases in the limited financial resources for such programs and improve their quality.

5.6 Key Messages of this Chapter

- *Key message 1:* Despite the increase in the engagement of private sector organisations in the reform of TVET in the past decade or so, it is not yet adequately institutionalised in the system and very few employer organisations are involved in the management and operation of apprenticeship progarmmes;
- *Key message 2:* The Labour Market Information System (LMIS) is weak and underdeveloped despite on-going initiatives at the local or sector level, there is no active national body responsible for this;
- *Key message 3:* Not enough information about PPP and WBL is available to students, parents, schools and employers.
- *Key message 4:* There are many benefits of PPP and WBL in the TVET sector in Egypt including sharing costs of TVET, improved mismatch of skills needs, better alignment with changing needs and technology in the business sector and students become better aquatinted with the work of work.
- *Key message 5:* Insufficient involvement of employee organisations and trade unions in issues related to policy, management or operation of apprenticeship progarmmes.
- *Key message 6:* Employers pay stipends for apprentices, however there is no set level of stipends during on-the-job training although the MoETE and other government bodies try to set these levels differently and it is usually much less than the minimum wage for starting employees;
- *Key message 7:* Employers who manage schools in factories are responsible for the cost of setting up classrooms and equipment and the government pays the basic salary for the school principle and general subject teachers;
- *Key message 8:* Some employers provide other benefits to apprentices such as transport and uniforms but it is not consistent for all employers;
- *Key message 9:* Off-the-job training is covered by the government, however, information and analysis is not widely available specifically for WBL;
- *Key message 10:* Very little if any incentives are provided for employers to participate in WBL. If the government is to expand formal WBL, it must develop incentives like tax reductions and wage subsidies.

6. Reforms and Resources to Support PPP and WBL in TVET

The previous chapter looked in details at the main challenges and constraints of TVET in general and PPP and WBL in Egypt, in particular. This chapter of the report outlines some of the reforms and the (non-financial) resources that are available to support PPP, apprenticeship and enterprise-based learning schemes to improve their provision. Annex 2 provides the basic information for each of the major PPP, WBL and apprenticeship programmes offered in the Egyptian context in terms of skills level offered, split between off-the-job and on-the job training, assessments and tests, certification and qualifications of in-company tutors. Here we summarize some of on-going reforms as well as highlight some of the donor-funded projects that offer support to the TVET system as a whole (including PPP and WBL) to improve provision and focus on a few international-funded technical assistance projects that focus solely on the support of PPP and WBL schemes.

6.1 Training Content, Assessments and Certification

Most of the formal apprenticeship schemes outlined in Annex 2 end up with a formal diploma form the MoETE and have official and documented study plans that accurately articulate in detail the requirements of the programme in terms of the following:

- Occupational standards and skills levels (although not yet nationally unified or recognized, but approved by the relevant ministry that issues the certificate);
- Division in percentage and number of hours between general subjects, off-the-job theoretical and practical content and on-the-job training requirements;
- Assessments and tests both theory and practice and those undertaken at the workplace are well articulated and developed. Almost all formal apprenticeship programmes require and include assessments and tests administered by the body that awards the certification (MoETE, MoTI and MoMM).
- The work-based assessments are often administered by the employer with the support of the intermediary organization however, the formal diploma is granted by the relevant ministry.
- Equipment requirements are will analyzed and articulated at each stage (although not always available at the schools and centers or outdated or not enough to provide the required time for each student due to the large number of students in relation to the equipment);
- It is documented how curricula should be developed and updated based on best practice especially at the start of any initiative with support of donor projects including the involvement of employer representatives and private sector, however this is not consistent especially when donor projects end.

Although the above activities are well documented and usually endorsed by the Minister himself, at the implementation phase it is not necessarily implemented according to best practice due to required financial and human capacity most of the time. As for non-formal apprenticeship, schemes the situation is less structured and there is no evidence that it happens this way.

To overcome this and according to the second pillar of the Technical Education 2.0 Transformation Strategy, The MoETE is currently undertaking an ambitious task to transform all its curricula form content-based to competence-based education, which will also reflect on the assessment process. This transformation process is supported by all the on-going donor-funded projects especially the EU-funded TVET 2 project and the GiZ. The following are the main features of the reform as outlines in the Technical Education 2.0 Transformation Strategy:

➢ T2-Transformed Relevance of Technical Education by Transferring to Competence-based Education (CBE)

- Key Priorities: Short-term (2019-2020)
  1. Transfer all curricula into competence-based (CBE) making Egyptian graduates more competitive locally, regionally and internationally,
  2. Introduce a comprehensive assessment and certification system for CBE
  3. Review exiting specializations in all sectors for relevance to labour market needs
  4. Review and development of Commercial technical education and introducing specializations that address future jobs
  5. Introduce new programmes in all sectors including Green jobs, industry 4.0, modern agriculture jobs.
  6. Train curricula developers
  7. Train teachers on CBE
  8. Train assessors on CBE
  9. Integration of career guidance, entrepreneurship and innovation in all new curricula
  10. Integration of soft skills, citizenship and languages in the general curricula framework
  11. inclusion in developing new curricula (gender and people with disabilities)
  12. Review Programme names for relevance and attractiveness

- Medium Term (2021-2025)
  1. Validate new curricula with private sector employers
  2. More synergies with general education in core curricula subjects
  3. Digitalization of material and content
  4. Conduct tracer studies on the supply and demand sides to continually assess the relevance of programmes to labour market needs

6.2 Delivery of Training in the Workplace

As outlined earlier, workplace learning happens within the formal apprenticeship programmes in a variety of ways, including on-the-job using the factory equipment or through dedicated training facilities or simulations (as in the El Sewedy example, Annex 4). As explained the structure of the learning is well documented however not all employers comply and may change the sequences according to their production plans. This is why the MoETE is implementing the new Applied Technology Schools model, which requires strict and direct supervision by the quality council to ensure that training takes place as planned.

Supervision at the employer is often done through intermediary employers organizations such as the RUDS in the Dual System or the ETPs in the alternance training or the MoETE teachers in the school in factory scheme. In most cases these are student logs to monitor the learning of the apprentices and this is managed by the employer in cooperation with the intermediary partner.

The MoETE through the intermediary employer organization also assess the workplace learning facilities and operations to make sure that they are adequate and they sign a contract or agreement to comply to the full learning programme of the learner, however this is not very strict due to the fact that the MoETE wants to expand the quantity of employers involved in WBL and thus sometimes quality is compromised especially when it comes to the qualifications and competencies of those involved in mentoring or training apprentices on-the-job. During the contract implementation periodic inspections take place by the RUDS or the ETPs (when they existed) but again these are often not very detailed and only in very serious situations actions are taken to rectify unconformity.

Few programmes through donor projects (GiZ and EU TVET Reform) offer on-going training and orientation to in-company trainers and supervisors responsible for learners. This is a major issue that needs to be addressed at a national level and made a requirement for precipitation in PPP and WBL programmes.

Most of the active WBL programmes are suitable for the Egyptian context, however specific types of prorgrarmmes may be more suited for some industries more than others. For example, ready-made garment manufacturers prefer the school in factory model because they can easily provide real life training on production lines while heavy machinery industries that have also high cost production may prefer simulation equipment that could be available in off-the-job centers part of the time. Adult apprenticeship programmes like the one piloted by the ITC and the British council still needs to be extensively tried to have a clear assessment, however it could be a good potential to absorb the large number of unemployed in a practical setting however it needs to be linked to formal certification and accreditation like the student-based schemes. There is also a government planning challenge that hinders the adequate implementation of apprenticeships, most of the large industrial cities were established in relatively remote areas away from highly populated residential communities which makes the model of alternating training between school or home to factory very challenging and transport and working hours difficult for younger students. These are also the companies that have the potential to absorb a large number of apprentices. Some companies provide living quarters or transport to employees but that is not the best option for young learners especially young female learners for cultural reasons.

To overcome these challenges related to the implementation of on-the-job training within the PPP model of Applied Technology Schools (ATS), the MoETE is currently negotiating with the Italian Development Cooperation through the Debit SWAP facility to utilize a grant to establish an ATS Management unit that will be dedicated to supervise the implementation and guarantee that schools and companies comply to the standards set in the contract.

6.3 Delivery of off-the-job Training in Schools or Vocational Training Centers

Most of the formal WBL schemes include an off-the-job training component whether at the school outside the workplace (e.g. ATS, DS, PVTD and Alternnace training) or in the schools located in the workplace in the school in factory scheme, The PVTE training stations and the schools owned by the private sector. The proportion of off-the-job training typically varies from 20% to 60% and it covers both theory, general education and in some cases like PVTD and ATS practical training.

As discussed earlier the percentage of WBL compared to traditional technical education is very limited between 2% and 3% of learners. The other bigger percentage are rarely exposed to workplace training and thus are less acquainted with practical working conditions and have less confidence and lower skills when they enter the workforce and employers are less satisfied with their outputs.

To support these traditional technical schools that do not have an on-the-job component, the MoETE is currently negotiating with KFW a project (part loan and part grant) to establish Regional Centers of Excellence which will act as lighthouses or technical hubs for surrounding schools and the intention is to use their modern and state-of-the are facilities and equipment to provide practical training for students. These centers of excellence will also be closely linked to local employers.

6.4 Teachers and Trainers Capacity Building

In-company tutors and mentors are usually experienced supervisors, engineers or production specialists depending on the occupation at hand, however almost in all cases companies do not have specialized trainers nor are they formally qualified or certified trainers. Only very few exceptions exist, like in the El Sweedy school where some of the theoretical trainers are professional experts and the company also employs a German expert to overlook the technical aspect of the school and also provides training for the in-company practical instructors.

The situation for technical and practical teachers and instructors in the TSSs (include dual system instructors) and PVTD responsible for off-the-job training is not very structured and sometimes unclear. These teachers and instructors can receive their initial education from different sources like University (e.g. Faculties of engineering, agriculture, tourism, commerce), the four Industrial Education faculties or from technical education five-year programmes. It is not clear whether they are subjected to the one-year intensive education diploma as in the case for general or core-subject teachers (El-Ashmawi 2016).

Trainers have thus a varied range of qualifications, sometimes with little or no specialist trainer training. The main qualification does not appear to be a (pedagogical) trainer competence, but rather the possession of an academic degree, often in a subject not necessarily related to the one taught[78]. This is often reflected in the training methods employed, that are very traditional and not student-centred. Stakeholders interviewed in the framework of this study suggest that Egypt should create more teaching positions for top graduates or experienced professionals.

To address the above deficiencies in the system, PVTD has its own Staff Training Institute (STI) which is responsible for the PVTD trainers but do not currently require in-company trainers to undergo pre-service or in-service training although it is possible for companies to send their trainers to STI for training but they have to pay for it, therefore it rarely happens. The MoETE is currently establishing a Technical and Vocational Education Teachers Academy (TVETA) and its mandate will include training both ministry teachers as well as in-company trainers responsible for the training of student in the companies. TVETA will receive support from all the current donors active in training.

6.5 Current donor-funded support to PPP & WBL

For over 20 years, TVET reform has been high on the agenda for international donors supporting Egypt. While the reform is not solely geared towards WBL and apprenticeship, however most of the projects did address some aspects of WBL through the technical assistance provided to the institutions responsible for managing this type of TVET delivery.

More recently, the period following the revolutions in Egypt marked an increasing attention by donors to be more active in TVET and employment promotion. Currently several large-scale projects are active. The largest of which is the EU funded TVET II (117 million Euros as cost-share between the EU and GoE with 67 million and 50 million respectively). USAID's workfare development project (WISE) worth $25 million stated in 2015 and a second phase is planned to start in 2020 worth $100 million, and a large long-term agreement with the German government has been signed in October 2018. This is in addition to other smaller projects by GiZ, JAICA, Italians, UNESCO and the IOM. The activities under all these projects include:

- Support to the TVET governance structure
- Support to developing a sector-wide TVET strategy

[78] Innovative Practices in Teacher and Trainer Training in the Mashrek Region, ETF (2003)

- Improving quality assurance and the development of a National Qualifications Framework
- Curricula development
- Teacher training
- Transition to work
- Labour market information
- Active labour market programmes
- School-based reform
- Reform and expansion of the Dual system
- Changing the image of TVET
- Establishing the ETQAAN authority
- Establishing CUQAAS within the MoETE
- Establishing TVETA within the MoETE
- Supporting the ATS management unit

More specifically projects that target WBL include:

- The GiZ Enhancement of the Egyptian Dual System (EEDS)- a 10 million Euro project that started in 2015 and will end in 2020 with the following main areas of support:
  1. Policy advice for the enhancement of the Egyptian Dual System
  2. Increasing the number of students and enhancing the quality of teaching and training;
  3. Capacity building for school management, teachers, in-company trainers and coordinating bodies;
  4. Introducing inter-company training concept
- Combating Child labour- It is hoped that the apprenticeship component of the multi-donor initiative to combat child labor will succeed in designing and putting in place a practical scheme that would be sustainable and could be replicated without the donor funds. The initiative is implemented by three UN Agencies (ILO- UNICEF and WFP), building on a previous project implemented by the same three UN agencies. The previous project lasted for 5 years, but its apprenticeship component started too late and while it led to a good foundation it did not reach the objectives. The current initiative also covers more governorates and larger numbers of children with the Ministry of Manpower and Migration (MoMM) the national counterpart in the project (Badawi 2012).
- PVTD reform- The Ministry of Trade and Industry (MoTI) has recently completed a strategy that will restructure the PVTD apprenticeship programme. The strategy has been completed with support from an EU funded project for industrial development yet the implementation is yet to start.
- The Italian Development Cooperation will fund a 2 million Euro project to support the management and operation of Applied Technology Schools within the MoETE.
- KFW will provide a loan and grant along with the EU to establish Centers of Excellence in various sectors including energy and this will include private sector partnership and engagement.

The above-mentioned donor interventions require exceptional coordination from the Egyptian Government which is currently improving but not yet fully achieved.

6.6 Key Messages of this Chapter

- *Key message 1:* There is not yet an endorsed NQF or a unifies procedure for curricula development and training of trainers
- *Key message 2:* Procedures for delivering PPP and WBL is documented but often it is not implemented according to these procedures especially when it comes to supervision and assessments of PPP and WBL;
- *Key message 3:* Not enough training for in-company trainers and instructors is offered
- *Key message 5:* Many donors are active in TVET in Egypt and prove support in all aspects of the system, however coordination needs to improve;
- *Key message 5:* The support provided to PPP and WBL and apprenticeship is ad hoc and not consistent in terms of quality and sustainability especially after donor projects end.

7. International Case Studies:

Comparing PPP in TVET across some countries with Egypt

In virtually all countries there are some national level policies that guide the engagement by employers or other social partners in technical and vocational education and training[79]. These range from involvement in policy formulation and quality of TVET, to PPP contracts as described in section 2.5 in this report, to funding schemes, to WBL initiatives at the school or center level. According to the PPP Knowledge Lab website (https://pppknowledgelab.org) overall large scale PPP projects around the world are steered toward infrastructure, power and transport project and very few of the recent mega projects are targeting education in general and TVET in particular. This is not very different from the Egyptian context. For example since the mid 1990s and until now around the world the value of PPP project in education (no data was found on how much of that was for TVET) was $40 Million compared to $470 Million in transportation in the same period.

It must be noted that while researching the different models of PPP in TVET in some countries, it is difficult to conclude that there are best particle in the whole system, however there are some good practices in some initiatives or projects within the system where private sector involvement is strong and that it has shown some good results for the TVET system in a particular country. I this way, Egypt can learn from other countries to improve its on-going initiatives in PPP in TVET. Therefore, this chapter will look into five countries in three different regions (Europe, North Africa and South East Asia) and conclude with a short analysis of how Egypt can improve its current initiatives compared to the experiences of these countries.

In a market economy, public private partnerships are the glue that links education and employers. The term is really used as shorthand for a range of public policies, funding systems, school management and operation utilizing the dual system or WBL that have as a shared goal to tighten the level of communication among educators and employers. Hawley (2006) provided some different models of PPP in TVET. He started with the German Dual system model which is well known and will be described in this chapter and which Egypt has taken as a model, however he explains that it is very difficult to replicate due to the embedded policies that were developed a long time ago in the German context.

A second model for private involvement in vocational education and training is Japan, which maintains a model completely different from that used by Germany, but one that is relevant in the US and other nations with strong social networks. Historically, labor for Japan's manufacturing system has come from high schools, which have a network of relationships with HR managers that allow them to place their most accomplished students preferentially. This system is based on a local relationship, and depends on high school staff correctly analyzing the skills of potential graduates and their fit with the academic and vocational needs of employers. The Japanese system is similar to an extent to what happens in US vocational schools, but only in those that are very high quality. In both cases, the high quality vocational schools are built of strong relationships between educators and employers.

A third model focuses on is encouraging firm level training through government policy. This is usually called a "Human Resource Development" or "Workforce Development" system. Countries that have this kind of program include South Korea, Malaysia, and Singapore. They evolved in East Asia largely as governments in the 1960s- 1980s tried to strengthen economic growth through spending on both initial

[79] Hawley, 2006

and further vocational training. The core of this HRD strategy are taxation policies that allow the government to collect revenue from firms (usually set at some percentage of the firm's labor costs) and then allow firms to use these resources to train within their own companies. Although Egypt has a national training fund that has been dormant due to legal disputes, there are a lot that can be learnt from this model.

In the following sub-sections we will look at various country examples that fall under the following three categories:

1. PPP TVET policy collaboration with the private sector (Ireland)
2. Dual, WBL and delegated management models (Germany, Morocco)
3. Operation of national training funds and levies (Malaysia, South Korea)

7.1 PPP TVET Policy Collaboration- The Case Study of Ireland

Using public-private partnerships in vocational education and training is something every country does to an extent. There are several dimensions to the kind of engagement that firms have within a national context especially related to policy development. Ireland is a good example where the government worked well with the private sector is developing the policy and legal framework for the country's economic and social development including the reform that the vocational training systems have undergone in recent years. The emphasis is on describing the characteristics of the public-private engagement and commitment in developing a TVET strategy through formal national agreements[80].

Ireland's secondary vocational education system has changed considerably in the recent past and this has provided extensive opportunities for social partnerships to continue to influence the provision of vocational education. After undergoing severe economic crisis in the 1970s-1980s, Ireland established six three-year social partnership programs which guided economic and social policies including educational policies (FÁS, 2004; O'Donnell, 2005). There were three parties to the first agreement in 1987, government, business and industry, and trade unions, however, community and voluntary sectors joined these later. Since 1987, when the first partnership agreement (Programme for National Recovery) was made, Ireland showed remarkable economic growth. Though demographic factors and European Social Funds created the background of this rapid growth, there was continuous investment in education and training which made skilled labour supply. Table 7.1 below shows the seven social partnership programs and major vocational education issues in each program.

Table 7.1 Ireland's Social Partnership Agreements

Title of Social Agreements	Duration	Vocational Education Issues
Programme for National Recovery	1987-90	Provision of training for people who do not complete second-level
Programme for Economic and Social Progress	1991-93	• Development of specific programmes for second chance education (Youthreach, the Vocational Training Opportunities Scheme, and a number of literacy and community schemes) • Provision of vocational training, guidance and placement services for people with disabilities

[80] Hawley (2006)

		• Ongoing vocational training and updating of skills training for the existing workforce in sectors undergoing technological change
Programme for Competitiveness and Work	1994- 1996	• Training for the long-term unemployed • Emphasis on the role of FÁS training programmes in assisting companies and enterprises • The role of higher education institutions in the continuing training of the workforce, particularly in high technology areas where knowledge becomes redundant within a relatively short time • Development of the existing links between both sides of industry and the higher education sector for the continuing training of highly skilled personnel • Giving focus in the training needs of small firms • Active labour market interventions by Government in the form of training and employment opportunities, particularly for the marginalized and disadvantaged • Emphasis on the acquisition and development of usable and marketable skills which meet the needs of industry and services, and improve the competence and capability of the individual employee
Partnership 2000	1997- 2000	• Enlarge women's participation in mainstream vocational education, training and employment programmes • Emphasis on life-long training and education
Programme for Prosperity and Fairness	2001- 2003	• Increased emphasis for people with disabilities in vocational training • Elimination of unqualified early-school leaving, with a particular • emphasis on the Leaving Certificate Vocational and Leaving Certificate Applied programmes • Enterprise partnership in training and development • Training and personal development which is linked to lifelong learning • Better defined training and development needs in organizations
Sustaining Progress	2003- 2005	• FÁS will maintain the number of vocational training places for the disabled in 2003 at 2002 levels. • The Department of Enterprise, Trade and Employment, will continue to develop policy for vocational training and employment of people with disabilities • Regulations for operation of VECs
Ten-year Framework Social Partnership Agreement	2006-2016	• Strengthen the technical and vocational dimensions of curricula and to embed key skills such as learning to learn and ICT, to develop higher order thinking skills, to diversify and strengthen language learning, to modernize the technology subjects, and to increase the take up of the physical sciences at senior level; • Drive the lifelong learning agenda by enhancing access to training, the development of new skills, the acquisition of recognized qualifications and progression to higher-level qualifications.

		• Also, there is a section on workplace learning and up-skilling which identified major areas for action like these: • the development of a targeted guidance, learning and training program, particularly accessible to the manufacturing sector, to include coaching and mentoring for workers in vulnerable employments where appropriate; • the introduction of measures for the promotion of take up of apprenticeships by older workers; and the mainstreaming of the Knowledge Economy Skills Passport (KESP), focusing on computer literacy, science and technology fundamentals, basic business skills and innovation and entrepreneurship.

As Hawley points out, the social partnership agreements have been an absolutely central focal ppint of Irish policy. The core of each partnership agreement is a consensus between the public and private sector partners that resources need to be focused on the disadvantaged and providing a wide range of education and training activities. The early agreements focused efforts on the activities of the public sector, while the later activities emphasized the non-formal and training sectors such as the Training and Employment Authority (FAS) at the time which was a state agency responsible for assisting those seeking employment and was run by a board composed by employer and trade union representatives. Throughout the development of the social agreements, there are changes in policy on vocational education and training which allowed for changing priorities of the private sector and the economy.

Egypt can learn a lot form the Irish experience in developing formal strategic agreements with the social partners and private sector. This is happing in Egypt, however the private sector is often there in an advisory role not a strong partner and often these national strategies are government driven and TVET is not specifically taking a prominent role until very recently. One example is the sustainable development vision 2030, it is led by the Ministry of Planning, and yes the private sector and other social partners were involved but not part of the formal agreement or programme to be able to do their part and share the responsibility.

7.2 International Examples of Dual, WBL and Delegated Management (Germany, Morocco)

In this section we look at two case studies of countries that have developed operational models that involve the private sector in the delivery of TVET.

7.2.1 The German Dual System

Germany's "dual system" is one model of public private engagement. The German system is based on a well-established law from 1969 that mandates a particular governance structure for vocational education and training. At the heart of the German system is a delegation of responsibility for curriculum and assessment to a coalition of labor representatives, businesses, and educators. The business associations and chambers play a particularly complex role, managing the system by monitoring the quality of training provided by firms in the dual system (Hewley, 2006). Studies of the German model lay out the following as key components that need to be in place:

- A legislative framework that requires firms to invest in training of newly hired workers;
- A funding mechanism through a combination of federal, regional, and business spending;
- The capacity to carry out job analysis and curriculum development;
- Local institutions that represent the interests of businesses; and
- Trained professional instructors and administrators at the firm level.

The German dual system in well-established with more than 50% of relevant students enrolled in the system. However, analysts indicate that it has proven difficult to replicate internationally. Some countries, such as Thailand or Korea (as well as Egypt), have managed to put into place a small number of dual system places but not at the scale as in Germany. Furthermore, even the former Eastern Germany has had challenges in extending the dual system, as the traditional German laws were transferred to the former Eastern German territory, providing a legislative framework for apprenticeships through the dual system the results of this expansion to Eastern Germany have been less successful, as the number and duration of the apprentices hired depended on firm level characteristics. Culpepper's book (2003) is a detailed examination of the reasons that the dual system can and can not be expanded within Europe. There are several lessons, most importantly that unless companies see participation in their best interests they will not participate in and ultimately pay for training and hiring of vocational education graduates. The reality is that as labor markets are liberalized, and the cost of doing business in Germany itself has increased relative to other manufacturing intensive countries like China, the dual system has become less important as a critical part of the TVET structure. The need to lower labor costs and maintain flexibility in the hiring and assignment of labor among nations means that firms are less interested in participating in a dual system (Culpepper, 2003).

As Hawley points out, the replication of the Dual system outside Germany, the use of legislative tools to build social partnerships is a necessary but not sufficient action for government to increase employer involvement in TVET. Schools interpret social partnerships as covering a very narrow range of activities, to develop links with enterprises and employment offices. More aggressive involvement by firms in social partnerships with TVET institutions is also limited by the lack of formal legal frameworks governing enterprise involvement in the distribution of funds for TVET schools. Both systems, that of employment and TVET, have not developed a coordinated and informed interpretation of the concept of social partnership/social dialogue in TVET that would lay the foundation for articulated and coherent communication like what happens in Germany.

As outlined earlier in the report, Egypt has since the mid 1990s adopted a dual education and training system modeled on the German system and supported by Germany, however the scale is very limited and needs to be well adapted to the Egyptian context in terms of the structure of the economy and the commitment of the private sector firms. Additional key differences between Egypt and Germany are the absence of a national law on the dual system or a law on TVET that includes dual education (even the current 1981 education law does not reference dual education) and the role of the business associations and chambers is underdeveloped when it comes to curriculum development and assessments.

7.2.2 Delegated Management of TVET Schools in Morocco

The Automotive Industries Training Institute (IFMIA) in Morocco is one of the growing number of Public-private partnerships providing the skills that industry needs. Run by industry sector associations and business, and with start-up capital provided by the State, these partnerships provide a new vison for demand-led TVET in Morocco.

The three IFMIA institutes are managed under the Delegated Management Agreement signed between the State and the company IFMIA SA created by the automotive trade association, AMICA in 2012. By this agreement, the State grants the equipment, management and maintenance of IFMIA Casablanca, Kenitra and Tangier to IFMIA SA.

The overall objective of the agreement is strengthening of the public-private partnership in the field of vocational training. The specific objectives include:

- Linking the proactive dynamics of sectoral economic strategies by setting up a new generation of specialized training institutes within the framework of the Public Private Partnership.
- Have a targeted and complementary training offer to the existing public and private sector, able to integrate the Moroccan TVET provision in terms of competitive investment attraction, particularly in sectors with high added value.
- Strengthen the links between the world of work and the world of training and thus ensure better matching of supply with the skills needs of companies.

The IFMIA institutes charge fees for their services and the government pays for the students enrolled in the initial TVET programmes as part of the free education system. The following are the institute activities and services:

- Training before hiring.
- Qualifying courses for hiring.
- Continuing education and advanced training courses for companies in the Automotive Industry sector.
- Any other training path in trades related to the Automotive Industry for the benefit of operators, technicians and middle management staff.
- Laboratory tests.
- Technical assistance.

Students in the IFMIA institutes follow an alternance work-based learning model where training of students is divided between the institutes and the 60 automotive partner companies. By 2016, the IFMIA Casablanca Brach was admitting around 100 new students each year in its two-year post-secondary training programmes and a further 100 students in its three-year secondary level programmes. Furthermore, IFMIA retains 250 long-term unemployed trainees each year and 1300 in-service workers. According to a presentation by IFMIA, for every training place accepted there are 30 applications which illustrates the high demand[81].

The Moroccan experience is gaining wide regional and international attention and acclaim for this type of partnerships. It is different from the Egyptian Applied Technology Schools in terms that the school management is not completely delegated as in Morocco but rather a co-management model. The Moroccan experience provides a courageous political step that would look like that the government is privatizing public education, something the Egyptian government would find difficult to consider.

7.3 Operation of National Training Funds and Levies (Malaysia, South Korea)

The "Human Resource Development" or "Workforce Development" system model focuses on encouraging firm level training through government policy. Countries that have this kind of programme include Malaysia and South Korea which we will look at in this sub-section. They evolved in East Asia largely as governments in the 1960s- 1980s tried to strengthen economic growth through spending on both initial and further vocational training. The core of this HRD strategy are taxation policies that allow the government to collect revenue from firms (usually set at some percentage of the firm's labor costs) and then allow firms to use these resources to train within their own companies.

[81] Presentation by: Ms. Assia Afif, Deputy Director for IFMIA Casablanca-Morocco during the Tripartite dialogue in the management of vocational training centers, Tunis the 11th of December 2018

Studies indicate some basis for stating that governments have increasingly used incentives, such as distribution of funds from tax levies, to promote training within firms (especially small and medium sized firms) who under train, and therefore the governments need to play an increasingly active role in promoting training. However, national training funds need to be carefully monitored for sustainability of financing and that proper controls are in place to assure that funds are spent on appropriate training activities. While there are problems with the use of levies, they are a strong role for government in directing training among firms in a way that private sector firms feel that what they pay in terms of taxations it somehow returned via training interventions.

The major problem with these programmes are under estimating the guidance that firms need from the government. The reality is that East Asian nations were successful precisely because they maintained a strong hand for government in training policy. The role that government can play in this training policy varies. In general, the most important capacity for government to maintain is the ability to craft an accountability system that will measure how firms spend resources provided through a government human resource development system. There are relatively few examples of strong fiscal management systems for training, although the programmes in Malaysia and south Korea are worth taking as examples.

The major difference for this system is that the goal is to support the investment in training that companies feel will enhance skills of their workforce. Skills training levies are not normally used to fund vocational education at the secondary level. In fact, to do so would violate a basic assumption of training, that government should pay for those educational activities that confer social benefit (like vocational education) and firms are expected to cover the costs of training that improves productivity directly.

Unlike the traditional German Dual System of apprenticeships, this model relies on market mechanisms to increase the skills levels of out of work youth, informal sector workers, or in-service workers needing re-training. Firms are given state funds through tax systems that collect from firms a portion of payroll taxes. Firms can then carry out training interventions. This model could be problematic from a theoretical perspective. The strategy often results in training for large firms, but does not necessarily benefit small or medium sized companies. Moreover, if firms are simply using the funds to provide specific skills training, the state is then subsidizing activities that firms would undertake on their own. To address this concern, many countries carefully monitor spending under these levy systems. However, the tax levies are subject to intense political conflict over allocation of resources (Hewley, 2006).

7.3.1 The Malaysia Case Study

Malaysia provides an interesting example of how partnerships were built into vocational education through legislation, which provides some lessons learnt for Egypt as it currently is reviewing its training levy legislation within the new labour law under discussion in parliament.

The Malaysian authorities issued the Human Resources Development Act in 1992. This Act, which funds the Human Resource Development Fund (HRDF), has distributed money to firms which they can use to train current workers. Money is transferred by manufacturing firms, and the budget is subsequently spent by firms on apprenticeships and other training activities. The primary focus of the Malaysian 1992 legislation was to create a new agency, the Human Resource Development Council. The Council is composed of a fixed number of employer representatives, governmental representatives, and independent members. The primary work of the council is to collect a levy from employers and provide the money back to companies to pay for training in the workplace. There is relatively little impact on the public vocational or technical education system. The emphasis is on funding human resource training in the private sector. The outcomes of this process have been that the HRDF has been successful since 1992 in increasing the likelihood that firms will train workers, especially for medium sized firms.

The larger vocational and technical education system in Malaysia was also fundamentally restructured in the 1990s. Due to the establishment of the HRDF, in 1996 the government converted many of the vocational schools to technical schools because vocational skills were being provided within the firms through the levy funding. By 2000 there were over 70 technical schools and only 4 vocational schools for the whole country of over 20 million people. Moreover, some technical subjects were introduced to general secondary schools to improve the preparation for the labor market in general secondary education. The reasons this shift happened are important to note. First, Malaysia's economy was growing rapidly, particularly in more highly educated professions. Second, there was a rapid increase in the average educational attainment of the population. Finally, the government made a strategic decision that industry could train workers in the "blue collar" professions that used to be the work of vocational schools.

The implications of the Malaysian move away from secondary vocational education are useful for the current situation in Egypt. Firstly, this refocused the TVET secondary system on academic and life-long learning preparation and away from narrow technical or vocational skills, something that many employers in Egypt complain about. Second, it did create some negative feedback from the vocational education sector, as teachers and administrators traditionally focused on occupational specific instruction not overall the competence of the student. This type of reform could be quite interesting for the Egyptian system in terms of clearly defining the role of the private sector and to avoid the on-going tension between employers and educators about who is responsible for skills development in which part of the TVET system.

7.3.2 The South Korea Case Study

The final example for this chapter comes from South Korea, which has historically had a strong vocational education system. South Korea's story, as with Ireland and Malaysia, is marked by rapid economic growth with a strong government led investment in the vocational training system (Hawley, 2006). Like Egypt, South Korea has experimented heavily with many different vocational education programmes and pilots, the current structure is divided between a system that focuses on the secondary education needs of high school students and a system that provides training for those in post-secondary vocational fieldsS. Korea's vocational system at the secondary level is sharply divided between vocational and general secondary schooling. There are 1,297 regular general secondary high schools as opposed to 734 vocational schools. The vocational schools enroll almost 550,000 youth at the upper secondary level on an annual basis. S. Korea's curriculum reforms represent a substantial push to preparing a skilled workforce. The curriculum defines an educated person as[82]:

- A person who seeks individuality as the basis for the growth of the whole personality
- A person who exhibits a capacity for fundamental creativity
- A person who pioneers a career path within the wide spectrum of culture
- A person who creates new value on the basis of understanding the national culture
- A person who contributes to the development of the community on the basis of democratic
- civil consciousness.

Like Egypt, South Korea's vocational system is largely government run and developed. The national Ministry of Education and Human Resources has primary responsibility for the vocational education programming as well as the activities in general secondary schools. Policies are largely enacted nationally, and local administration has relatively little autonomy historically in changing curriculum, teacher requirements, or other core aspects of schooling.

[82] These characteristics are very similar to those considered for Egypt within the Technical Education 2.0 transformation strategy although this was developed in the late 1990s in South Korea.

The partnership system is S. Korea is much less developed then those in Ireland. At the national level Korea's system is managed by a strong central authority, leaving relatively little latitude for vocational schools to engage with businesses about the core outcomes of schooling. However, the fundamental reorientation of S. Korea's system to a National Qualifications Framework has led to substantial engagement by private sector firms and business associations in the training of workers. In 1997, Korea put into place a qualifications act, which allows certification of skills through qualifications promoted by the private sector as well as through standard qualifications through the public sector. The national technical qualifications promoted by the government are supplemented by non-technical qualifications supported by the private sector. Private qualifications have been introduced by firms in office work, computer/information technology, languages, sports/fitness, education/social work, technical skills, and management/administration (Hawley 2006).

Private sector involvement in vocational education and training is also supported by the nascent social partnerships supported through the Ministry of Labor as well as the larger policy of supporting industry level training through the Employment Insurance Scheme (EIS). The social partnerships supported by the national government are designed to support job creation and vocational training. These programs are encouraged by the re-written Vocational Training Partnership Act which was enacted after the 1997 financial crisis. The EIS supports training and re-training of workers through a tax on firm level wages. After 1998 all firms are taxed regardless of their size. The total contribution a firm is assessed is between 2-3% depending on the economic circumstances in South Korea.

7.4 What Egypt can Learn from the International Experience of PPP in TVET

Table 7.2 below summarizes the main characteristics of private sector engagement in TVET is the five countries outlined in this chapter and what Egypt can learn from each to enhance its on-going efforts to improve PPP and WBL in TVET.

Table 7.2 What Egypt can learn from some international Examples in PPP

Country	Main PPP Characteristics	What Egypt can learn
Ireland	• Clear and strong integration of TVET strategies in national economic and social strategies • Private sector is an integral part of developing and implementing national strategies • National strategies are formal public-private agreements • TVET reform is spread over the different periodic strategies and agreements based on the current priorities	• TVET reform must be strongly and explicitly linked to national development strategies and plans from the start not only as a response to these strategies. • Private sector partners are an integral part of drafting and implementing national strategies including TVET reform, not merely consulted or play just an advisory role in the development, they must be given implementation responsibility in TVET strategies through formal agreements • Egypt tends to have many different strategies with limited practical actions plans. This needs to change and TVET reform should be prioritized over specific periods not trying to reform everything at once over long periods of time without clear accountability.

Germany	• Well-established Dual System law since 1960s. • Strong role of private sector and trade associations and chambers in implementation and assessments • Strong capacity building and regulations for in-company trainers • Large number of students and firms within the system	• Egypt has an apprentice system since the 1950s and a Dual system modeled on the German system for almost 25 years yet there is no specific DS law or even a section in the current education law. This needs to change a legislation developed to promote DS and provide a clear role for the private sector. • The role of trade associations and chambers is not as strong as in Germany and needs to change especially in curricula development and assessments. • To expand this system from the current 2% of students incentives should be introduced and legislated to encourage SMEs in particular. • Egypt must customize its DS education to suit its context and not copy the German system as it is. • There should be clear systems for training, qualifying and monitoring in-company trainers
Morocco	• A unique model of delegated management agreement between the government and a trade association in priority sectors • Institutes provide all types of education and training starting form secondary vocational to post-secondary to re-training of job-seekers to continuous training for workers • Sector-specific institutes which are more focused and serve the private sector of a particular sector better.	• Although Egypt has experimented with and piloted many forms of WBL and partnerships, it has not considered the delegated management approach. This could be a possibility under the current Applied Technology Schools model where management is shared with the private sector yet there are initial challenges with the public-sector managing style. • Technical Secondary Schools and VTCs could try to provide a wider range of services and courses as in Morocco to be more responsive to the needs of the private sector and to generate income for sustainability. • Egypt could benefit more from the sector-specific schools and centers as in in Morocco.
Malaysia	• Using the National training levy to promote skills development within firms to archive required economic development	• Although Egypt has a National Training Fund (levy), it is not functioning because the current law states that private sector firms pay

	• Private sector representation in governing the training levy • Focus of SMEs to benefit from the partnership • Appropriate monitoring and accountability in managing the spending of skills development within firms.	1% of profits not of pay roll which is considered double taxation and companies do not pay. Furthermore, the private sector doesn't actively share in its governance (although they are represented) and have no say how the money is spent back to their firms. This legislation is currently under reform within the new draft labour law, however there is a lot that Egypt can learn from Malaysia and S. Korea on how it is managed between the government and the private sector, including monitoring and accountability measures.
South Korea	• Strong government control and direction of Skills development and TVET with private sector partnerships • Well-established qualifications legislation and NQF where private sector is a key player • The levy system serves all companies or all sizes.	• The NQF is still not functioning and this could be a good way to involve the private sector in the skills and qualifications system in Egypt. • The New ETQAAN authority when established will have at least half of its governing board form the private sector but this doesn't mean that implementation will serve the private sector properly and needs to be taken into consideration.

7.5 Key Messages of this Chapter

- *Key message 1:* According to international experiences public-private partnerships and employer engagement in TVET includes a wide range of activities starting from strategic agreements WBL schemes, delegated management, national training levies and participation in quality and qualifications legislation;
- *Key message 2:* The German Dual system is not always successful when replicating elsewhere and Egypt must customise it to meet its context;
- *Key message 3:* Strong role of private sector and trade associations and chambers in implementation and assessments within the Dual system and WBL
- *Key message 4:* The national training levy is a good tool to encourage skills development within firms and target SMEs, however the monitoring procedures and accountability system must be well planned and implemented.
- *Key message 5:* Legislation for all types of PPP in TVET is key for the success.
- *Key message 6:* Clear and strong integration of TVET strategies in national economic and social strategies

8. Conclusions and Ways Forward Towards a Comprehensive PPP Model for Egypt

As we have seen throughout this report, Egypt has a long history of apprenticeships, WBL and PPP as well as a rich variety of initiatives and pilots in this domain. Despite this, the current system of PPP and WBL is not yielding the required qualitative results and is not large enough in terms of quantity to make an impact. In the first part of this chapter we provide a long-list of recommendations based on the findings and conclusions of the report and in the second part of the chapter we attempt to illustrate a proposed comprehensive PPP model for Egypt building on what is currently on the ground and what could be learned from international good practice to enhance the system to achieve the ambitious plans underway in developing TVET in the country.

8.1 Conclusions and Recommendations

To conclude, based on the findings throughout this report, the SWOT analysis in section 5.1 and the documents reviewed for this report as well as the interviews with key stakeholders, the following recommendations could be considered by policy makers in Egypt to improve and expand PPP as well as the provision of WBL and apprenticeships:

1. Draft and finalize a TVET law and strategy that includes explicit and clear articles on governing the system including PPP, WBL and apprenticeship provision limiting the fragmentation and creating an umbrella organization that provides the necessary leadership and supervision of the system. The law and strategy development should include all stakeholders especially employers form the private sector and employee organizations.
2. Establish a stronger role through formal agreements between the government and the private sector in developing and implementing national strategies and action plans which clearly and explicitly include TVET reform.
3. Through the establishment of the new ETQAAN Authority, reform the quality assurance and accreditation system, creating coherence and clear procedures in areas related to developing standards and qualifications, developing and updating curricula, administrating assessments, training of trainers and recognizing prior learning. This should also include the acceleration in developing the National Qualifications Framework (NQF) that has been a work in progress for a long time. All this will also include the provision of WBL and apprenticeship especially within on-the-job training and within schools in factories in partnership with the private sector.
4. The relevance of TVET to the labour market needs should be improved by institutionalizing employer engagement at all levels of the system as well as establishing sustainable and regular information through labour market information systems which is quite underdeveloped in Egypt.
5. Restructureg the funding mechanisms for TVET including WBL and apprenticeships both within the school-based training structure and the employer side. This will require allocating budgets within public TVET providers based on performance and impact (and allowing more financial and management autonomy for schools and centers), restructuring and reactivating the National Training Fund (training levy) with clear quotas for PPP and WBL, and providing financial and non-financial incentives for employers to be engaged in PPP and WBL. This issue of incentives to the private sector could be investigated through international and regional good practice in countries with similar economic structures and size as Egypt like Malaysia and South Korea.
6. A clear and functional business model is needed for the Applied Technology Schools in order to guarantee sustainability. This may include among other things, income generation at school and

center level could also be improved by expanding the range of services provided by the schools to include initial VET education, post-secondary programmes, re-training of job-seekers and continuous training for in-service workers.

7. Utilize more the current PPP law to include large TVET projects where private sector investors are encouraged to enter this field not just for their own individual need for skilled labour but for the business opportunity, this is one way of improving provision at a large scale.
8. Egypt should consider a model of delegated management of some of its sectoral schools to be entirely managed and operated by private sector associations as part of the Applied Technology Schools scheme.
9. The Ministry of Education should draft a realistic operational plan with clear indicators and timelines for the targets set to expand the Dual System from the current 2% to 10% of all technical school students by 2030 and increasing the number of Applied Technology Schools from 3 to 100 in the same period. The challenge here will be the structure of the Egyptian economy with the overwhelming majority of enterprises small and informal. How will the government incentivize this segment of employers to take apprentices? The current system relies on larger companies taking on average 10 apprentices per year or those with financial means to establish their own schools or co-manage schools with the Ministry enrolling on average 160 students per year. The key here will be to provide financial incentives like tax reductions or wage subsidies (and other means according to international good practice). This could be done with the support of the current GiZ project, Enhancement the Egyptian Dual System (EEDS). Other forms of innovation could be the idea of forming clusters of small enterprises to share in the training of apprentices, where learners will rotate among these enterprises to gain the skills requited for a complete occupation, something that most individual small companies may not be able to do individually because they do not have the range of skills as in larger companies. Employers in that scheme will also share the cost of wages for apprentices. It will be interesting to see the results of this and the government should play a leading role in monitoring and evaluating this pilot and assess the feasibility of mainstreaming the pilot if successful.
10. More attention should be given to setting clear and standardized qualifications for in-company tutors and mentors responsible for the in-company training of apprentices. Furthermore, consistent and regular training for these tutors should be established and not left in its current ad hoc status. It should be incorporated in the system and in the agreements drafted between the government and employers.
11. More advanced and regular evidence-based research, data collection and monitoring and evaluation tools should be established at the national level with networks at the local level for TVET in general and WBL in particular. The objectives should include analysis of the system, best practices, short-comings and be used as a tool for informed decision making This could be initiated at a central government body like the Ministry of Education or the new TVET umbrella authority and could receive donor funding to start but it is crucial that sustainable measures are in place from the beginning. Crucial to understanding the extent and nature of WBL better is to have better information on informal/traditional apprenticeship schemes where information is almost none excitant.
12. More structured information on and promotion of WBL should be established at all levels for students, parents, jobseekers, employers, intermediary employer organizations and employee organizations. This will also require establishing effective life-long career guidance and counseling services at early age during school, in employment service offices and other relevant settings.
13. Capacity building should be provided to intermediary employer organizations in better managing the process of WBL especially at the enterprises. Also the relationship between

government bodies and these employer organizations needs to be enhanced at the operational level with more cooperation and alignment in the overall objectives of WBL. Employer organizations should also develop orientation programmes within enterprises for off-the-job teachers and trainers in order for the links to be stronger between school and enterprise and this will be for the benefit of the learner, especially that most practical instructors at schools have not had specialized training or trainers and technical qualifications in the subjects they teach. The government should also involve trade unions in the reform and planning of WBL as this is realty rare despite that they do serve on the boards of some institutes like the PVTD for example.

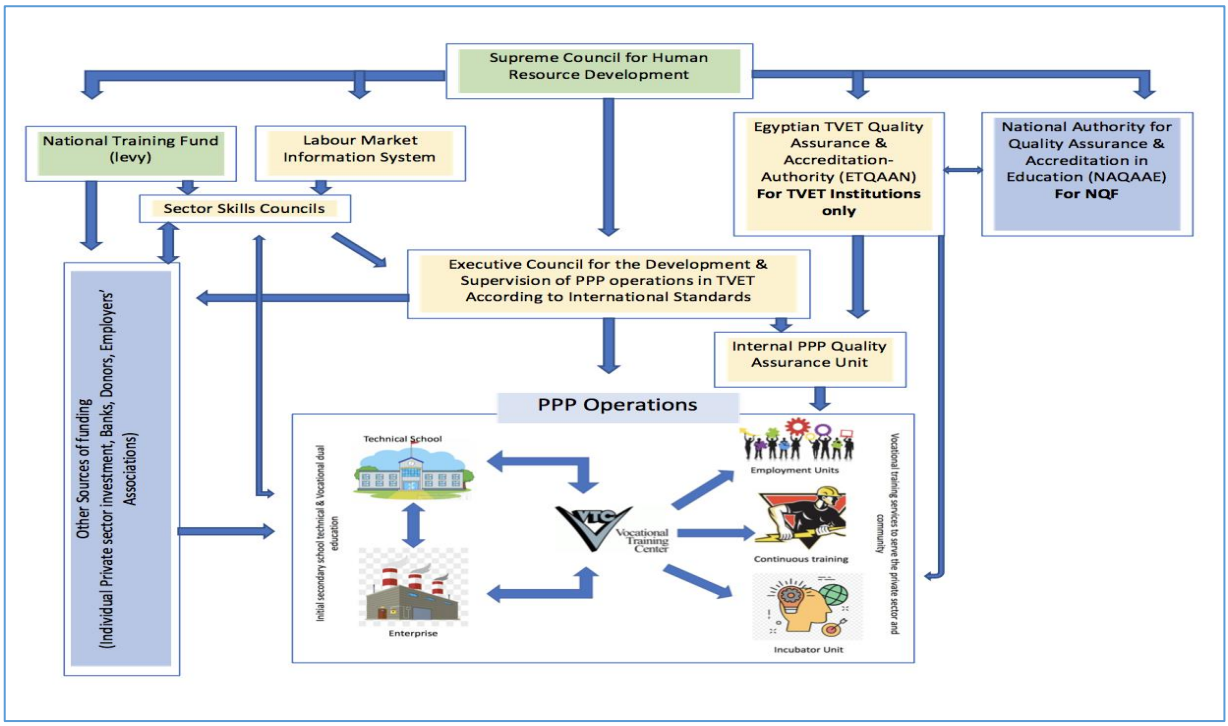
14. The government should take more responsibility in coordinating donor activity in TVET reform in general and WBL in particular. The priorities and activities where technical support is needed from donors should be set by the relevant government body to make sure all support areas are covered and to avoid duplication and fragmentation especially in introducing too many models from different countries without having an agreed Egyptian model for WBL.
15. Apprenticeship should be seen as a link in the life-long learning chain, opening channels with other and higher types of education (Badawi, 2012) and expansion of adult apprenticeship for jobseekers, despite some small-scale pilots, the current WBL system is focusing on school-aged learners. There is a lot of room to learn for the British experience in this area.
16. The traditional informal training system should be supplemented with off-job apprenticeship in well-established training centers at the local areas where apprentices work.
17. The traditional informal training system needs to be further strengthened through public-private partnership. The MoMM could play a leading role in this respect via enacting a three-year contract between the family of the apprentice and the workshop owner. The MoMM would also ensure that the joining enterprises would take into account occupational health and safety requirements. The enterprises applying to such a system have to regularize their situations accordingly, entering the formal economy. During the three years, the enterprise has to determine the apprentice's level, whether low, medium or high skilled worker. After completion of the on-the-job and off-job training the apprentice will be examined by the MoMM and awarded certification of the skills acquired. This way the certified worker would be entitled to register for employment services and would be eligible for regulated migration schemes by the ministry. In return for the enterprises' joining this scheme and participating in organized training of apprentices, the MoMM could choose from either offering financial support to these enterprises to help them cover their expenses, or alternatively may provide them with loans in order to upgrade their machinery and equipment (El-Mahdi 2012).
18. The need to introduce specializations which may be more culturally suited for female apprentices.
19. The government, in partnership with all stakeholders is required to implement an integrated campaign to change the image of TVET in general and WBL in particular. This should include untraditional tools like social media, messages within drama and reality show competitions addressing the target group. This has recently started by the Ministry of Education and Technical Education for its Applied Technology Schools brand and is beginning to achieve positive results but needs to be evaluated. At the same time, the TVET 2 project has started a national campaign for changing perception, however better coordination is needed between MoETE and the project.

8.2 Towards a Comprehensive Egyptian Model for PPP in TVET

As stated earlier, Egypt has a long history and rich experience with different PPP pilots, therefore, there is a lot of work to build upon and evidence of what worked and what has not provided the needed results in terms of quality and quantity of PPP and WBL provision.

Figure 8.1 below illustrates the proposed comprehensive PPP model for TVET provision in Egypt that builds on the existing initiatives and planned in a structured manner, looking into governance including a financing model as well as quality and operations.

Figure 8.1
Structure of Proposed Comprehensive PPP Model in Egypt



Source: Developed by the author of the report

In the above diagram, developed by the author for this report, the blue coloured shapes represent existing and functioning organizations with their exiting legislation. The green coloured shapes are exiting originations with legislation but need to be activated or restructured to be more effective. Finally, the orange coloured shapes represent new organizations that need legislation in order to improve the governance and operation of TVET in general and PPP in particular and to ensure the engagement of the private sector.

8.2.1 Proposed Governance and Financing Model

As indicated earlier in the report, the governance and the required laws for effective PPP and WBL is key to success. Unfortunately, in Egypt there are two important challenges to consider, the absence of some key legislations, laws and organizations is one part, however the other part which is equally important is the activation and enforcement of existing legislation and laws that are not active for enforced.

For the proposed comprehensive model to work, the following needs to be done in terms of governance, legislation and financing:

- Although existing through its legislation and mentioned in the new labour law to be approved, the Supreme Council for Human Resources Development is still dormant and should be activated and effectively led by the Prime Minister to overlook the policies and strategies for HRD including TVET and skills development. This Council should also supervise the work of other entities related to quality, financing and labour market information. It will also include under its mandate, the proposed Executive Council for the Development and Supervision of PPP Operations in TVET According to International Standards (ECDSPTAIS). This new council will overlook everything related to PPP operations as outlined in the above diagram and will have an internal unit for quality assurance that will look into the quality of delivery at the school and at the enterprises and will coordinate according to the quality standards set by ETQAAN. All these new councils will have the majority of their board members form the private sector to ensure that are leading the process.
- Financing will be done through the activation of the National Training Fund (NTF) with advice form the sector skills councils. In addition to the NTF levy, the Egyptian government should encourage the utilization of the exiting general PPP law for mega projects in TVET (form example a consortium to take over 50 Applied Technology Schools), in addition to creating incentives for private sector investment and for the business associations and donors to support PPP activities.
- Labour Market Information Systems are key to guide the strategic development of PPP and steer the development based on concrete information in terms of priority sectors, numbers of workers needed, skills needed and locations where to open schools and VTCs.

8.2.2 Proposed Quality and Operations

Quality standards for TVET including PPP will be set by NAQAAE and ETQAAN and will be the bases of the NQF as well and who PPP programmes and schools will be accredited. This will be done in coordination and with support from the ECDSPTAIS.

In terms of operations, PPP and WBL will be based on the Applied Technology Schools outlined in this report which will serve employers of all sizes and sectors. For very large companies they can take a school or two to co-manage with the relevant ministry, for medium size companies, they can form a partnership with other companies to co-manage one school and for smaller companies they can benefit from the Dual system and take students to train on-the-job. However, to guarantee sustainability all money will be paid to the school not to the students or intermediary organizations and the school will distribute among teachers, students, school and intermediary organizations making everyone stratified and to avoid the current tension.

To guarantee sustainability, the Applied Technology Schools will operate VTCs to generate income and serve the community in terms of training for job-seekers through the employment unit, continuous training for in-service local workers, and support to entrepreneurships through the incubator unit. To guarantee that this works legislation must be introduced to allow schools to retain their income in a special bank account in the school and not to go back to the Ministry of Finance. Also, the capital projects schools that produce goods and services, should contribute part of the income to improve the ATS as an additional source of funding.

9. Annexes

Annex 1. List of Abbreviations

Acronyms and Abbreviations	Meaning
ATS	Applied Technology Schools
BOT	Build Operate and Transfer
BOOT	Build Operate Own and Transfer
CAPMAS	Central Agency for Public Mobilization and Statistics
CBE	Competence-based Education
CBE	Central Bank of Egypt
CEOSS	Coptic Evangelical Organisation for Social Services
CID	Community and Institutional Development
CUQAAS	Central Unit for Quality Assurance and Accreditation support
DS	Dual System
EBRD	European Bank for Reconstruction and Development
ECDSPTAIS	Executive Council for the Development and Supervision of PPP Operations in TVET According to International Standards
EDF	Education Development Fund
EEDS	Enhancing the Egyptian Dual System
EFIA	Egyptian Federation of Investors Associations
EGAC	Egyptian Accreditation Council
EGP	Egyptian Pound
EIS	Employment Insurance Scheme
ENCC	Egyptian National Competitiveness Council
EPP	Employment Promotion Programme
ETF	European Training Foundation
ETP	Enterprise TVET Partnership
ETQAAN- Authority	Egyptian TVET Quality Assurance and Accreditation National- Authority
ETUF	Egyptian Trade Union Federation
EU	European Union
FAS	Training and Employment Authority
FEI	Federation of Egyptian Industries
EVCQs	Egyptian Vocational Competence-Based Qualifications
GCI	Global Competitiveness Index

Acronyms and Abbreviations	Meaning
GDP	Gross domestic product
GIZ	Gesellshaft für Internationale Zusammenarbeit
GoE	Government of Egypt
HRDF	Human Resource Development Fund
IDG	Industrial Development Group
IEC	Industrial Education College
ILO	International Labour Organization
IMF	International Monetary Fund
IOM	International Organization for Migration
ITC	Industrial Training Council
JAICA	Japanese Agency for International Cooperation AcronymAttic
KFW	Kreditanstalt für Wiederaufbau (Credit Institute for Reconstruction)
KESP	Knowledge Economy Skills Passport
LLG	Long-life Career Guidance
LMIS	Labour Market Information Systems
MKI	Mubarak-Kohl Initiative
MoE	Ministry of Education
MoETE	Ministry of Education and Technical Education
MoHE	Ministry of Higher Education
MoTI	Ministry of Trade and Industry
MoMM	Ministry of Manpower and Migration
MoTET	Ministry of Technical Education & Training
MTI	Middle Technical Institute
NCHRD	National Centre for Human Resource Development
NAQAAE	National Authority for Quality Assurance and Accreditation in Education
NCVA	National Council for Vocational Accreditation
NEET	Not in Education, Employment and Training
NGO	Non-Governmental Organizations
NQF	National Qualifications Framework
NTF	National Training Fund
NSSP	National Skills Standards Project
PAT	Professional Academy for Teachers

Acronyms and Abbreviations	Meaning
PPP	Public Private Partnership
PPPCU	Public Private Partnership Central Unit
PVE	Postsecondary Vocational Education
PVET	Postsecondary Vocational Education and Training
PVTD	Productivity and Vocation al Training Department
RMG	Ready-made Garments
RUDS	Regional Units for the Dual System
SCHRD	Supreme Council for Human Resources Development
SFD	Social Fund for Development
SMEs	Small and Medium Enterprises
SQA	Scottish Qualifications Authority
STA	Sewedy Technical Academy
STI	Staff Training Institute
SVE	Secondary Vocational Education
SWOT	Strength Weaknesses Opportunities and Threats
TC	Technology Collage
TOT	Training of Trainers
TSS	Technical Secondary School
TVET	Technical Vocational Education and Training
TVETA	Technical and Vocational Education Teachers Academy
USAID	United States Agency for International Development
USD	United States Dollar
VAT	Value Added Tax
VET	Vocational Education and Training
VTC	Vocational Training Centres
WB	World Bank
WBL	Work bases learning
WFP	World Food Programme

Annex 2. List of Stakeholders Consulted for this Report Topic

Organization	Name (s)	Position (s)
Ministry of Education	Dr. Mohammed Megahed	Deputy Minister for Technical Education
Ministry of Education	Ms. Habiba Ezz	Advisor to the Minister for Technical Education Reform
Ministry of Education	Dr. Moustafa Sharaf	Head of the Dual System
Ministry of Education	Dr. Mohamed Abdel Rahman	Member of the Advisory Committee for the Reform of Technical Education
Ministry of Education	Dr. Mohamed Moussa Emarah	Head of Technical Education Sector
Ministry of Trade and Industry	Mr. Ahmed Taha	Assistant to the Minister
PVTD (Ministry of Trade and Industry)	Mr. Amr Gomaa,	Chairman
Ministry of Higher Education	Dr. Amr Adly	Deputy Minister
Ministry of Higher Education	Dr. Ahmed El Hewey	Advisor to the Minister for Technical Education
Ministry of Manpower and Migration (MoMM)	Ms. Hanaa Mostafa	Head of Vocational Training Department
Ministry of Tourism	Dr. Soha Bahgat	Advisor to the Minister for Training
Federation of Egyptian Industries	Mr. Mohamed El Sewedy	Chairman
Federation of Egyptian Industries	Dr. Khaled Abdel Azim	Executive Director
Chamber of Engineering Industries	Mr. Mohamed El Mohamdess	Chairman
El Sewedy Technical Academy (private sector schools)	Ms. Manal Hassan	Board Member
Egytrafo (private sector company managing an Applied Technology School)	Mr. Atef Abdel Moniem	Chairman
NASS Academy (private sector)	Dr. Amr Abdel Kawi	Managing Director
International Labor Organization (ILO)	Mr. Onsi Georgious	Senior Skills Specialist
GiZ Enhancement of the Egyptian Dual System (EEDS)	Mr. Lars Fiechel	Head of Project
EU- TVET 2 Project	Ms. Shoroke Zedan	Executive Director
National Center for Human Resources Development (NCHRD)	Mr. Zakaria Ragab	Executive Director
USAID, EU-TVET 2	Dr. Mohamed El Fateh	Senior TVET freelance Consultant

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Annex 4. Law No. 67 for Public Private Partnership (PPP) for 2010

Promulgating the law regulating Partnership with the Private Sector in Infrastructure Projects, Services and Public Utilities

In the name of the People, the President of the Republic, the People's Assembly has approved the following Law and we hereby enact it:

- First Article: The provisions of the attached law apply to partnership contracts with the private sector and related advisory contracts concluded by the Administrative Authorities with the private sector to execute infrastructure projects, services and public utilities as well as in relation to the availability of related services. Such contracts will not be subject to the provisions of Law no. 129 for 1947 concerning concessions of public utilities, and Law no. 61 for 1958 concerning Concessions relating to the investment of natural resources and public utilities, as well as Public Tenders Law no. 89 for 1998 organizing tenders and bids and any specific laws related to granting concessions of public utilities.

- Second Article: The Prime Minister will issue the executive regulations of the attached law based on the proposal of the Minister of Finance and the approval of the Cabinet within three months from the date of its enactment.

- Third Article: This law will be published in the Official Gazette, and shall enter into effect on the first day of the following month after the lapse of 30 days from the date of its publication.
  This law shall be stamped with the State seal and shall be enforced as one of its laws
  Promulgated at the Presidency of the Republic on 4th of Gamady Alakherah year 1431 AH corresponding to 18 of May, 2010 AD
  Law regulating Partnership with the Private Sector in Infrastructure Projects, Services and Public Utilities

CHAPTER I
GENERAL PROVISIONS

➢ Article 1: In applying the provisions of this Law, the following words and phrases shall have the meaning assigned to them below:

- "Administrative Authorities": Ministries and Service and Economic Public Authorities, and any other public judicial persons designated as such by a decree issued by the Prime Minister.
- "Competent Authority": competent Minister, the Chairman of the Authority, or the legal representative of the public judicial person.
- "Private Sector": an Egyptian or foreign judicial person in which the Egyptian State owned shareholding is less than 20%, and a consortium between two or more Egyptian and foreign judicial persons in which the State owned shareholding is less than 20%.
- "Investor": private sector entity bidding to be awarded a Public Private Partnership contract pursuant to the provisions of this Law.
- "Project Company": an Egyptian Joint Stock Company established by a successful bidder, the sole purpose of which shall be to execute a Public Private Partnership Contracts.
- "Public Private Partnership Contract"/"PPP contract": a contract concluded between the Administrative Authority and a Project Company under which the Project Company is entrusted to undertake all or some of the activities stipulated under Article 2 of this Law.
- "Private Advisory Contract(s)" a contract concluded by the PPP Central Unit, or after the approval of the PPP Central Unit, by a PPP satellite unit at an Administrative Authority, in both cases such units having been established pursuant to Article 16 of this Law, with the transaction advisers who are to undertake the preparation of studies and documents related to the project.
- "Operation": management by the Project Company of the project, subject of the PPP contract, in relation to all financial, administrative, and technical aspects, as well as in respect of the supply of products, or provision of services to the Administrative Authority in relation to the project, in return for the remuneration agreed upon in the PPP contract, or according to the conditions and rules determined in the PPP contract.
- "Utilization": management by the Project Company of the project subject of the PPP contract in relation to all financial, administrative, and technical aspects, as well as the sale of products, or provision of services related to the project directly to whoever the Administrative Authority specifies, in accordance with the conditions and provisions approved by the Supreme Committee for Public Private Partnership Affairs, and in accordance with the conditions and rules agreed upon in the PPP contract.

➢ Article 2: Administrative Authorities may enter into PPP contracts pursuant to which a Project Company shall be entrusted with the financing, constructing, equipping and operating infrastructure projects and public utilities, and making their services available or financing and rehabilitating such utilities with an obligation to maintain what has been constructed or rehabilitated, and to provide services and facilities necessary for the project to be capable of production or service provision regularly and progressively throughout the PPP contract duration.

The PPP contract duration shall not be less than five years and shall not exceed thirty years from the date of completion of the construction works and equipping works, or completion of the rehabilitation works, provided that the total value of the PPP contract is not less than one hundred million Egyptian Pounds. However, the Cabinet, based on the recommendation of the Supreme Committee for Public Private Partnership Affairs, may agree to conclude a PPP contract for more than thirty years, if it is required due to a material public interest.

The Project Company shall not start to receive any payments in return for the sale of products or availability of services, in accordance with the performance levels indicated in the PPP contract, until the contracting Administrative Authority issues a certificate accepting the quality level of the works, or products or services available.

- Article 3: In addition to what is stipulated in Article 2, the PPP contract may allow for the Project Company to operate the project, provide the service or the product to the Administrative Authority which will, in turn, provide the service or the product to the end beneficiaries or consumers.

  Upon the approval of the Cabinet, based on a recommendation of the Supreme Committee for Public Private Partnership Affairs and in light of the reports prepared by the Public Private Partnership Central Unit, the Project Company may utilize the project and sell the product or provide the service to whoever is specified by the Administrative Authority.
  Without prejudice to Article 2 of this law, the PPP contract may include articles concerning its renewal.

- Article 4: PPP projects shall not be tendered except with the approval of the Supreme Committee for Public Private Partnership Affairs, as provided for in Article 14 of this law, based on the request of the Competent Authority in light of the studies prepared under the supervision of the Public Private Partnership Central Unit, provided for in Article 16 of this Law. Such studies will determine the feasibility of the PPP project, guarantee the quality of its production and services, as well as the quality of the utility's assets and their maintenance, as indicated in the Executive Regulations of this Law.

- Article 5: The contracting Administrative Authority along with other concerned authorities regulating and monitoring the utilities and the services subject of the PPP contract, shall follow up on the Project Company during the construction and equipping of the project, and provision of the products and services subject of the PPP contract, and shall ensure the fulfillment of quality levels determined by the law; and may, in this regard, designate representatives on its behalf to monitor execution in accordance with the terms and provisions stipulated in the PPP contract and without prejudice to the criteria and monitoring bases set out by law.

  If the PPP contract includes the entitlement of the Project Company to operate or utilize the project, the Administrative Authority, in agreement with the Project Company, and under the supervision of the concerned authorities regulating and monitoring the utilities and services subject of the PPP contract, shall form a committee to ensure that the product or services rendered meet the required standards, as well as submitting periodic reports. The Executive Regulations shall specify the committee's system of work and the reports to be submitted by it.

  In the case mentioned above, the Project Company must provide the committee with all required documents, information, or data necessary for the committee to undertake its role and to allow the committee to visit and inspect the sites at any time, in accordance with the provisions of the Executive Regulations of this Law.

- Article 6: The Project Company entitled, pursuant to the PPP contract, to utilize the project shall be committed to guarantee that all beneficiaries of products or services provided by the project are treated equally, with regard to the provisions governing the sale of such products or provision of such services.

Whenever the public interest so necessitates, and after the approval of the Competent Authority, the Project Company may decide to provide special treatment for specific categories of beneficiaries who enjoy equal legal rankings, provided that such treatment shall be executed in accordance with general rules determined in advance and provided that within each category all beneficiaries shall be treated equally.

The Project Company shall be responsible for providing compensation against any damages resulting from the violation of the provisions set forth in this Article.

- Article 7: The Administrative Authority is entitled to amend the conditions of construction, equipment, rehabilitation and other works as well as the services availability payment agreed upon under the PPP contract. If the PPP contract includes the entitlement of the Project Company to operate or utilize the project, and if required for the public interest, the Administrative Authority has the right to amend the rules of operation or utilization including the sale prices of products or services. These modifications will only take place within the scope agreed upon in the PPP contract and after the approval of the Supreme Committee for Public Private Partnership Affairs, and without prejudice to the right of the Project Company, or the Administrative Authority (as the case may be), for compensation in accordance with the conditions and rules stipulated in the PPP contract.

  If the sale price of the product or the services provision payment is amended, such amendment shall not have retroactive effect.

- Article 8: In case of the occurrence of unforeseen circumstances after execution of the PPP contract, including amendments to laws or regulations that were enforceable at the time of execution of the PPP contract, it may be agreed to amend the PPP contract in accordance with the conditions and rules stipulated in the PPP contract.

- Article 9: The Administrative Authority has the right, either directly or through a selected third party, to manage the operation or utilization of the project if the Project Company materially breaches its obligations in operating the project or meeting the quality levels set by law or in the PPP contract, and does not remedy such breach, and the lenders do not step in to remedy such breach within the period provided for in the PPP contract from the date of their notification of such breach, without prejudice to the Project Company's obligation to compensate the Administrative Authority for the damages resulting from such breach.

- Article 10: The Project Company shall be committed to preserve the assets related to the operation of the project and its rights, and commits to maintain and care for and use such assets for their intended purposes. The PPP contract shall include provisions regulating the ownership of the project facilities and assets for the PPP contract duration and upon its expiry or early termination.

- Article 11: No seizure or executive procedures shall be undertaken with regard to facilities, tools, machinery, or equipment allocated for the implementation of a PPP contract and for the operation or utilization of the project subject of the PPP contract.

  Moreover, according to the PPP contract the Project Company shall not sell or arrange any right over the project's monies, assets, and facilities that are being constructed or rehabilitated, except for the purpose of implementing the replacement and renewal program stipulated in

the PPP contract, and only after obtaining the approval of the Competent Authority. However, as an exception to the previous paragraph an arrangement for an accessory real right could be granted to the Project Company for the purposes of financing based on a prior written approval from the Administrative Authority in accordance with the terms mentioned in the PPP contract.

Any procedures or actions undertaken in contradiction with the provisions of this article shall be deemed null and void.

- Article 12: The Project Company shall provide the Administrative Authority with its shareholders' agreements and draft contracts intended to be entered into by it with third parties for the purpose of executing the works and services subject of the PPP contract, in accordance with the procedures and timing specified in the Executive Regulations.

  The Administrative Authority shall have the right to object to the conclusion of such contracts within a period not exceeding sixty days from the date of their submission. An objection shall be made in case it is proven that the third party contract counterparties have been previously bankrupted or are subject to liquidation procedures, or have been previously convicted or ,in case of a judicial person, whoever legally represents it has been subject to a final court judgment for an immoral crime, or have been struck off the vendor lists of the contracting Administrative Authority or if there are national security considerations that necessitate such objection.

- Article 13: The Project Company shall submit to the contracting Administrative Authority periodic reports on the construction, equipping, rehabilitation, maintenance, operation, and utilization works executed by the Project Company in accordance with the PPP contract (as the case may be). The Project Company must also warrant that environmental, health and safety conditions are met for the employees and the beneficiaries of the project.

CHAPTER II

The Supreme Committee for Public Private Partnership Affairs AND the Public Private Partnership Central Unit

- Article 14: A Supreme Committee for Public Private Partnership Affairs shall be formed chaired by the Prime Minister and with the membership of the Ministers of Finance, Investment, Economic Development, Legal Affairs, Housing and Utilities and Transportation as well as the Head of the Public Private Partnership Central Unit. In case of the absence of the Prime Minister, the Minister of Finance shall chair the committee. The Prime Minister may add other ministers to the membership of the Committee.

  The competent minister responsible for the PPP project required to be implemented shall join the committee during the consideration and approval process.

  A decree shall be issued by the Prime Minister stipulating the committee's structure and the system of work based on the proposal of the Minister of Finance.

- Article 15: The Supreme Committee for PPP Affairs is competent for the following:
  - Setting of an integrated national policy for the PPP, and identifying the framework, objectives, mechanisms, and targeted scope of the projects.
  - Endorsing the application of the PPP structure on projects of Administrative Authorities.
  - Monitoring the allocation of financial funds to ensure the fulfillment of financial obligations resulting from the implementation of PPP contracts.
  - Issuing the rules and general criteria for the PPP, and endorsing standard PPP contracts for use in different sectors.
  - Endorsing the recommendation of the Competent Authority of the Administrative Authority related to the selection of the contracting party entering into the PPP contract, and approving the conclusion of the contract.
  - Conducting studies and proposing means to provide and develop the market tools necessary to provide appropriate financial structures for PPP projects.

  No later than three months from the end of the fiscal year, the Supreme Committee for PPP Affairs shall prepare a report including the results of its activities in respect of infrastructure projects, services and public utilities and the consequential financial implications for the public budget and public debt.

  The Minister of Finance shall submit the above mentioned report to the People's Assembly together with the draft laws related to the budget final accounts.

- Article 16: A unit of special nature "The Public-Private Partnership Central Unit" is established within the Ministry of Finance. A decree shall be issued by the Minister of Finance stipulating its structure, and the appointment of its head. The Executive Regulations shall determine the administrative and financial framework of the PPP Central Unit, its relationship to other state organizations and its system of work, its employees as well as their remunerations with no restriction to applicable government regulations in this regard.
  Moreover, PPP satellite units within the Administrative Authorities shall be established, whenever necessary. A decree shall be issued by the Competent Authority of the Administrative Authority regarding the structure of such units, their competencies and the system of their work.

The PPP Central Unit shall be competent to provide technical, financial, and legal expertise to the Supreme Committee for PPP Affairs and to the PPP satellite units at the Administrative Authorities. It shall also lay out and follow-up procedures to tender and conclude PPP contracts and their execution, and prepare and publish studies, information, and statistics related to PPP projects, both locally and internationally. The PPP Central Unit also shall be competent for the selection of advisers for the tender of PPP projects and contracting with them in accordance with the rules and procedures stated in the Executive Regulations of this Law.

The PPP Central Unit shall establish an electronic record for all PPP project documentation and also shall be competent to receive, investigate, and provide advice concerning complaints of Investors participating in PPP projects in preparation for submitting such complaints to the Supreme Committee for PPP Affairs.

The PPP Central Unit shall hold independent financial accounts and records listing all amounts allocated by the state to the PPP Central Unit and any financial support received, as well as fees collected from the Project Company in return for services it delivers. The Supreme Committee for PPP Affairs shall determine the specified percentage of fees and method of their payment with a cap of 0.5% of the total PPP contract value.

The PPP Central Unit may, after the approval of the Minister of Finance, provide its expertise in terms of preparing technical, financial, and legal studies, propose legislations and bylaws, and assisting in establishing the necessary administrative bodies that are required by local or foreign entities. The approval of the Minister of Finance shall state the financial returns to be charged by the unit.

- Article 17: The endorsement of application of a PPP structure to projects of an Administrative Authority shall be by virtue of a decree issued by the Supreme Committee for PPP Affairs at the request of the Administrative Authority, and after the presentation of the PPP Central Unit's recommendations concerning the project. The Executive Regulations of this law shall detail the necessary procedures.

  Administrative Authorities that are interested in obtaining an endorsement on the application of the PPP structure on any of their projects must provide the PPP Central Unit with all information necessary for the preparation of its report and recommendations.

- Article 18: An Administrative Authority that has received an endorsement on the application of the PPP structure to its projects must take into account the application of the PPP Central Unit's recommendations in all its procedures. The publication of any advertisements or documents related to the tendered projects; including expressions of interest, prequalification invitations, information memorandums, and invitations to bid shall be done after obtaining the approval of the PPP Central Unit. The convening of committees to determine criteria and qualification, or to receive and evaluate bids shall not be valid unless a representative of the PPP Central Unit is present.

CHAPTER III
TENDERING AND AWARDING PROCEDURES

- Article 19: The Investor selection is subject to the principles of publicity, transparency, free competition, equal opportunity and fairness, in accordance with the rules and procedures stipulated in this Law and its Executive Regulations.

  All published advertisements for bids and preparation for PPP competitions shall be undertaken in coordination with the PPP Central Unit in the manner prescribed by the Executive Regulations.

- Article 20: A "Prequalification Committee" shall be formed by decree issued from the Competent Authority of the Administrative Authority, including technical, financial and legal expertise. The committee members should include one or more representatives of the PPP Central Unit and a representative of the PPP satellite unit at the Administrative Authority, if any. The Executive Regulations shall determine the jurisdiction and system of work of such committee.

  Disqualified Investors can object to the Prequalification Committee's decision. An objection shall be submitted to the PPP Central Unit to study and issue its binding decision. The Executive Regulations of this Law shall determine the dates and procedures for objections to the Prequalification Committee's decisions and procedures for their investigation and resolution.

- Article 21: The Administrative Authority in coordination with the PPP Central Unit may invite qualified Investors for private preliminary meetings and sessions to discuss issues related to the project specifications and initial preliminary conditions. All enquiries and replies shall be made available to all qualified Investors.

  A qualified Investor may stipulate that the Competent Authority of the Administrative Authority may not disclose any confidential data related to its reservations or its economic or financial expectations. Dealing with qualified Investors shall be in a manner that secures equal opportunity and fairness.

  The Competent Authority of the Administrative Authority may decide to reconsider a project's specifications and preliminary conditions based on the aforementioned meetings and sessions without affecting the prequalification criteria and before issuance of invitation to bids.

- Article 22: The Competent Authority of the Administrative Authority, with the prior approval of the PPP Central Unit, may decide that the submission of technical and financial bids shall be made in two phases. The first phase shall be a non-binding offer that shall include the broad outlines of the technical and financial bid followed by a competitive dialogue phase, according to provisions of Article 23 of this Law. In the second phase, final bids shall be submitted, based upon which the final evaluation will take place.

  The Executive Regulations stipulates the provisions and procedures for bidding over two phases.

- Article 23: The Administrative Authority, together with the PPP Central Unit, may hold a competitive dialogue with the qualified Investors who submitted their non-binding offers based on the prior approval and under the supervision of the Supreme Committee for PPP Affairs in

order to obtain explanations for the contents of the technical and financial elements. These dialogues will be with each bidder on an individual basis.

Such dialogue shall take place on the basis of equality amongst the qualified Investors. The confidentiality of the discussions and disclosed information shall not be violated. The Executive Regulations shall stipulate the rules and procedures for managing such dialogue.

- Article 24: The Administrative Authority, in coordination with the PPP Central Unit, shall prepare the tender documents related to the project. The tender documents shall include, in particular, the following:
  - general information related to the project required for the preparation and submission of bids;
  - project specifications, as well as technical and financial conditions that should be met in the bids;
  - final product specifications, level of services, and specifications of the final product, performance indicators and the main requirements of the Administrative Authority and the Authorities with the power to regulate and monitor utilities and services subject of the PPP contract regarding criteria for safety, security, environment preservation and others;
  - Basic heads of terms for the PPP contract in addition to other supplementary agreements while identifying non-negotiable conditions;
  - Determination of the method and basis for comparison amongst the bids. In case the score points evaluation system is chosen, the evaluation criteria and basis for technical and financial comparison amongst the bids shall be specified. In addition, the score given to each criteria and the method by which it shall be applied to evaluate the bids shall be identified as well
  - Documents, forms and dates that should be considered and fulfilled in the bid;
  - Bid security value and calculation method for the performance security;

  The Executive Regulations shall stipulate the rules and regulations for preparing the tender documents.

- Article 25: A committee including technical and financial experts shall be formed by a decree issued by the Competent Authority of the Administrative Authority. The committee shall set the basic costs for the project **"the estimated value"** in case the project was executed through public procurement by the Administrative Authority. The committee shall prepare a report about its work that includes the principles followed to estimate such costs and to determine their value. The report shall be placed in a sealed envelope signed by all of the committee members.

  The PPP Central Unit shall review the basic costs for the project and adds to it the financing costs, quantified risks and burdens that would be borne by the Private Sector in order to execute the project. The PPP Central Unit shall submit its report with the new estimate called "the public sector comparator" to the Supreme Committee for PPP Affairs for approval. The public sector comparator shall then be placed in a sealed envelope signed by the head of the PPP Central Unit and shall not be opened until after the financial envelopes for technically accepted bids are opened.

  The Executive Regulations of this Law shall determine the basis to be followed in setting the **estimated value** and the **public sector comparator**.

- Article 26: The Administrative Authority, after the approval of its Competent Authority on the

final tendering documents, shall send invitations to qualified Investors to draw the tender documents against the value specified for them based on the rules stipulated by the Executive Regulations.

- Article 27: The Bids shall be submitted in two closed envelopes; one for the technical offer and the other for the financial offer. The technical envelope must include detailed input to meet the level of service or product specifications for the project according to the requirements specified in the tender documents. Only the financial envelopes of technically accepted bids shall be opened. The Executive Regulations of this Law shall stipulate the rules and procedures related to the submission of bids, opening of envelopes, and documents and data that must be included in each envelope.

- Article 28: A consortium of more than one qualified Investor may submit a bid. The bid shall be submitted under the name of the consortium unless it is stipulated in the tender documents that qualified Investors must submit their bids individually.

  In case of a bid submitted by a consortium, none of the members of such consortium shall submit another bid directly or indirectly, individually or through another consortium, or through a company in which it owns the majority of its equity, or has control over its management, or if such member's ownership or management is controlled by one of these companies, unless otherwise stipulated in the tender document. Any submitted bid inconsistent with the provisions of this paragraph shall be deemed null and void.

- Article 29: A committee shall be formed by a decree of the Competent Authority of the Administrative Authority from technical, legal, and financial experts to receive bids and study them technically and financially. The Executive Regulations of this Law shall stipulate the committee's competencies and its system of work and ranking of accepted technical bids and the identification of bids to be disqualified. Amongst its members, the committee must include a representative from each of the Legal Advice Department of the State Council, the Ministry of Finance, and the PPP Central Unit. The committee may assign to sub-committees formed from amongst its members or other experts chosen by the committee, the study of the technical, financial, and legal aspects of the submitted bids, and the extent of their compliance with declared conditions and specifications, as well as evaluation of bids that are compliant. Such sub-committees shall submit reports setting out the results of their work and recommendations to the committee responsible for receiving bids and studying them, and evaluating the compliant bids, in accordance with the evaluation criteria set out in the tender documents, to ensure the most economically advantageous benefit to the state. Each bid shall be given an evaluation grade according to the method identified in the request for submission of final bids and the tender documents. Based on this grading the technically accepted bids shall be ranked.

- Article 30: Bids that are non-compliant with the conditions and specifications set out in the tender documents shall be disqualified. Technical bidders with qualified bids shall be invited to attend the session for the opening of the financial envelopes. The most economically advantageous bid amongst the technically accepted bids shall be awarded the project; after working out the comparative balance for the financial and technical elements of the bid set out in the tender documents. The Executive Regulations of this Law shall provide the rules for the evaluation of the bids in relation to both technical and financial aspects.

- Article 31: Negotiations with the successful bidder may take place with regard to some clarifications and details pertaining to the technical and financial terms. These negotiations shall not impact any contractual conditions stipulated in the invitation to bid as non-negotiable conditions, or conditions in respect of which there were no reservations raised by the bidder in its submitted bid. No amendments will take place to the technical and financial terms resulting in the reduction of terms included in the bid and based upon which the bid has been evaluated.

- Article 32: The tender procedures shall be cancelled if the project in its entirety is dispensed with or if cancellation is required for the public interest. Moreover, the tender may be cancelled in the following cases:
  - if only one bid is submitted or if there is one bid left after disqualified bids are excluded;
  - if all bids, or most of them, are associated with reservations that are incompatible with the tender conditions and specifications, or that are difficult to evaluate financially;
  - if the value of the lowest bid is unjustifiably higher than the public sector comparator endorsed by the Supreme Committee for PPP Affairs.

  The cancellation in such cases shall be by virtue of a decree issued by the Competent Authority of the Administrative Authority based on the recommendation of the committee responsible for receiving and studying the bids and based on a previous approval from the Supreme Committee for PPP affairs. The decree must include reasons for its issuance. Bidders shall not claim any compensation for a decision to cancel a tender, except for a percentage of bidding expenses incurred by bidders whose technical bids were qualified, in accordance with the provisions of the Executive Regulations.

  The Executive Regulations shall identify cases and limits where only one bid or a bid whose value is higher than the public sector comparator, may be accepted.

- Article 33: The successful bidder must establish a company the "Project Company" the sole purpose of which shall be to execute the project. The Executive Regulations of this Law shall stipulate the conditions that must be fulfilled by the Project Company and the cases in which the Project Company may execute other PPP contracts subject to the approval of the Supreme Committee for PPP Affairs. It shall also determine the cases in which a performance security must be provided and the basis for its estimation and method of payment.

CHAPTER IV
SUBSTANTIVE PROVISIONS OF THE PPP CONTRACT

➢ **Article 34:**

- The PPP contract must include, in particular, the following,:
- the nature and scope of works and services that the Project Company must carry out as well as the conditions for their implementation;
- the ownership of the project's funds and assets, the obligations of parties related to the handover and receipt of the project site, and the provisions for ownership transfer at the end of the project;
- the responsibility of obtaining authorizations, permits, and approvals;
- mutual financial obligations and their relation to the funding mechanism;
- the product sale price or the service availability payment on which the project is based, and the rules for its determination and amendment, either by an increase or decrease, as well as the method of adjusting it for inflation indexes and changes in interest rates, if required;
- means of quality assurance and quality control, and supervision as well as administrative, financial, and technical monitoring of the project Operation, Utilization, and maintenance;
- regulating the right of the Administrative Authority to amend the conditions of the project's construction, equipment, maintenance, operation, and utilization and other obligations of the Project Company, in addition to the basis and mechanisms of compensation for such amendments;
- types and amounts of insurance on the project, and the risks of its operation or utilization, and executive warranties issued in favor of the Administrative Authority, and provisions and procedures for their release;
- determination of the basis of risk allocation in respect of change in law, sudden accidents, force majeure, or discovery of antiquities, as the case may be, and the resultant compensation;
- PPP contract duration, cases of early or partial termination, and the rights of the related parties;
- cases where the Administrative Authority has the right to unilaterally terminate the PPP contract, as well as the financial obligations resulting from the use of such right;
- regulation of handing over the project at the expiry of the PPP contract duration, or in case of unilateral, early or partial termination of the PPP contract.

➢ **Article 35:** The PPP contract shall be subject to the provisions of the Egyptian Law. Any contrary agreement shall be deemed to be null and void.

After the approval of the Supreme Committee for PPP Affairs, it may be agreed to resolve disputes resulting from the PPP contract through arbitration, or any other non judicial means of dispute resolution according to what was stipulated in the PPP contract.

➢ **Article 36:** The Project Company shall not be dissolved or its legal structure changed, or its capital reduced unless there is an approval from the Competent Authority of the contracting Administrative Authority.

The articles of incorporation of the Project Company shall include a prohibition on the transfer of its shares prior to the date of completion of the construction, equipping, or rehabilitation works, and the transfer of shares owned by the majority of the equity holders of the Project Company after such date, unless a prior written approval is granted by the Competent Authority of the Administrative Authority.

In all cases, pledge of the Project Company shares shall not take place except for the purposes of financing or refinancing the PPP project. Any procedure or action that is inconsistent with the provisions of this article shall be deemed to be null and void.

- Article 37: Without prejudice to Articles 7 and 8 of this Law, any articles of the PPP contract or its supplementary agreements shall not be amended unless approved by its parties. If the obligations of the contracting Administrative Authority are related to financial obligations of any other Administrative Authority, such amendment shall not be effective unless there is a prior written approval from such authority.

  The Project Company shall not waiver the PPP contract or any of its rights or obligations there under except for the purpose of financing and after a prior written approval from the Competent Authority of the contracting Administrative Authority. Any agreements inconsistent with the provisions of this article shall be deemed to be null and void.

- Article 38: The contracting Administrative Authority is entitled to enter into **direct agreements** with the project's financing institutions and the Project Company, to regulate the method of payment of the financial obligations of the Administrative Authority to the Project Company and the financing institutions. Such agreements may include a provision whereby the Ministry of Finance guarantees the Administrative Authority's payment of its contractual financial obligations. Such agreements shall include a provision regulating the right of the financing institution to step in and assume the role of the Project Company in executing the provisions of the PPP contract, or to appoint a new Investor after the approval of the Competent Authority in case the Project Company defaults in either performing its material obligations, or meeting the quality levels established by law or in the PPP contract, in a manner that entitles the Competent Authority to terminate the PPP contract.

- Article 39: A petition committee shall be formed chaired by the Minister of Finance and with the the membership of two deputies to the President of the State Council to be selected by the President of the State Council, and the Head of the PPP Central Unit, as well as a non-government member expert to be selected by the chairman of the committee.

  The petition committee shall be competent to consider all petitions and complaints submitted by Investors during the procedure of tendering, entering into and executing PPP contracts.

  If the subject matter of the petition is an administrative decision, the petition shall be made within thirty days from the date of its notification of the decision or of becoming aware of such decision. A claim for the cancellation of such decision shall not be accepted before a petition is filed.

  The Executive Regulations shall provide for the procedures of considering and settling petitions. The decision of the petition committee shall be final and binding.

Annex 5. Overview of Formal and Non-formal WBL Schemes in Egypt

	A Dual system under the Ministry of Education and Technical Education	B PVTD industrial apprenticeship scheme	C Integrated TVET scheme under the MoETE in collaboratio n with public and private companies (Joint School Initiative)	D Applied Technology Schools (ATS) MoETE	E Ministry of Manpower and Migration (MoMM) apprenticeshi p legislation under which apprentices can be registered (El tadarrug el meheni)	F Private sector Technical schools (e.g. German Hotel School in El Gouna)	G Industrial apprenticeshi p scheme governed by the Industrial Training Council under the MoTI	H Schooling from home for students above 18 years with affiliation to an employer (Oumal System).	I Non formal schemes by NGOs
Legal status of scheme	Minister of Education Decree No. 162 of 2011, complementing Ministerial Decree No. 62 of 2007 for "Regulating and Developing Procedures and Controls for the dual education and training system in secondary technical education three years".	Presidential Decree 1470 dated 20/4/1964.	Implemented according to protocol agreements between the Ministry of Education and individual private and public companies.	Implemented according to a protocol agreement between the Ministry of Education and private sector companies	Ministerial Decree No. 175 of the Year 2003 Concerning the Rules and Procedures Regulating Vocational Apprenticeship	License for a private school form the Ministry of Education	Implemented, under a memorandum of understanding developed among the Industrial Training Council (ITC), British Council and private sector companies.	Minister of Education decree No. 562 of 2014.	Based on the NGO's license with the Ministry of Social Solidarity in which the services include training activities.
Estimated number of Learners (2017)1	42,000	22,000	8,000	400 until in the first year in 3 schools	4,000	750	Pilot include 15 learners	300,000	350
Legal Status of Learner	Learner is considered apprentice	Learner is considered apprentice	Learner is considered student	Learner is considered apprentice	Learner is considered apprentice	Learner is considered apprentice	Learner is considered apprentice	Learner is considered student	Learner is considered trainee
Status of learner during off-the-job training	Student	Student	Student	Student	If provided, apprentice	Student	Apprentice as per the MoU	Student	trainee
Duration of Scheme	3 years	3 years	3 years	3 years	Between 1 and 3 years	3 years	4 months	3 or 5 years	Between 1 and 6 months

Intermediary between the apprentice and the enterprise	The Regional Units for Human Development, RUDS affiliated to the Egyptian Federation of Investors Associations (EFIA)	The PVTD Training Centre plays an intermediary role between the apprentice and the enterprise.	The Ministry of Education to a limited degree	The Ministry of Education and Technical Education also the company might hire a management company	Labour offices administered by MoMM.	The school	Industrial Training Council (ITC)	None	The NGO
Contractual Arrangements	Quad partite agreement between (1) Apprentices (or guardian), (2) the company, (3) the RUDS and the (4) school (on behalf of MoE) sign a contract devised by NCHRD and approved by the MoE.	Apprentices sign a training contract devised by the PVTD, to which the employer and the training center are also signatories.	No mention of contractual arrangement between the apprentices and the public companies, but there is a contractual arrangement in the case of private companies.	Tripartite agreement between Student (guardian), school and company.	According to article 2 of the decree, a "Vocational Apprenticeship Agreement" is drawn up in three copies between the workers (or guardian), the employer, the Labour Office.	Agreement between school and company	No mention of contractual arrangement between the apprentices and the companies.	Learner must get a letter form the company he is working in to be admitted by the school.	No mention of contractual arrangement
Occupations or sectors offered	47 different occupations and specializations under industry, commerce, tourism and agriculture	40 occupations in the industrial sector (engineering occupations, ready-made garments, automotive, printing, leather just to mention a few)	Different occupations based on the company needs but most are in the ready-made garments, engineering, agriculture and food processing.	Industrial and construction at present.	A wide range of occupations included in the MoMM list of occupations available for occupational licences.	Depending on the market needs, this particular example in in the hospitality industry	Maintenance of Household Appliances Level 1 EVCQs Other occupations may be considered based on the employment needs of companies.	occupations and specializations under industry, commerce, tourism and agriculture	Based on local labour market needs.
Assessment, Test at end of each stage	Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work	Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.	Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.	Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.	The employer shall submit to the labour office a report at the end of each stage indicating whether or not apprentices have passed the stage.	Successful completion is assessed on the basis of an examination that includes both theoretical and practical work.	At the end of the training cycle the training provider conducts the final assessment of the apprentices.	Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.	Not specified

Certification and occupational level	At the end of the three years, graduates receive a certificate from NCHRD, the business association, and a diploma from MoE for level 3 Vocational' workers, but usually referred to as technicians to improve the image and encourage enrollment	At the end of the three years, graduates receive a diploma recognized by MoE and is equivalent to TSS diploma level 3 vocational worker	At the end of the three years, graduates receive a technical education diploma certificate from MoE (level 3) and a practical experience certificate from the company.	At the end of the three years, graduates receive a certificate from the employer and a diploma from MoETE (level 3), some schools also include international accreditation	Apprentices receive a certificate from the training centre equivalent to level 1 or 2 vocational worker.	In the German Tourism School receive a diploma recognized by MoE and is equivalent to TSS diploma level 3 vocational worker as well as a certificate from the German chamber of Commerce and Industry recognized internationally	A certification holding the logo of ITCNSSP, training provider, the industrial company, UK awarding body and shall be endorsed by the ITC-NSSP.	At the end of the three years, graduates receive a technical education diploma certificate from MoE (level 3) and at the end of 5 years a TSS certificate level 4.	Not specified
Further educational opportunities	A chance to enter middle technical institutes and, in case of 5% best achievers, an opportunity to enter university.	A chance to enter middle technical institutes.	A chance to enter middle technical institutes and, in case of best 5% achievers, an opportunity to enter university.	A chance to enter middle technical institutes and, in case of best 5% achievers, an opportunity to enter university.	Further apprenticeship programmes or the schooling from home option in Technical secondary schools	A chance to enter middle technical institutes and, in case of best 5% achievers, an opportunity to enter university.	Further apprenticeship programmes.	A chance to enter middle technical institutes and, in case of best 5% achievers, an opportunity to enter university.	Furrher training progarmmes
Allowance/Wage	Apprentices receive monthly pocket during each year of study starting with 300 LE (17 USD) 400 LE (22 USD) and 500 LE (28 USD) during the third year Companies pay 40 LE (2.27 USD) per student per month administrative fees to the Regional Unit and some cover transportation.	Apprentices are paid a small allowance, perhaps 15%– 25% of the wage of an adult worker, to help them with transport and food costs.	The minimum allowance is the same as the Duel system, however some companies pay more than that.	The minimum allowance is the same as the Duel system, however some companies pay more than that.	Apprentices receive transportation and meal allowance, with the wage being specified in the contract in 3 phases, and increasing over time.	Not specified	Competitive salaries, transport cost, meals and insurance.	None, only the salary if he is a full time employee studying at the same time.	Not specified

Status and qualification of on-the-job mentor/tutor	Company employee or supervisor with no specific training or qualifications in training	Company employee or supervisor with no specific training or qualifications in training	Company employee or supervisor with no specific training or qualifications in training	Company employee or supervisor with no specific qualifications but selected by the ATS steering board	Company or workshop employee with no specific training or qualifications in training	Company employee or supervisor with no specific training or qualifications in training	Dedicated company employees	N/A	Company or workshop employee with no specific training or qualifications in training
Minimum and maximum age for admission	Apprentices enter after successfully complting compulsory education, typically at the age of 15.	Apprentices enter after successfully completing compulsory education, typically at the age of 15.	Apprentices enter after successfully completing compulsory education, typically at the age of 15.	Apprentices enter after successfully completing compulsory education, typically at the age of 15.	Apprentices should be 13 18 years old.	Apprentices enter after successfully completing compulsory education, typically at the age of 15.	Apprentices' age is between 18 and 35 years old.	Must be adults above 18 years old.	Usually adults
Social protection of apprentices (including accident, health and pension)	Normal student insurance, and in many RUDS they are covered with private insurance	Normal student insurance	Normal student insurance	Normal student insurance	According to article 12 of ministerial decree No. 175: insurance against work	Normal student insurance	Not specified	Insurance from the employer.	Not specified

[1] It should be noted that getting accurate and verified data is very difficult even from different people in the same ministry or institution, therefore these figures should be taken and estimates and are in line with sources in different documents in recent years.

Annex 6. Americana Group Good Practice Case Study in the Dual System

Americana Group was established in Kuwait in 1964 and currently employs more than 55,000 employees in 1400 restaurants in the Middle East and North Africa with around 300 in Egypt. Its business in Egypt is worth LE 2.5 billion (USD 142 million). The organisation's longer-term strategy is to bring more brands into the group. Currently these include KFC, Pizza Hut, Hardy's, TGI Fridays, Fusion and Costa Coffee. They also want a better market share in Caspian Sea and North Africa. They are a conglomerate of industries ranging from the raw commodities required (agriculture-chicken farming and potato growing) through to their fast food restaurants. The company itself has a philosophy around being part of society and whatever is wrong with that society, and so addressing the needs of both the country and the sector are of vital importance to them.

They have therefore translated their current industry training practice to address the following challenges:

- Challenge 1: Quality of student – youths are dependent on their parents, lack discipline, de-motivated, see no opportunity and are not self-starters. They are bored with school and so a 2-day school/4-day work approach will not work, and also there would be no unity of command;
- Challenge 2: Facilities in schools/colleges/universities are not up to date and reflecting current industry standards. They require a demonstration room for 12 students with workstations, and a commercial kitchen and a training restaurant and this doesn't exist in Egyptian technical schools;
- Challenge 3: Current technical training facilities need upgrading and interventions are very expensive, which limits the numbers;
- Challenge 4: The training facility will have to be maintained (Renewal and Replacement model) which is not in the Egyptian MoETE mentality;
- Challenge 5: Teachers are generally not from industry and so lack skills required.

Solutions identified by the company to these challenges:

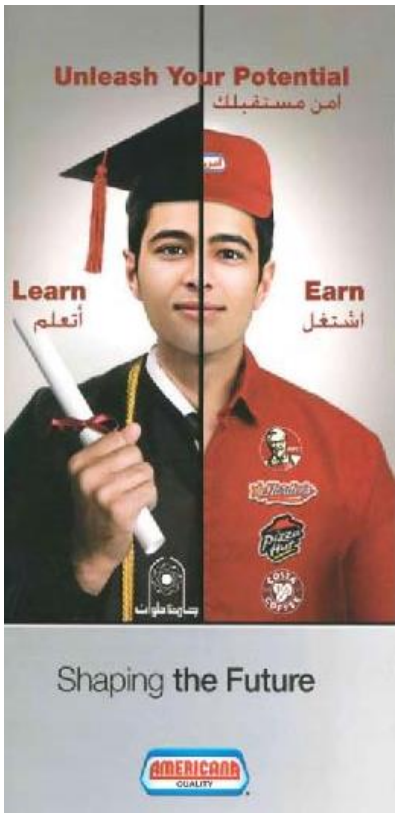
- Established a reciprocal arrangement: Take training out of schools, let schools do the theoretical and Americana do the practical training in their restaurants. Americana through their brands have solid operations systems, good internal/certification systems and this would make a good partnership;
- Commercial technical/secondary schools are unproductive, as they take students who cannot go anywhere else. Therefore, they have set up a pilot scheme that started in 2011, taking over three schools in their restaurant recruitment areas and enrolled 569 students in year 1 (September 2011). In 2012 they started to advertise and recruit specifically to this, as they are now actively marketing this approach in preparatory feeder schools. In 2017 they have more than of 3800 apprentices in the three levels of apprenticeship programmes (the other two programmes are mentioned below).

How this programme works:

- Americana cares about behaviours and attitudes, not marks, so this is offered 3 years after preparatory (15/16 years old) when students have the right to choose their education, but parents still have a say. Americana adopted the same selection process as for their own recruitment, but also included parents in the process by providing awareness sessions and one-day orientation and observation by restaurant managers for students in the retardants as part of the selection process;
- The first year is a pilot for them. 1st year and 1st semester of 2nd year is off-the-job study at the school, a new curriculum focusing on requirements of Hospitality Industry, written by joint committee of Ministry of Education, Americana and Dean of Hotel Management College and

benchmarked with City and Guilds UK standards;

- Students then do one year on-the-job training (with no summer vacation) that is paid: LE 550 per month for 6 months and LE 600 for remaining 6 months.
- Americana pay the school LE75 per student per month to cover extra/different teacher activities e.g. transport, as the school does monitoring visits.
- Americana have strict internal processes for monitoring the student: keep student logs their training schedule of what they learn when; who trained them; who certificated them.
- Student counter signs everything throughout with date, as does trainer/verifier and the school nominee
- This is verified and agreed by Americana HR department.
- The final semester is when students sit theoretical exams, receiving a Technical Education Diploma accredited by Ministry of Education and Americana
- Americana has sufficient employment for all those who are successful after their 3 years either in Egypt of abroad. They will also guarantee male students a position after the Army National Service.



They have set themselves what they saw at first to be an impossible mission due to bureaucracy and inflexibility of the Egyptian education system: to develop an Open Education Programme -a curriculum that offers a full progression from entry level to this degree, or allows potential students to enter at any of the three points from both technical and secondary schools. They are therefore looking to link together their education and career paths. They have also succeeded in developing a similar programme within the post-secondary Technical collages (2 years Advanced Technical Diploma) and Helwan University (4yeras for a joint WBL Bsc. degree in restaurant management and operation), they are currently looking at expanding their cooperation with Ministry of Education to include their production business in food processing to include apprenticeship through the dual system.

Annex 7. El Sewedy Group Good Practice Case Study in the School in Factory Model

El Sewedy Electric is one of Egypt's largest industrial conglomerates producing integrated electrical solutions with over LE 3.3 billion aggregated gross profits, with 30 production facilities across 14 countries including Egypt. The company currently employs more than 10,000 employees.

Since 2011, the company had an agreement with the Ministry of Education to establish a secondary technical school within its premises in the industrial city of 10th of Ramadan west on Cairo. After its success and through the El Sewedy Foundation, in September 2016 the company established the state-of-the-arts Sewedy Technical Academy (STA) with 400 students, also changing the name from school to Academy to improve the image of technical education in Egypt as well as improving the quality of provision.

STA is planning to acquire the Quality Management Certificate ISO 29990 by the end of 2017. ISO 29990 is an international standard for training providers. This standard is intended to assure that the performance of the educational programme is meeting the international standards. Learning at STA is based on a full scholarship programme. Students are sponsored with uniform, learning material, electronic learning devices, transportation and on-the-job training during their three-year course of study, in addition to financial support in the form of a monthly stipend of LE 650 during the first year, already more than double what the MoETE has set for the first year in the Dual system.

Programme Overview

STA programme offers customized technical education and training for the major industries following the latest international standards. Currently the technical curricula cover the fields of "Energy Components", "Industrial Electronics", "Mechanics, Maintenance and Repair" and "Logistics".

All training programmes reflect a "dual approach", following the German system of technical education and training, which is a combination of two complementary learning & training tracks that take place in the school and in the factory. The curriculum of STA is a competency-based curriculum aiming for a holistic approach that combines on-the-job training and regular school learning to empower the students with the necessary knowledge, skills and attitude.

In order to provide a comprehensive programme, STA offers cultural/general subjects and topics concerning key qualifications, cost reduction and soft skills. This training programme is approved by the Egyptian Ministry of Education and Technical Education (MoETE) and is considered one of the most developed programmes in Egypt. STA also employs a German Technical manager in the school who is responsible for making sure that the system operates well and also provided training for the teachers and instructors.

At STA they believe that the growing role of information and communication technologies must be reflected via modern technical training called SMART learning. Beside the dual approach of the training programmes, they embrace SMART learning to gain the maximum benefit of the technological advantage they provide. SMART Learning is a synonym for the intelligent or smart mix of teaching and learning modes, taking into consideration that the regular teaching and learning process which takes place in the classrooms or workshops, and which is based on the one-to-one support, will not be replaced by the e-learning. The teaching or learning mode will be selected according to the respective desired learning outcomes in the areas of knowledge, skills and attitudes. E-learning and blended learning are more than just new forms of learning. One of the first steps to introduce e-learning and blended learning was the installation of a virtual learning environment, which reflects the structure of courses and subjects of all training programmes. Classroom sizes at STA are around 16 students per class, which provides an ideal learning environment especially when you compare that to the traditional technical education at the ministry schools.

El Sewedy guarantees a job for successful students who complete the requirements of the Diploma accredited by the MoETE after the three years and they also intent to establish 8 more academies by 2021 even entering new sectors like cement logistics and ready-made garments.

A promotional video about STA can be found in the following link:
https://www.youtube.com/watch?v=7g03vifrdxI

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