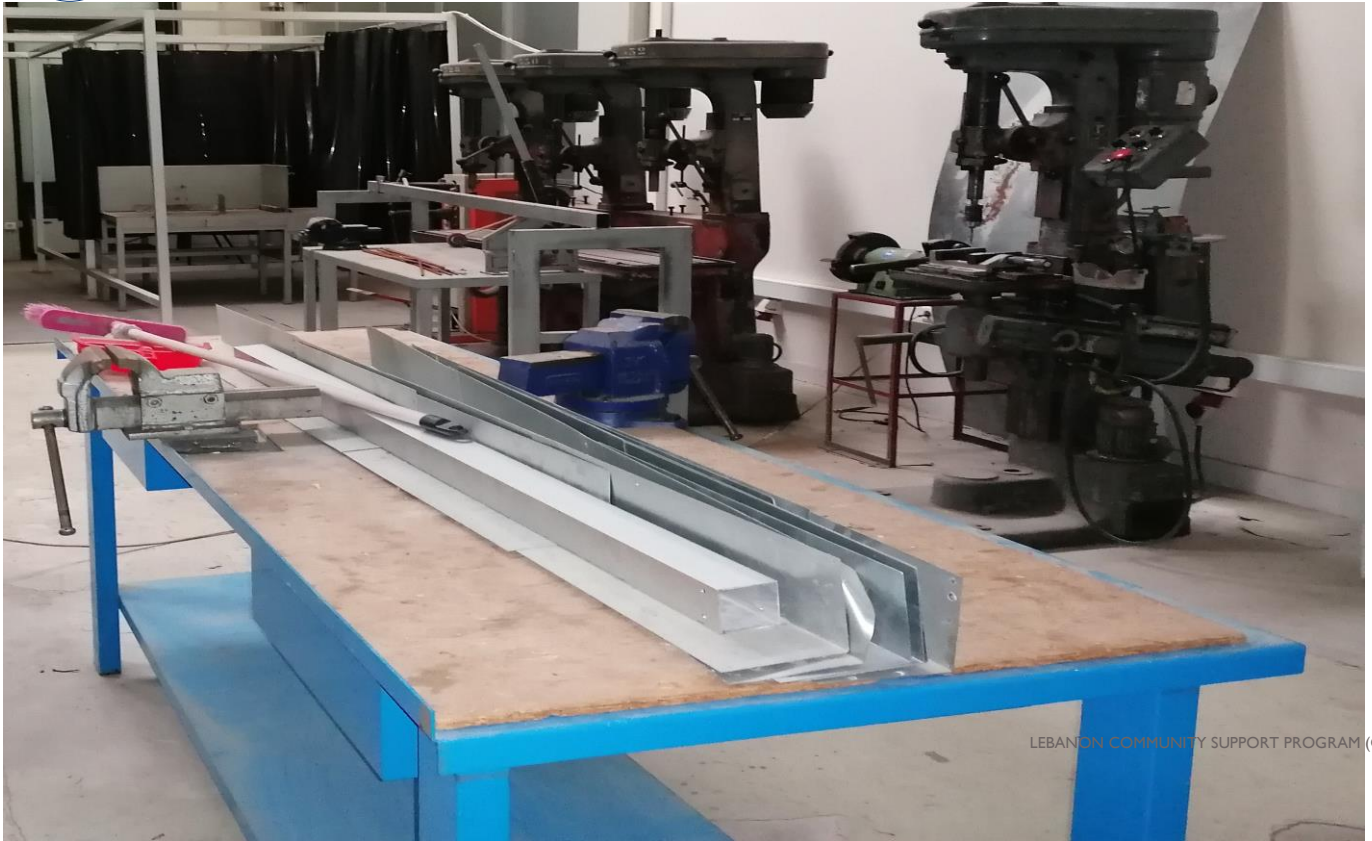




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LEBANON COMMUNITY SUPPORT PROGRAM (CSP)

# LABOR MARKET VALIDATION STUDY AND PARTNER IDENTIFICATION

## Final Labor Market Assessment Report

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# FINAL LABOR MARKET ASSESSMENT REPORT

DECEMBER 17, 2019

**IDIQ Contract No. 72026818D00005**  
**Task Order No. 4 72026819F00002**  
**USAID/Lebanon Community Support Program (CSP)**  
**Chemonics International Inc.**  
**Fattal-Dolphin Building, 4th Floor, Sin el Fil**  
**Beirut, Lebanon**

**FRONT COVER PHOTO:** Members of CSP's workforce development team and its labor market assessment contractor, Remark, assessed the workshops and facilities of the Johann Ludwig Schneller School (JLSS) in Khirbet Qanafar, in the Beqaa Valley. Pictured in the photo is the school's hydraulics and pneumatics workshop. Based on the assessment, Remark has identified the school as a strong candidate for a TVET partnership.

**BACK COVER PHOTO:** Welding, metalworking, and industrial mechanics are among the most interesting and promising technical and vocational sectors for students to learn new skills and apply them in a future career. This photo shows the metalworks studio at Lycée Professionnel Don Bosco Technique in Fidar, in Mount Lebanon, one of the private TVET institutes assessed by CSP.

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# I. EXECUTIVE SUMMARY

## BACKGROUND

This labor market validation study was conducted from October to December 2019 in Lebanon, with a special focus on the North, South, and Beqaa Valley.

The study was delivered as part of the workforce development (WFD) activity of the Lebanon Community Support Program (CSP), a multi-year project funded by USAID and implemented by Chemonics Beirut S.A.R.L. CSP aims to support municipalities and vulnerable, underserved communities by providing access to better services and enhanced economic opportunities in order to improve lives and reduce tensions that contribute to conflict and violence, primarily in Lebanon's North, South, and Beqaa regions.

Under the WFD activity — also referred to as Task Order (TO) No. 4 — the project will provide technical assistance and other support to improve labor skills and job placement opportunities through partnerships with companies, private sector associations, private technical and vocational education and training (TVET) providers, municipalities, and other public sector entities. The main objective of this three-year TO is to improve skills and job placement opportunities for at least 1,000 beneficiaries from vulnerable communities.

The labor market assessment included three major phases. The first phase was an initial desk research and scoping mission, which helped map private TVETs in Lebanon, provided a better understanding of several sectors of the Lebanese economy to identify any opportunities for job creation, and fine-tuned the research methodology for the subsequent phases of the assessment. The second phase consisted of field research, including key informant interviews (KIIs) with TVETs, small-to-medium enterprises (SMEs), and other key stakeholders; a quantitative survey; and six focus group discussions (FGDs). In the final phase, the findings were analyzed to provide recommendations about key sectors or occupations of focus, partnerships to engage in, and employment models by sector.

## ECONOMY AND LABOR MARKET TRENDS

Lebanon's labor market is plagued by structural and economic issues. The country's economy is service oriented, as industry has consistently decreased in recent decades, almost to the point of disappearing, affecting opportunities for job creation in manufacturing. Moreover, the economy began slowing at least since 2011, a trend that reached a tipping point in 2016, when many companies began struggling. Since 2017, many companies have closed or gone bankrupt. In 2018, growth in gross domestic product stood at just 0.2 percent. Since October, following the outbreak of mass protests against the political class, more company closures and salary cuts took place, as Lebanese banks introduced informal capital controls, limiting consumer spending, affecting confidence, and stifling prospects for growth.

Lebanon's labor market has been suffering from high unemployment, pressure from the large number of Syrian refugees competing with the Lebanese workforce, the low participation of women in the workforce, and skills gaps among the youth. These and other issues are made only worse by the current economic strife.

Still, a few sectors such as technology and information and communications technology (ICT) offer significant potential for future growth and can absorb workers even in the current economic climate.

The agro-food sector is another example: The backbone of Lebanon's manufacturing industry, it has potential for future expansion.

## **SECTORS AND OCCUPATIONS**

The assessment used six main criteria to score various sectors, including their potential for WFD, the Lebanese workforce's motivation to seek employment in the sector, gender and youth inclusion, TVET training potential, geographic coverage of the sector, and education requirements. Eight sectors were scored based on these criteria. The five leading ones were health care, technology and ICT, tourism and hospitality, environment, and the agro-processing industry. Identifying these sectors helped fine-tune the research methodology for Phase Two, when these sectors were analyzed further based on meetings, interviews, and additional desk research to come up with a short list of sectors and identify the key occupations of interest for CSP. The short list included the following:

### **MAINTENANCE OF INDUSTRIAL EQUIPMENT AND MACHINERY**

Following interviews with a variety of companies, including a large number of agro-food businesses, the assessment identified the maintenance of industrial equipment and machinery as an occupation that could be transferrable from across industries with minimal changes or adaptations.

Acquiring the skills to carry out the maintenance would therefore enable employees to work at a variety of different manufacturing companies in several sectors, including environment-related companies.

### **HOME-BASED HEALTH CARE SERVICES**

Following meetings with hospitals and based on further desk research, the assessment found that hospitals are saturated with practical nurses and cannot absorb more. At the same time, home-based health care services emerged as one of the fastest-growing subsectors in health care, offering significant potential for growth and job placements for practical nurses and nurses aids.

### **TECHNOLOGY AND INFORMATION AND COMMUNICATIONS TECHNOLOGY**

A number of occupations were identified for the information and technology sector, including programming and software development, coding, and jobs that can support IT infrastructure and IT networking, the internet of things, and the introduction of new technologies.

## **SUMMARY AND RECOMMENDATIONS**

### **TVET COMMUNICATION EFFORTS**

Lebanon needs better awareness and communication about TVET education. This type of education is often perceived as low quality and a suboptimal choice for a career development. Any curricula upgrades or support to TVETs should be supported by appealing and persuading, fact-based communication efforts that would help shift the perception and attitude toward TVETs and benefit CSP.

### **BETTER INCLUSION OF WOMEN IN THE WORKFORCE**

Among the occupations targeted by the program, practical nursing and nurse aid curricula could target women more efficiently while the maintenance of industrial equipment and machinery could be geared toward young men. ICT and technology curricula can target both genders equally.

### **HUMAN RESOURCES PRACTICES**

Best practices in human resources should be introduced at SMEs, whereby the concept of 'equal opportunities' should be implemented. This can be done through awareness sessions and workshops that highlight the added value for employers when they recruit based on meritocracy rather than networks. Interviewing and final selection of candidates should only be done thoroughly and based on an in-depth assessment of skills and qualifications.

### **TRAINING DURATION**

To match potential students' schedules, they should be given a choice among the different types of curricula: short term, midterm, and long term. Each should offer different levels of training and certification.

### **ORGANIZATION OF THE REPORT**

This report details the labor market assessment and its results, using as its primary focuses the first two major deliverables required by USAID: the labor needs assessment and partner identification, and the results of the meetings with private sector stakeholders. Sections II – V and VII detail the process of conducting the labor market assessment, including the methodology and a review of the findings of the assessment's initial, desk research phase and its subsequent validation through KIs and focus group discussions (FGD). The other sections detail the identification of private sector partners based on identified opportunities and make targeted recommendations for how they might help CSP fulfill its mandate. A series of annexes expands on the narrative, providing more exhaustive details about the sources, interviews, and discussions that informed the assessment and its findings.



## II. METHODOLOGY AND LIMITATIONS

This study was carried out in four main phases:

- *Desk Review.* A thorough desk review of existing research was first carried out to identify key trends, challenges, and opportunities in the Lebanese labor market. The review also included an initial scoping out of all the key sectors in Lebanon to pinpoint those offering the biggest opportunities for growth and employment. This initial scoping was fine-tuned further during the field study to reach a short list of sectors and occupations of interest to the Community Support Program (CSP).
  - *Sector Scoring.* Eight sectors were listed: construction, health care, information and communication technology (ICT), manufacturing and industry, tourism and hospitality, the environment, creative industries, and agro-processing and agro-foods. These sectors were filtered according to a number of criteria to reach a short list that is more appropriate for CSP's purpose. For each criterion, a score from 0 to 10 was given, and the highest-scoring sectors were set to be taken into consideration or prioritized. The main sectors remaining after the scoring process were agro-processing and agro-food, health care, ICT and technology, tourism and hospitality, and environment. The most promising sectors then underwent further analysis based on the field assessment.
  - *Qualitative Field Study.* A field study was carried out to narrow down sectors and occupations, as well as to identify skills, gaps, and needs; small-to-medium-enterprise partners; technical and vocational education and training (TVET) and training-center partnerships; and complementary workforce development programs.
  - *Quantitative Study.* A quantitative study was launched by the software company Mysay in parallel to the qualitative study to identify attitudes and behaviors toward TVETs and a number of sectors.
- Field Study Limitations

While conducting the field research, the consulting team faced three main challenges or limitations:

- *Security.* On October 17, mass antigovernment protests broke out and spread throughout Lebanon, forcing many TVETs to close and delaying the data collection. As a result, the consulting team was able to meet with only a limited number of TVETs during the field study's first two weeks.
  - *Mitigation.* The contractor addressed the issue by maintaining daily follow-up and communication with all informants, rescheduling meetings to fit the team's availability and swiftly replacing companies and TVETs that were difficult or impossible to reach. The TVETs interviewed were handpicked to target only those that presented as viable partners for CSP. All TVET meetings took place during the final seven to 10 days of the field study.
- *Economic Uncertainty.* The economic uncertainty affecting all businesses amid current security situations made it difficult for some small-to-medium enterprises (SMEs) to envision being able to recruit new staff. All of the businesses interviewed had frozen recruitment at the time they were interviewed, though many remained willing to take on interns.
  - *Mitigation.* The questions asked during the interviews, especially with SMEs, focused on past and future performance rather than the current fiscal year timeframe (2018 – 19), during which most companies have performed poorly and been unable to create jobs.

- *TVET Standards in Lebanon.* The number of private TVETs in Lebanon has been growing, but still the contractor found it difficult to identify and meet with TVETs and training centers that could be considered ethical, professional, and up to standards.
  - *Mitigation.* The CSP team provided support in identifying TVETs based on its understanding of the market and visibility on the major TVETs that can be productive partners. Moreover, thorough analysis took place during and after the meetings to vet the training centers and schools and ensure that they meet CSP’s expectations.

KII's & Focus Groups	Count	Company / Organization Name			
		ICT / Tech	Maintenance / Industry	Home Based Healthcare Services	Others
<b>SME Meetings</b>	21	1. AIY Expert Solutions 2. Maliatec 3. Azkatech 4. Vbout 5. Eastline Marketing	1. Indevco 2. Jubaili Brothers 3. Kassatly Chtaura 4. Liban Lait 5. Arab Printing Press 6. Bonjus 7. Bou Chalhoub 8. Daher Foods 9. Schneider 10. Mounir Bsot	1. Home Care 2. Jaleesa 3. Care at Home 4. Dar Al Amal Hospital 5. Khoury Hospital	1. Moevenpick Hotel
<b>TVET / Training Center Meetings</b>	15	1. SE Factory 2. Codi	1. Foyer de la Providence 2. IRI – Welding Institute 3. Schneller 4. Tamkeen 5. APAVE 6. Don Bosco 7. College Orthodoxe 8. Cortbawi	1. APIS 2. Lebanese Red Cross	1. Antwork 2. Formatech 3. HR Works
<b>Syndicates / Chambers</b>	4	1. CCIB 2. LFA – Lebanese Franchise Association 3. IT Syndicate 4. Nursing Syndicate			
<b>Partnership Meetings</b>	3	1. GIZ 2. IECD 3. USAID - LED			
<b>TOTAL</b>	<b>43</b>				

KII's & Focus Groups	Count	Region		
		North	South	Beqaa
<b>Focus Groups</b>	<b>6</b>	2  1 males 1 females  <i>Minnieh / Akkar Area            Unemployed youths, most have studied</i>	2  1 males 1 females  <i>Saida Area            Unemployed youth, some have studied, some did not complete their education</i>	2  1 males 1 females  <i>Baalbek area            Unemployed youth, most did not complete any studies, or only basic education</i>
<b>Support From</b>		Mr. Zakariyah Zohbi, Owner of Arkan Engineering Company  Former head of Machha Municipality in Akkar area	Mr. Fdallalah Hassouna, Director of DPNA Development for People and Nature Association (DPNA)	Chemoncis Contact
<b>Quantitative Survey</b>		475 Respondents 18-50 years old Tripoli	255 Respondents 18-50 years old Nabatiyeh – Saida	224 Respondents 18-50 years old Zahle – Baalbeck – Joub Jannine

Figures 1 and 2: Field Study Details

## FIELD STUDY INITIAL FINDINGS AND FURTHER SHORT-LISTING OF SECTORS AND OCCUPATIONS

After interviewing a variety of industrial companies, including a large number of agro-food companies, a common thread was identified as an occupation that could be transferrable from one industry to another, with minimal changes and adaptations required.

Acquiring such occupational skills would therefore enable employees to work at a variety of companies in various sectors. Maintenance work is required for various purposes: the upkeep of factory equipment and machinery, and / or maintaining equipment and machinery sold to customers.

After two interviews with hospitals and based on additional desk research, it became clear that hospitals are saturated and cannot absorb more practical nurses. At the same time, the home-based health care services sector has strong potential for growth. The tourism sector does not offer significant opportunities in terms of technical occupations. However, it does offer the potential for the placement of interns during the summer, something that can be worked on with several different hotels and accommodation outlets.

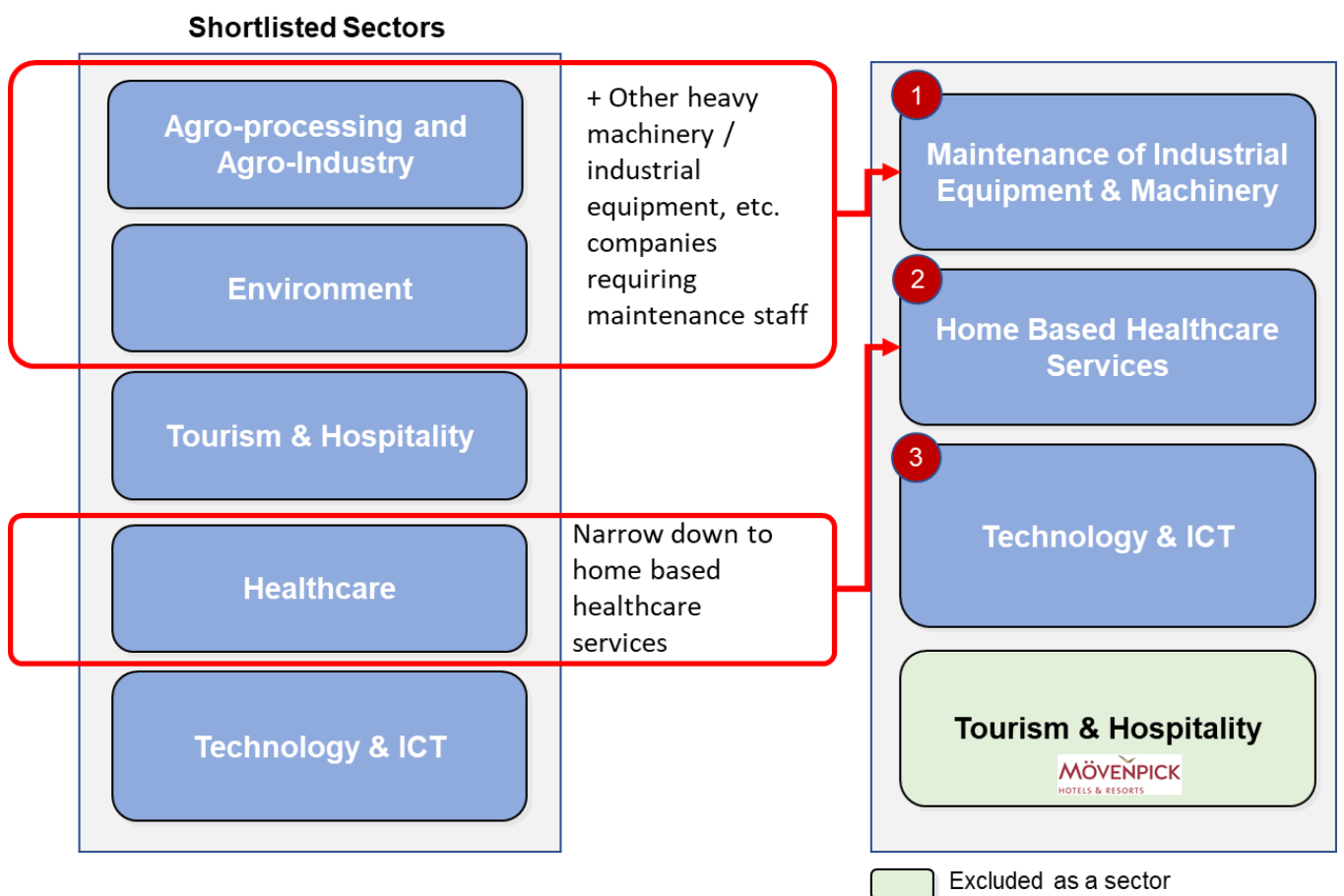


Figure 3: Shortlisted sectors

### **III. LABOR MARKET TRENDS**

#### **BACKGROUND**

The Lebanese labor market suffers from low activity and a large informal sector. It is characterized by a low rate of female participation and high youth unemployment. Moreover, the market lacks official data and information. The most recent official national labor market data dates back to 2009. All analyses are currently based on projections or studies that in some cases produce contradictory numbers. According to the Ministry of Labor, for example, the unemployment rate in 2017 was 25 percent, while the World Bank put the figure at 6.7 percent for the same year.

International donors funded more than one study about the labor market in Lebanon over the past few years, and also funded studies focused on the markets in the North and the South in particular. Three studies have been conducted about the labor market and jobs in North Lebanon, namely, by the International Labour Organization (ILO) in 2017, the World Bank in 2017, and by the Premiere Urgence International in 2018, the latter of which concentrated on Akkar and Tripoli. Another two studies have been published about the labor market in the south, namely, by the Knowledge Development Company in 2012 and by MercyCorps and the NGO Social, Humanitarian, Economical Intervention for Local Development (SHEILD) in 2015.

The Central Agency of Statistics (CAS), with technical support from the ILO, conducted the 2017 Lebanon Labour Force and Households' Living Conditions Survey, financed by the European Union. The survey was the first to produce estimates at the national, governorate, and district levels. The results of the survey were originally scheduled to be released in 2016; however, they were delayed, and the results are now scheduled to be released in 2019 (ETF, 2018). The ILO assisted the National Employment Office in creating a labor market information system. However, the project has not attained the expected results due to insufficient resources (ETF, 2018).

#### **UNEMPLOYMENT**

The Lebanese labor market is characterized mostly by low activity and high unemployment rates. Women do not have a high rate of participation in the labor force, and there is a large informal sector, a significant mismatch of skills and positions, and a high influx of foreign workers. Together these factors have resulted in a large number of skilled Lebanese people seeking and obtaining employment abroad. Young people spend a lot of time searching for jobs when entering the market and face challenges in finding permanent work and fair wages. The average length of unemployment is a year, which is classified internationally as long-term unemployment.

The influx of Syrian workers has congested an already weak labor market; the poor job climate has affected young people the most; and the skills gap remains the central obstacle preventing economic growth and job creation. Lebanon needs to create six times more jobs than it is currently to absorb the 23,000 annual labor market entrants. There is a shift to the low-skill sector, with an incremental wage difference among primary, secondary, and tertiary education, feeding into a brain drain from the country. SMEs, which account for more than 90 percent of firms in Lebanon, play a crucial role in the Lebanese economy, yet need major support.

In 2017, the Lebanese population was estimated to be about 4.68 million people, according to the United Nations. According to the ILO, 2.061 million people ages 15 years and older were employed

that same year. Thus, the ILO determined that the employment rate reached as low as 44.1 percent (ILO, 2018). In addition to the Lebanese, the country hosted 1 million to 2 million Syrian refugees; 174,400 Palestinian refugees; 22,000 refugees from other countries, mainly Iraq; and 300,000 foreign workers (GIZ, 2019).

According to primary labor force status, the percentage of people ages 15 years and older who are employed is lower in the North (41.2 percent) than in the country as a whole (43.6 percent). While the population of North Lebanon represents 20.3 percent of the total residents in Lebanon, the ratio of unemployed residents there constitutes 21.8 percent of the total number of unemployed people in Lebanon (ILO, 2017).

The unemployment rates in North Lebanon are higher compared with those of the other governorates. The region suffers from higher school drop-out rates (50 percent), female illiteracy, child mortality, a weak social security presence, and extreme poverty (ILO, 2017).

#### PREVIOUSLY REPORTED UNEMPLOYMENT RATES AND LABOR FORCE PARTICIPATION RATES

INDICATOR	RATE (%)	SOURCE AND MOST RECENT REPORTING YEAR
Unemployment (Total)	25	Minister of Labor in Lebanon — 2017
	6.7	World Bank— 2017
	10	CAS — 2012
	6.4	ILO — 2009
	9.2	European Commission — 2007
Youth Unemployment (Total)	37	Minister of Labor— 2017
	21.3	World Bank — 2016
	35	Lebanon’s National Youth Policy Document
	22	Arab Labor Organization — 2009
	21	CAS — 2007
Labor Force Participation (Total)	47.2	World Bank — 2016
	49.2	CAS — 2009
	43.4	European Commission — 2007

## WOMEN

According to GIZ (2019), women constitute only 22.8 percent of the economically active population in Lebanon. The gender gap is reported to be as low as 38 percent in the communication and transportation sectors to as low as 6.2 percent in the trade and services sectors. The low employment rate and low activity rates of females in the market can be attributed to social, cultural, and economic factors.

Only 23 percent of the potential workforce in Lebanon is female (CAS, 2011). The active population constituted 47.6 percent of the total population ages 15 and older. The participation rate of males was highest, at 72.8 percent over, with figures of 70.3 percent for the districts of Akkar and Minieh-Dannieh and 72.9 percent in the remaining parts of the North.

Data indicates that males constitute 77 percent of the total employed population in Lebanon, and females 23 percent, but there is a higher rate of employment among males in the North: 84.1 percent in Akkar and Minieh-Dannieh, and 75.4 percent in the remaining districts of North Lebanon districts (CAS, 2009).

The overall unemployment rate in Lebanon estimated at about 6.6 percent; unemployment is higher among females 10.4 percent than males 5.4 percent (ILO, 2017). The unemployment rate is slightly higher in North Lebanon: 7 percent in Akkar and Minieh-Dannieh and 8.2 percent in the remaining North Lebanon districts, mainly as a result of the high rate of unemployment among females (13.2 percent and 12.5 percent, respectively) (CAS, 2009).

The gender gap in Lebanon is particularly pronounced in the fields of economic participation and opportunity. Lebanon ranked 140th out of 149 according to the World Economic Forum's Global Gender Gap Index 2018.

In reference to the 2016 UNDP Gender Strategy report, women represent only 25 percent of the labor force. Married women have only a 34.1 percent chance of finding a job, while single women have 58.7 percent chance. The trend is reversed for men, however, with married men having a higher chance of finding work, verifying the perception of the man — not the woman — as the sole breadwinner of the household.

Female employees have a higher educational attainment level: 43 percent of employed women have a university degree. In the case of employed men, there is no major variation in the employment rate linked to the educational attainment level. Estimates also show that people with higher levels of education spend almost the same amount of time unemployed as those who did not reach as a high a level of education — 1.4 years for graduates of secondary education and 1.2 years for graduates of tertiary education (ETF, 2015).

According to the 2015 Gender Profile Report by the Arab Institute for Women (IWSAW), women still suffer from gender inequality in the Lebanese economy. Gender-related obstacles inhibit access to funding for female entrepreneurs. Women's participation in the labor force decreases with age. Lebanon's informal sector is expanding rapidly. Self-employment and cheap labor provided by the huge influx of refugees are both major contributors to the informal employment sector. To balance the needs of a family and other expenses, more Lebanese women are opting to work in the informal sector. People working in the informal sector are not subject to the Labor Law, which also means they do not receive social benefits. The wages are generally low, and much of the employment is temporary. Women working in the informal sector are exposed to all forms of risks, such as poor working conditions, violence, and an increased risk of diseases.

When compared with the legal systems of other Arab countries, the Lebanese system is fairly progressive, and women do not face any legal restrictions limiting them from engaging in income-generating activities. However, the current patriarchal system continues to place women at home rather than in the workforce, affecting women's confidence when it comes to starting their own business. Nevertheless, the current economic situation in Lebanon has pushed an increasing number of women toward entrepreneurial work. A plethora of organizations are currently working to empower women economically through vocational trainings, income-generating activities, and loans for small and medium-sized enterprises (SMEs).

The 2018 Global Gender Gap Report showed the following results:

## GLOBAL GENDER GAP REPORT FINDINGS

	RANK (OUT OF 149 COUNTRIES)	COUNTRY GENDER GAP SCORE	AVERAGE	FEMALE	MALE	RATIO (FEMALE TO MALE)
Economic Participation and Opportunity	136	0.432	0.586			
Labor Force Participation	139	0.340	0.669	25.9	76.2	0.34
Wage Equality for Similar Work	101	0.587	0.645			0.59
Estimated Earned Income (USD)	137	0.251	0.510	5,877	23,411	0.25
Legislators, senior officials and managers	137	0.092	0.329	8.4	91.6	0.09
Professional and technical workers	81	0.933	0.753	48.3	51.7	0.93

The Gender Gap Report also highlighted that managerial opportunities for women are particularly uneven across countries. While women and men are already equally likely to attain managerial positions in five countries (Bahamas, Colombia, Jamaica, Lao People’s Democratic Republic, and the Philippines), seven countries (Algeria, Egypt, Lebanon, Pakistan, Saudi Arabia, Syria, and Yemen) have a gap of 90 percent or greater.

## YOUTH

When looking at the unemployment rate by age, the data reveals that the highest rates are among youth, particularly for Lebanese ages 15 – 19. The rate is 21.8 percent among upper secondary graduates and 36.1 percent among university graduates.

More recent reports estimate the unemployment rate at about 11 percent, with periods of unemployment often of lasting long – about a year. The figures are particularly high for youth (34 percent) (World Bank, 2012). A large majority of the unemployed are younger than 35.

Unemployment rates among young people, especially university graduates, are high, which might indicate a mismatch between the higher educational attainment of the labor supply and the skills demanded by the micro and small enterprises in Lebanon (ETF, 2018). Enhancing technical skills and on-the-job training and improving communication and language skills (in particular, English) are cited as the most important actions for employers (MercyCorps, 2015).

Approximately 12,000 – 15,000 new jobs have been generated annually in the past 10 years compared with some 23,000 new entrants to the labor market (ETF, 2018). The majority of jobs created were in trade, services, and construction, most of them in low-productivity sectors (World Bank, 2011).

## INFORMAL

About 19 percent of workers in Lebanon are working in the informal sector without access to social funds and labor law benefits. Also, 36 percent of workers are self-employed, but the majority of these are low skilled and usually involved in low-productivity activities with limited access to formal insurance arrangements (UNDP and World Bank, 2013).

Informality among the Lebanese workforce is also prevalent, including enterprises and undeclared companies working with freelancers or employees on an informal basis. According to the latest available CAS data, undeclared enterprises employ one in four workers in Lebanon. Undeclared work can be carried out in various forms. Four in 10 people active in the sector do not have a specific workplace but are mobile, including many independent workers in the construction sector, such as electricians, carpenters, and plumbers.

Another four out of 10 informal employees work on a farm or agricultural land. One in 10 undeclared businesses operates at a client’s house or workplace, and as many at home. A smaller number of residents working informally do so on a construction site.

TYPE OF ECONOMIC ACTIVITY	NO. OF PEOPLE	PERCENTAGE
Public	175,991	15.73
Private (Declared Enterprise)	648,137	57.95
Other	10,668	0.95
No Response	323	0.03
Total	1,118,380	100

Many Lebanese companies also declare only part of their employees’ salaries to avoid paying high fees.



A large proportion of businesses in Lebanon are not registered with the Chamber of Commerce or the Ministry of Finance even though this keeps them from doing business formally with foreign companies or public institutions. Some key informants explained that companies would not be competitive if they registered and paid all the necessary taxes and other fees such as social security. The World Bank estimates that about a third of Lebanon's gross domestic product is generated by informal companies.

This high number of informal companies has a direct impact on the labor market. The World Bank estimates that about 65.5 percent of the labor force in Lebanon does not contribute to social security, which means that more than half of the workforce does not benefit from basic workers' rights and benefits. This is also partly due to the fact that employees have no residence and work permits, and thus cannot be registered, and may not apply as widely to the Lebanese population.

Lebanon's informal sector is expanding rapidly. Self-employment and cheap labor provided by the huge influx of refugees are both major contributors to the informal sector. To balance the needs of an overgrowing family and expenses, more Lebanese, including Lebanese women, are opting to work in the informal sector. People working in the informal sector are not included in the Labor Law, which also means they do not receive any social benefits. The wages are generally low, and employment is often temporary.

Among all sectors, the construction sector is likely the one suffering from the highest proportion of informality. Lebanese workers are found mostly in professional, managerial, and technical specialties within companies, in which case they are informal if the company is undeclared, or if the company is not declaring the right number of employees. The other aspect of informality in the construction sector is when Lebanese workers act as freelancers in plumbing, carpentry, electricity, or other similar occupations. In many of these cases, they have their own tools and network of contacts to develop their business based on word of mouth and feel no need to register their business.

## **SECTOR EMPLOYMENT AND SKILLS**

According to the GIZ in 2019, there are 20,607 employees in the agro-food industry, 110,600 Lebanese employees in construction, 10,000 employees in ICT, and 338,600 in tourism and hospitality. Moreover, the highest contribution in GDP in 2017 is 72.5 percent from the service sector, 22.6 percent from agriculture, 13.7 percent from real estate, 13.4 percent from wholesale and retail, 9.4 percent from public administration, and 7.3 percent from the financial sector (GIZ, 2019). The employment rate in the agricultural sector is larger in the North (10.5 percent) than in Lebanon overall (6.3 percent). When comparing by sex, there is a big difference between males and females: 60.2 percent of the total employed females work in the service sector, compared with 29.9 percent for males (CAS, 2009).

Skilled workers (excluding agriculture) represent 18.6 percent of the total number of employed people in Lebanon, compared with 19.4 percent in the North alone (ILO, 2017). There is lower participation of employed people in the North as professionals, office employees, and general managers. In 2009, the percentage of unskilled workers compared with the total number of employed people was the same for Lebanon as a whole and the North in 2009, at 9.8 percent. The percentage of skilled agricultural workers is much higher in North Lebanon (8.1 percent) than in Lebanon overall (5.3 percent). There is high participation in the armed forces in the North, at 12.0 percent of the workforce, compared with 6.2 percent in all Lebanon in 2009.

The dynamics of labor demand and supply did not change much in the past few years (Nauffal and Kassab, 2016). Sectors generating employment and having growth potential and those facing barriers to growth remain very much the same.

Labor supply and demand seems balanced for most of the human health and social work professions except nurses (Nauffal and Kassab, 2016). The market demand for nurses is 24,000 compared with a market supply of 7,000, with only 400 – 600 nurses entering the market yearly.

As for financial and insurance activities, and always according to Nauffal and Kassab (2016), the demand for accountants exceeds supply because every organization needs at least one accountant to manage its finances. Employment opportunities exist for the professional, scientific, and technical activities because such a position requires high levels of expertise.

The economic and political situation has slowed the demand for civil engineers and architects but did not influence demand for electrical and mechanical engineers.

The telecommunications and ICT sectors include companies in telecoms and mobile phones, internet, data processing, and computer systems, as well as print and audiovisual media. Specializing in these domains offers graduates great potential for employment. For example, Alfa, a major mobile telecoms company, has 1,300 employees, and recruits 100 to 200 fresh graduates annually. Moreover, several companies are providing software development outsourcing services. The steady increase in print, online, and audiovisual media has created numerous job opportunities for Lebanon’s university graduates distributed among journalism, camera, production, and TV-related jobs including marketing, management, and accounting.

The agriculture, forestry, and fishing sector gains importance because Lebanon’s environment is degrading as a result of waste management problems that have polluted beaches, rivers, and the air. Thus, solutions are needed to open a range of employment opportunities across the country. The labor market is in need of qualified people who are able integrate new technologies that will contribute to increased agricultural productivity while observing international standards, with the aim of increasing market competitiveness with neighboring countries.

Accommodation and food services activities consist of travel, tourism, and food services establishments. The travel and tourism sector is volatile and directly affected by the stability of Lebanon and the region. It experienced a sharp decline in employment in 2013, followed by steady growth since 2014. Total employment dropped in 2013 by 20.9 percent, and then increased by 22.7 percent in 2014 and 4.5 percent in 2015. Similarly, the restaurant industry is affected by security and political stability.

The industrial sector has suffered from the political instability of Lebanon and the adjacent countries, especially with respect to exporting goods. Nonetheless, industries have developed mechanisms of survival, such as using renewable energies to reduce costs, while also nurturing innovation and creativity.

## CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

RECOMMENDATIONS

Unreliable labor data	Formulate estimations based on analysis of different data points.
Syrian refugee pressure	Work with host communities and the most vulnerable Lebanese in the most affected regions to place them in TVETs and SMEs.
Higher unemployment in the North	Target several communities in the North.
Low participation of women in the workforce	Ensure gender balance in the CSP program, providing equal opportunities to women for both education and employment.
Higher educational attainment level among women	Leverage the high commitment and achievement of women to further advance their career prospects and employment opportunities.
Gender gap affecting women entrepreneurs	Consider stronger entrepreneurship angle in curricula, and encourage women to study entrepreneurship and understand all key aspects as well as possibilities of becoming entrepreneurs.
Skills gaps among youth	Introduce new curricula in private TVETs to cover all major gaps.
Insufficient employment opportunities	Focus on sectors that are less affected by the economic crisis and where jobs can still be created.
Large informal sector	Focus on legal framework behind self-employment and entrepreneurship, as well as legal rights, to encourage young people and businesses to formalize.
Low access to social security	Further training on rules and regulations and the laws surrounding employment and the rights of employees in the workplace.
Service-oriented economy	Leverage service sectors that are performing well and provide opportunities for job placement, and identify any gaps in other sectors where there are major skills gaps.
Opportunities in sectors such as ICT, new media, and creative industries	Focus on “sectors of the future” that provide significant opportunities for growth and potential for job placement.

## IV. LMA FINDINGS: PRIORITY SECTORS FOR JOB PLACEMENT

### PHASE ONE: LONG LIST OF SECTORS ANALYSIS AND REVIEW

In a first phase, a review of existing studies was carried out to check which sectors have been studied in depth and have been taken into consideration in national strategies or presented as attractive by other entities, donors, and governmental organizations. These were then filtered according to a number of criteria to reach a short list that was appropriate for the purpose of CSP. For each criterion, a score of 0 to 10 was given, and those sectors scoring the highest were taken into consideration or prioritized.

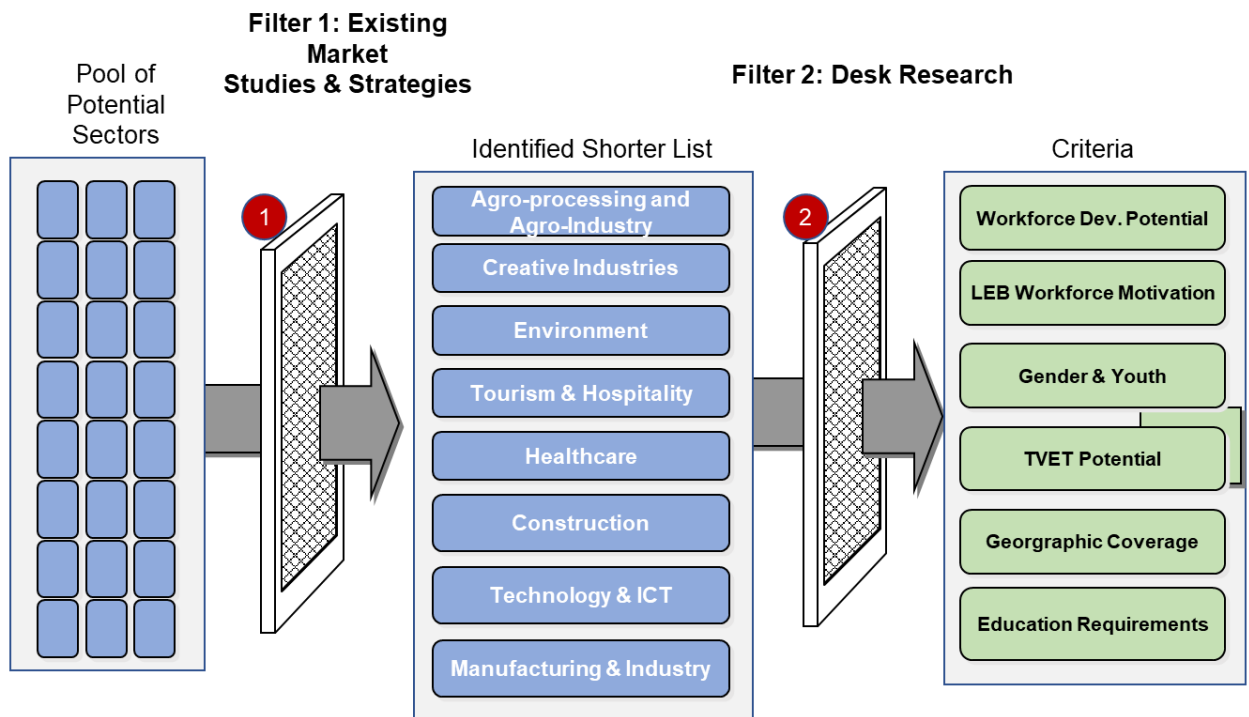


Figure 4: Shortlisted sectors and criteria

### AGRO-PROCESSING AND AGRO-INDUSTRY

#### SWOT ANALYSIS

##### Strengths

- Favorable climate, land, and considerable water resources make access to raw material relatively easy.
- Entrepreneurial spirit in the sector driven by donor interest in agro-food and capabilities in this sector.
- Strategic location between Europe and the Gulf Cooperation Council.
- Close distances between the production areas and the markets in the cities of Lebanon.
- Strong dairy production.

##### Weaknesses

- Absence of reliable food safety and quality standards
- Weak control capacities along the food chains
- High cost structure compared with that of other countries
- Institutional fragmentation and poor coordination, creating bottlenecks

	<ul style="list-style-type: none"> <li>• Weak marketing and logistics functions</li> <li>• Lack of adequate investments</li> <li>• High cost of production and ensuing market prices</li> <li>• Limited availability of specialized technical staff</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li>• Calls for improvement in quality standards, investment in research and development, and identification of niche products</li> <li>• Donor investments in the sector allowing companies to grow (example: EU Twining project)</li> <li>• Export markets in countries with high incidences of Lebanese expatriates</li> <li>• Rising popularity of alcoholic drinks production, including wine, beer, gin, and cider</li> <li>• Potential for further diversification in health driven agro-food categories, for example, those involving fruits and vegetables (e.g.: juices, etc.)</li> <li>• Strong potential for the development of apple cider</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Strong competition from Egypt, Syria, and Turkey in major export markets</li> <li>• Climate change, increase in price of fertilizers and oil and gas, and irrigation with untreated wastewater negatively influence the agricultural outputs necessary to produce agro-food products</li> <li>• Difficulty to access new varieties for legal (intellectual property rights) and financial constraints</li> <li>• Environmental impacts including increased agricultural wastes, depletion of natural resources</li> <li>• Climate change affecting seasons and outputs of agricultural raw material</li> </ul>

## SCORING AGAINST CRITERIA

CRITERION	ASSESSMENT	SCORE
Workforce Development Potential	The food and drinks sector are the least impacted by the economic crisis as these represent a basic need for the population and are less of a luxury than others might be. That said, issues with export and marketing are affecting the sector's potential growth. Despite that, the sector is performing well and expected by international organizations and donors to grow.	6
Lebanese Workforce Motivation to Work in Sector	Lebanese entrepreneurs have historically shown enthusiasm in agro-food as seen with the creation of notorious enterprises like Taanayel, Libanjus, Daher Foods, and many others. Although Lebanese citizens are less likely to work at factories or in the production process, they are very likely to show an interest in different specialties such as marketing, general management, etc.	6
Gender and Youth Empowerment and Engagement	There are equal opportunities for all to work in this sector because of the varying types of specialties needed. Low skilled, semiskilled and high skilled can all work in this particular sector. Youths can benefit through internships involving rotations in various departments. Women can easily work in this sector and are often found in	7

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high positions at agro-food companies.

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TVET Potential	Public and private TVETs are offering specialization in this field. Some are more up to date than others such as the Qob Elias school in the Beqaa which has become one of the most advanced TVETs in tackling different aspects of agriculture and agro-food.	7.5
Geographic Coverage	<p>The Beqaa, North, and South are the main regions in Lebanon where agriculture and agro-processing activities are concentrated. Many of the large agro-food businesses are concentrated in these areas.</p> <p>That said, agro-food enterprises have branches and representation in major cities, and can therefore have a nationwide impact when it comes to job placements.</p>	6
Education Requirements	Several types of occupation are offered in this sector at the level of management, administration and production. The level of education and skills required varies according to each occupation. Many technical occupations are required especially when it comes to factory work. The sector therefore offers a good balance of jobs for university as well as TVET graduates.	8

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#### MAIN OCCUPATIONAL GAPS — TO BE CONFIRMED BY FIELD STUDY

- The agricultural and food processing sector contributes to 7 percent of the GDP and employs around 9 percent of the Lebanese workforce. The food and beverages activities generate more than 25 percent of the manufacturing output, with an annual growth rate of 9 percent from 2007 to 2010.
- Agro-food is a key sector from a development perspective as it establishes backward linkages with the traditional agricultural sector and is labor intensive with the potential of creating employment opportunities, particularly for women and rural communities.
- While several universities in Lebanon offer agriculture and food industry programs, most companies have reported considerable gaps in skills that pose a significant threat to the growth of the sector. Most tertiary education graduates have high wage expectations, and most of the companies in the sector, especially considering their size, cannot afford to match their expectations.
- According to initial desk reviews and understanding of the market, the most in need skills appear to be the following:
  - Food safety and hygiene
  - Machine operators
  - Lab technicians
  - Marketing

- Market research
- New technologies: hydroponics, etc.
- Quality control
- Monitoring and evaluation

## TOURISM AND HOSPITALITY

### SWOT ANALYSIS

Strengths	<ul style="list-style-type: none"> <li>• Absence of reliable food safety and quality standards</li> <li>• Diverse tourism product including culture, beaches, winter sports, outdoor activities</li> <li>• Long history of being a tourism destination means talent and expertise exist</li> <li>• Proximity of mountain/sea/rural areas</li> <li>• Trilingual population</li> <li>• Culture and heritage</li> <li>• Home to one of the oldest continuously inhabited cities in the world</li> <li>• Attractive nightlife and hospitality sector</li> <li>• Large number of Lebanese expatriates returning home for holidays</li> <li>• Existing rural tourism strategy and some emerging businesses and initiatives aligning with the strategy</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>• Traffic jams and weak transport infrastructure discouraging tourism</li> <li>• Expensive air transportation and quasi-monopoly of local carrier MEA</li> <li>• Lack of land access since war in Syria</li> <li>• Pollution, notably of the sea, but also in mountains and forests, which are being destroyed for construction purposes</li> <li>• Lack of urban planning</li> <li>• Lack of funding to support startups and new businesses or encourage business growth</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li>• Relatively stable amid a region in turmoil</li> <li>• A magnet for NGOs, donors, and internal development organizations, which suggests that more Westerners are attracted to Lebanon</li> <li>• Rising interest in Lebanon among European tourists</li> <li>• Development of ecotourism and rural tourism notably hiking and trekking</li> <li>• Growing domestic tourism</li> <li>• Direct flights to and from Beirut make the country more accessible</li> <li>• Religious tourism strategy by the government</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Absence of professional training institutes and skills development trainings for employees in the sector</li> <li>• Lack of protection of Beirut's heritage and loss of identity in many areas of the country</li> <li>• Large number of refugees with no or very low skills illegally working in the sector</li> <li>• Deteriorating quality of service because of lack of skills</li> <li>• Internal political bickering a further threat to stability despite new</li> </ul>

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government formation

- Regional tensions high as US pulls out of Iran deal, Syria remains at war, war in Yemen, tensions between Lebanon and Israel
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## SCORING AGAINST CRITERIA

CRITERION	ASSESSMENT	SCORE
Workforce Development Potential	Lebanon is attracting in the last few years more and more tourists from Europe. Arab tourists are increasingly visiting Lebanon again after the lift of the ban of some Gulf countries on travel to Lebanon. The market has the potential to expand and attract tourists from the American continent because of the Lebanese Diaspora. Eco-tourism is growing and provides new opportunities.	7.5
Lebanese Workforce Motivation to Work in Sector	Tourism is one of the attractive sectors where Lebanese nationals are investing be it in the creation of guesthouses or other concepts such as ecotourism operators, etc. The Lebanese workforce is motivated to work in this sector because it is promising and interesting.	8
Gender and Youth Empowerment and Engagement	Women and youth are attracted to this sector. Growth in the eco- tourism and of rural tourism sub-sectors creates job opportunities for men and women alike. Youths can be positive drivers of growth in the sector thanks to innovative ideas and entrepreneurial ventures.	7
TVET Potential	<p>There are many TVETs offering specialization in tourism and hospitality. However, training and specialization in fields like eco-tourism and rural tourism are lacking.</p> <p>There is therefore a need to update the curricula and further expand the TVET offering in the sector.</p>	8
Geographic Coverage	<p>This sector could create jobs in all the regions of Lebanon especially the rural areas.</p> <p>It could be used as a tool to fight urban migration and empower residents of remote areas that are often impoverished and where the situation is further aggravated by the current economic crisis.</p>	8
Education Requirements	<p>The level of skills needed in this sector varies from the low skilled labor for cleaning to the high skilled management and administration. Tourism has the potential to create jobs in several sub-sectors including travel agencies, tour operators, hotels and guest houses , restaurants, car rentals, and recreational facilities.</p> <p>Hospitality related occupations can be acquired at TVETs, although most other occupations related to tourism require university degrees.</p>	7



## OCCUPATIONAL NEEDS AND GAPS — TO BE CONFIRMED BY FIELD STUDY

- Lebanon has become a magnet for international organizations and NGOs supporting the humanitarian crisis in nearby Syria and even in Lebanon, creating a flow of business travelers among them. This has also created curiosity among European leisure travelers whose numbers have increased in recent years. Activities such as hiking and trekking have developed, which appeal to Europeans who enjoy these activities, as seen by the increased popularity of the 475km long Lebanon Mountain Trail or other ecotourism activities.
- These activities have also appealed to domestic Lebanese travelers and Lebanese expatriates who have taken the habit of going on holidays within their own country, whether for a weekend, long weekend or a longer period of time. Lodging has developed in this direction, with more guesthouses and small boutique hotels opening in rural areas, in the mountains and small villages.
- Tourism is decentralizing away from Beirut and more into rural areas.
- According to initial desk reviews and understanding of the market, the most in need skills appear to be the following:
  - Tour operations
  - Tour guiding
  - Lodging management
  - Small accommodation management and marketing
  - Online marketing of tourism and hospitality
  - Rural tourism
  - Eco-tourism and sustainable tourism development
  - Food safety and hygiene

## HEALTH CARE AND MEDICAL

### SWOT ANALYSIS

#### Strengths

- Lebanon achieved the MDG goals related to maternal and child health and rates of immunization are reported as high
- Health indicators have remained good despite the many challenges facing the country
- There are 150 hospitals and (specialist) clinics in the country in total
- The country is amongst the highest quality and most technologically advanced in the Middle-East
- Large pool of qualified Medical Doctors
- Despite the investment in high technology, Lebanon is well rated in terms of cost effectiveness
- The 12.4 percent of GDP spent on health in Lebanon was decreased to 7.4 percent as a result of targeted strategies

	<ul style="list-style-type: none"> <li>Existing rural tourism strategy and some emerging businesses and initiatives aligning with the strategy</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>Primary care in Lebanon is highly underdeveloped since quality care is not equally accessible to all citizens</li> <li>The system is skewed towards inpatients rather than outpatients</li> <li>Health care expenditure has been on the rise and private hospitals have become fully occupied</li> <li>Lack of confidence in the public health care sector in Lebanon</li> <li>Lebanese public hospitals are unequipped and suffer from several deficiencies in terms of maintenance, quality, and inexperienced physicians and nurses</li> <li>3.5 doctors per 1,000 patients – double the regional average, while there is a shortage in nurses</li> <li>The basic organization of the MOPH pre-dates the civil war</li> </ul> <p>Despite that Lebanon hosts the largest number of refugees per capita in the world who are also in need of medical services, the donor's assistance is limited.</p>
Opportunities	<ul style="list-style-type: none"> <li>Enhancing nursing graduation and improving their working conditions to help supply the sector with the needed number of nurses</li> <li>Introduction of post-graduate training of medical inspectors, controllers and other physicians</li> <li>Potential to increase the export and import of qualified human capitals—doctors, nurses, pharmacists, lab technicians, etc.</li> <li>Big potential for health sector disruption by information technology and full digitization</li> <li>Potential for new and growing adjacent economic activities, including wellness and nutrition, medical and wellness tourism</li> <li>Potential to boost pharmaceutical production and exports</li> </ul>
Threats	<ul style="list-style-type: none"> <li>No government budget and poor investments in infrastructure development</li> <li>Brain drain</li> <li>Few training institutes focusing on technical specialties that are most in need in this market</li> <li>Demographic pressure due to refugee population</li> <li>Lack of investments in production facilities and absence of strong scientific research and development to boost pharmaceuticals</li> </ul>

## SCORING AGAINST CRITERIA

CRITERION	ASSESSMENT	SCORE
Workforce Development Potential	The sector is performing well and could be even better if Lebanon supports medical tourism. There is an increased rate of non-communicable diseases such as cardiovascular diseases and cancer, highly occurring in the country in addition to a rising life expectancy and a rise of Palliative care which is the specialized medical care for people with serious illness.	8.5

Lebanese Workforce Motivation to Work in Sector	Health care is one of the sectors that has historically attracted Lebanese youths and young graduates the most. Working as a medical doctor is seen as prestigious and highly praised in the Lebanese society. And while the sector remains very attractive to Lebanese youths, medicine is highly saturated, and the market needs other types of skills such as nursing and technical skills which could be less attractive to the Lebanese.	8
Gender and Youth Empowerment and Engagement	Women account for 70 percent of employees in the health care sector according to a recent ILO report. Higher figures for private laboratories, up to 85 percent, and lower figures for private sector medical companies (pharmaceutical manufacturers, distributors, and medical device traders) with almost equal percentages of male and female employment, 46 percent and 54 percent respectively.	8
TVET Potential	<p>Education and training in this sector are advanced in Lebanon. Hospitals offer their own internship programs. More establishments are needed to educate and train nurses.</p> <p>In recent years, nursing in TVETs is one of the specialties that attracts the most students.</p>	8
Geographic Coverage	<p>Health care services are needed all over Lebanon.</p> <p>Some areas in the North of Lebanon and Beqaa have poor access to health care services and infrastructure there needs to be developed and improved in order to cater to a growing population.</p>	9
Education Requirements	<p>The health care sector has the potential to create different types of jobs in the medical and paramedical fields as well as in alternative medicine. The education requirements vary from technical to professional and medical skills. The sector mainly requires high levels of attainment or technical know-how.</p> <p>Nursing and some technical occupations can be taught at TVETs, but the sector mostly requires university graduates.</p>	6

### OCCUPATIONAL NEEDS AND GAPS — TO BE CONFIRMED BY FIELD STUDY

- According to a recent ILO study on health care in Lebanon, region wise North and south Lebanon have the highest demand for registered nurses, while the Beqaa has the highest need for lab technicians and Southern Lebanon highest for administrators.
- Overall, registered nurses are the first choice for recruiters.
- While companies favor TVET graduates, they complained about the lack of technical and life skills among VET graduates.
- There is also a lack of orientation towards different specialties an occupations.

- The emerging sector of home-based health care is providing new opportunities.
- Meanwhile, private laboratories have seen the most significant growth, higher than the average employment growth reported. This also highlights the need for lab technicians.
- According to initial desk reviews and understanding of the market, the most in need skills appear to be the following:
  - Paramedical (physiotherapist, speech therapy, etc.)
  - Applied nurses
  - Practical
  - Nurses at home
  - Lab technicians
  - Administrators
  - Radiologists
  - Food safety inspectors
  - Health inspectors at municipality level
  - Machinery and equipment maintenance, operations, supervision
  - Warehouse management
  - IT/technicians

## CONSTRUCTION

### SWOT ANALYSIS

#### Strengths

- From the late 1950s to the early '70s, Beirut witnessed an almost uninterrupted boom, this was renewed in the 2005 – 10 period
- As a result, Lebanon is home to many contractors and construction companies with significant experience and expertise
- Large supply of highly skilled engineers and architects
- Strategic location for trade and commerce
- Proximity to Syria and easy connections through roads, ports and airports
- Attractive tourism destination and destination for hotels and relevant infrastructure

#### Weaknesses

- Domination of a foreign workforce as opposed to Lebanese workers in construction
- Mismatch between the prices of real estate and the population's purchasing power
- Lack of funding for large infrastructure projects
- Informal nature of employment in the sector and lack of protection of

	<p>employee rights</p> <ul style="list-style-type: none"> <li>• Absence of technical skills</li> <li>• Absence of skills certification and quality monitoring of workers</li> <li>• Absence of quality standards in building and construction</li> <li>• No maintenance services / follow-up on construction works</li> <li>• Poor standards and quality of education at TVETs making them unattractive to Lebanese students. Despite that Lebanon hosts the largest number of refugees per capita in the world who are also in need of medical services, the donor's assistance is limited.</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li>• Syria's reconstruction could benefit Lebanese companies although there is no guarantee</li> <li>• CEDRE conference infrastructure projects could be implemented if the appropriate measures are taken</li> <li>• TVET strategy and donor investments in construction sector could help improve standards</li> <li>• Assessment and certification standards could help change the nature of the sector</li> <li>• Outflow of Syrian refugees returning to their country would leave a gap in workforce servicing the sector and create job opportunities to Lebanese workers</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Oversupplied real estate market with declining sales could potentially cause the 'bubble to burst'</li> <li>• Discontinuation of the subsidized housing loan and lack of clarity over its future implementation</li> <li>• Arab buyers turning to Europe, Turkey and other destinations, unlikely to reconsider Lebanon</li> <li>• Syria reconstruction could lead to even lesser interest in Lebanon</li> <li>• Lebanon is highly polluted and the ongoing construction / destruction of its mountains and nature is causing it to lose its identity and appeal</li> </ul>

## SCORING AGAINST CRITERIA

CRITERION	ASSESSMENT	SCORE
Workforce Development Potential	A large number of occupations is created by the construction sector. However, real estate and construction is the most affected sector due to the economic situation. It might even have contributed to the current crisis in many ways. Unemployment among construction workers is high. The likelihood of a nearby recovery is low, as the market is highly saturated and a very large number of new apartments remain unsold.	4
Lebanese Workforce Motivation to Work in Sector	<p>The largest number of workers in construction are general laborers who are mostly of foreign origin.</p> <p>The sector historically attracted and continues to interest foreign laborers including Syrian, Palestinian, Egyptian and some Asian workers. Lebanese citizens are more interested in architecture and engineering both of which are highly saturated, in addition to administrative and management jobs which are very scarce.</p>	4

Gender and Youth Empowerment and Engagement	<p>The participation of women in this sector is low aside from administrative jobs.</p> <p>The participation of youth is moderate, and interest in the sector among this group is in fact low and decreasing.</p>	4
TVET Potential	<p>International organizations have been adamant to revive the sector and create jobs for Syrian refugees, which has led to a rising interest in construction related training programs.</p> <p>However, too many scattered and inconsistent efforts have been launched by many different NGOs leading to a lack of organization and consolidation of the effort at a national level. TVETs have stayed behind.</p>	6
Geographic Coverage	<p>The sector could create jobs all over Lebanon, notably in urban and peri-urban areas that are underdeveloped.</p> <p>The potential is now lower in large cities that are oversaturated with construction.</p>	6
Education Requirements	<p>Most companies in the construction sector require hard laborers and / or administrative staff.</p> <p>Engineers and architects are over supplied and unable to find jobs.</p> <p>This sector offers significant opportunities for TVET graduates because a large number of occupations are technical by nature.</p>	8

### OCCUPATIONAL NEEDS AND GAPS — TO BE CONFIRMED BY FIELD STUDY

- Construction companies complain about a lack of semi-skilled workers, particularly among those that also work outside construction, such as electricians or plumbers.
- Few Lebanese select to work in these trades and prefer to continue with a university education after graduating from a technical school.
- Thus, construction companies like Memo or Zmerly have started their own vocational training centers where they train workers in specialized trades. The UNDP survey also revealed that there is a troubling lack of general workplace competencies, with companies reporting problems in terms of employees being able to solve problems (81 percent), check and record their work (80 percent), and select, use and maintain tools (78 percent)
- According to initial desk reviews and understanding of the market, the most in need skills appear to be the following:
  - Electrician
  - Wind-generating-electric-power installer
  - Electric-distribution checker
  - Elevator constructor, electric

- Plumber
- Laborer, plumbing
- Plumber, pipe fitting
- Plumber supervisor, maintenance
- Heating and cooling systems technicians
- Water treatment technicians

## TECHNOLOGY/ICT

### SWOT ANALYSIS

Strengths	<ul style="list-style-type: none"> <li>• Proliferation of incubators, training centers and tech-oriented programs to support the ICT and tech sector</li> <li>• Government commitment to e-government, support of start-ups and digitization</li> <li>• Strong banking and telecom sector driving demand for ICT products and services</li> <li>• Large pool of qualified and skilled talent and youths</li> <li>• Some successful entrepreneurial businesses</li> <li>• High interest among the youth in this sector and</li> <li>• Lebanon is well positioned for regional hub status</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>• Weak ICT infrastructure</li> <li>• High telecommunications costs and absence of high-speed internet connections</li> <li>• Success rate of tech startups is around 1-5 percent according to the UK tech hub.</li> <li>• Lack of a regulatory framework facilitating the registration and formalization of freelancers and micro businesses in the sector</li> <li>• Strong concentration of the ICT and startup ecosystem in Beirut leaving other cities and rural areas outside of the loop and unable to create jobs in the sector</li> <li>• Deficient regulatory framework and constant electricity outages</li> <li>• There is a surplus of graduates with degrees, yet a shortage of skills within these degree . Many programs are theoretically oriented with little practice. The industry is changing fast and programs are not always reviewed and updated with the same speed.</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li>• All analog, traditional services are being transformed into digital</li> <li>• The digital sector can outsource jobs beyond the borders of Lebanon, Skilled and unskilled labor can work from here to service other markets</li> <li>• The digital sector is the only tradable sector in Lebanon, the services are tradable, and exportable</li> <li>• Emergence of coding as a needed skill for the sector, and that can be taught to low skilled, women, youths and all demographics segments</li> <li>• Emergence of at least three coding schools</li> <li>• Multiplicity of trainings, programs and centers related to IT</li> <li>• Opportunities in fintech, online retailing, gaming, health tech</li> <li>• Cyber security is a pressing issue in Lebanon, with the potential for attacks to undermine consumer and enterprise confidence</li> </ul>

Threats	<ul style="list-style-type: none"> <li>• Political and economic instability continues to be a drag on the development of the IT market</li> <li>• High rate of software piracy a drag on market growth</li> <li>• Brain drain due to the lack of efficient and sustainable financing tools to support scaling and internationalization</li> <li>• Strong reliance on donors and international organizations / NGOs for training and development</li> <li>• Competition from GCC markets notably the UAE and increasingly Saudi Arabia</li> </ul>
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## SCORING AGAINST CRITERIA

CRITERION	ASSESSMENT	SCORE
Workforce Development Potential	<p>The knowledge economy is promising, as most businesses are going digital or at least integrating digital services to their overall offering.</p> <p>The sector is cross-cutting and exists within all other sectors of the economy, it therefore offers opportunities throughout.</p>	8
Lebanese Workforce Motivation to Work in Sector	<p>The motivation of the Lebanese workforce to work in this sector is high because jobs will be available not only in the growing number of digital companies but also in other businesses increasingly using technology.</p> <p>Moreover, this is a key sector for young Lebanese and digital natives who see technology and ICT as an inherent part of their everyday life.</p>	8.5
Gender and Youth Empowerment and Engagement	<p>The sector therefore attracts the Lebanese youth , both males and females, as entrepreneurs and employees.</p>	8
TVET Potential	<p>TVETs offer programs in technology and ICT although these programs are not always up-to-date. Coding is a promising sub-sector and some schools have begun offering this specialization. Coding schools have emerged in Beirut, the North and South of Lebanon and offer significant opportunities.</p>	8
Geographic Coverage	<p>Most of the technical incubators are concentrated in Beirut. Several ICT companies outside Beirut complain of being left out. There are few incubators in the North and the South, but not enough to help develop talents and create more jobs.</p>	5
Education Requirements	<p>While youths are more likely to require higher education for employment in this sector, coding and other occupations can easily be picked up at TVETs and training centers.</p> <p>There are many technical occupations in the digital and ICT sector, and also many programs in higher education.</p>	6.5



## OCCUPATIONAL NEEDS AND GAPS — TO BE CONFIRMED BY FIELD STUDY

- Software development, IT technical support, and web development were the most important vacancies according to a recent study funded by the EU. That said, within small companies and start-ups, recruits are often requested to be more versatile and able to provide support in many various areas.
- Many occupations can be carried out without the need for a high level of work experience. These include software developers, IT technical support, telecom technicians, software engineers, and others.
- In recent years, the value of coding as a skill that can be taught to low-skilled or non-skilled workers is being explored as it is the basis for all programming and software development.
- Based on initial desk reviews and understanding of the market, the most in need skills appear to be the following:
  - Information security
  - Coding
  - Web design and development
  - Backend / website Maintenance
  - Mobile application development
  - Software engineering

## CREATIVE INDUSTRIES

### SWOT ANALYSIS

Strengths	<ul style="list-style-type: none"><li>• Creative and innovative human resources</li><li>• Outstanding local talent</li><li>• Deep understanding of the regional cultures</li><li>• Multilingual professionals</li><li>• International success stories like Capharnaum and The Insult have repositioned Lebanon's cinema industry worldwide</li><li>• Very strong advertising industry and talents in that industry who have also helped build the GCC markets' advertising sector</li><li>• Strong brand name and identity when it comes to fashion and jewelry</li><li>• International success stories in haute couture</li></ul>
Weaknesses	<ul style="list-style-type: none"><li>• Political instability</li><li>• Small local market</li><li>• Lack of advertising law in Lebanon</li><li>• Lack of regulation for outdoor advertising</li><li>• Weak cooperation between industry and education</li><li>• Difficult access to finance</li><li>• Property rights protection</li></ul>

	<ul style="list-style-type: none"> <li>• Weak internet infrastructure</li> <li>• Lack of infrastructure such as media cities</li> <li>• Lack of coordination between government bodies and private entities (movies)</li> <li>• Run by conglomerates (depending on the sub-sector)</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li>• High potential of domestic and regional markets</li> <li>• Dissemination tools available to support regional exposure</li> <li>• Growing demand for online content creation</li> <li>• Strong potential for trade and investments</li> <li>• Revived interest in Lebanon as a filmmaker's country</li> <li>• Possibility to reposition Lebanon as a production / shooting destination for movies and advertisements (thanks to nature and environment not found in other regional countries)</li> <li>• Opportunities to expand market for jewelry and fashion exports and international exposure</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Brain drain</li> <li>• Piracy and easiness to copy and sell films</li> <li>• Alternative entertainment sources (Netflix/internet, home videos)</li> <li>• Competition from regional countries in terms of production capabilities</li> <li>• Competition with regional, less expensive shooting destinations</li> <li>• Strong infrastructure in GCC countries such as TwoFour 54 in Abu Dhabi</li> <li>• Lack of foreign direct investments</li> <li>• Smaller advertising and communication budgets due to economic downturn</li> <li>• Shift to online content impacting large production companies who cannot survive on smaller budgets</li> </ul>

### SCORING AGAINST CRITERIA

CRITERION	ASSESSMENT	SCORE
Workforce Development Potential	The sector could be subdivided into several sub-sectors namely; advertising, and graphics , fashion and performing arts including dance, music, theatre, drama, movies, show business and entertainment. The sector has the potential to expand and create more jobs. The challenge to expand is bigger for sub-sectors that require more funding than others.	6
Lebanese Workforce Motivation to Work in Sector	<p>The workforce in Lebanon is highly attracted to the creative industries. However, some sectors are suffering because of the economic crisis. The advertising market in Lebanon is small and shrinking, and companies are feeling the pinch and unable to recruit. Other sectors like film suffer from the lack of funds to finance their projects.</p> <p>Lebanese talents are nonetheless still interested and are also attracted to media, show business and entertainment and several regional channels have studios in Lebanon.</p>	8

Gender and Youth Empowerment and Engagement	The sector in general is attractive to both women and youth who are often found in various positions.	8
TVET Potential	Depending on the sub-sector, more and more institutions are offering specialization in fields such as filming and photography, graphics, fashion, and arts.  There is a good potential to work with some of them in order to improve the curricula.	7
Geographic Coverage	The sector is concentrated in Beirut and Mount Lebanon, but it can also create jobs in other areas	5
Education Requirements	The sector can create a large number of jobs for skilled labor, creative talent and managers.  Some technical occupations can easily be taught at TVETs or training centers, such as photography, filming, sound and light engineering, etc.	6

#### OCCUPATIONAL NEEDS AND GAPS — TO BE CONFIRMED BY FIELD STUDY

- The importance of the film industry to the local economy can't be neglected as a result of the indirect impacts on the film value chain. We can safely assume that the direct number of people working in the industry is closely related to the number of films produced per year. Data compiled from movies produced show that around 1000 people.
- More specifically, there are usually around 10 people involved in the pre-production phase of a movie to draft the script, prepare a detailed schedule and budget, finalize the script, determine the filming locations and negotiate contracts. In the production phase, the number of people is function of the size of the movie. In some cases, the crew may exceed 200 people for large-budget films.
- According to IDAL, as of 2016 there were around 97 companies involved in audiovisual production and post-production.
- According to early estimates and understanding of the market, the following seem to be the most in need occupations:
  - Film or videotape editor
  - Scenario writer
  - TV/film/theatre set designer
  - Film technician
  - Gaffers — chief lighting technicians
  - Other technicians
  - Set electrician

- International sales agent
- Environment, clean and renewable energies

## ENVIRONMENT/CLEAN AND RENEWABLE ENERGIES

### SWOT ANALYSIS

Strengths	<ul style="list-style-type: none"> <li>• Compatibility of Lebanon with the physical requirements for renewable energies (solar radiation, wind, water and bio-energy available)</li> <li>• Strengths of the sector include:               <ul style="list-style-type: none"> <li>• Growing diversification towards clean energy sources</li> <li>• Decreases dependency on fossil fuel and provide a partial solution to the electricity shortage in Lebanon</li> <li>• Local source of energy, independent from oil price fluctuations</li> </ul> </li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>• Insufficient awareness of environmental issues, solutions and long-term vision</li> <li>• High pollution, weak infrastructure</li> <li>• No or very little government support to recycling as a solution to the solid waste crisis</li> <li>• Priority is still on economic growth rather than environment protection</li> <li>• High oil-dependent energy system</li> <li>• Flat building rooftops occupied by domestic equipment (little space for solar panels)</li> <li>• Lack of know-how and expertise</li> <li>• Lack of environment related education and training institutes</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li>• Increasing gap between energy supply and demand, requiring the introduction of new technology and solutions</li> <li>• Increasing awareness of climate change among the youth</li> <li>• Green entrepreneurship initiatives favored by the civil society</li> <li>• Growing interest in terms of studies and programs from academia and NGOs in the last 5 years</li> <li>• Strong potential for introduction of TVET level occupations</li> <li>• Basic policy framework recently being introduced</li> <li>• Proliferation of new green technologies and solutions that can be adopted locally</li> <li>• Existing industries in Lebanon such as the metal industry and machinery can contribute to renewable energy systems development and manufacturing</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Dominant position of the fuel providers.</li> <li>• Discontinuity of public policy, implementation challenges, and weak law enforcement.</li> <li>• Renewable energy systems manufacturing is hard to achieve locally in the short-medium term, since the industrial sector lacks the necessary infrastructure and experience required to produce these components at competitive prices.</li> <li>• Discovery of oil and gas in Lebanon might shift attention and efforts away from clean and renewable energy sources</li> </ul>

### SCORING AGAINST CRITERIA

CRITERION	ASSESSMENT	SCORE
Workforce Development Potential	The sector has the potential to create direct and indirect jobs. The workforce has high potential to develop within the sector is still developing and not yet saturated with labor and experience. The early joiners in the workforce have the chance to grow with sector. It is still in its infancy but will require a more serious commitment by the government in order to be able to thrive.	6
Lebanese Workforce Motivation to Work in Sector	<p>The motivation to work in the sector is sensitive to the type of jobs as low skilled positions such as sorting jobs at sorting facilities are not desired by the Lebanese workforce.</p> <p>Interest is stronger when it comes to green entrepreneurship and environmentally friendly ideas all of which are being launched by Lebanese talent. Lebanese talents are nonetheless still interested and are also attracted to media, show business and entertainment and several regional channels have studios in Lebanon.</p>	7
Gender and Youth Empowerment and Engagement	<p>Not all jobs in that are social accepted to be practiced by women. However, women and youth play a major role in changing the mind set and approaches towards environmental issues and practices such as households sorting practices.</p> <p>There could be significant opportunities for women and youth if the sector develops positively.</p>	6
TVET Potential	Directly related specialties are not offered in TVETs however curriculum of indirectly related specialties can be adjusted to cover the sector's needs.	7
Geographic Coverage	<p>The diverse clean energy sources are spread around the country, thus related projects would create jobs in different regions especially rural areas.</p> <p>That said, at the moment there are few initiatives which is why the impact has not been visible nationwide.</p>	7
Education Requirements	<p>The level of skills needed varies for low skilled job and to high skilled job. Many directly related jobs are sector specific and require specific training. Sorting at the source and similar occupations related to waste management do not even require TVETs.</p> <p>That said a large number of occupations require TVET or specific training that can be provided by private training institutes.</p>	8

## OCCUPATIONAL NEEDS AND GAPS — TO BE CONFIRMED BY FIELD STUDY

- Clean and renewable energies can create jobs in different sectors. Direct employment can take place in installation, operation and maintenance while indirect employment takes place in the services sectors such as the construction sector, the metal industry, education on vocational and higher education level, wholesale and import as well as transport.

- A new trend in green buildings is also driving the need for new types of skills previously inexistent. Such skills do not yet have any trainings in Lebanon. Many youths are seeking training and development abroad in order to specialize in these areas.
- Based on initial desk reviews and understanding of the marketing, the following seem to be the most in need occupations:
  - Heating and cooling systems technicians
  - Water treatment technicians
  - Heavy equipment operators
  - Heavy equipment mechanics and technicians
  - Compactor container maintenance technicians
  - Waste management facilities job
  - Solar panels technicians
  - Automated controls technicians
  - Design Build/Energy Engineer
  - Green building engineers

## INDUSTRY AND MANUFACTURING

### SWOT ANALYSIS

Strengths	<ul style="list-style-type: none"> <li>• The Lebanese Diaspora helps in driving exports</li> <li>• Industries with potentials such as dairy, wine, clothing and pharmaceutical</li> <li>• Close proximity to large markets in Saudi Arabia and relatively low cost of shipping/routing compared to competitors in the region (threatened by Syrian crisis which is disrupting land routes)</li> <li>• Availability of Capital. Local financing to the industrial sector has been steadily increasing according to McKinsey study.</li> <li>• Availability and quality of medium- and high-skill labor at relatively low wages</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>• Poor infrastructure (power/ transportation)</li> <li>• Few industrial zones</li> <li>• High costs of production</li> <li>• Little collaboration with between education and producers regarding needed skills</li> <li>• Large number of small enterprises brings little bargaining power to much bigger suppliers and customers</li> <li>• Dependency on imported raw material</li> <li>• Shortage of financing</li> <li>• High exporting cost</li> </ul>

Opportunities	<ul style="list-style-type: none"> <li>• Attract foreign investment from countries suffering from instability</li> <li>• Loans subsidized by the Central Bank</li> <li>• Collaboration with universities in Lebanon in the R &amp; D</li> <li>• The discovery of oil and gas in Lebanon and the implementation of the Electricity plan will have a major impact on the development of the sector.</li> <li>• The end of war in Syria will open the land routes for export</li> <li>• Opportunities to expand market for jewelry and fashion exports and international exposure</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Foreign competition</li> <li>• Lack of protection from dumping</li> <li>• Weak property rights system that does not encourage investment in R &amp;D</li> <li>• Rising cost of raw material</li> <li>• Shortage of some technical skills</li> <li>• Decreasing purchasing power of the Lebanese citizens</li> <li>• Illegal competition from foreign Syrian producers in Lebanon</li> <li>• Smuggling of goods via the Syrian borders</li> <li>• Exporting is difficult by land due to the Syrian crisis</li> <li>• Corruption</li> </ul>

## SCORING AGAINST CRITERIA

CRITERION	ASSESSMENT	SCORE
Workforce Development Potential	<p>The manufacturing sector is under significant pressure with many factories closing down in recent years.</p> <p>Lebanese industry is finding it hard to survive because of the strong competition and much lower prices of products made in nearby countries, as well as imports from Turkey, China and others. The government's vision to create industrial parks is still shelved and requires much funding to kick-off.</p>	5
Lebanese Workforce Motivation to Work in Sector	<p>The majority of businesses in industry and manufacturing require hard labor, which is most often foreign.</p> <p>The Lebanese workforce is mostly found in skilled and managerial positions.</p>	5
Gender and Youth Empowerment and Engagement	<p>There is a low engagement and/or interest by the youth. The numbers of TVETs graduates in related specialties has been declining.</p> <p>Women can work in factories, but most Lebanese women have not shown any interest in doing so. Foreign women including Syrians and Palestinians do work in factories across the country. There could be significant opportunities for women and youth if the sector develops positively.</p>	5

TVET Potential	A large number of TVETs offer related specialties however they lack the right tools and tactics to encourage students' enrollment.  There are opportunities to improve the curricula and work hand in hand with existing TVETs to boost enrollment.	6
Geographic Coverage	Factories are distributed across Lebanon with relatively equal concentrations in Beqaa, North and South of Lebanon and a high concentration in Mount Lebanon as well.	7
Education Requirements	This sector strongly requires technical skills for factory related work.  It also requires higher education when it comes to engineering, management and other occupations.	7

### OCCUPATIONAL NEEDS AND GAPS — TO BE CONFIRMED BY FIELD STUDY

- The most relevant industries are the food processing, construction material, chemicals products, textile, metal, machinery, and jewelry.
- According to IDAL There are over 6,400 industrial firms in Lebanon, with more than 22 percent in the Agrofood sub-sector.
- Quality control is in demand in the food industries. There is high demand in many industrial companies for electrical and mechanical engineers, as well as technicians. There is increased demand for these skills within industries related to plastic, furniture, paper and carton, and food; plumbing and electrician opportunities often remain unfilled due to a lack of available workers with the necessary technical qualifications. There is a shortage in computer aided design (graphic design) and technology, maintenance and machine operators, technicians.
- Based on initial desk reviews and understanding of the market, the most in need occupations seem to be the following:
  - Quality controller
  - Electrical and mechanical engineers
  - Plumbers
  - Electricians
  - Machine operators
  - Industrial Electronic technician
  - Hydromechanical and industrial maintenance
  - Hydraulic mechanics of machineries
  - Industrial Production technician



- Industrial IT
- Electro mechanics

## PHASE TWO: RANKING OF SECTORS BASED ON SCORES

The above analysis leads us to the ranking of sectors by relevance and potential for employment, according to the six identified criteria.

This ranking was used to fine-tune the methodology and choose SMEs to contact during the field study.

Initially, companies operating in health care, technology and ICT, agro-food, environment, and tourism were listed for potential interviewing.

1	Healthcare: Scoring Against Criteria	47.5
2	Technology & ICT: Scoring Against Criteria	44
3	Tourism & Hospitality: Scoring Against Criteria	43.5
4	Environment: Scoring Against Criteria	42
5	Agro-processing and Agro-Industry: Scoring Against Criteria	41.5
6	Creative Industries: Scoring Against Criteria	40
7	Industry & Manufacturing: Scoring Against Criteria	39
8	Construction: Scoring Against Criteria	33.5

Figure 5: Sectors in Lebanon ranked according to score.

## V. DEMAND SIDE: FINDINGS BY SECTOR/OCCUPATIONAL AREA

Upon completing the desk review and ranking sectors, initial findings from the field study helped the team narrow down to three main sectors/occupations of interest (see methodology and limitations section).

### MAINTENANCE OF INDUSTRIAL EQUIPMENT AND MACHINERY

#### SECTOR OPPORTUNITIES

Despite the current difficulties facing all sectors in Lebanon, many of the interviewed companies remain hopeful and have adopted a 'survival mode' strategy whereby employment and investments are currently frozen. That said, looking forward into the future, opportunities have been pinpointed by respondents. Agro-Food still offers opportunities for growth. Companies mentioned the potential for line and product extensions, introducing new products such as Bonjus's new yoghurt line of products. This remains the backbone of Lebanese manufacturing and industry and despite the current freeze in employment, investment and development strategies, it remains a major drive of growth for the long term.

Printing is moving into new specialization, such as labelling in the case of the Arab Printing Press, which is suffering not only from the current situation but from the shift from traditional to online communication which has had an impact on everything related to paper printing. For generators and industrial equipment, including data centers for example, new sales are down but maintenance contracts remain in place and actually offer significant opportunities for growth and to sustain income during times of crisis. Schneider confirmed having openings for jobs even in the midst of the current crisis, thanks in great part to the existing maintenance contracts. Waste sorting companies and factories will be in high demand with changes in government policy. Bou Chalhoub is one of the pioneers in this sector and is now working with most large factories, supplying them with the needed equipment and providing maintenance for it.

Large industrial factories like Indevco's are suffering from the current economy but with more than 2,300 employees, the business is solid and diversified enough to weather the storms and focus on workforce development during the upcoming difficult times. Manufacturing companies and heavy industry suffer from high costs and high custom fees which makes selling at a competitive price and exporting very challenging.

Changes in policies and regulations, as well as further support to industry and manufacturing by the government could help solve these issues. As mentioned by the CCIB, a strategy to support Lebanese industry is underway, and had been adopted before the resignation of the government in October 2019.

#### WORKFORCE WILLINGNESS TO WORK IN THE SECTOR

Respondents across focus groups did not express any negative attitude towards working in maintenance. However, It is a more interesting path for men than it is for women, and across focus groups, many male respondents had studied mechanical specialties in TVETs. Many also mentioned the need for large plants and factories that can absorb a large number of employees. Most FG respondents are eager to work at any cost or in any industry as long as they are able to find a stable and sustainable job. From the employers' perspective though, Lebanese youths often show a lack of

interest or motivation to work in maintenance and factory related work. Bou Chalhoub complained about the lack of ambition among the youth in the Beqaa and said that finding committed employees is a big challenge. Jubaili also complained about employees getting trained and then leaving the company for a better opportunity.

Other issues according to Indevco and others include a tendency among youths to shift from TVET to continue their education at universities especially with the bridging program that allows them to receive the engineer title. This is causing a lack or deficiency in technical people to work on the field in the factory. Moreover, according to some respondents, the technical workforce is often seeking work in the army or security forces due to the benefits provided by these. According to survey results, 5.6 percent of respondents are willing to work in repair and maintenance and 4.6 percent as electricians. This reflects a still very prevalent negative attitude among students and youths towards technical careers. This is further corroborated by other findings that show the majority of respondents are not willing to attend trainings at TVETs, and prefer to go to universities, even for training purposes.

### INTERNSHIP AND TRAINING POTENTIAL

The agro-food sector can require seasonal staff, which is an opportunity for internship placements. For instance, Bonjus requires around 50 additional staff to work on ice cream machines during the summer ice cream season. For some companies, internship programs are well established, for others they are only starting to take shape. At Bonjus, interns are mostly in the quality assurance department but there is no established internship program.

Companies agree that internships are essential to acquire hands experience and technical skills and are therefore in favor of these. For example, Indevco takes 160 interns every year, and Jubaili around 60. That said, companies either don't pay their interns, or they only provide them with transportation stipend. Bou Chalhoub provides internships for engineers and technical graduates, transportation is provided, but if the intern proved to be hardworking and has potential in excelling, he is offered a full-time job.

Moreover, in terms of training these are provided in-house by most companies. Arab Printing Press provided training in partnership with APAVE, and introduced a soft skills training program with an expert. For more technical trainings, staff are often sent to Germany to train on the relevant equipment which does not exist in Lebanon. Bonjus provides in-house training through its own sales academy. Indevco introduced summer training programs which aims at identifying best in class potential recruits, but most declined to join the company due to either going to the army or going to universities. LibanLait sends the quality control people to ISO trainings and other staff to Candia France, or training centers in Lebanon. Mounir Bsar provides training in-house through shadowing and practice. It has a learn-as-you-go program. That said it requires staff to be certified in quality control. Daher Foods has its "Daher foundation" for trainings given to the technicians, both Mechanical and electrical. The current economic situation may encourage employers to seek more interns as employment is frozen across the vast majority of companies.

Mentioned TVETs and training centers include Don Bosco, Cortbawi, Edde Insitute, the Qob Elias AgroFood TVET, APAVE, Al Kafaat, and Schneller.

### SKILLS GAPS AND NEEDS

Maintenance requires mechanical skills, and young fresh graduates from mechanical fields can be recruited to work in field operators or as field officers. Typical electrical and mechanical students are most in need for maintenance occupations. Machinery maintenance technicians are needed, especially for new and automated machines that require specific skills. For Jubaili most employees are technicians in mechanics, electricians, and welders. Welders are usually working in production in the workshop, electricians and mechanics work in the production, assembly line, or assembling. Bou Chalhoub also requires welders as well as lathers. One of the emerging needs specifically in agro-food sector is the need for technicians related to waste water treatment plants that are being imposed industry wide, for the treatment of wastewater from farms; one farm in the Beqaa requires 3 technicians and 1 engineer for this purpose.

Liban Lait confirmed facing challenges in finding appropriate staff for the technician positions related to its wastewater management project, whereby all three technicians recruited for this purpose were replaced three times during the course of 3 months. Indevco too is very interested in having people in the industrial maintenance sector, but there is a gap between the manufacturing entities and the availability of skills and competences in the pool of people applying. Many employers complain about the lack of soft skills. Bou Chalhoub insisted that the skills that are missing among employees are soft and personal skills, such as communication. That's why communication with clients remains at high levels, between the engineers or the owner, to avoid any miscommunication. For Daher Foods the biggest gaps are in the technical and maintenance department. The company also requires quality control staff for which they train internally. Communication, leadership, analytical, emotional intelligence, time management, and language skills are the most in need soft skills for occupations related to maintenance.

### HR SUPPORT REQUIREMENTS

Larger companies like those in the agro-food industry had HR departments, although in the case of Bonjus, the HR department is new, it has been there for 8 months. Prior to that, the department in charge of human resources was the personnel department which dealt mostly with administrative tasks related to employees. A restructuring of the HR department also recently occurred at Arab Printing Press and the new HR manager is enthusiastic about any support or partnerships that could occur to strengthen the HR function.

Smaller companies with fewer employees like Bou Chalhoub have no HR department and hiring / human resources decisions are taken at general management's level. Nevertheless, whether there are HR departments or not, the department's function and responsibilities often remain limited and less strategic in nature.

That is why most companies welcomed the idea of receiving support in staff training or HR processes. Indevco which is one of the largest Lebanese enterprises is seemingly the company that has the most developed and advanced HR department and HR systems in place. The company was for example able to launch a new program in Saudi Arabia called the "Squad Program" which is a 2 year program whereby technical students are hired to rotate every 6 months in different departments and get a general idea about the departments. The value of human resources as a function in companies in Lebanon is still underleveraged and misunderstood. Which leaves significant room for development and partnerships to empower HR staff and support them in developing the company's workforce and make sound recruitment decisions.

### TECHNOLOGY AND INFORMATION COMMUNICATIONS TECHNOLOGY

## SECTOR OPPORTUNITIES

IT and technology is a cross-cutting sector. Digital and IT skills are required in any type of business which makes it an interesting niche to look into. Moreover, new 'sub-sectors' are emerging on a regular basis, which creates a need for new specializations, staff and employees across sectors. According to the IT syndicate, cyber security is one of those sub-sectors which is now underleveraged in Lebanon and will offer significant opportunities in the near future especially knowing that technology, machines, and systems are all based on technology.

Moreover, the IT syndicate also mentioned opportunities in the oil and gas sector which will also require a large number of jobs trainings in IT security, facility management, cyber security, machinery, software and others. Maliatec mentioned three main axis that provide the potential for strong growth: BMI or business intelligence systems, cyber security, Cloud technology and IT networking and infrastructure. Maliatec insisted on the cloud technology as well, stating that what is needed now is to have people who are cloud literate, and to understand how the cloud operates from communication to operation. Understand the technology, pros, cons, and the culture of cloud.

While the current situation in Lebanon makes it hard to foresee any immediate growth, these sub-sectors can only bring about growth in the longer term and upon the recovery of the economy. That said, the sector also faces challenges. According to AIY expert solutions, the gaps are not specific but general, macro issues such as lacking creativity or development opportunities. According to AIY, the infrastructure is also missing and does not support growth in the IT sector.

The IT Syndicate reiterated such views, saying that the government does not leverage the sector enough and did not provide the regulatory support to favor its growth and development. The Syndicate indicated that the implementation of the law of e-signature was only recently signed, and that more work needs to be done for data mining, data security, and others.

## WORKFORCE WILLINGNESS TO WORK IN THE SECTOR

Among youths interviewed in the South, North and Beqaa, few had advanced IT or technology skills or had received any training in this specific sector. There seems to be a gap between market needs and skills being sought after by youths in those regions as no or very little interest in IT was shown. In the Beqaa, respondents associated technology and ICT with fixing ACs, fixing phones and other household items.

In the Beqaa, women are more likely to study English literature, psychology, or child care and men car mechanics, construction and technical repairs. In the North, women were either in nursing and health care specialties, engineering or teaching. Most men had technical / mechanical skills. In the South, women were more into nursing, childcare, teaching and hairdressing/beauty and esthetics; men were more inclined to study mechanical engineering, business or general science.

That said, most respondents acknowledge that IT is a growing sector which offers great opportunities and some said that they would be willing to consider a change in specialty in order to join this sector. This could be related to the fact that the biggest IT companies such as Murex, Maliatec and many others are in Beirut, which is also the main hub for all tech startups.

With few ICT companies located in the Beqaa, North and South, the sector is not seen as a priority by youths in the regions. That said, large companies like Maliatec provide free transportation to employees who live outside of Beirut. Most men are willing to relocate or commute to Beirut to seek employment, but women are not as flexible as men are when it comes to location and

commuting. Survey results show that 11 percent of respondents are interested in working in IT and network security, and another 10.8 percent are willing to work in coding and software development, thus highlighting the attractiveness of these occupations for the Lebanese workforce.

## INTERNSHIP AND TRAINING POTENTIAL

The capacity of different companies to provide internships in this sector varies depending on size and scope. Many of the IT focused companies in Lebanon are small businesses and startups like Vabout that cannot absorb a large number of employees or afford to train new staff unless they are 'here to stay' and joining the company for the long term. Even for larger players like AIY experts, training staff and engaging in structured internships is challenging as this is perceived as a 'waste of productive time'. AIY recruits 3 new staff every 4 months, and each one requires at least 3 months to become fully productive according to the owner.

IT companies also often develop proprietary products and services that require specific training and workforce development. That is why AIY experts said that it prefers to provide training in-house: 'we are a very specific company so I don't think we will find someone training on what we give or we need here.

In our case we are developing our own product and this product is very niche.' In the case of Azkatech, the company simply does not believe that the needed skills are available in Lebanon, and therefore relies extensively on its own training capabilities. The company looks for basic skills when recruiting and invests in in-depth training once a new employee is on board. Moreover, contrary to the maintenance related occupations, interns in the IT sector may not be as useful to the company during their internship.

A much larger company, Malia, banks far more extensively on internships. The company provides internships for at least 3 months in all positions. Over 50 interns are taken in per year, across different companies in the group. Majors include chemistry, pharmacy, quality control, quality assurance, mechanical engineers, warehouse, maintenance, software developers, and many others. Larger companies that have the capacity to absorb interns and employees are therefore the more interesting potential partners.

Some of the mentioned training providers include Formatech, SE Factory, Codi, Nada Ouwayjan from the Research Department, SGCEL, UK based company for cyber security training (NCSC.gov.uk). Azkatech insisted that Lebanon has significant skills gaps and that graduates, and youths barely have the basic skills and requirements in terms of computer science and computer literacy.

## SKILLS GAPS AND NEEDS

Skills needed are very broad and a wide spectrum allows us to think of a many different streams including programming and software development such as mobile applications, web development and digital communications, and e-commerce like automation of web services, and buying things online. Business intelligence like data gathering, data center services, database management and analytics, and understanding and analyzing numbers are also needed skills. ICT requires businesspeople to read the dashboards and be able to communicate between different platforms.

IT infrastructure has developed, what used to make sense has changed a lot. Security now is the main focus, or what is known as Cybersecurity. New IT technologies also include knowledge of the cloud and people are required to be cloud literate, and to understand how the cloud operates from

communication to operation. Other knowledge that people in the sector should know are the Internet of Things and IT auditing.

People who want to enter the ICT sector should be equipped with media buying technical skill sets in computer and coding as well as basic skill sets. They need to have a strong math background and be able to analyze numbers because they will have work related to budget and expenditure. IT personnel are required to have knowledge in math, and knowledge in excel spread sheets as well as knowledge in technology language such as java, and html, and understanding of Search Engine Optimization.

Technical skills in IT should be complemented by soft skills, several missing skills were mentioned by IT companies which include interviewing and presentation skills, communication skills, sense of initiative, respect of company confidentiality and confidential information, business ethics, etc. Typing was mentioned by Azatech as an issue, as many employees are slow typers, which affects productivity.

### **HR SUPPORT REQUIREMENTS**

The HR function at IT companies is usually not very developed because of the relatively small size of IT companies in Lebanon. General management is often in charge of the HR function and there are rarely any training programs or advanced HR processes at companies. Maliatec and other larger players are exceptions. Maliatec is part of a holding that operates several companies - HR is consolidated at the group level.

Recruitment however happens at the various managers' levels. Various platforms are used by managers to recruit talent including websites and LinkedIn, university presentations and a pool of CVs that is always available to the company. Maliatec insisted that job fairs are not useful for recruiters. Most IT companies agree that on the job training is essential to bring recruits up to the standards. Despite not having an HR department to manage such trainings, most companies realize that it is an essential component for the success of fresh recruits and provide a three months training to work on skills development.

### **HOME-BASED HEALTH CARE SERVICES**

#### **SECTOR OPPORTUNITIES**

The health care sector is oversaturated in Lebanon when it comes to hospitals and medical staff. Interviewed hospitals said that assistant nurses and registered nurses were both readily available and easy to find, and that there was a surplus of applications for these occupations and positions. Moreover, according to Al Khoury Hospital, hospitals are not able to pay increase salaries for their employees because they are not collecting their payables from the government such as the NSSF and Army insurance. This is not allowing any increases in salary scale, and what is more pressuring in the sector is that any person with a license was able to open a hospital which has caused significant competition.

In light of the recent developments in Lebanon, private hospitals are suffering deeply from the consequences of a dire economy. Some hospitals are beginning to close their doors, and such a trend is likely to continue during the next 12 to 24 months. Meanwhile, a new sector has emerged and is offering significant opportunities for growth. Time poor and financially comfortable households are increasingly seeking home based health care services. With an ageing population and

the increasing number of working women and mothers, there are often few options left for elderly and childcare.

Home based health care services therefore fill a gap which is important and offer a service that is highly valuable to Lebanese households. That said, the service is still very much concentrated in Beirut and Greater Beirut where disposable incomes allow households to seek such services. It does nevertheless offer opportunities for employment of residents in different Lebanese regions. This service also benefits nurses who are either not getting paid sufficient salaries at hospitals and want to complement their work with additional freelancing work, or nurses who are not sufficiently qualified to work in hospitals. Moreover, with the surplus at hospitals, coupled with recent economic strife affecting those, there is less work available to nurses at hospitals, and home-based health care services could be a solution to many of them.

### WORKFORCE WILLINGNESS TO WORK IN THE SECTOR

Among female respondents in focus groups, many are already studying nursing or pursuing a nursing career. This occupation is very popular among women in the North and the South. It is far less common among men, although the workforce among homebased health care services does include men. Nevertheless, according to businesses there is a demand for male nurses who can take care of male patients when it comes to home based health care. According to survey results, 12.42 percent of respondents are willing to work as nurses. Women in Baalbeck stated that working in health care was not ideal because of the demanding schedule. Men in Baalbeck said that there is only one hospital in the area and not enough vacancies for fresh graduates.

Home based health care can offer a flexible schedule and the possibility for women to choose when they want to be available. It can be an extra source of income for women already working in hospitals or elsewhere. That said, there are also cultural barriers that can be a concern for women when it comes to providing health care services at people's homes. This came to light during focus group discussions in the Akkar area, where one woman said that it would not be a type of work that is acceptable. Moreover, many women living in the North, Beqaa and South are not always willing to travel a distance for work.

From the employers' side, companies confirmed having a database of nurses from all over Lebanon, including women and men living in Beirut and greater Beirut but who are originally from other cities and regions. In the case of Jaleesa who works with babysitters, the company seeks employees with price expectations of around 5 to 7 \$/hr. In a more ideal scenario, Jaleesa requires full-time employees who can work 12 hours a day in a month for \$700+. But finding the right people has proven challenging. On another note, while Home Care Lebanon said that all of its employees are Lebanese, Care at Home said that it had frequently worked with Syrians, highlighting that they often showed a higher level of commitment, professionalism and ethics compared to some Lebanese employees who had significant drawbacks including punctuality and professionalism issues.

### INTERNSHIP AND TRAINING POTENTIAL

Ongoing training and internships are an inherent part of the nursing and home-based health care services career path since this type of service requires outstanding technical and soft skills. All business interviewed are willing and able to provide internship/training opportunities, but this varies in scope and breadth depending on time and resources available. For Jaleesa, it is at the core of its business model, for Home Care Lebanon, the company has capacity to train and works closely with hospitals, for Care at Home, there is also training provided.



That said, for all of them additional support is needed and can add much value to their business. Home Care Lebanon worked with the faculty of health sciences at AUB by providing students with training and internships. Home Care Lebanon also works closely with hospitals and even has an office at Hotel Dieu whereby it provides opportunities to nurses who work at or have sought training at the hospital. Care at Home said that it is open to providing internships and usually train staff at the office before sending them to the field. Interns can also accompany nurses to homes and shadow them to learn the practice more effectively.

Care at Home train nurses in groups of 5 or 6 and teach trainees the basics that they should know in nursing, and, from its own experience, what is generally required from home-based health care. But internships and basic training at companies are not enough for employees to become and remain proficient home-based health care service providers.

Ongoing training is required to maintain good standards and adapt to new technologies. Jaleesa on the other hand considered a formal internship scheme but did not develop it yet. It does however provide extensive training which is at the core of its business model. Some of the training providers mentioned include APIS, and a TVET in Ebrine near Beit el Char.

### SKILLS GAPS AND NEEDS

Practitioners should be able to carry out a wide range of tasks in homes, and all of these tasks require the adequate skills:

- Working with Alzheimer patients
- Dealing with patients who have Parkinson
- Dealing with agitated patients
- How to shower the patient, help a patient walk, and move around
- How the patient does his toilet need while in bed
- How to move the patient in bed if they had any surgeries
- Orthopedic know-hows (if the patient had an operation on the right foot, which foot to lift first; placing a pillow between the legs; keeping a distance between the legs and not allowing them to touch each other)
- If someone is not very conscious, they need to know how to feed them. (not feeding them a lot due to fear of suffocating; don't give them water when they are laid back)
- Hygiene is the most important, how to sort dirty and clean material at home, and keeping their hands clean.
- How to measure pulse, pressure, temperature, oxygen, and how to do under-skin injections, how to measure insulin, and most importantly how to read the results; PNs are allowed to do insulin shots in Lebanon;
- How to empty the patients' urine drainage bags, they are not allowed to insert/ attach one but they empty it.

- Scar preventions, if the patient has an air mattress, to change for him every 3 hours, rub his back, to pay attention to which body part is most likely to get reddened; and if the area is already red, what should be applied.

Soft skills are primordial in this sector. Nurses deal with families, and live at home with other people and within households. They therefore need to be ethical, respectful and able to communicate in a decent and effective way. Care at Home mentioned instances of robbery, which also adds to the ethical concern. Jaleesa mentioned ‘competencies’ which it broke down into four categories: Responsibility, Reliability, Judgment, Nurturing.

## HR SUPPORT REQUIREMENTS

The home-based health care services sector faces significant challenges in terms of HR. Home Care Lebanon said training is one of those, but another key challenge is providing ongoing work in order to retain staff. Home care also said that the weakest point is finding care givers because they are less educated and have to be willing to do the job.

Home care has a well-established HR procedure compared to smaller players like Care at Home. The company vets people before recruiting them and runs a background check, after which they are given two written exams, then have an interview with the personnel manager, then one with the head nurse, and finally one with the president. The process is less systematic at Care at Home. Jaleesa follows four clear steps for recruitment: 1) Applicants submit an application and a background check document online with 2 references. 2) Applicants are interviewed. 3) Staff is trained to company standards and requirements. 4) Staff is sent to jobs. All companies find it difficult to find proficient staff and to retain those. This indicates that there is a strong need for HR support and introducing practices and processes that could help address these challenges.

## CONCLUSIONS

### SUMMARY

	MAINTENANCE	ICT AND TECHNOLOGY	HOME-BASED HEALTH CARE SERVICES
Sector Opportunities	<ul style="list-style-type: none"> <li>• Growth in maintenance contracts rather than new sales</li> <li>• Sector opportunities in agro-food</li> <li>• Sector opportunities in environment / waste management</li> <li>• New government vision for industry</li> </ul>	<ul style="list-style-type: none"> <li>• Growing sector with emerging and expanding subsectors such as cyber-security, cloud computing, BMI and others</li> <li>• Cross-cutting sector</li> <li>• Oil and gas will open up more opportunities for ICT</li> </ul>	<ul style="list-style-type: none"> <li>• New emerging sector lacking regulation, frameworks and accreditation</li> <li>• Much work can be done to empower and structure it</li> <li>• Concentrated in Beirut because of associated cost, but can expand gradually</li> </ul>
Workforce Willingness to Work in the Sector	<ul style="list-style-type: none"> <li>• Strong willingness among men across regions</li> <li>• Workforce shifting to working in the army where more benefits and security is offered</li> </ul>	<ul style="list-style-type: none"> <li>• Low interest in regions, because companies are concentrated in Beirut</li> <li>• Willingness to relocate/commute exists</li> <li>• Companies offer transportation to employees living outside of Beirut</li> </ul>	<ul style="list-style-type: none"> <li>• High interest among women although cultural barriers exist</li> <li>• Few opportunities outside of Beirut means transport is needed. Poor professional standards and ethics need to be addressed</li> </ul>

Internship and Training Potential	<ul style="list-style-type: none"> <li>• Companies provide internships and trainings in-house</li> <li>• Support is needed for ongoing and more technical training</li> <li>• Don Bosco, Cortbawi, Edde Insitute, the Qob Elias AgroFood TVET, APAVE, Al Kafaat among key trainers.</li> </ul>	<ul style="list-style-type: none"> <li>• Large companies can offer internships</li> <li>• Most ICT companies in Lebanon are startups or small companies that cannot absorb interns and afford to train them</li> <li>• In-house training is favored by those who offer niche or proprietary products</li> <li>• Formatech, SE Factory, Codi, the Research Department, SGCEL, among key trainers</li> </ul>	<ul style="list-style-type: none"> <li>• Very demanding work in terms of soft and technical skills means that training and internships are essential in this sector</li> <li>• Companies provide in-house training but welcome external support</li> <li>• APIS, and a TVET in Ebrine near Beit el Chaar only centers mentioned</li> <li>• Otherwise, nurses train at hospitals</li> </ul>
Skills Gaps and Needs	<ul style="list-style-type: none"> <li>• Welding</li> <li>• Electrical and mechanical technicians</li> <li>• Wastewater systems mechanics</li> <li>• Lathing</li> <li>• Soft skills such as communication</li> <li>• Business ethics and basic respect</li> <li>• Managerial skills</li> </ul>	<ul style="list-style-type: none"> <li>• BMI, Cyber security, IT Infrastructure, Cloud, e-commerce, digital marketing, industrial robotics, Internet of things, programming, etc.</li> <li>• Soft skills such as project management, respect of confidentiality, communication</li> </ul>	<ul style="list-style-type: none"> <li>• Working with specific diseases like Alzheimer and Parkinson</li> <li>• Patient care such as showering, motion support, etc.</li> <li>• Measuring pulse, tension, etc.</li> <li>• Blood tests, injections, etc.</li> <li>• Soft skills such as respect, ethics and communication</li> </ul>
HR Support/Need	<ul style="list-style-type: none"> <li>• Value of HR work is underleveraged</li> <li>• HR function has limited responsibilities</li> <li>• Support to HR function would be more than welcome</li> </ul>	<ul style="list-style-type: none"> <li>• Most companies have no HR department or limited responsibilities falling under HR</li> <li>• Support is needed</li> </ul>	<ul style="list-style-type: none"> <li>• All companies find it difficult to find proficient staff and to retain those</li> <li>• Much support therefore needed</li> </ul>

## VI. DEMAND SIDE: SMALL-TO-MEDIUM-ENTERPRISE PARTNER IDENTIFICATION

The following were identified as the most suited SMEs for a partnership with CSP. For a more detailed breakdown of how they scored according to CSP's assessment, please see Annex I.

LIST OF PARTNERS AND OPPORTUNITIES			
COMPANY	KEY FACT/FIGURES	OPPORTUNITIES	NEXT STEPS
Jubaili Brothers	<ul style="list-style-type: none"> <li>• <b>60 internships</b> are given per year</li> <li>• Large company with <b>100 employees in the technical sector</b></li> <li>• Existing positive contact with foyer de la providence</li> </ul>	<ul style="list-style-type: none"> <li>• Internship placements possible for 10-20 students</li> <li>• Possibility of seeking assistance from Jubaili technicians and engineers for curricula</li> </ul>	<ul style="list-style-type: none"> <li>• Seek CEO approval for support in curricula</li> <li>• Formalize internship placements possibility</li> </ul>
Schneider Electric	<ul style="list-style-type: none"> <li>• Large local and regional contracts</li> <li>• Growth in maintenance contracts – job openings currently exist for 2 positions</li> <li>• Most jobs are for highly educated</li> </ul>	<ul style="list-style-type: none"> <li>• Support by Mr. Wajih Fenianos for curricula and training delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Assess possibility of involving Mr. Fenianos in trainings</li> </ul>
Bonjus	<ul style="list-style-type: none"> <li>• <b>750 fixed employees</b></li> <li>• 150 working in production, 12 technicians</li> <li>• At least <b>50 summer staff</b> needed every year for ice cream machines</li> </ul>	<ul style="list-style-type: none"> <li>• Work on summer job placements</li> </ul>	<ul style="list-style-type: none"> <li>• Seek confirmation about needs for waste management at the Taanayel farm</li> </ul>
Bou Chaloub	<ul style="list-style-type: none"> <li>• Provides internships and transportation for engineers and technical graduates</li> </ul>	<ul style="list-style-type: none"> <li>• Placement of internships</li> <li>• Support in HR function: recruitment and talent development, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up meeting to discuss details</li> </ul>
Libanlait	<ul style="list-style-type: none"> <li>• Wastewater treatment at farm <b>requires 3 technicians and 1 engineer</b></li> <li>• Regular intake of interns for a one month training placement</li> <li>• <b>Practice of hiring and firing very common – no retaining and WFD system</b></li> </ul>	<ul style="list-style-type: none"> <li>• HR support: best practices, workforce development and training systems</li> <li>• Placement of interns specifically technical staff in waste water plant in farm</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up meeting to discuss details</li> </ul>
Arab Printing Press	<ul style="list-style-type: none"> <li>• <b>100 employees in total</b></li> <li>• <b>Expanding operations from print only to labelling and digital printing</b></li> <li>• <b>Machinery maintenance</b> department (trainings provided by international experts or staff sent to Germany)</li> </ul>	<ul style="list-style-type: none"> <li>• Internship placements</li> <li>• Support in HR practices, training and workforce development</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up meeting to discuss details</li> </ul>
Mounir Bissat Factories	<ul style="list-style-type: none"> <li>• <b>2 to 3 interns per year</b></li> <li>• <b>Multi-skilled staff is required to handle all types of mechanics</b></li> </ul>	<ul style="list-style-type: none"> <li>• Internship placements</li> <li>• Support in HR practices, training and workforce development</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up meeting to discuss details</li> </ul>

Daher Foods	<ul style="list-style-type: none"> <li>• 11 open vacancies per year on avg, 4 for the mechanical background, 5 in electrical, and 2 for general services</li> <li>• 4-6 interns per summer (1 month)</li> </ul>	<ul style="list-style-type: none"> <li>• Internship placements</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up meeting to discuss details</li> </ul>
Kassatly Chtaura	<ul style="list-style-type: none"> <li>• Large maintenance team in charge of installation of new lines and equipment under international supervision, and maintenance and repair of all machinery</li> <li>• Few interns in the summer season for 2 weeks</li> </ul>	<ul style="list-style-type: none"> <li>• Seek support from KC for curricula development</li> <li>• Internship placements</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up meeting to discuss details</li> </ul>
Indevco	<ul style="list-style-type: none"> <li>• 2,300 employees</li> <li>• 20 to 35 summer internships ranging from 1 month up to 3 months</li> <li>• Saudi Arabia learning institute + Lebanon summer training program</li> </ul>	<ul style="list-style-type: none"> <li>• Indevco engineers can provide trainings</li> <li>• Potential endorsement of curricula by Indevco</li> <li>• Internship placements</li> </ul>	<ul style="list-style-type: none"> <li>• Seek CEO approval for endorsements</li> <li>• Follow-up meeting to discuss details</li> </ul>
Maliattec	<ul style="list-style-type: none"> <li>• One of the companies under Malia Holding Group / shares HR with the group</li> <li>• Multiple IT skills are needed by Maliattec as support to its own operations, and for its IT services</li> <li>• 12 busses that transport employees to and from work</li> <li>• Internships are provided for at least 3 months</li> </ul>	<ul style="list-style-type: none"> <li>• Seek support from Maliattec and CIO group (of which Ms. Sarraf is a part) for curricula development</li> <li>• Internship placements</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up meeting to discuss details</li> </ul>
AIY Expert Solutions	<ul style="list-style-type: none"> <li>• Recruits 3 people every 4 months</li> <li>• Induction training takes about 3 months</li> <li>• Does not invest enough time and effort in workforce development</li> <li>• HR function responsibilities are limited</li> </ul>	<ul style="list-style-type: none"> <li>• Few internship placements</li> <li>• Support in HR practices, training and workforce development</li> <li>• Seek support from AIY Expert Solutions for curricula development</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up meeting to discuss details</li> </ul>
Azatech	<ul style="list-style-type: none"> <li>• Recruits people with very basic skills and counts on their own in-house training</li> <li>• Recruits from Lebanon for Kuwait, KSA, UAE</li> </ul>	<ul style="list-style-type: none"> <li>• Seek support from Azatech for curricula development</li> <li>• Internship placements</li> <li>• Train the trainer</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up meeting to discuss details</li> </ul>
Jaleesa	<ul style="list-style-type: none"> <li>• Currently has 160 sitters, some of them are full-timers</li> <li>• Target market is affluent working parents</li> <li>• Provides training on company standards including technical and soft skills training</li> </ul>	<ul style="list-style-type: none"> <li>• Support in development of curricula</li> <li>• Internship placements</li> <li>• Support in development of HR function and workforce development</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up meeting to define specifics</li> </ul>

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Care@Home	<ul style="list-style-type: none"> <li>• Around 120 people on-call, of which 80 are nurses but not all of them can work and respond to demands all of the time</li> <li>• Some are in Beqaa, North and South, but majority of customers are in Beirut</li> <li>• Owner is a registered nurse herself and knows the subject matter extensively</li> <li>• One office in Saida, but bulk of the work is in Beirut</li> <li>• Home Care has a presence inside hospitals and works with them (e.g.: Hotel Dieu)</li> <li>• Worked with faculty of health sciences at AUB to provide training and internships at HC Lebanon.</li> </ul>	<ul style="list-style-type: none"> <li>• Support in development of curricula</li> <li>• Support in development of HR function and workforce development</li> <li>• Seek support from Care@Home in development of accreditation standards</li> <li>• Support in development of curricula</li> <li>• Support in development of HR function and workforce development</li> <li>• Internship placements</li> </ul>	<ul style="list-style-type: none"> <li>• Meeting together with other companies and syndicate of nurses</li> <li>• Follow-up meeting to define specifics</li> </ul>
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## PRIVATE SECTOR STAKEHOLDER MEETINGS

A total number of 21 SME meetings were held to develop an assessment of their operations and capacity to provide internships to potential new recruits, as well as their receptivity and capacity to collaborate with relevant TVETs and the WFD program.

Transcripts of all Key Informant Interviews (KII) are available in Annex 2: KII Notes.

## VII. SUPPLY SIDE

### JOB SEEKER PROFILES AND NEEDS

Respondents' major issues and needs were identified during focus groups and through quantitative surveys. Most respondents in the focus groups were unemployed and aiming to find jobs within their areas of expertise. Most women interviewed during focus groups had completed at least some level of education, whether high school education or more. Sometimes they held university degrees in specific areas like Arabic literature, English literature, psychology, child care or nursing.

A lower proportion of men had completed their education, and this is strongly attributed to the need for them to work earlier on than women do. Some of them either held a brevet level certificate, or TVET certificates. Some were skilled technicians, and few others had a university degree.

All respondents, whether they held a degree or not are unemployed and have been so for a few months and up to several consecutive years.

Some expressed interest in trainings and further education, although the majority were more concerned with finding jobs the soonest possible in order to live the life that they aspire to.

For full transcripts from the focus group discussions, please see Annex 3: Focus Group Discussion Transcripts.

### CHALLENGES IN FINDING EMPLOYMENT

Different challenges were mentioned by respondents when it came to their access to jobs. Most unemployed youths expressed high concerns about their hardships and said that the lack of opportunities is causing them to work in restaurants, bars or other random occupations despite having studied. Many said that they have no choice and have to accept any job to cover their daily expenses. Male respondents complained about not being able to marry, and about having to live with their parents because they cannot afford to rent or buy property.

#### LACK OF EXPERIENCE

Many respondents stated that the lack of experience was a major hinderance because employers were never truly committed to recruiting young, fresh graduates. Respondents complained about not being able to acquire any experience because of the lack of opportunities and offers by companies to start afresh in any occupation at all.

#### WASTA AND SECTARIANISM

*Wasta*, or "favoritism," is another major concern for potential recruits. The majority, if not all respondents complained about employers' clear bias towards their contacts, friends and family when it comes to choosing new recruits. Most respondents across region came from humble backgrounds and have no access to employers, managers or public figures who can support them in finding jobs.

Many respondents cited sectarianism within companies that only recruit candidates from a specific religion or religious sect.

Moreover, many respondents said that they send their CVs to a number of companies, at all times and regularly without ever receiving an answer despite following up. Most again attributed this to the

practice of *wasta*. One male respondent in Saida stated that job vacancies are only posted as a normal HR practice, but that employers end up recruiting someone that they know or who came highly recommended.

### SYRIAN REFUGEES

In Halba, all respondents complained about the heavy presence of Syrian refugees who they say are finding jobs easily because of the low salaries. Moreover, few respondents said that Syrian refugees receive support from UNHCR and other international organizations on a regular basis. This is leading Lebanese youths to compare their living standards to their Syrian neighbors: 'they have bigger houses, own iPhones and are able to travel' said one male respondent in Halba.

### MISMATCH BETWEEN SKILLS JOBS

Most respondents were aware of the mismatch between their skills and the job market. Students are increasingly aware of the gap between the labor market and academic curriculum. In Halba, many respondents who studied engineering are working in completely unrelated areas.

In Saida too, respondents complained of not finding jobs in business and management, social sciences, education and other areas.

### LACK OF SKILLS

Some respondents realized that they lack some essential skills required by employers, such as language skills: most respondents struggle with English and found it to be a major barrier. One respondent in Saida cited communication skills, negotiation skills and responding to emergency situations.

### WILLINGNESS TO COMMUTE

Most men are willing to commute to Beirut or other regions for a decent job if need be. That said, women are far less likely to commute especially among those who have families. Respondents in the Beqaa and the north came from more conservative families and therefore showed cultural constraints towards having to work far from their area if residency.

One exception was in Halba, where one unmarried woman said that she had already moved to Zahle in the past in search for a job and that she is willing to go anywhere if she is able to find a good job.

### WOMEN-SPECIFIC ISSUES

Cultural barriers clearly exist for women living in the three targeted areas. On one hand, they are still expected to spend the needed time with their children and/or husbands when this applies. On the other hand, they also face more challenges than men because, according to many respondents, they are always paid lower salaries.

One male respondent in the Beqaa said that this was in fact a concern for men, as employers are now more interested in recruiting women who cost less to the company.

When it comes to household responsibilities, many women stated that it is essential for them to access jobs with a flexible working time allowing them to meet their obligations while also generating an income. This could rule out several occupations for many women.



Women also expressed concern over home-based health care services because of cultural considerations and the negative perception that might occur within their communities if they were to work at someone's house.

## **TRAINING CHALLENGES AND NEEDS**

### **JOBS RATHER THAN TRAININGS**

Most respondents were not very enthusiastic about trainings. Many said that they have already taken several trainings and participated in workshops. Respondents are generally much more eager to begin working and generating income the soonest possible.

Given the large number of trainings that have been given in the Beqaa, South and North, respondents also seemed to be disillusioned with the potential positive outcome of such an experience.

### **FAVORABLE ATTITUDE TOWARD TRAININGS THAT LEAD TO INTERNSHIPS**

That said, they were far more receptive to the idea of trainings if these lead to an internship at a company, thus giving them the chance to demonstrate their capabilities and potentially secure longer term employment.

Few respondents are willing to change their minds about their chosen career path, or start learning a new skill which differs from their past experience. Some understand the opportunity and agree that if this means better chances to succeed, then it is worth it for them.

### **COST OF TRAININGS AND TVET EDUCATION**

Among those who view TVET education favorably, many had concerns about the cost of enrollment and said that they cannot cover the cost of attending TVETs and training courses.

### **TIMING FOR TRAININGS**

Given the urgency for most respondents of finally starting a career, most are in favor of short-term training rather than engaging in a longer term type of education. Across groups, respondents have expressed a preference for 1-2 month long trainings.

This was reflected in findings from quantitative surveys which show that the majority of respondents prefer one to three month long training courses.

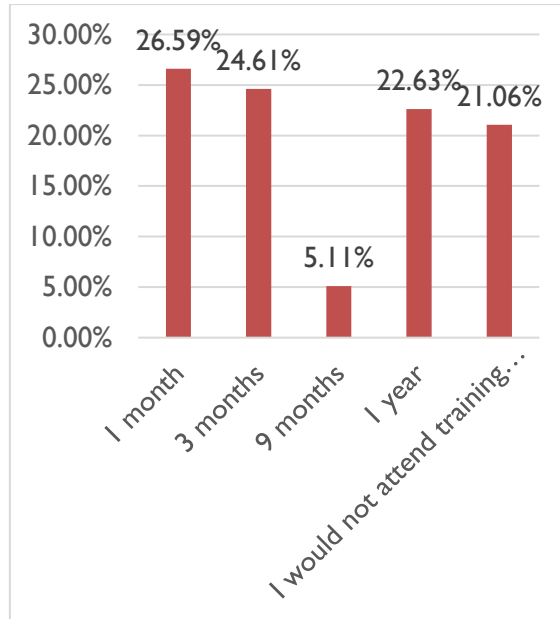


Figure 6: Preferred timeframe for training courses

### WOMEN-SPECIFIC ISSUES

Female respondents often stated that most of the trainings are for male oriented occupations and that little was done to support women employment in their communities.

Women in Baalbeck also complained of the low level of trainings provided in their area which include trainings for make-up artists, clothes sewers, and hair dressers. Across the three regions, in Saida, the North and the Beqaa, many women seemed to have higher ambitions.

### ATTITUDE TOWARD TVETS

Based on survey responses, more than 57 percent of all respondents had a university degree. The high number of university graduates in Lebanon is reflected in the low willingness to work in suggested sectors, most of which require a technical rather than academic education.

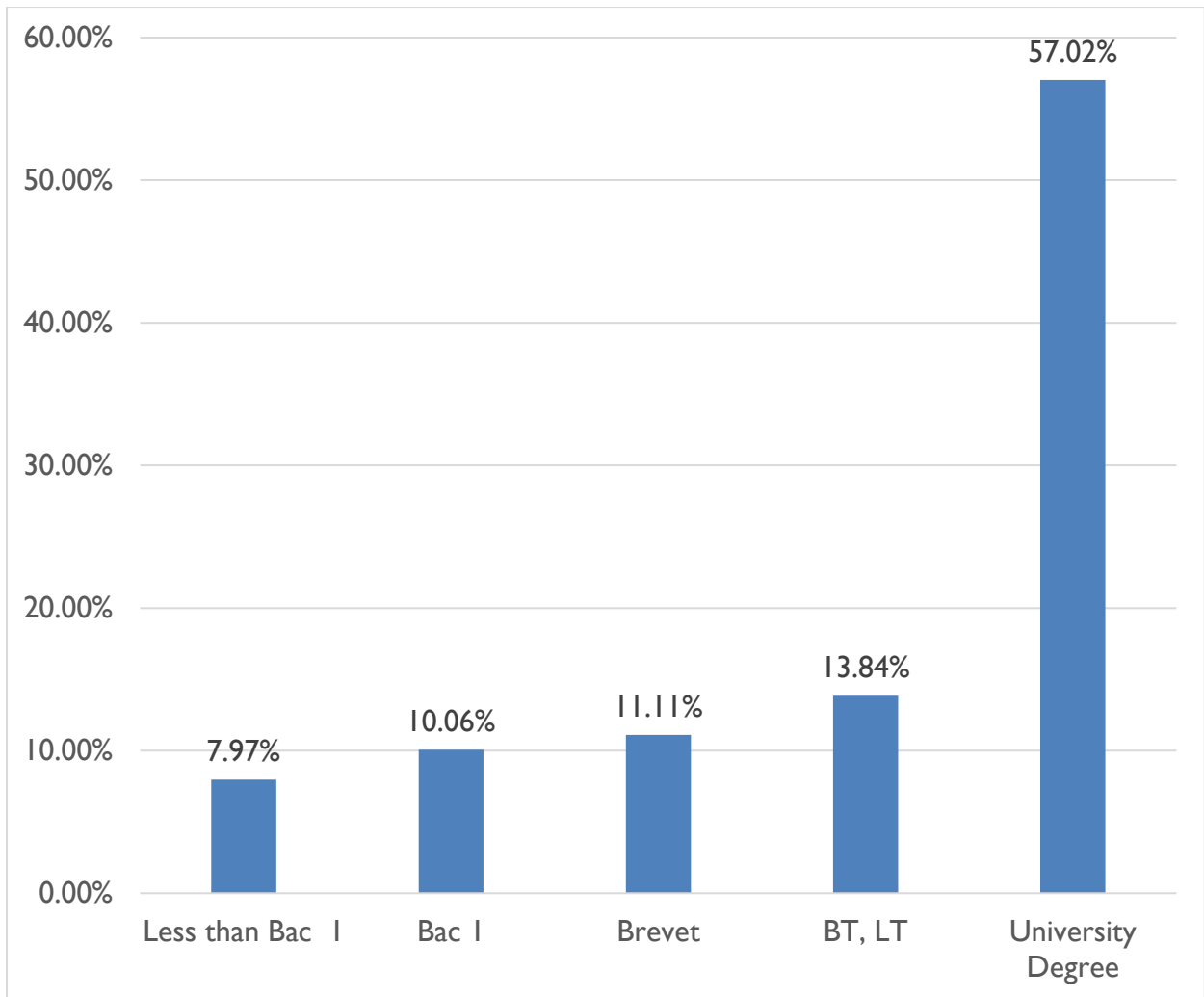


Figure 7: Education attainment

This also affects respondents' answers when it came to their willingness to attend TVETs for training purposes.

Among all respondents, 54 percent said that they prefer to attend trainings at universities, again reflecting the elevated proportion of university graduates in Lebanon, and poor perception of technical education. Discussions that took place during focus groups revealed that many respondents have a negative perception of TVETs: *'Even though TVET education is very good and practical, it is viewed as a resort for people who failed at school and non-achievers. Attending them can be a disappointment for the parents that indicates that their child is of no use'* according to one female respondent in Baalbeck.

Nevertheless, almost 46 percent of all respondents said that they would attend trainings at private TVETs, which amounts to approximately 448 people.

Considering the high number of university graduates in the sample size, this is a favorable finding for the CSP's WFD program which can take advantage of respondents' receptiveness to offer scholarships to the new training programs.

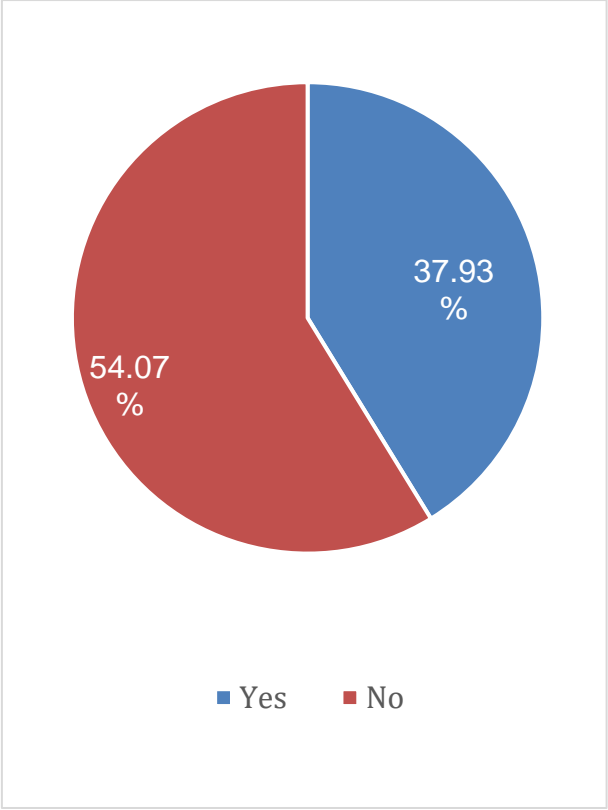


Figure 8: Willingness to attend universities for training

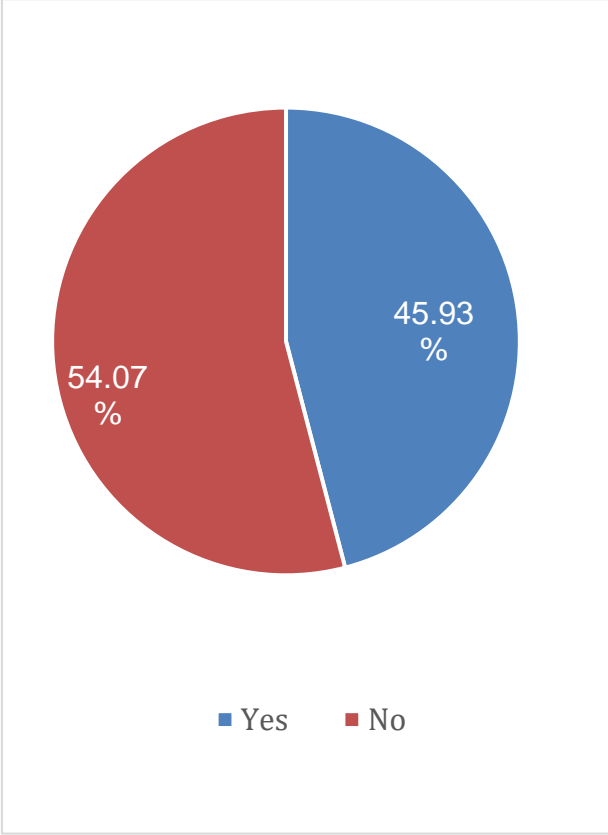


Figure 9: Willingness to attend TVETs for training

## PREFERRED SECTORS

Among the most attractive sectors across all 975 respondents, nursing was the most popular answer (12.42 percent), likely reflecting a majority of responses by surveyed women. That said, few respondents expressed concerns over cultural aspects surrounding at home health care services, as it meant going to people’s homes, unassisted. This for some requires prior approval of the family, and can be risky depending on who the patients are.

Another 11 percent expressed interest in IT Network security and 10.08 percent in coding and software development. Findings from focus group discussions revealed a major misunderstanding of ICT and technology in the Beqaa, Saida and Tripoli. In Baalbeck, some respondents thought of ICT as repair of household appliances. Although some respondents think of ICT as an interesting sector, few were able to define their understanding of the sector.

Interest in maintenance and repair was the lowest at 5.6 percent. This is mainly attributed to the very low interest by women in the sector. There was a high interest among few male respondents in focus groups, although others were more inclined to talk about business and management occupations or even health care, as their sectors of choice.

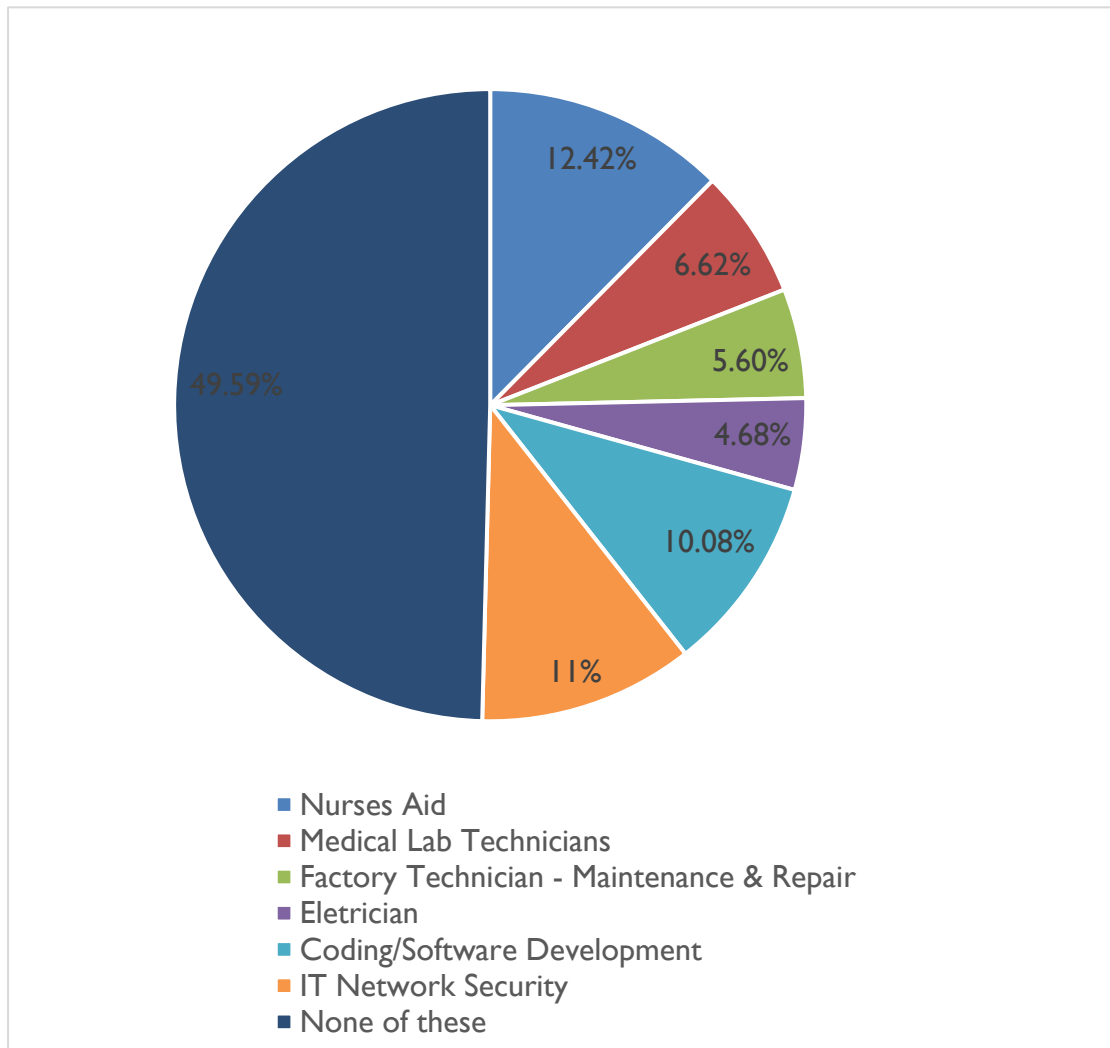


Figure 10: Willingness to work in various sectors

## CONCLUSION AND RECOMMENDATIONS

### CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS	RECOMMENDATIONS
Negative perception of TVETs	As Lebanon goes through trying economic times, university tuition fees are increasingly unaffordable for a large proportion of households. This could work in favor TVETs. Any curricula upgrades or support to TVETs should be supported by appealing and convincing, fact based communication efforts that would help shift the perception and attitude towards TVETs.
Willingness to commute	Large employers in Beirut are providing busses to transport staff from different regions. This can provide a further incentive, even for women who would be offered a safe and secure mode of transport that also allows them to be back in time for family obligations.
Resistance to working in homes	A vetting system could be introduced to make sure that home based health care companies know who their clients are and can guarantee safety to their staff. This should be well communicated to make sure that nurses and their families are convinced.
Training Duration	Students should be given the choice between different types of curricula: one short term, one midterm and one longer term. Each with a different type and level of certification that can be acquired.
Sectors of Choice	Practical nursing and nurse aid curricula could target women more efficiently while maintenance of industrial equipment and machinery could be geared towards male youths. ICT and technology curricula can target both genders equally.

## VIII. TVET PARTNER IDENTIFICATION AND SELECTION

### GENERAL OVERVIEW

Technical and vocational education and training (TVET) in Lebanon is directed by the Directorate General for Vocational and Technical Education (DGVTE). The DGVTE currently supervises approximately 398 private training providers and administers 158 public training institutes.

In 2012 the government released a TVET strategy based on four core areas: (1) review and update the available programs and specialties in TVET; (2) review the academic and administrative structures of TVET; (3) provide and develop human, physical, and financial resources; and (4) strengthen partnerships and cooperation in the field of TVET. Each core area is associated with different projects and action plans. TVETs in Lebanon are divided into two categories vocational training and technical education. Vocational training teaches manual skills that acquisition does not require substantial general knowledge. Whereas technical education covers skills that require high level techniques and scientific knowledge.

During the school year 2016 -17 there were only 85,244 students enrolled at all levels of TVET. Amongst students in all education types, twelve percent of the students are enrolled in TVETs. TVETs program showed to be more popular in upper secondary education. Twenty five percent of students in the secondary level choose a TVET program. The most popular diplomas in that level are the Technical Baccalaureate BT and the Superior Technician TS.

The enrollment in private and public TVETs has been decreasing. Between 2011 and 2014 the number of student decrease by around 17,000 students. In parallel, the number of private TVETs decreased from 340 to 217 in that same period. “The decrease in the number of private schools is due to the overall economic situation of the country, the negative societal attitudes associated with TVET, the opening of new prestigious universities across the region, and the legal situation of some schools”.

There are two types of private TVETs those that operate for profits and others that are operated by NGOs. These schools offer a wide range of courses other than the formal education offered by public TVETs. For instance, many offer specialties that are not offered in public TVETs.

A good number of programs in TVETs offer hands on experience or a Work Based Learning approach to expose students to real work experiences. Nevertheless, there is no legal framework for such a learning approach. Lebanon lacks national acts, legislations, and regulations that govern apprenticeship and other hands on approaches. This learning scheme proved to be costly for both students and schools. The majority of TVET students come from poor or underprivileged areas and do not have financial means to cover their accommodation, transportation, and insurance. Guaranteeing the sustainability of the Work Based Learning approach emerged as an issue for private TVETs even though some schools receive subsidies from donors through INGOs and NGOs to cover their students’ expenses during their training.

The total size of labor supplied from TVET establishments was estimated at 24,000 in 2008-2009 with 50.8 percent being informal TVET students (ILO, 2011). Informal students are those who are enrolled in three-months or one-year training sessions. Thus, labor supplied by TVETs is characterized by a shortage of degree holders which reflects a shortage of appropriate skills and qualifications.

A total of 50,597 formal students (46 percent female vs. 54 percent male) were enrolled in 154 public TVETs for the academic year 2017-2018. The table below indicates that most establishments are located in Mount Lebanon (23.38 percent) and most of the students are enrolled in the North (21.79 percent).

PUBLIC TVETS BY GOVERNORATE		
REGIONS	% OF INSTITUTIONS	% OF STUDENTS
Mount Lebanon	23.38	21.78
North	18.83	21.79
Akkar	14.94	14.38
Beqaa	14.29	11.67
Baalbeck-Hermel	10.39	11.02
South	6.49	10.06
Nabatieh	11.69	9.31
Total	100/154 institutions	100/50,597

Source: CRDP website: Statistics 2017-2018

The table below shows the distribution of these students by level and by governorate.

DISTRIBUTION OF STUDENTS BY LEVEL AND GOVERNORATE							
REGIONS	BP	BT	ثانوية	REGIONS	BP	BT	ثانوية



Mount Lebanon	1,396	5,556	337	25	2,719	988	11,021
North	1,784	5,233	156	-	3,154	699	11,026
Akkar	2,016	2,914	72	-	1,938	335	7,275
Beqaa	1,035	2,806	320	-	1,249	493	5,903
Baalbeck-Hermel	1,136	2,932	-	-	1,213	294	5,575
South	1,026	3,298	70	-	592	102	5,088
Nabatieh	941	2,328	-	-	1,372	68	4,709
Total	9,334 students	25,067 students	955 students	25 students	12,237 students	2,979 students	50,597 students

Source: CRDP website: Statistics 2017-2018,

A total of 32,449 formal students (44 percent female versus 56 percent male) were enrolled in 231 private TVETs for the academic year 2017 – 18. Most of the establishments are in Mount Lebanon (39.4 percent) with most of the students (40.11 percent). Percentages drop to 4.33 percent of establishments in Beqaa with 3.57 percent of students.

#### PRIVATE TVET BY GOVERNORATE

REGIONS	% OF INSTITUTIONS	% OF STUDENTS
Beirut	7.36	5.15
Mount Lebanon	39.4	40.11

North	18.17	18.76
Akkar	6.93	4.97
Beqaa	4.33	3.5
Baalbeck-Hermel	5.19	6.89
South	10.39	10.64
Nabatieh	8.23	9.91
Total	100/231 institutions	100/32,449 students

Source: CRDP website: Statistics 2017-2018

The table below shows the distribution of these students by level and by governorate.

DISTRIBUTION OF STUDENTS BY LEVEL AND GOVERNORATE							
REGIONS	BP	BT	ثانوية	REGIONS	BP	BT	ثانوية
Beirut	237	1,302	-	-	126	5	1,670
Mount Lebanon	2,372	9,196	-	-	1,298	149	13,015
North	1,539	3,708	-	-	812	27	6,086
Akkar	660	774	-	-	171	7	1,612

Beqaa	203	559	56	-	341	-	1,159
Baalbeck-Hermel	385	1,261	-	-	560	31	2,237
South	785	2,355	-	-	310	3	3,453
Nabatieh	194	1,584	-	-	1,188	251	3,217
Total	6,375 students	20,739 students	56 students	0 students	4,806 students	473 students	32,449 students

Source: CRDP website: Statistics 2017-2018,

The list of specialization at the LT level shows 31 majors. Most of the students are enrolled in nursing (640) and education (599). Majors such as Heating and cooling (6), fashion design (6), and smart phone applications (4) have fewer than 10 students each. The distribution of students in the LT program (both public and private) by major in 2017-2018 is in the table below:

#### LT PROGRAM (PUBLIC AND PRIVATE) BY MAJOR, 2017 – 18

REGIONS	% OF INSTITUTIONS	% OF STUDENTS
Beirut	7.36	5.15
Mount Lebanon	39.4	40.11
North	18.17	18.76
Akkar	6.93	4.97
Beqaa	4.33	3.5

Baalbeck-Hermel	5.19	6.89
South	10.39	10.64
Nabatieh	8.23	9.91
Total	100/231 institutions	100/32,449 students

Source: CRDP website: Statistics 2017-2018

The distribution of students in the TS program (both public and private) by major in 2017-2018 shows that most of the students major in nursing (3135), early childhood education (2364), and accounting (2387). Very few students (less than 100) major in heating and cooling (82), social services (34), audio-visual and recording (42), agro-food industry (36), tourism (31), industrial information systems (63), maintenance mechanics (33), fashion design (44), oil and gas technology (38), maintenance of medical equipment (9), optometry (79), and airplane maintenance (60). Some majors are attracting more males than females such as electronics (445 to 3), other majors such as early childhood and elementary education attracts more females (2289 to 75). Majors such as banking are almost equally attracting males and females:

#### TS PROGRAM (PUBLIC AND PRIVATE) BY MAJOR, 2017 – 18

MAJOR	FEMALE	MALE	TOTAL
Management of Agro-Food Industry	5	8	13
Hotel management	30	77	107
Management and marketing	73	67	140
Management and organization	81	53	134
Electronics-telecommunication	1	53	54

Electronics- industrial	1	127	128
Electro-mechanics	1	30	31
Health control and food safety	88	12	100
Renewable energy	0	40	40
Energy: heating and cooling	0	6	6
Education	585	14	599
Tourism	10	2	12
Medical labs	149	22	171
Nursing	479	161	640
Graphics and advertising	43	8	51
Interior design and decoration	92	28	120
Accounting	208	120	328
Topography	41	162	203

Information: systems and networks	4	23	27
Information: programming	80	78	158
Air mechanics and industrial maintenance	0	18	18
Hydraulic mechanics and dynamic machines	0	10	10
Mechanics: industrial production	0	31	31
Fashion design	6	0	6
Smart phones applications	1	3	4
Medical radiology	59	26	85
Airplane maintenance	1	25	26
Dentistry labs	26	11	37
Leading construction: construction and public works	41	71	112
Optometry	21	3	24
Cars mechatronics	1	36	37

Total students	2,127	1,325	3,452
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Source: CRDP website: Statistics 2017-2018

The distribution of students in the BT program (both public and private) by major in 2017-2018 shows that the majority of students are attracted to nursing (5,078) and the least (9) to accommodation in hospitality. Differences exist between majors with respect to gender:

#### BT PROGRAM (PUBLIC AND PRIVATE) BY MAJOR, 2017 – 18

MAJOR	FEMALE	MALE	TOTAL
Electro-technique	19	513	532
Electronics	22	1489	1511
Construction and public works	108	354	453
Sales and commercial relations	762	796	1558
Interior design	1544	957	2501
Heating, cooling, and sanitary	0	30	30
Sports	150	517	667
Early childhood education	5216	112	5328
Social activation	92	3	95

Architectural drawing	218	473	691
Tourism and travel	112	27	139
Agro-food industry	41	11	52
Maintenance	0	28	28
Printing and graphics	44	38	82
Nursing	3329	1749	5078
Hospitality: production	785	2523	3308
Hospitality: sales	147	289	436
Hospitality: sweets	26	102	128
Hospitality: accommodation	6	3	9
Electricity	30	3119	3149
Industrial electricity	0	31	31
Accounting and information	5076	5752	10828



Topography	43	449	492
Music	8	16	24
Industrial mechanics	5	436	441
General secretary	212	197	409
Information technology	259	1964	2223
Air conditioning	3	595	598
Jewelry design and production	42	22	64
Fashion design	53	2	55
Advertising	981	552	1533
Beauty design: cycle 1: makeup and nail care	286	7	293
Beauty design: cycle 3: skin care	84	4	88
Beauty design: cycle 2: Beauty guide	96	4	100
Health inspection	529	156	685

Dentist Assistant	16	29	45
Theatre and fine arts	6	4	10
Cars mechanics	39	2017	2056
Plans mechanics	0	56	56
Total students	20389	25417	45806

Source: CRDP website: Statistics 2017-2018

The distribution of students in the BP program (both public and private) by major in 2017-2018 shows a majority majoring in building and machinery electricity and the least (9) in radio repairing. Some majors attract more males than females such as cooking chef, building and machinery electricity, and mechanics. Other majors such as beauty care, child care, and nurse assistant attract more females. Majors such as accountant assistant are equally attracting males and females.

#### BP PROGRAM (PUBLIC AND PRIVATE) BY MAJOR, 2017 – 18

MAJOR	FEMALE	MALE	TOTAL
Beauty care	177	1	178
Sports	26	41	67
Hair design	102	3	105
Social activation	47	5	52
Restaurant service	84	305	389

Sweets cook	60	108	168
Sewing Woman clothing	56	14	70
Child care	1,121	11	1,132
Cooking Chef	590	1,787	2,377
Printing Officiate	13	40	53
Building and machinery electricity	48	3,523	3,571
Building electricity	1	293	294
Assistant accountant	1,502	1,628	3,130
Nurse assistant	1,158	696	1,854
Typing and shorthand	200	228	428
Radio repairing	0	9	9
Radio and TV repairing	0	263	263
Machines mechanics	6	412	418

Motors mechanics	15	906	921
Furniture carpenter	17	213	230
Total	5,223	10,486	15,709

Source: CRDP website: Statistics 2017-2018

The distribution of students in the DS program (both public and private) by major in 2017-2018 is shown below:

#### DS PROGRAM (PUBLIC AND PRIVATE) BY MAJOR, 2017 – 18

MAJOR	FEMALE	MALE	TOTAL
Heating, Cooling, and sanitary	0	98	98
Hospitality: Production	12	87	99
Industrial electricity	2	211	213
Industrial Mechanics	-	59	59
Car Mechanics	22	520	542
Total	36	975	1011

Source: CRDP website: Statistics 2017-2018

The distribution of students in the supervisor program (both public and private) by major in 2017-2018:

#### SUPERVISOR PROGRAM (PUBLIC AND PRIVATE) BY MAJOR, 2017 – 18

MAJOR	FEMALE	MALE	TOTAL
Industrial electricity	0	17	17
Cars mechatronics	2	6	8
Total	2	23	25

Source: CRDP website: Statistics 2017-2018

### PRIVATE TVET MAPPING

The table below lists all private TVETs that are available in Lebanon across all regions. However, since the project is only targeting the regions of the North, South, and Beqaa the consulting team only chose TVETs from these regions, or TVETs in Beirut region that are professionals in the IT sector. The total number of private TVETs is 79, however, 35 of those are located in Beirut and Mount Lebanon which represent almost 47 percent of the total number of TVETs mentioned. Out of the 53 percent remaining TVETs, some were eliminated since they only provide a limited number of courses, or they don't have the infrastructure to develop in terms of student or course capacities.

#### AVAILABLE PRIVATE TVETS NATIONWIDE

International Academy for Building Capacity	Beirut
CIS College	Beirut
Computer and Management College	Beirut
Makhzoumi Foundation Vocational Training	Beirut
CDC college معهد التطوير المهني	Beirut
C and E college	Beirut

Armenian Catholic Mesrobian High School & Technical College	Beirut
Abdel Hadi Debs Vocational School and Training Center	Beirut
Beirut Professional Foundation- مؤسسة بيروت المهنية	Beirut
CTF - College Technique des Freres	Beirut
Sagesse Technique	Beirut
Capital Beirut College	Beirut
Semeurs Davenir	Beirut
American Center for Excellence	Beirut
Antwork	Beirut
SE Factory	Beirut
Lebanese Developers	Beirut
Formatech	Beirut
The Lebanese Welding Center	Beirut

Rashaya Technical Institute	Beqaa
Al Afak	Beqaa
Al Masar	Beqaa
CIS College	Beqaa
Zahle Academy for art science	Beqaa
Notre-Dame de la Consolata - معهد سيدة التعزية	Beqaa
Dar El Sadaka - Basilian Salvatorian Order	Beqaa
Beqaa Technical and Vocational Institute	Beqaa
Libanel Institute	Beqaa
Johan Loduvic Schneller Institute - يوحنا لودفيك شنلر	Beqaa
Electronic and Commercial Center	Beqaa
Beqaa Industrial Institute	Beqaa
Lebanese Training Center	Mount Lebanon

Clouds Digital Academy	Mount Lebanon
HR Works SAL	Mount Lebanon
Done! Hospitality Training Solutions for Hotels and Restaurants	Mount Lebanon
Al Afak	Mount Lebanon
Al Masar	Mount Lebanon
Al Masar	Mount Lebanon
CIS College	Mount Lebanon
Smart Technical Center	Mount Lebanon
Saint Bassile technical center	Mount Lebanon
CEC-ISEC Institut Supérieur des Etudes Commerciales	Mount Lebanon
American Universal College	Mount Lebanon
Al Emdad Center	Mount Lebanon
CIT	Mount Lebanon



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Kafaat Technical Institute	Mount Lebanon
American Technical College	Mount Lebanon
Don Bosco Technical Institute	North
Azm Institute	North
Tamkeen Vocational Institute	North
Quantum Learning Center	North
Media Training Center - Jinan University	North
Lebanese Red Cross	North
CIS College	North
Institut Ste. Therese Amioun	North
Nader Technical Institute	North
Al Abir Institute	North
Saidoun Universal College	North

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Fares International institute	North
Central College Jounieh	North
Institut Mgr Cortbawi	North
Michel Jabbour Foundation for Vocational and Technical Education	North
Institut Technique Orthodox	North
معهد الجمال الفني - Beauty Technical Institute	North
Lycee Libanais Tripoli	North
Farah Nursing Institute	North
Semeurs Davenir	North
College National Orthodox in Mina	North
The Islamic house of Education in Tripoli	North
École Technique Al Carmelia, Mejdlaya مدرسة الكرملية المهنية، مجدلي	North
Lebanese High Institute of Technology	North

Association For the Development of Rural Capacities	South
Al Afak	South
Al Masar	South
CIS College	South
Khalifa Ben Zayed Aal Nahyan Center for Vocational Education - مركز خليفة بن زايد آل نهيان للتعليم المهني	South
International Institute for Vocational and Technical Education	South
National Evangelical Institute	South

## PARTNER PROFILING

Questions asked during the TVET assessment covered the organizational and technical aspects of the schools, as well as their preparedness to cooperate with CSP. These questions also helped understand the foundation of the TVET on three different aspects, the organizational and the technical aspects, and if the TVET was ready to partner and collaborate with CSP.

The organizational aspects discussed the TVET's administration such as its legal status, and the decision takers in relation to the development of the institution and its relations with its social and economic environment. Courses being offered and their development to meet the needs of the labor market and the community were also a focus during the TVETs' interviews; in addition to the training and internships provided for the students as a compliment to their studies. When it comes to organizational details it was crucial to ask about the finances and human resources of the TVET to determine if the TVET can generate income or secure adequate financial resources for the salaries of its staff members and infrastructure, if so how is its financing assured. For the human resources, it was important to see if the teachers at the institute receive continuous training that enables them to deliver courses and trainings to their students that match market needs. since part of the project includes training of trainers whereby the teachers at the TVET will receive training that matches current market trend, the consulting team asked about the number of teachers and their positions (fixed or part-time). In order to determine whether the TVET was a potential growing organization it was important to know the enrolment numbers and student attendance.

The main aspect of an organization is its infrastructure, determining whether the TVET had the adequate material and equipment that match the curriculum requirements with sufficient classrooms and workshops was a main subject to assess; that was done either while conducting the interview or while touring the premises of the college. The second aspect that was studied was the technical aspect that revolved around the soft skill training available or given to the students, in addition to assessing the organizations cooperation experience with the private sector in selected occupational areas.

The third aspect discussed was the readiness of the TVET for cooperation with CSP, this readiness is on the level of assigning competent staff and to take active part in elaboration of a course development plan in cooperation with CSP, and also assigning teaching personnel to take part in further training and advisory measures. Knowing if the TVET had carried out joint projects with donor agencies was helpful to determine the level of experience they had in funding and collaboration with previous NGOs that would ease the work with CSP.

For the full results of the TVET school capacity assessment, see Annex 4.

## RECOMENDATIONS — SELECTED TVETS

POYER DE LA PROVIDENCE — SAIDA	
Degrees offered	BP, BT, TS
Total number of students enrolled	180
Number of teachers	14 full-time and 6 part-time/ contractual teachers
Curricula setting	For the electro-technique curriculum, they have partnered with a school in Paris/ France. Some of the curriculums are based on the Lebanese education regulations, and other are done in house with their own experts and collaborations.
Provide internships for students	A job placement and support office called EACD
Tuition	3.4M Lebanese Lira per learning year
Source of income	They receive grants, rent out spaces at the TVET for private companies, and they have the tuition of students

Willingness to collaborate on new programs with CSP	Yes, on courses level and on training their staff members
Interest in the programs mentioned by CSP	Yes, willing to open courses for the 3 sectors targeted by CSP
Does the school have the infrastructure for the suggested courses	Yes, they have several industrial locations/ workshops for their students to learn such as electronics, sound, mechanics, aluminum, carpentry, electro technique and others.
Recommended Collaboration	Curricula upgrades on three sectors: solar energy maintenance; special needs at home; special needs at nurseries; shadow teacher training

**TAMKEEN — TRIPOLI**

Degrees offered	CAP ,BP , BT, TS
Total number of students enrolled	From 8 to 25 students / course and they have 40 courses
Number of teachers	Total of 56 mostly part-time
Curricula setting	The titles that come from the government, it includes the content that should be given to the BP students and our teachers formulate their own curricula
Provide internships for students	Collaborate with different companies to take their students for internships
Tuition	\$300 up to \$600 per student for 1 year programs depending on course and number of students
Source of income	From grants through working with NGOs, and student tuitions
Willingness to collaborate on new programs with CSP	Yes, but they have an internal policy that does not allow the school to receive equipment from donors, they buy everything they use from material themselves. But they can receive grants directed towards student scholarships.

Interest in the programs mentioned by CSP	Yes, willing to open courses for the 3 sectors targeted by CSP
Does the school have the infrastructure for the suggested courses	Yes, they have several industrial locations/ workshops for their students to learn such as electronics, sound, mechanics, aluminum, carpentry, electro technique and others.
Recommended Collaboration	Curricula upgrades on three sectors

**JOHN LODUVIC SCHNELLER INSTITUTE — BEQAA**

Degrees offered	CAP ,BP , BT, TS
Total number of students enrolled	Total of 102
Number of teachers	Not mentioned
Curricula setting	shifted back to the traditional BT certificate especially after the vocational department training at the Ministry of Education did not certify their program
Provide internships for students	Many industries approach them to headhunt good students
Tuition	3.3 Million Lebanese Lira
Source of income	Grants, they sell their own products, and student tuitions
Willingness to collaborate on new programs with CSP	Yes, on courses level and on training their staff members
Interest in the programs mentioned by CSP	Yes, willing to open courses for the 3 sectors targeted by CSP

Does the school have the infrastructure for the suggested courses	Yes, they have several industrial locations/ workshops for their students to learn
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### FORMATECH — BEIRUT/NATIONWIDE

Degrees offered	A certificate stating attendance of VT recognized by the ministry
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Total number of students enrolled	This varies depending on course / curricula.
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Number of teachers	Formatech has a broad network of freelancers that they tap into for providing trainings.
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Curricula setting	The courses given here are based on hands-on experience
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Provide internships for students	No, but they track their student employability rate
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Tuition	Not mentioned
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Source of income	They sell their own products, and student tuitions
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Willingness to collaborate on new programs with CSP	Yes, willing to train the teachers coming from other TVETs on IT courses and skills and provide students with IT workshops.
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Interest in the programs mentioned by CSP	Yes, only IT and Soft Skills
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Does the school have the infrastructure for the suggested courses	Yes, even Microsoft and Oracle certified, and ILM accredited.
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### SE FACTORY — BEIRUT, TRIPOLI

Degrees offered	Programs are just a certificate of attendance; they are not accredited.
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Total number of students enrolled	Get around 200 applicants in general, but graduate 20-22 students from the program after the filtered applications
Number of teachers	2
Curricula setting	CEOs of companies who provided them with their needs in the market and gave them the ideas of what courses to be given
Provide internships for students	No
Tuition	The cost of the programs is a \$100
Source of income	they sell their own products, and funds through NGOs
Willingness to collaborate on new programs with CSP	Yes, willing to train the teachers coming from other TVETs on IT courses and skills and provide students with IT workshops.
Interest in the programs mentioned by CSP	Yes, only IT
Does the school have the infrastructure for the suggested courses	Yes, only for IT related courses – in Tripoli, SE Factory partnered with BIAT for space.

### ANTWORK — BEIRUT, SAIDA

Degrees offered	No degrees, just certificate of attendance, could be certified by the private sector.
Total number of students enrolled	Between 25 and 40 participants join the training each time.
Number of teachers	Trainers are appointed / identified according to need and none are full time trainers for Antwork.



Curricula setting	The training should be about etiquette, confidence building, and how to present yourself.  Soft skills differ between sectors, for example soft skills in IT are very much different than the ones in home care. For IT, we can work on team management and working as a team, these skills are very over looked but needed the most.
Provide internships for students	There was a 30 percent conversion of internships to full-time employment thanks to great linkages with private sector.
Tuition	Training costs 300\$ per person.
Source of income	Antwork is primarily a co-working space.
Willingness to collaborate on new programs with CSP	Yes, especially on soft skills / specialized soft skills depending on sector.
Interest in the programs mentioned by CSP	Yes, can adapt soft skills to sector.
Does the school have the infrastructure for the suggested courses	Yes, Antwork has conference and meeting rooms to run soft skills training in Beirut and its new center in Saida.

## CODI — BEIRUT

Degrees offered	Certificates with Saint Plomb accreditation
Total number of students enrolled	51 alumni, 32 new students coming for the new class starting December 2019
Number of teachers	One lead trainer (full time) and two assistant trainers who are generally previously students at Codi
Curricula setting	Paid Saint plomb for the curricula and adapted it to Lebanon based on surveys  They can develop the curricula themselves, internally like they did for digital literacy  Meeting companies and developing based the curricula based on their needs
Provide internships for students	Working now on developing a stronger network with companies  Companies have started to come to CODI to search for talents

Tuition	None, it is offered but students require funding for accommodation, etc.
Source of income	Angel investors – philanthropists mostly Lebanese expatriates
Willingness to collaborate on new programs with CSP	Yes – to introduce new curricula, to expand physically and in terms of cohorts, to expand network of supporting companies

### COLLEGE ORTHODOXE — MINA

Degrees offered	BT, TS, LT
Total number of students enrolled	60 students compared to 350 students in previous years
Number of teachers	Wide network of teachers that can be contacted to re-introduce soft skills or other classes
Curricula setting	Council of civil service needs to update their curricula to match the needs of the market.
Provide internships for students	No
Tuition	Varies between LBP 3M up to LBP 3.5M. TVET usually provides financial aid to students and communities – tuition can be discounted to LBP500,000
Source of income	Tuition fee, sponsorships and grants
Willingness to collaborate on new programs with CSP	Yes, can re-introduce soft skills and IT trainings / courses through network of teachers
Interest in the programs mentioned by CSP	Interested in supporting mostly in IT and home based health care. TVET has a nursing curricula but there is no demand because of free courses given by LRC and others

### LEBANESE RED CROSS NURSING SCHOOL — NATIONWIDE

Degrees offered	BS, BT, TS, and LT
Total number of students enrolled	120
Number of teachers	Around 10 per branch
Curricula setting	The curriculum is provided based on the needs of the area, for example in Falougha there are specific degrees BP, but in Saida there is a need for medical assistances and the curricula there is therefore adapted.
Provide internships for students	Not necessarily connecting students with employers although certificate from LRC helps secure jobs
Tuition	N/A
Source of income	The Lebanese Red Cross is an NGO which received funding from donors, sponsorships, fundraisers, etc.
Willingness to collaborate on new programs with CSP	Yes, but requires an approval from the president of the Lebanese Red Cross
Interest in the programs mentioned by CSP	Yes, this is their area of specialization. The LRC is also very aware that its curricula needs updating and review
Does the school have the infrastructure for the suggested courses	Yes, it does but this too needs upgrades. LRC has three technical schools in Saida, Tripoli and Falougha and one center in Baabda that provides the BS

#### **APAVE — NATIONWIDE**

Degrees offered	Training certificates
Total number of students enrolled	3 to 4 attendees per class; around 300 trainees per year

Number of teachers	Total staff of 70 people including in-house trainers
Curricula setting	Often provided by their corporate clients / partners When working with GIZ, the curriculum was provided by the school and assessment was done based on the schools requirements.
Provide internships for students	10 to 15 interns per summer but these interns are usually in engineering.
Tuition	Depends on course, trainings are often paid for as a bulk by a client who sends trainees
Source of income	Private business generates income from tuition / price of training
Willingness to collaborate on new programs with CSP	Yes
Interest in the programs mentioned by CSP	Yes, on two sectors: IT and industrial maintenance, where APAVE is already active No workforce for health care but accreditation to hospitals program in 2010 – they accredited 27 hospitals

## IX. CURRENT WORKFORCE DEVELOPMENT PROGRAMS

Lebanon is home to a large number of Workforce Development (WFD) Programs initiated by various international development organizations and NGOs.

All current WFD projects are directed towards the development of TVETs. This development is either through developing the infrastructure of the TVET, curricula modification of the TVET to match market needs, or advertising the TVETs as an education that can help in job placement.

Another similarity that these WFD projects share with the USAID WFD program is that some work on one of the sectors that the USAID WFD program is aiming to work in. For example, some are focusing on IT and coding, others are working on life skills and digital skills, and one working in the manufacturing sector.

Even though there are some similarities with the USAID WFD program, there are also several differences. These differences are on the targeted beneficiaries of the programs or the targeted areas they are operating in. Most of these WFD programs target both the Syrian refugees and Lebanese people, while the USAID WFD aims at targeting only Lebanese. As for the targeted areas, most WFD programs operate in one area of the areas that USAID WFD aims to work in, for example, either working in the North, or in the Beqaa, or the South whereas the USAID WFD aims at working in all three locations.

### MAPPING AND PROFILES

PROGRAM NAME	ORGANIZATION	DONOR	DETAILS
BT Coding	IECD	AFD	Coding training in TVETs
Unknown	Sawa Association for Development	Association Ushagram Suisse	Vocational training in Beqaa. Targeting Lebanese and refugees.
Local Development Program for Deprived Urban Areas in North Lebanon	GIZ	BMZ	The activities will comprise inter alia initiatives aiming at reducing inter-communitarian tensions, provision
Improving Quality of TVET in Lebanon	GIZ	BMZ	of education as well as technical and vocational education and training, support to local economic development, and improvement of the urban residential environment.
Improving the labor market relevance and attractiveness of TVET in Lebanon	GIZ	BMZ	TBD
Vocational Opportunities for Youths in Chouf and Aley	AMURT (Ananda Marga Universal Relief Team)	BMZ and Kindernothisilfe	

3amaly	Mercy Corps	Canada Aid	Short term skills development courses with OTJ training part. Life skills (job search via the media, assessment of offers, job interviews, work ethics, English, computer courses, business planning), Processing of local agricultural products, Manufacturing of new products from recycled materials.
Chievening Scholarship	British Council Center	DFID	3AMALY Program aims to support 62 existing MSMEs and 60 startups to develop and scale their businesses, in order to create 480 new jobs within a 3-year period.
Subsidized Temporary Employment Program (STEP)	Palladium	DFID	The scholarship enables students to pursue postgraduate study at UK higher education institutions, returning to contribute to the development of their home country
[AFD] Support to the Modernization of ISSAE/CNAM Lebanon	CDR	EU	Subsidized Temporary Employment Program (STEP) in Lebanon aims to incentivize small and medium-sized enterprises (SMEs) to expand production and create new permanent jobs.
Technical Assistance for More Practice Oriented VTE in Lebanon	GIZ	EU	Supporting the development of higher vocational education and promoting youth and employees' access to a high-quality professional training, at an affordable cost and in line with the enterprises.
ProVTE	GIZ	EU	The overall objective of the project is to improve the quality, relevance and responsiveness of the public Lebanese VTE system to the needs of the labor market. The project is designed to support the ambitions of the Ministry of Education and Higher Education (MEHE) and employer organizations to make the VTE provision more demand-oriented and responsive to labor market needs.
QUADRA – Resilience for Syrian refugees, IDPs and host communities in response to the Syrian and Iraqi crises	GIZ	EU Madad Trust Fund and BMZ	Eight courses in PV solar panels installation (4) and Drinking water and Sewage pipes installation (4) based on curricula and implementation procedures developed by GIZ-ProVET (40 hrs in-class course + 80 hrs On the Job Training component in different construction companies).
DSME	Chamber of Commerce in Zahle and Tripoli	GIZ/KFW	The overarching objective of this component is to enhance educational and economic opportunities for host communities and Syrian refugees through skills training measures, in particular for youth and

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women in Lebanon.

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Improved access to employment opportunities for Lebanese and refugee graduates from skills training	Italian Agency for Development Cooperation	ILO	Activities focus on formal and non-formal short-term trainings for both disadvantaged Lebanese and Syrians with an overall aim to strengthen their resilience and contribute to their economic self-sufficiency.
Informal Economy and Vulnerability Sample Survey to assess the labor market impact of the Syrian Refugee Crisis in Lebanon	The Ford Foundation	ILO	The Republic of Lebanon and the Federal Republic of Germany focus their bilateral technical cooperation to strengthen the Lebanese vocational education system with an additional focus on private economic sector promotion. The components of the program include cooperative (dual) initial training, further training for Meister, in-service training for teaching personnel, advisory services for decision-makers on drawing up policies and strategies as well as for the system level and promotion of SME development.
Towards improved formal and non-formal Technical Vocational & Education Training in Lebanon	UNICEF	ILO	The project aims to provide post-training services and market-based skills training for vulnerable Lebanese and refugees in order to improve employability in the labor market.
Strengthening job creation and creativity in the agro-industrial sector in Lebanon	UNIDO	Italy	The ILO is commissioning an Informal Economy and Vulnerability study, targeting the most vulnerable populations among Lebanese, Syrian Refugees and Palestinian Refugees in Lebanon to provide currently unavailable information on the supply and demand sides of Lebanon's labor market.
Construction skills training for all	UNIDO	Japan	The joint ILO/UNICEF program will implement activities to address the challenges and needs identified within the formal and non-formal TVET sector mapping at both policy level and capacity development level of service providers.
Market-based construction skills training for all	UNIDO	Japan	By the end of the project, specific TVET curricula and standards for youth are relevant to identified labor market needs.
Unknown	IRC	KFW and RDPP	Providing technical assistance and inputs for improving selected agro-processing facilities especially M&SMEs, in addition to the provision of market-oriented professional skills trainings to women and youth. The project takes into consideration the effects of the

			ever protracting issue of the refugee crisis that has weighed heavily on the Lebanese society and its economy, and aims at alleviating the effects of the crisis through the improvement of employment opportunities for vulnerable communities.
Unknown	Makhzoumi Foundation	MADAD-EU, UNHCR	Improving employment opportunities for vulnerable communities in the North of Lebanon by means of market-based skills training on concrete construction work.
FORSA (Fostering Resilience by Strengthening Abilities)	Mercy Corps	Ministry of foreign affairs of the Netherlands	The objective of the proposed project is to create economic opportunities and jobs in the construction sector in Lebanon, particularly among host and refugee communities in Northern areas of Lebanon.
Unknown	CESVI	Ministry of Foreign Affairs of the Netherlands	Classroom-based training with teacher supervised practical classes in: Tailoring, food processing, beauty care, general electricity, home-based care, mobile phone maintenance, plumbing, car electricity, wool knitting, Lebanese fast food, hospitality, Accounting, Sales and customer service
The elevator technician	Seeds of hope in cooperation with IECD	Mitsulift	Digital Literacy and IT Skills Languages Beauty Academy Business and Enterprise skills Soft skills Electronics
Strategy and support measures for enabling business environment for host communities and Syrian business diaspora in neighboring countries	UNIDO	More than one donor	Focused on skills training and employment growth to mitigate risks for instability and conflict in the target areas. The Program aims to support Lebanese communities, Palestinian and Syrian refugees in Zahle, West Beqaa, Chouf, Jezzine and Saida to address their economic needs through vocational training, access to employment, support for small businesses, and focused improvements to Public and Private TVET centers. The program is focused on the Agriculture, Energy, Manufacturing, and Services (inc. Tourism) Sectors.
SKILL-UP Lebanon	ILO	Norwegian Ministry of Foreign Affairs	Theoretical Hands-on activities Field visits on green construction
Race initiative II/UNICEF	AVSI	UNICEF	



Capacity Building and Mentorship for Youth in Akkar, North Lebanon, and Beirut-Mount Lebanon	Mada Association	UNICEF, KfW	UNIDO is preparing a number of initiatives and undertaking appropriate measures to support the business environment for host countries and Syrian business diaspora located in neighboring countries. The result is a solid and complete strategy that complements and support other initiatives and efforts that are aimed at enhancing the business environment and lead to increased employability and better economic status for the refugees as well as for the host communities.
Fulbright Scholarship program	Amideast	USAID	The ILO developed guidelines on non-formal market-based skills training. As such, the SKILL-UP Lebanon is piloting the implementation of these guidelines to show the impact of such an approach. This is limited in terms of Syrian refugees to focus on the three sectors that have been deemed open to them for employment and skills training.
University Scholarship Program USP	AUB, LAU	USAID	Trainings in: Car & motorcycle maintenance, Garden maintenance, Sewing, hair dressing, internal installation of drinking water & sewage pipes, cooking & pastry, repair of mobile phones, installation of solar water heaters & PV panels, installation of aluminum & glass windows
Lebanon Enterprise Development (LED) Project		USAID	This project aims to support youth in Akkar, North Lebanon, and Beirut-Mount Lebanon by training them on technical skills to improve their employability and empower them to access better employment opportunities. The technical skills focus on vocational training related to agriculture trade, life skills and mentorship. The project will also provide six career days to assist youth in identifying job opportunities and to link them to the job market. A training on digital skills is also integrated into the project with a special focus on Social Media Campaigning and Marketing.
Teach me before feeding me	Goodness And Development Forum	World Bank	A grant to obtain a master's degree at a university in the United States which covers a maximum of two academic years
Creating Economic Opportunities in Support of the Lebanon National Jobs Program	IIST	World Bank	Providing merit-based scholarships to public high school graduates from across Lebanon who need financial assistance.

مهارات النجاح	Amideast	LED aims to develop Lebanese enterprises and increase jobs for Lebanese citizens.
Vocational and Technical Education for young Lebanese in the Electrotechnics field	Seeds of hope in cooperation with IECD	The accelerated vocational project is a training courses for the Lebanese and Syrian youth living in Akkar district, to get a career.
SPARK	Makhzoumi Foundation	These courses are: Photocopier Maintenance, Maintenance of cellular devices, Installation of Internet & Networks, Applied Accounting

Source: CRDP website: Statistics 2017-2018

## COMPLEMENTARITIES AND SYNERGIES WITH USAID WFD PROGRAM

There are 37 WFD programs in Lebanon, however, filtering these programs to match the USAID WFD program 11 programs were left (listed below). These programs were compared to the USAID WFD program in terms of synergy and differences.

MAPPING AND PROFILES			
PROGRAM NAME	ORGANIZATION	DONOR	DETAILS
BT Coding	IECD	Coding training in TVETs	The program is only specific to IT skills leaving out industrial maintenance and home care.
Unknown	Sawa Association for Development	Vocational training oriented program	Unknown
Local Development Programme for Deprived Urban Areas in North Lebanon	GIZ	Support of TVETs through curricula modification to match market needs	The program is only operating in the North which covers one out of three areas that USAID WFD is targeting.
Improving Quality of TVET in Lebanon	GIZ	TVET development	All TVETs are included not area specific
Improving the labor market relevance and attractiveness of TVET in Lebanon	GIZ	TVET development and advertising to match market needs	All TVETs are included not area specific
[AFD] Support to the Modernization of ISSAE/CNAM Lebanon	CDR	TVET development and advertising to match market needs	All TVETs are included not area specific

Technical Assistance for More Practice Oriented VTE in Lebanon	GIZ	TVET development and advertising to match market needs	All TVETs are included not area specific
Improved access to employment opportunities for Lebanese and refugee graduates from skills training	Italian Agency for Development Cooperation	The project aims to provide post-training services and market-based skills training	The program is targeting Lebanese and refugees. USAID WFD only targets Lebanese
Towards improved formal and non-formal Technical Vocational & Education Training in Lebanon	UNICEF	Support of TVETs through curricula modification to match market needs	All TVETs are included not area specific
FORSA	Mercy Corps	TVET development and advertising to match market needs	FORSA
Capacity Building and Mentorship for Youth in Akkar, North Lebanon, and Beirut-Mount Lebanon	Mada Association	The project targets the youth population	Capacity Building and Mentorship for Youth in Akkar, North Lebanon, and Beirut-Mount Lebanon

## X. SUMMARY OF RECOMMENDATIONS

### RECOMMENDATIONS FOR WFD PARTNERSHIPS

ENTITY	PROFILE	PARTNERSHIP TYPE
GIZ	<ul style="list-style-type: none"> <li>• GIZ works on several projects in Lebanon, four of which are TVET centric and have similarities with this WFD program.</li> <li>• Local Development Programme for Deprived Urban Areas in North Lebanon.</li> <li>• Improving Quality of TVET in Lebanon (upcoming)</li> <li>• Improving the labor market relevance and attractiveness of TVET in Lebanon.</li> <li>• Technical Assistance for More Practice Oriented VTE in Lebanon.</li> </ul>	<ul style="list-style-type: none"> <li>• Collaborate on introduction of <b>assessment of competence and accreditation system</b>.</li> <li>• Introduction of a <b>complementary certificate</b> with specific competencies received.</li> <li>• Such competencies should be validated by the private sector.</li> <li>• Certificate should <b>list a set of very relevant and readable competencies</b>.</li> <li>• Create a system whereby there are <b>two certificates</b>: one is the attendance certificate issued by the Ministry at the end of the school period; and the second from attending work based learning at a company.</li> </ul>
IECD	<ul style="list-style-type: none"> <li>• IECD through semeurs d'avenir is implementing six major programs of which</li> <li>• Long trainings: Vocational and Technical Education for young Lebanese in the Electrotechnics field</li> <li>• Guidance and employment: Reinforcement of access to employment services for the Lebanese youth</li> <li>• Short trainings: Vocational training and socio-professional integration for young Lebanese and Syrian and Palestinian refugees in northern Lebanon</li> <li>• Support for small Lebanese businesses : Follow up of small businesses and training of start-up entrepreneurs.</li> </ul>	<ul style="list-style-type: none"> <li>• Need for a <b>long-term programming in the industrial maintenance sector</b>, which is one focus area of IECD.</li> <li>• The market is in need for polyvalent skills in maintenance.</li> <li>• Industrial maintenance, commercial centers' maintenance, building maintenance, electromechanical systems, etc.</li> <li>• <b>Train the trainers programs by IECD</b> – the degree received from IECD is certified by the Ministry of Labour and not the Education: work together to get the accreditation from MEHE.</li> </ul>
USAID — LED	<ul style="list-style-type: none"> <li>• The Lebanon Enterprise Development program offers customized technical assistance to local businesses in order to help identify and solve challenges to business growth, productivity, and profitability.</li> <li>• The objective of LED will promote increased employment opportunities for Lebanese.</li> <li>• Among others, LED is working with Berytech in Beirut and BIAT in Tripoli, to introduce and launch business development activities and support to SMEs.</li> <li>• LED offers expert consulting, business advisory services, coaching and mentoring, training, and more to Lebanese businesses to help them overcome obstacles to growth that will increase sales and that will lead to new jobs for Lebanese citizens.</li> <li>• Customized technical assistance is delivered principally by Lebanese business service providers and consultants or, as needed, by international consultants.</li> </ul>	<ul style="list-style-type: none"> <li>• Support in tackling enabling environment for the three sectors of choice.</li> <li>• Support business development, access to new regions and growth specifically for home based health care service businesses.</li> <li>• Find synergies according to specific training and workforce development needs.</li> </ul>

## GENERAL RECOMMENDATIONS

CONCLUSIONS	RECOMMENDATIONS
Negative perception of TVETs	As Lebanon goes through trying economic times, university tuition fees are increasingly unaffordable for a large proportion of households. This could work in favor TVETs. Any curricula upgrades or support to TVETs should be supported by appealing and convincing, fact based communication efforts that would help shift the perception and attitude towards TVETs.
Willingness to commute	Large employers in Beirut are providing busses to transport staff from different regions. This can provide a further incentive, even for women who would be offered a safe and secure mode of transport that also allows them to be back in time for family obligations.
Resistance to working in homes	A vetting system could be introduced to make sure that home based health care companies know who their clients are and can guarantee safety to their staff. This should be well communicated to make sure that nurses and their families are convinced.
Wasta	HR best practices should be introduced at SMEs whereby the concept of 'equal opportunities' should be implemented. This can be done through awareness sessions and workshops that highlight the added value for employers when they recruit based on meritocracy rather than networks. Interviewing and final selection of candidates should only be done thoroughly and based on an in-depth assessment of skills and qualifications.
Training Duration	Students should be given the choice between different types of curricula: one short term, one midterm and one longer term. Each with a different type and level of certification that can be acquired.
Sectors of Choice	Practical nursing and nurse aid curricula could target women more efficiently while maintenance of industrial equipment and machinery could be geared towards male youths. ICT and technology curricula can target both genders equally.
Unreliable labor data	Formulate estimations based on analysis of different data points
Syrian refugee pressure	Work with host communities and most vulnerable Lebanese in most affected regions to place them in TVETs and SMEs
Higher unemployment in the North	Target several communities in the North
Low participation of women in the workforce	Ensure gender balance in the CSP program, providing equal opportunities to women for both education and employment

Higher educational attainment level among women	Leverage the high commitment and achievement of women to further advance their career prospects and employment opportunities
Gender gap affecting women entrepreneurs	Consider stronger entrepreneurship angle in curricula, and encourage women to study entrepreneurship and understand all key aspects as well as possibilities of becoming entrepreneurs
Skills gaps among the youth	Introduce new curricula in private TVETs to cover all major gaps
Insufficient employment opportunities	Focus on sectors that are less affected by the economic crisis and where jobs can still be created
Large informal sector	Focus on legal framework behind self-employment and entrepreneurship, as well as legal rights to encourage youths and businesses to formalize
Low access to social security	Further training on rules and regulations, laws surrounding employment and rights of employees in the workplace
Service oriented economy	Leverage service sectors that are performing well and provide opportunities for job placements, and identify any gaps in other sectors where there are major skills gaps
Opportunities in sectors like ICT, new media and creative industries	Focus on 'sectors of the future' that provide significant opportunities for growth and potential for job placements

## SUMMARY OF TVET PARTNERSHIP RECOMMENDATIONS

### PARTNERSHIP BY TVET/TRAINING LEVEL

	TVET/TRAINING CENTER	RECOMMENDED PARTNERSHIP
1.	Foyer de la Providence – Saida	Curricula upgrades on three sectors: solar energy maintenance; special needs at home; special needs at nurseries; shadow teacher training
2.	Tamkeen – Tripoli	Curricula upgrades on three sectors
3.	Johan Lodovic Schneller Institute – Beqaa	Curricula upgrades on three sectors based on consultations with private sector

4.	Formatech – Beirut, nationwide	Curricula upgrades on ICT and Soft Skills
5.	SE factory – Beirut, Tripoli	Curricula upgrades on ICT
6.	Antwork – Beirut, Saida	Curricula upgrades on Soft Skills
7.	Codi – Beirut – Nationwide	Space and equipment provision
8.	College Orthodoxe - Tripoli	Suggest partnership with Codi for coding and development curricula
9.	Lebanese Red Cross Nursing School – Nationwide	Curriculum endorsement by LRC
10.	Apave – Nationwide	Training of trainers

Source: CRDP website: Statistics 2017-2018

### PARTNERSHIP BY CURRICULA UPGRADE RECOMMENDATIONS

Based on the findings of this study, there are four types of curricula upgrades that can be introduced across the three identified sectors/occupations identified:

- *Mechanical and electrical skills are the most in need skills for maintenance and repair of industrial equipment and machinery.* Many TVETs and training centers already provide training programs for these skills, although no formal private sector accreditation of such programs are in place. By working with selected SMEs and TVETs, CSP can help formalize and strengthen the curricula for this sector, tackling some of the most important skills which include the following:
  - Mechanical skills
  - Electrical skills
  - Machinery maintenance and repair
  - Machine automation
  - Welding
  - Lathing

- Wastewater management
- Quality control
- *Home-based health care services.* The most essential aspect in developing a training or TVET curricula for this sector is to produce a unified ‘practical nurse’ and a ‘nurse aid’ curriculum that can be adopted by all home-based health care businesses. An official and recognized curriculum does not exist for these occupations. Some of the key skills to be included in the curricula include the following:
  - Working with specific diseases (like Alzheimer, Parkinson, mental disease, etc.)
  - Showering and cleaning patients while in bed
  - Helping patients to walk and move around
  - Feeding patients
  - Moving patients from bed to bed or to a health care facility
  - Orthopedic know-hows
  - Home/interiors and personal hygiene
  - Measuring pulse, pressure, temperature, oxygen
  - Under-skin injections
  - Measuring insulin
  - Scar preventions
- *ICT and Technology.* This sector is constantly evolving and requires talents with a fresh perspective on major developments, new skills needed and upcoming new technologies. Skills needed are very broad and should be taken into consideration when developing the curricula:
  - Programming and software development for mobile applications; web development and digital communications; e-commerce, such as the automation of web services and buying things online; etc.
  - Business intelligence: data gathering / Data center services / database management and analytics, and understanding and analyzing numbers.
  - Dashboards: producing and reading dashboard.
  - Interface – APIs: communicating between different platforms. ERPs are obsolete – operations bring zero value
  - IT infrastructure and Cybersecurity
  - Cloud Literacy and Operations



- Internet of Things
- IT auditing
- Industrial robotics
- Media buying

Other added value skills include a knowledge in math, and knowledge in excel spread sheets. Knowledge in technology language such as java, and html. Understanding of Search Engine Optimization.

- *Soft Skills.* Soft skill needs are similar across sectors, and mostly revolve around communication, project management, presentation, ethics and leadership:
  - Communication
  - Presentation
  - Business ethics
  - Ethical behavior
  - Leadership
  - Project management
  - Digital literacy
  - Financial literacy
  - Typing
  - Languages (English, French)
  - Emotional intelligence
  - Time management
  - Taking initiative
  - Respecting confidentiality
  - Productivity

## SUMMARY OF SME PARTNERSHIP RECOMMENDATIONS

COMPANY

OPPORTUNITIES

1.	Jubaili Brothers	<ul style="list-style-type: none"> <li>• Internship placements possible for 10-20 students</li> <li>• Possibility of seeking assistance from Jubaili technicians and engineers for curricula</li> </ul>
2.	Schneider Electric	<ul style="list-style-type: none"> <li>• Support by Mr. Wajih Fenianos for curricula and training delivery</li> </ul>
3.	Bonjus	<ul style="list-style-type: none"> <li>• Work on summer job placements</li> </ul>
4.	Bou Chalhoub	<ul style="list-style-type: none"> <li>• Placement of internships</li> <li>• Support in HR function: recruitment and talent development, etc.</li> </ul>
5.	Libanlait	<ul style="list-style-type: none"> <li>• HR support: best practices, workforce development and training systems</li> <li>• Placement of interns specifically technical staff in waste water plant in farm</li> </ul>
6.	Arab Printing Press	<ul style="list-style-type: none"> <li>• Internship placements</li> <li>• Support in HR practices, training and workforce development</li> </ul>
7.	Mounir Bissat Factories	<ul style="list-style-type: none"> <li>• Internship placements</li> <li>• Support in HR practices, training and workforce development</li> </ul>
8.	Daher Foods	<ul style="list-style-type: none"> <li>• Internship placements</li> </ul>
9.	Kassatly Chtaura	<ul style="list-style-type: none"> <li>• Seek support from KC for curricula development</li> <li>• Internship placements</li> </ul>
10.	Indevco	<ul style="list-style-type: none"> <li>• Indevco engineers can provide trainings</li> <li>• Potential endorsement of curricula by Indevco</li> <li>• Internship placements</li> </ul>
11.	Maliattec	<ul style="list-style-type: none"> <li>• Seek support from Maliattec and CIO group (of which Ms. Sarraf is a part) for curricula development</li> <li>• Internship placements</li> </ul>
12.	AIY Expert Solutions	<ul style="list-style-type: none"> <li>• Few internship placements</li> <li>• Support in HR practices, training and workforce development</li> <li>• Seek support from AIY Expert Solutions for curricula</li> </ul>

		development
13.	Azkatech	<ul style="list-style-type: none"> <li>• Seek support from Azatech for curricula development</li> <li>• Internship placements</li> <li>• Train the trainer</li> </ul>
14.	Jaleesa	<ul style="list-style-type: none"> <li>• Support in development of curricula</li> <li>• Internship placements</li> <li>• Support in development of HR function and workforce development</li> </ul>
15.	Care@Home	<ul style="list-style-type: none"> <li>• Support in development of curricula</li> <li>• Support in development of HR function and workforce development</li> <li>• Seek support from Care@Home in development of accreditation standards</li> </ul>
16.	Home Care Lebanon	<ul style="list-style-type: none"> <li>• Support in development of curricula</li> <li>• Support in development of HR function and workforce development</li> <li>• Internship placements</li> </ul>

## EMPLOYMENT MODEL

### MAINTENANCE OF MACHINERY AND INDUSTRIAL EQUIPMENT

Curriculum Design and Validation	TVET upgrades (Curriculum, Teacher Training, Equipment, etc.)	Student Training (TVET)	Internships & Employment	Policy
<ul style="list-style-type: none"> <li>• Foyer de la Providence</li> <li>• Schneller School</li> <li>• Tamkeen</li> <li>• APAVE</li> <li>• Cortbawi</li> <li>• Indevco</li> <li>• Jubaili Brothers</li> <li>• Kassatly Chtaura</li> <li>• Bonjus</li> <li>• Bou Chalhoub</li> <li>• Daher Foods</li> <li>• Schneider</li> </ul>	<ul style="list-style-type: none"> <li>• Jubeili Bros</li> <li>• Schneider</li> <li>• Foyer de la Providence</li> <li>• Schneller School</li> <li>• Tamkeen</li> <li>• APAVE</li> <li>• Cortbawi</li> </ul>	<ul style="list-style-type: none"> <li>• Foyer de la Providence</li> <li>• Schneller School</li> <li>• Tamkeen</li> <li>• APAVE</li> <li>• Cortbawi</li> </ul>	<ul style="list-style-type: none"> <li>• Indevco</li> <li>• Jubaili Brothers</li> <li>• Kassatly Chtaura</li> <li>• Liban Lait</li> <li>• Arab Printing Press</li> <li>• Bonjus</li> <li>• Bou Chalhoub</li> <li>• Daher Foods</li> <li>• Schneider</li> <li>• Mounir Bsat</li> </ul>	<ul style="list-style-type: none"> <li>• Chamber of Commerce and Industry</li> <li>• LFA</li> <li>• DGVTE</li> <li>• GIZ</li> <li>• LED</li> </ul>

### ICT AND TECHNOLOGY

Curriculum Design and Validation	TVET upgrades (Curriculum, Teacher Training, Equipment, etc.)	Student Training (TVET)	Internships & Employment	Policy
<ul style="list-style-type: none"> <li>• AIY Expert Solutions</li> <li>• Maliatec</li> <li>• Azatech</li> <li>• Vbout</li> <li>• Eastline Marketing</li> <li>• Cisco</li> <li>• SE Factory</li> <li>• Codi</li> <li>• Formatech</li> </ul>	<ul style="list-style-type: none"> <li>• Maliatec</li> <li>• Azatech</li> <li>• Codi</li> <li>• Formatech</li> <li>• Cisco Academy</li> </ul>	<ul style="list-style-type: none"> <li>• Codi</li> <li>• Formatech</li> <li>• Cisco Academy</li> </ul>	<ul style="list-style-type: none"> <li>• AIY Expert Solutions</li> <li>• Maliatec</li> <li>• Azatech</li> <li>• Vbout</li> <li>• Eastline Marketing</li> </ul>	<ul style="list-style-type: none"> <li>• IT Syndicate</li> <li>• DGVTE</li> <li>• GIZ</li> <li>• LED</li> </ul>

### HOME-BASED HEALTH CARE SERVICES

Curriculum Design and Validation	TVET upgrades (Curriculum, Teacher Training, Equipment, etc.)	Student Training (TVET)	Internships & Employment	Policy
<ul style="list-style-type: none"> <li>• Order of Nurses</li> <li>• APIS</li> <li>• Care@home</li> <li>• Homecare</li> <li>• Lebanese Red Cross</li> </ul>	<ul style="list-style-type: none"> <li>• Order of Nurses</li> <li>• APIS</li> <li>• Lebanese Red Cross</li> </ul>	<ul style="list-style-type: none"> <li>• Lebanese Red Cross</li> </ul>	<ul style="list-style-type: none"> <li>• Care@home</li> <li>• Homecare</li> <li>• Jaleesa</li> <li>• Hospitals</li> </ul>	<ul style="list-style-type: none"> <li>• Order of Nurses</li> <li>• APIS</li> <li>• Care@home</li> <li>• Homecare</li> <li>• Lebanese Red Cross</li> <li>• DGVTE</li> <li>• GIZ</li> </ul>

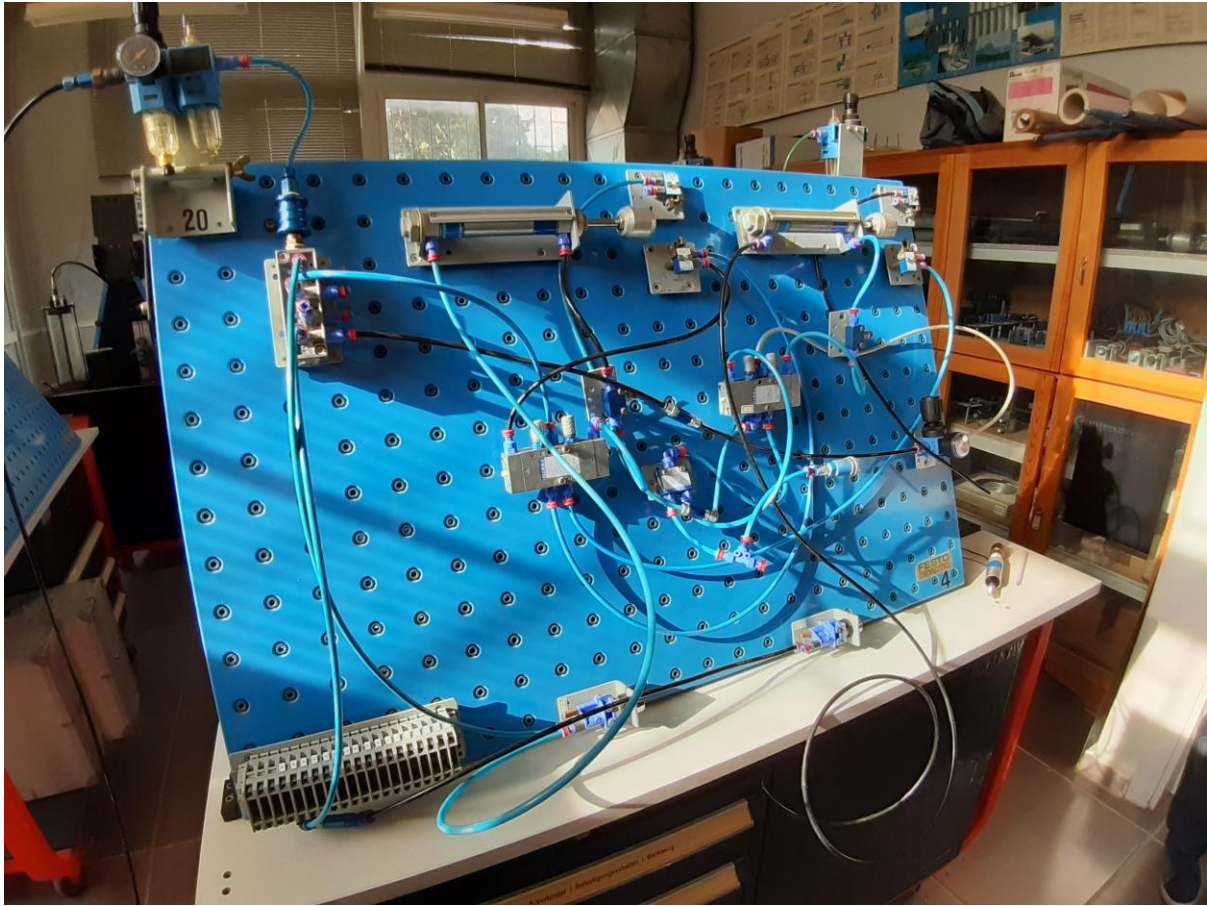
### SOFT SKILLS

Curriculum Design and Validation	TVET upgrades (Curriculum, Teacher Training, Equipment, etc.)	Student Training (TVET)	Internships & Employment	Policy
<ul style="list-style-type: none"> <li>• Formatech</li> <li>• Antwork</li> <li>• Maliatec</li> <li>• Indevco</li> <li>• Home Care Lebanon</li> </ul>	<ul style="list-style-type: none"> <li>• Formatech</li> <li>• Antwork</li> </ul>	<ul style="list-style-type: none"> <li>• Formatech</li> <li>• Antwork</li> </ul>	<ul style="list-style-type: none"> <li>• Indevco</li> <li>• Jubaili Brothers</li> <li>• Kassatly Chtaura</li> <li>• Liban Lait</li> <li>• Arab Printing Press</li> <li>• Bonjus</li> <li>• Bou Chalhoub</li> <li>• Daher Foods</li> <li>• Schneider</li> <li>• Mounir Bsateh</li> <li>• AIY Expert Solutions</li> <li>• Maliatec</li> <li>• Azkatech</li> <li>• Vbout</li> <li>• Eastline Marketing</li> <li>• Care@home</li> <li>• Home Care Lebanon</li> <li>• Jaleesa</li> </ul>	<p>DGVTE</p>

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## **XII. LIST OF ANNEXES**

Annex 1: Summary of Scores and Companies

Annex 2: Key Informant Interview Transcripts

Annex 3: Focus Group Discussion Transcript

Annex 4: TVET School Capacity Assessment