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Algeria Entrepreneurship & Employment Project

# Algiers Economic Opportunity Analysis

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By **Eleanor Sohnen**

Methodology designed by **Dr. Catherine Honeyman**

Research conducted by **Naman Demaghatrous**

# Contents

<b>Contents</b> .....	<b>2</b>
<b>Executive Summary</b> .....	<b>3</b>
<b>Industry sector priorities and rationale</b> .....	<b>4</b>
<b>Mapping Supply Chains and Identifying Needs and Opportunities</b> .....	<b>5</b>
Agribusiness/Food Processing .....	5
Supply Chain Map of the Sector .....	7
Analysis of needs to support SME business growth in the sector .....	8
Analysis of opportunities in the sector .....	8
Pharmaceuticals .....	8
Supply Chain Map of the Sector .....	10
Analysis of needs to support SME business growth in the sector .....	11
Analysis of opportunities in the sector .....	11
Information and Communications Technology (ICT) .....	11
Process Map Example: Mobile Application Development .....	12
Analysis of needs to support SME business growth in the sector .....	12
Analysis of opportunities in the sector .....	12
<b>Conclusions</b> .....	<b>13</b>
Analysis of needs to support SME business growth across the three sectors .....	13
Analysis of opportunities across the three sectors .....	13
Demand-driven training and recruitment .....	13
New business creation to supply B2B products and services across the three sectors .....	15
Policy Issues .....	17
Next Steps .....	17
SME priority partners .....	17
<b>Annex A: Economic Opportunity Analysis Methodology</b> .....	<b>18</b>
<b>Annex B: Sector Analysis—Algiers</b> .....	<b>33</b>

## Algeria Entrepreneurship & Employment Project

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### Local partners:

- ◆ Algerian Center for Social Entrepreneurship (ACSE)
- ◆ MBI (*Setif*)

## Executive Summary

The wilaya of Algiers, with a population of 3.2 million as of the end of 2017, is the country's administrative, political, and economic capital. In 2018, there were slightly more than 35,000 registered enterprises, of which approximately 19% employed more than 5 people. The wilaya has a diversified industrial zone in Rouiba-Reghaia with more than 30 large production units (e.g. *heavy trucks, clothing, chemicals, construction materials, and the food industry*). Another major industrial zone within the wilaya is Larbatache. Trade and services accounted for 76% of employment in the wilaya, followed by the industry sector (*largely manufacturing and agri-food processing*) with 12%, construction with 11%, and agriculture with 1% of jobs held<sup>1</sup>. The nearby wilaya of Blida, essentially a suburb to Algiers, augments this latter proportion with extensive agribusiness and food processing industries.

In Algiers and Blida, our research team identified three key industries that, as of Q4 2019, showed potential to provide youth employment and entrepreneurship opportunities: **agribusiness/food processing; pharmaceuticals; and information and communications technology (ICT)**. This selection was based on an analysis of export potential, presence of SMEs; volume of entry-level jobs; a supportive enabling environment; and committed leadership. Incidentally, these three sectors (*in addition to production of spare parts*) are those announced in early March 2020, after much of the present research was concluded, by the Deputy Minister of Foreign Trade to implement the national strategy for promotion of non-hydrocarbon exports.<sup>2</sup> In light of the current pandemic, the ICT and pharmaceuticals industries in particular may hold increased short-term potential for youth employment.

Through interviews with SME and industry representatives, the team mapped sector supply chains and identified and analyzed a) needs to support SME business growth and b) potential opportunities for youth employment and entrepreneurship in and across the three sectors.

Key needs to support SME business growth identified through our research include import/export process assistance (*in agribusiness/food processing and pharmaceuticals*) and facilitation of mobile and online payment (*in ICT*).

Within agribusiness/food processing, the key training and recruitment needs identified are for quality assurance agents, machine operators, and marketing and merchandising agents. In pharmaceuticals, there may be a need for quality control agents, packing and packaging agents, and commercial advisors. In ICT, there is a potential need for project managers, graphic designers, programmers, and customer service agents.

In terms of business to business services opportunities, for both pharmaceuticals and agribusiness/food processing, the main opportunities appear to lie in waste management, packaging, transport, and import/export process assistance. Within ICT, there is a wide range of potential opportunities for, e.g., mobile applications for the growing Algerian market.

The COVID-19 pandemic results in new challenges for training and employment, as well as potential new opportunities. Algiers' **personal care and hygiene products sector** may see growth from increased demand during the pandemic. Support to **remote work and e-commerce** also represents a new area of potential growth due to economic changes surrounding the COVID-19 pandemic. While this area was not one of the priority sectors identified in this research, it may represent greater opportunity for employment growth in the short and medium term. Training and recruitment needs may include:

- ◆ Traditional BPO fields, including accounting, billing, health records, data processing, technical support, technical writing, translation, transcription, customer service, and sales
- ◆ IT engineers managing networks, web-based work platforms, e-learning, e-commerce, and e-payment/mobile money platforms
- ◆ Web developers
- ◆ Social media managers
- ◆ Online marketing managers
- ◆ Graphics design, video editor, animator
- ◆ Creation of online education content, management of online learning sites
- ◆ Health and Safety (HSE) managers

1 National Employment Agency and International Labor Organization. Alger: Rapport d'Enquête. 2018 Analyse et Prévisions du Marché de L'Emploi Local.

2 <https://anba.com.br/en/algeria-identifies-strategic-areas-to-promote-exports/>

Algiers has been the most affected city by the recent socio-political situation since the movement core and the protests are there. Many small businesses have failed to survive the crisis. Even before the COVID-19 pandemic reached Algeria, many if not most businesses were in an economic holding pattern. Though the project is centered around understanding and solving challenges to SME growth, firms may be more focused on survival and, after the pandemic recedes, on recovery. A potential silver lining is that the drop in oil prices as well as the potential decrease in international production that the coronavirus outbreak may present a prime opportunity for the country to diversify its economy and boost domestic production in the non-hydrocarbon sector, thereby reducing reliance on imports and creating more and better opportunities for Algerians.

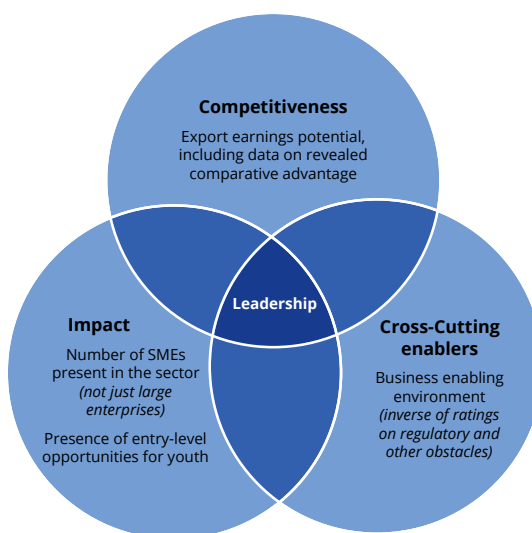
## Industry sector priorities and rationale

After initial desk research to identify the top 5-6 industry sectors/value chains in Algiers, the project applied a streamlined version of USAID’s value chain selection approach<sup>3</sup> to narrow these options to the 3 industry sub-sectors or more specific value chains that are the most promising, based on four major criteria: competitiveness (*in this context, we are most interested in export revenue potential*), impact (*here, in terms of SME growth and youth employment potential*), cross-cutting enablers (*in the Algerian context, focusing on sectors with relatively lower bureaucratic and regulatory obstacles*), and leadership (*the willingness of lead firms or a formal or informal industry association to invest time and effort in increasing value chain competitiveness*). Annexes A and B provide the full methodology and report on the sector selection process.

Background interviews in Algiers focused on gathering quantitative and qualitative data on these indicators to make a final selection of three industry sub-sectors per site. It should be noted that this selection process was intended to be rapid and based on well-recognized issues within each project site. As USAID guidance states, “An overly detailed or exhaustive selection process can preempt the value chain analysis, add complexity without adding value, and significantly increase the cost of the selection process.”<sup>4</sup>

Combining background research on priority industries; quantitative analysis of trade and Chamber of Commerce membership; and qualitative interviews with 9 business representatives in Algiers, the project team has identified three target industries that show potential to provide youth employment and entrepreneurship opportunities. Qualitative criteria included respondents’ perceptions of export potential; presence of SMEs; volume of entry-level jobs; a supportive enabling environment; and committed leadership. Based on analysis of the data, the project team selected the combined sectors of agribusiness/food processing (*representative products include couscous, pasta, soft drinks*); pharmaceuticals (*e.g. non-liquid and generic medicaments*); and information and communications technology (*e.g. mobile application development*).

Although this research was carried out prior to the coronavirus outbreak, it is possible that industries with particular growth potential in the context of coronavirus mitigation could include production of personal care and cleaning products as well, also present in greater Algiers. The pandemic may also increase local demand for pharmaceutical products and online services.



<sup>3</sup> See USAID MarketLinks guidance: <https://www.marketlinks.org/good-practice-center/value-chain-wiki/value-chain-selection-overview>

<sup>4</sup> <https://www.marketlinks.org/good-practice-center/value-chain-wiki/value-chain-selection-overview#criterion-1>

## Mapping Supply Chains and Identifying Needs and Opportunities

In this phase of the research, consultants and technical staff members attempted to gather information from employers via individual interviews and sector workshops. Unfortunately, the majority of employers across the three were reluctant to participate due to a number of factors during the research phase. These included uncertainty during the protests and election period, suspicion of an unknown US-based organization, and quarantine requirements during the coronavirus outbreak. The team therefore pivoted to reach out to trusted industry experts to develop supply chain maps as well as identify growth needs and opportunities for training and new business creation in the sector. As mentioned earlier, we expanded the geographic focus to include the greater Algiers area, in particular the suburb of Blida which is home to extensive agribusiness and food processing industries. The team also gathered additional secondary data and information to supplement the research.

The supply chain maps shown below are generalizations based on information received from representatives of these businesses. Read from bottom to top, they show actors and the connections between them across the three main stages of the supply chain: pre-production (*local and imported inputs*), production, and post-production (*packaging, marketing, distribution, and sales*). Algerian entities central to the sector are shown in blue; supporting services are shown in purple; and foreign entities are shown in gray. Connections between Algerian entities are shown with blue lines, while connections between Algerian and foreign entities are depicted with gray dotted lines. Potential opportunities, as identified in orange call-out boxes, emerged in conversations with informants and should be validated in future discussions with sector actors, as they may or may not be representative of the sector in Algiers as a whole.

### Agribusiness/Food Processing

Agribusiness and food processing have both significantly increased their contribution to Algeria's GDP and employment over the last decade. Furthermore, the recent drop in the price of oil may actually present opportunities for Algeria's agribusiness sector, as decreased foreign currency reserves may increase pressure to produce more foodstuffs domestically. The country's 2008 Agricultural and Rural Renewal Policy and Felaha 2019 initiative aim to boost food security in part by reducing the country's reliance on imports of basic foodstuffs and moving toward self-sufficiency in strategic agri-food chains, such as durum wheat. This includes supporting production of sheep, cattle, goats, white meat, fruit, vegetables and milk; and promoting local dates, oils and grapes.

Algeria's domestic market for agricultural products and food is significant. As of 2017 it was the world's largest consumer of cereals, and the leading consumer of milk in North Africa. As Algeria's middle class grows and women increasingly enter the workforce, Algerians are buying more processed and convenience foods (*and going out to restaurants*) rather than preparing the majority of foods at home from scratch. For example, demand for prepared meals – particularly ready-made salads – has increased significantly in recent years. At the same time, the upper class is increasingly seeking higher-end products.<sup>5</sup>

Currently, the country's top food exports by value include sugar, sugarcane, and dates. Meanwhile, according to analysis of recent trade data, agribusiness products in which Algeria has a growing market share, and for which the world market is growing, include:

- ◆ Animal or vegetable fats and oils
- ◆ Edible fruit and nuts
- ◆ Preparations of vegetables, fruit, nuts
- ◆ Cocoa and cocoa preparations
- ◆ Fish and seafood
- ◆ Oil seeds and oleaginous fruits
- ◆ Cork and articles of cork
- ◆ Sugars and sugar confectionery

Although its agriculture industry is among the smallest in the country, the wilaya's food processing industry is robust; in 2018, there were approximately 7000 enterprises registered with the Centre National du Registre du Commerce; presently there are 59 food processing firms registered with the

5 <https://en.djazagro.com/Exhibition/Show-news/Algerian-food-production>

local chamber of commerce. The Mitidja plain between Algiers and Blida has long been devoted to agriculture and served as the breadbasket to the country; thus the Blida area is home to a significant agribusiness and food processing cluster as well. Local and international firms mentioned by informants include CEVITAL, SIM, DAHMANI (*la Belle*), Amar Benamor, Sosemi, Metidji, IFRI, CONDOR, BERRAHAL, SAHRAOUI, GROUPE OTHMANI, GROUPE AGLI, GROUPE ISIAKHEM, DANONE, VITAJUS, Coca-Cola, Ramy, DANIMEX, Hammoud Boualem, Rouiba NCA, Bellat, and BIFA. Products run the gamut from couscous and pasta, semolina, dairy products, dates, oils, to beverages, and many others.

The Algiers-based agribusiness and food processing firms currently registered with the national Chamber of Commerce to export currently trade in a range of products, foremost among them dates, olive oil, and beverages.<sup>6</sup> The majority of Algeria's fruits exports go to Europe, and olive oil to France and Canada, while beverages are largely exported to other African countries.<sup>7</sup>

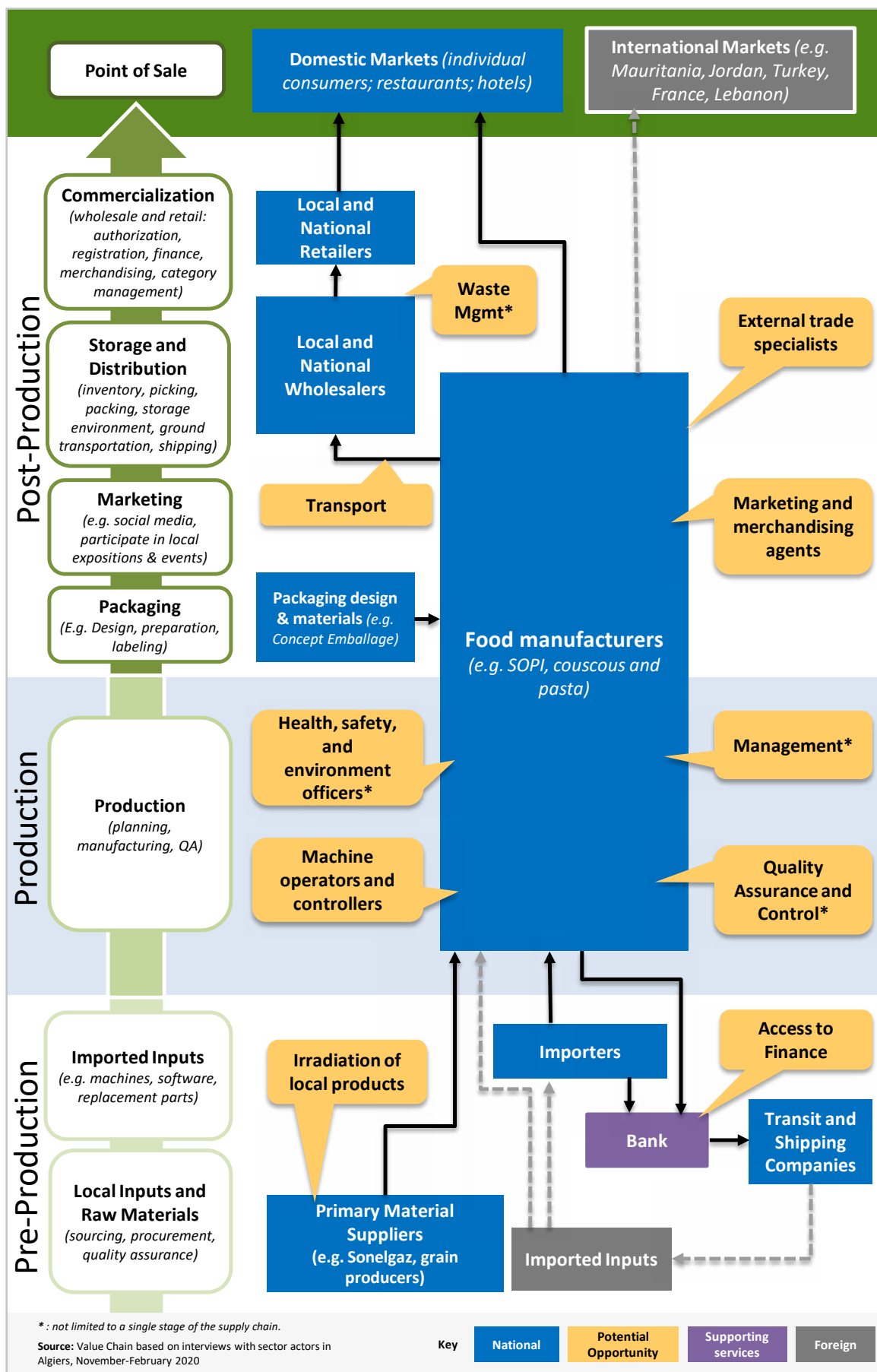
Once the sector was selected for inclusion in the project, the research team identified and attempted to interview individual SMEs; due to the hesitation of local firms to participate, this was difficult, and the project ended up interviewing a large firm based near Blida producing couscous and pasta (*among other items*), and an agricultural packaging firm based in Algiers.

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6 Chambre Algerienne de Commerce et d'Industrie. Fichier des Exportateurs Algeriens. Annee 2019.

7 [https://oec.world/en/visualize/tree\\_map/hs92/export/dza/all/show/2017/](https://oec.world/en/visualize/tree_map/hs92/export/dza/all/show/2017/)

# Supply Chain Map of the Sector



The map shows on the left-hand side the different stages, actors, activities, and connections in the supply chain. From bottom to top, the stages are pre-production (*local inputs and raw materials and imported inputs*), production (*planning, manufacturing, and quality assurance*), and post-production

(*packaging, marketing, storage and distribution, and commercialization*). In the agribusiness and food processing sector in the pre-production stage, local inputs and raw materials include gas, grain, and other such raw produce provided by primary material suppliers (*blue box*). Imported inputs (*gray box*) include software, machines, and replacement parts. Banks provide financial services (*in purple*). In the production stage, examples of goods produced by the example firms include couscous and pasta. In the post-production stage, the chain shows illustrative steps of the process to take the finished product to market, including (*e.g.*) packaging design, social media marketing, storage, distribution, sales, and so on, carried out by the actors in the blue boxes (*the food manufacturers themselves, packaging designers and suppliers, wholesalers, and retailers*). At the top are the different final markets – domestic (*in blue*) and international (*in gray*). The opportunities, in orange, are detailed in the sections below.

## Analysis of needs to support SME business growth in the sector

A lack of access to payment methods in foreign currency in order to participate in import/export activities was noted in this sector, as in the others investigated across greater Algiers (*as well as in Setif*). Another key need identified was for irradiation equipment, used to extend the shelf life of foods by reducing insects and microorganisms – local raw materials are currently being irradiated in Marseilles (*prior to being processed back in Algeria*) because of a lack of equipment in Algeria.

## Analysis of opportunities in the sector

### Demand-driven training and recruitment

Employers in the sector indicated that in the coming year, they expected to hire young people in the following positions:

- ◆ Quality assurance (*to conduct tests to determine quality of raw materials, intermediate and finished products*)
- ◆ Machine operators and controllers (*to operate or tend equipment to prepare food products*)
- ◆ Marketing (*to plan, direct, coordinate, and carry out marketing policies and programs*)
- ◆ Merchandising (*to be responsible for product stock and placement at sales outlets*)

Here, as was largely the case in Setif, the roles in which women currently work are those which require a higher level of education.

### Opportunities for B2B products and services

Opportunities identified in the agribusiness/food processing sector during our research include:

- ◆ Transport (*of goods to market*)
- ◆ Waste management (*at all stages of the production process: input, manufacturing, and disposal of damaged or expired products*)
- ◆ Import/export process assistance (*to guide companies through the complex processes of importing inputs and exporting finished products*)

## Pharmaceuticals

Pharmaceuticals is a dynamic and growing sector in Algeria, with approximately 80 local and international manufacturers operating in the country.<sup>8</sup> Sidal is the largest Algerian pharmaceutical enterprise; others mentioned by interviewees, both Algerian and international, include SANOFI, BIOPHARM, PHARMALLIANCE, HYRDAPHARM, NOVARTIS, ROCHE, SANDOZ, MERINAL, GeneriqLab, and CPCM. The domestic market is significant: at an estimated US\$3.7 billion, it is the largest market in Africa.<sup>9</sup> In 2020, 52% of pharmaceutical products were supplied locally, up from a quarter in 2008.<sup>10</sup> However,

8 Oxford Business Group. The Report: Algeria 2018.

9 Oxford Business Group. The Report: Algeria 2018.

10 <https://www.algerie-eco.com/2020/01/30/unop-lindustrie-medicament-commence-donner-signes-dessoufflement/>



there is domestic overproduction for the local market in certain less-sophisticated products, including syrups and antibiotics<sup>11</sup>, and industry growth was reportedly flat in 2019.<sup>12</sup>

Algeria-based pharmaceutical manufacturers also engage in export, to a certain degree. In 2017, exports of packaged medicaments totaled US\$4.37 million (*largely to Europe, with some to Africa*), unpackaged medicaments \$641,000 (*mostly to Europe*), and special pharmaceuticals \$123,000 (*mostly to Africa*).<sup>13</sup>

As in agribusiness/food processing, there are considerable barriers to export, particularly for local firms in this sector. The research team considers therefore that for the purposes of this project, it will be important to focus in the short to medium term on supporting pharmaceutical firms to improve their internal processes and capture a larger share of the domestic market, and on preparedness to export in the longer run.

Once the sector was selected for inclusion in the project, the research team attempted to work through the National Union of Pharmacy Operators (*UNOP*) to convene actors in the sector. Unfortunately, given the political climate and then the coronavirus outbreak, the team was unsuccessful in gathering informants. This map is therefore based on the research consultant's discussions with the head of UNOP and extensive professional knowledge of the sector.

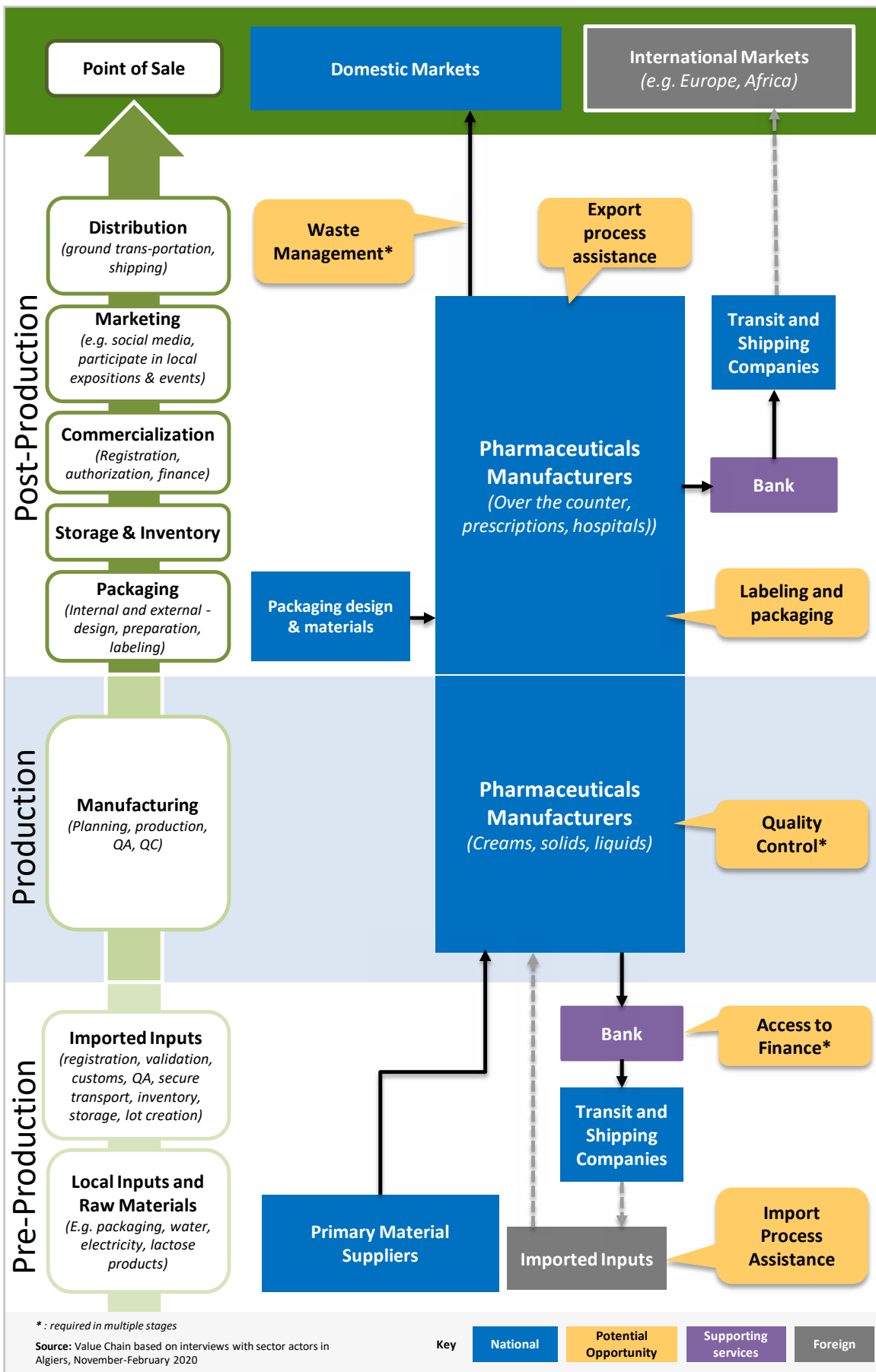
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**11** Oxford Business Group. The Report: Algeria 2018.

**12** <https://www.algerie-eco.com/2020/01/30/unop-lindustrie-medicament-commence-donner-signes-dessoufflement/>

**13** [https://oec.world/en/visualize/tree\\_map/hs92/export/dza/all/show/2017/](https://oec.world/en/visualize/tree_map/hs92/export/dza/all/show/2017/)

# Supply Chain Map of the Sector



The map shows on the left-hand side the different stages, actors, activities, and connections in the supply chain. From bottom to top, the stages are pre-production (*local inputs and raw materials and imported inputs*), production (*planning, manufacturing, quality assurance, and quality control*), and

post-production (*packaging, storage and inventory, commercialization, marketing, and distribution*). In the agribusiness and food processing sector in the pre-production stage, local inputs and raw materials include packaging, water, and electricity, provided by primary material suppliers (*blue box*). Imported inputs (*gray box*) include pharmaceutically active ingredients. Banks provide financial services (*in purple*). In the production stage, examples of goods produced include creams, solids, and liquids. In the post-production stage, the chain shows illustrative steps of the process to take the finished product (*whether over-the-counter, by prescription, or used in hospitals*) to market, including (e.g.) packaging design, social media marketing, storage, distribution, sales, and so on, carried out by the actors in the blue boxes (*the pharmaceutical manufacturers themselves, packaging designers and suppliers, wholesalers, and retailers*). At the top are the different final markets – domestic (*in blue*) and international (*in gray*). The opportunities, in orange, are detailed in the sections below.

## Analysis of needs to support SME business growth in the sector

Firms face considerable difficulty importing raw materials. Furthermore, exporting firms must register their products abroad and open a liaison office in the country to which they wish to export – both currently nearly impossible due to domestic restrictions on transfer of foreign currency. SMEs in this sector are in need of import/export process assistance to help them navigate this complex regulatory environment.

Additionally, in order to begin to capture a greater share of the domestic pharmaceuticals market, firms in this sector should also consider investing in research and development (*R&D*) to be able to produce the more complex products that Algerians are increasingly demanding, as the middle class expands, lifespans increase, and non-communicable diseases such as heart conditions and diabetes become more widespread.

## Analysis of opportunities in the sector

### Demand-driven training and recruitment

Current key areas for training in this sector are in quality assurance and control and specialized regulatory and legal knowledge to navigate the import/export process. In the longer run, R&D will also require specialized skills in life sciences and data analysis.

### Opportunities for B2B products and services

The key opportunities for B2B services in this sector include import and export process assistance, to navigate the complicated steps of (*for example*) importing active ingredients and registering abroad to export products; and waste management to ensure control and destruction of active ingredients and of expired products.

## Information and Communications Technology (ICT)

As internet penetration expands in Algeria, the importance of the ICT sector is growing. Smartphones are now widespread, and data is relatively cheap. In the first quarter of 2017, the country's Post and Telecommunications Regulatory Authority (*ARPT*) estimated that 34 million Algerians – 82% of the population – accessed the internet on a mobile device.<sup>14</sup> This sector may also see growth potential from the fallout of the coronavirus pandemic, as Algerians shift to procuring goods and services online. In 2017, Algeria's ICT services exports totaled US\$157 million (*or slightly more than 5% of services exports*).

Algiers wilaya is home to a number of successful tech companies, including the country's version of eBay (*OuedKniss*) as well as mobility apps TemTem, Coursa, and Yassir. There were 37 firms listed in the Algiers chamber of commerce under ICT, and likely many more not registered with the chamber.

The Sidi Abdella development 30 km from Algiers has also hosted events and high-tech initiatives like "*Algiers Smart City*" and many other start-up competitions, especially after the entry of mobility apps that have been addressing the transportation problem in Algiers. The National Agency for Promotion and Development of Technological Parks (*ANPT*) is promoting technoparks such as Sidi Abdella as centers to facilitate the creation of start-ups.<sup>15</sup> ANPT pays the development costs of the firms it

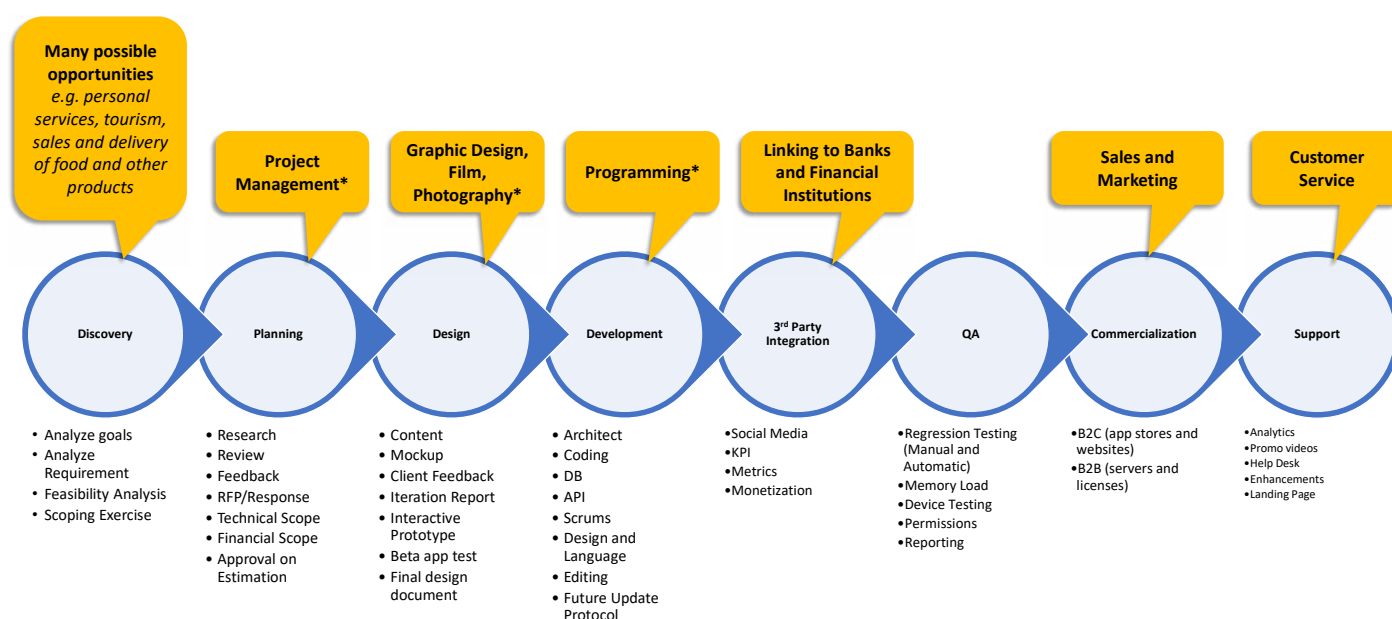
<sup>14</sup> <https://www.trade.gov/knowledge-product/algeria-information-and-communications-technology>

<sup>15</sup> [http://www.lemaghrebz.com/?page=detail\\_actualite&rubrique=Nation&id=83401](http://www.lemaghrebz.com/?page=detail_actualite&rubrique=Nation&id=83401)

incubates at the Sidi Abdellah park, taking the view that successful firms will go on to rent space in the business center, helping to fund further incubation activities. The incubation process takes around four months per firm, with the facility able to simultaneously deal with 25 firms at each stage, namely pre-incubation, incubation and start-up.<sup>16</sup> The government has also undertaken encouraging steps by cancelling taxes and removing some conditions in order to facilitate the creation of start-ups.

Once the sector was selected for inclusion in the project, the research team attempted to identify and interview individual SMEs as well as convene a sector workshop. Unfortunately, employers in this sector were reluctant to participate in the research. The team also learned that many businesses in this sector have already been approached by multiple projects, including the EU-funded AFEQ project, and may be experiencing “interview fatigue”. Given the complexity of the industry and the range of products and services offered within it, the research team therefore selected mobile application development as an example of a dynamic sub-sector, and consulted an industry expert to validate and refine an existing industry process map and identify opportunities within it. The stages of development are shown from left to right, and the potential opportunities in Algiers are indicated in orange call-out boxes.

## Process Map Example: Mobile Application Development



Adapted from Xeemu.com

\*=Opportunity present at multiple stages of the process

## Analysis of needs to support SME business growth in the sector

Connectivity is currently a major roadblock to business growth. Additionally, the country is essentially a cash economy as few Algerians have access to credit, and online sales largely function on a cash-on-delivery model. However, increasingly online funds transfers are taking place through payment in phone credit. Improving monetization of mobile applications (*for example*) will require Algeria to move towards more cellphone banking and online transactions.

## Analysis of opportunities in the sector

### Demand-driven training and recruitment

An unpublished 2018 survey of employers in Algiers wilaya by an international organization indicated that 25% of employers surveyed faced difficulty in hiring computer scientists. 23% of employers across all sectors listed IT skills as their top priority. While some ICT workers come from universities and technical schools, many others are self-trained or self-specialized. However, there is likely opportunity to create economies of scale in training, especially for individuals who may not be as self-directed, and also in less-technical fields. In addition to IT-specific skills – such as programming and database

<sup>16</sup> <https://oxfordbusinessgroup.com/overview/wired-investment-technology-parks-and-start-ups-signal-ict%E2%80%99s-on-going-importance-economy>

management – project management, graphic design, sales and marketing, and customer service skills are among those which are likely to be in high demand as the sector grows.

### Opportunities for B2B products and services

Algeria is several years into its tech revolution, but potential opportunities still abound, including in personal services (*meditation, counseling, coaching*), sports and entertainment, tourism and hospitality, and online sales and delivery. Online and mobile payment services are also a key opportunity that will enable growth of the entire sector.

## Conclusions

### Analysis of needs to support SME business growth across the three sectors

In addition to the specific themes which surfaced in each of the sectors covered in this report, common issues may be identified by looking across the three. In general, as producers of physical goods, firms in agribusiness/food processing and pharmaceuticals have more in common with each other than they do with those in ICT.

### Analysis of opportunities across the three sectors

#### Demand-driven training and recruitment

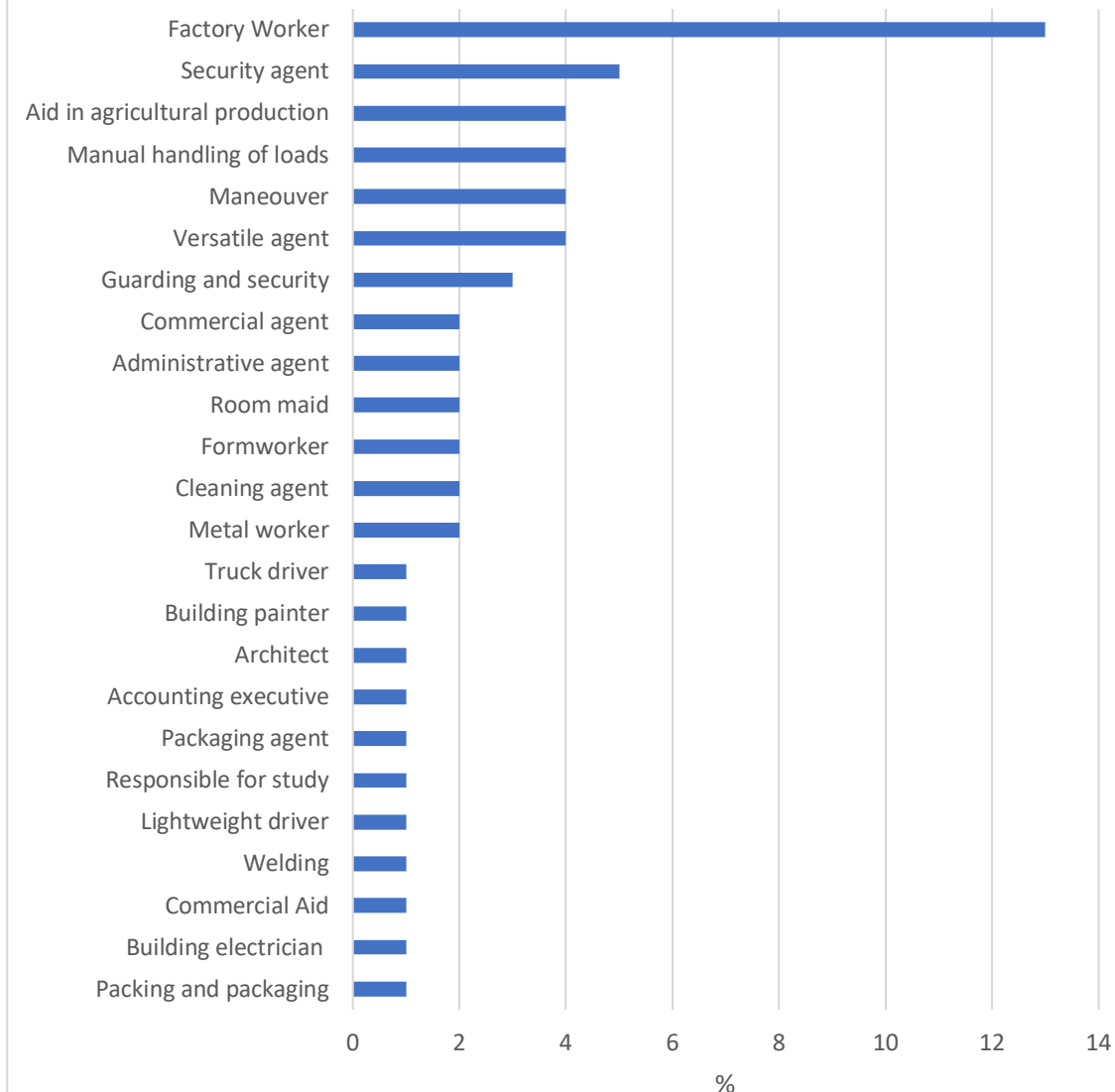
Due to the difficulties of contacting a sufficiently large sample of enterprises in the current economic climate, our conclusions for this study must also draw on the limited other existing research. In particular, a 2018 survey indicated that 45% of employers in Algiers wilaya (*across the agriculture, industry, building/public works, and services sectors*) were prioritizing recruitment of university graduates, 34% primarily sought those with vocational training, and 21% those with no specific training. The top transversal skills that employers were seeking included communication (38%); IT technical skills (23%); foreign language (22%); and innovation (17%).<sup>17</sup>

Across Algiers, recent survey research<sup>18</sup> indicates that the most-demanded roles in the short-term were as follows:

<sup>17</sup> Unpublished 2018 survey by an international organization, left uncited by request. World Learning has also conducted its own research into soft skills demand across 9 Algerian wilayas, and although Algiers was not specifically included in the sample, there was broad consensus on the need for certain intrapersonal, interpersonal, and higher order thinking skills. [https://www.worldlearning.org/wp-content/uploads/2018/04/YEP-Qualitative-Research-Analysis\\_SummaryReport\\_MEPI.pdf](https://www.worldlearning.org/wp-content/uploads/2018/04/YEP-Qualitative-Research-Analysis_SummaryReport_MEPI.pdf)

<sup>18</sup> Source: Unpublished 2018 survey of Algiers businesses by an international organization

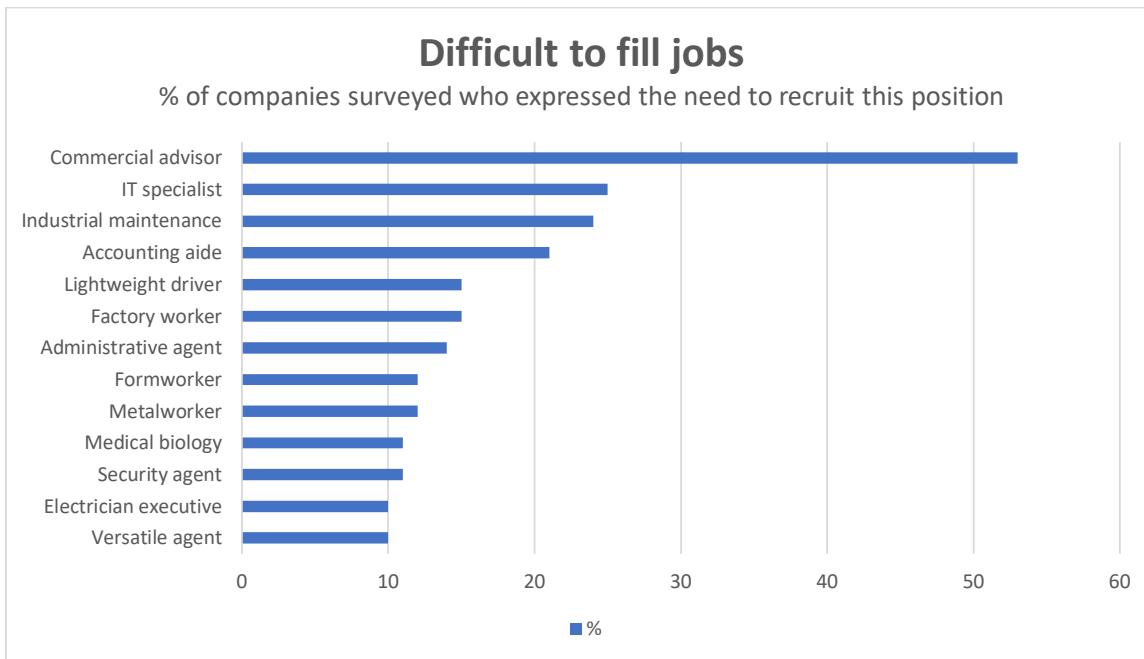
## Jobs most in demand in the short-term labor market



Short-term needs (*as of 2018*) in roles relevant to the project's priority sectors include:

- ◆ Factory workers – in agribusiness/food processing and pharma
- ◆ “Versatile workers” in packing and packaging to serve the agribusiness/food processing and pharma industries
- ◆ Accountants – across all of the sectors, but specifically in the sectors which engage in retail – e.g. agribusiness/food processing and pharma sectors
- ◆ Technicians in data processing, electronics, electrotechnics and electromechanics, across all sectors but especially in ICT
- ◆ Agriculture and agrifood trades such as agronomists, agricultural laboratory workers, and agricultural/forestry machine operators
- ◆ Commercial agents and aides – especially in the agribusiness/food processing and pharma sectors

The same report also detailed difficult to fill jobs, which appear below:



Source: Unpublished 2018 survey of Algiers businesses by an international organization

These survey results – particularly the identification of need for commercial advisors, computer scientists, industrial maintenance workers, and medical biology specialists – echo the findings of our research. The majority of these hard-to-fill positions are relevant to our three selected sectors, and these findings may provide additional valuable inputs into the process of identifying potential training needs.

### **New business creation to supply B2B products and services across the three sectors**

According to our research, in addition to the opportunities listed under each of the sectors, there may be opportunities to develop cross-sectoral supporting youth-led businesses in the following areas.

For both pharmaceuticals and agribusiness/food processing, the main opportunities identified lie in:

- ◆ waste management (*of inputs, byproducts of the manufacturing process, and of damaged, rejected or expired products*)
- ◆ packaging (*including original design with labeling meeting national and international standards*)
- ◆ transport (*of goods to market*), and
- ◆ import/export process assistance (*to navigate the complex legal, financial, and regulatory processes required*).

Within ICT, there is a wide range of potential opportunities for, e.g.:

- ◆ mobile applications for the growing Algerian market such as personal services (*meditation, counseling, coaching*), sports and entertainment, tourism and hospitality, and online sales and delivery
- ◆ design, installation, servicing and maintenance of computer systems

## New Opportunities and Changes related to the COVID-19 Pandemic

The global COVID-19 pandemic, which has significantly constrained economic activity around the world including in Algeria, is likely to have significant impact on industry prioritization, training and recruitment needs, and B2B opportunities throughout the lifetime of this project. Following are some of the near-term predictions being made,<sup>14</sup> which should shape project-level decisions.

Assumptions/Predictions	Significance for the Algeria E&E Project
1. Remote work is likely to experience a lasting boost around the world, even after in-person work is possible again, as this period has removed some normative barriers to the practice as well as shifting skills and work habits in this direction. Companies also likely to shift even more towards remote freelancing.	<ul style="list-style-type: none"> <li>Train youth in a variety of digital skills related to remote work and technical support of remote work, remote education, and e-commerce platforms, even if not directly indicated by the priority sector research in this document.</li> </ul>
2. Use of courier services of many types (food and grocery delivery, consumer product delivery, etc) has increased and will likely stay strong. Warehousing and bulk transport demand will increase alongside this. Consumer demand for products will change from pre-pandemic.	<ul style="list-style-type: none"> <li>Algeria lacks e-payment options but may shift in this direction, which would benefit other sectors of the economy as well: youth can be trained ahead of time with these skills</li> <li>Otherwise, courier-related companies are not export-oriented and so would not usually have been included in the E&amp;E project. If we choose to target such companies as an additional employment option, ensure adequate OSHA training for new pandemic risks.</li> </ul>
3. Manufacturing, construction, and outdoor work including agriculture may still be possible but will require significant work re-organization to safeguard employees and abide by social distancing policies, which may take time. Manufacturing related to health needs is likely to be particularly strong, though challenged by social distancing measures (e.g. PPE manufacturing, medications, etc). Other sectors such as automotive will decline.	<ul style="list-style-type: none"> <li>If they are to survive, manufacturing sectors indicated by this project research may need support in re-organizing their production systems.</li> <li>Agri-business, plastics, pharmaceuticals, and IT remain good sectors to support although perhaps with shifted product demand and work requirements (such as plastics shifting to produce non-woven plastics for medical PPE purposes). Training in technical skills for these sectors may be difficult currently, however.</li> <li>There may be additional hiring in medical supply firms such as GE Healthcare, which has plants in Algeria</li> <li>There may additionally be new needs for commercial agents as the government relaxes or changes import and export regulations around medical equipment, however youth may not have the needed skillset</li> <li>Construction may be a less promising sector.</li> </ul>
4. Retail trade, accommodation, food services, tourism, and commercial air travel will be some of the hardest-hit sectors and will take a long time to recover, if at all.	<ul style="list-style-type: none"> <li>These sectors were not prioritized for the Algeria E&amp;E project.</li> </ul>
5. Lower-paid work and work that in many economies is primarily performed by women will suffer some of the greatest jobs losses.	<ul style="list-style-type: none"> <li>The Algeria E&amp;E project may have challenges meeting its targets for % female and % non-diploma holders. There is a need to study options for these populations specifically.</li> </ul>

Overall, additional COVID-19 related training needs not identified previously and focusing on support for remote work and e-commerce as a new priority sector include:

- ◆ Traditional BPO fields, including accounting, billing, health records, data processing, technical support, technical writing, translation, transcription, customer service, and sales
- ◆ IT engineers managing networks, web-based work platforms, e-learning, e-commerce, and e-payment/mobile money platforms (*in addition to the app development expertise identified in this report's research*)
- ◆ Web developers
- ◆ Social media and online marketing managers
- ◆ Graphics design, video editor, animator
- ◆ Creation of online education content, management of online learning sites



- ◆ Health & safety managers, particularly for re-orienting production systems to comply with social distancing

In addition to being a potential area for training and recruitment, HSE advising could become a newly important area for B2B enterprise incubation.

## Policy Issues

Actors in the first two sectors mentioned regulatory issues related to foreign currency transfers as a challenge to growth and exporting; import/export process assistance could ameliorate some of these challenges, but some can only be addressed through policy changes. Similarly for the ICT sector, a mix of public and private sector action could support improved connectivity in Algeria as well as the country's transition to online and mobile payment platforms.

## Next Steps

In summary, despite challenges in gathering informants, the research has identified a number of recruitment and training opportunities, and potential youth-led business opportunities, within and across the three selected sectors. More analysis, however, will be necessary to understand how these opportunities may be impacted by the COVID-19 pandemic, and what additional challenges and opportunities the situation may present for Algiers wilaya's economy and youth, as well as how needed training might be carried out in a virtual environment.

## SME priority partners

Building on the findings from this report, a call for applications has been issued to engage SMEs from these three sectors to participate in business growth acceleration planning workshops. Originally these had been planned as in-person sessions to be carried out with previously selected SMES, but due to the coronavirus pandemic these workshops will be conducted virtually as a series of email tutorials and video sessions, and will include one-on-one support from an expert for approximately 5 SMEs. The objective is for at least 5 SMEs to participate from Algiers, and these will be identified as applications are received. SMEs may come from any of the three priority sectors in Algiers, which means that not all sectors will necessarily be represented. Given the circumstances, the project is considering offering the virtual sessions to SMEs outside of the priority sectors as well.

# Annex A: Economic Opportunity Analysis Methodology

## Background

World Learning is implementing the Algeria Entrepreneurship and Employment Project, funded by the Middle East Partnership Initiative (MEPI) of the U.S. Department of State. Based on our extensive experience in Algeria, World Learning and our local partner, the Algerian Center for Social Entrepreneurship (ACSE), propose to promote economic diversification and opportunities for Algerian youth in high-potential knowledge- and technology-based fields, according to the following theory of change:

**IF** 25 promising SMEs in targeted non-hydrocarbon knowledge- and technology-based sectors receive business acceleration support that enables them to better identify and address their recruitment, supply chain, and core growth needs,

**AND IF** 1,300 young women and men aged 20-35 receive high-quality demand-driven training to fulfill targeted SME and larger firms' growth needs in non-hydrocarbon sectors,

**AND IF** youth incubate 30 small businesses that respond directly to known business demand in Innovation Hubs that also build a foundation for developing future entrepreneurial talent,

**THEN** more youth will be employed in higher-earning jobs and businesses, and the country's path to economic growth through diversification will be supported,

**ASSUMING** that the current political instability remains within manageable levels and the government remains supportive of economic diversification.

Our approach is strategically focused on the start-up of new youth-led enterprises, alongside increasing the market for youth skills and products through supporting the growth of existing non-hydrocarbon SMEs. This dual strategy is the key to Algeria's ability to diversify its economy with knowledge- and technology-based sectors, to improve economic stability and employ more young Algerians.

For this project, we use Algeria's own definition of SMEs (*adopted from the European Union*) as having fewer than 250 employees and a total turnover of less than DZD 2 billion per year. This definition includes the large majority of enterprises in Algeria, but excludes some companies—particularly multinational corporations.

<b>Business Size</b>	<b>Number or Employees</b>	<b>Total Turnover (DZD)</b>	<b>Total Balance Sheet (DZD)</b>
<b>Micro</b>	1 - 9	≤ 20 million	≤ 10 million
<b>Small</b>	10 - 49	≤ 200 million	≤ 100 million
<b>Medium</b>	50 - 250	100 million - 2 billion	100- 500 million

Source: MISMEP (2012a).

<sup>19</sup> Cited in Aissa Mosbah, 2014. Development of Algerian SMEs in the Age of Globalization. [https://www.researchgate.net/publication/262105394\\_DEVELOPMENT\\_OF\\_ALGERIAN\\_SMEs\\_IN\\_THE\\_AGE\\_OF\\_GLOBALIZATION](https://www.researchgate.net/publication/262105394_DEVELOPMENT_OF_ALGERIAN_SMEs_IN_THE_AGE_OF_GLOBALIZATION)

## Purpose of the Economic Opportunity Analysis and Supply Chain Mapping Studies

For each site involved in the project, beginning with Algiers and Setif, we will undertake a desk review and field research, primarily with private sector representatives, to produce a report (*one per site*).

1. For each site, the report will include
  - a. Identifying three priority industry sectors, based on a review of available economic data
  - b. Mapping the supply chains within those three priority industry sectors, including the identification of specific business names, based on primary data collection
2. These analyses will lead to the identification of:
  - a. 5 small and medium enterprise (SME) partners per site that demonstrate the potential for employment and business growth, based on their priority positions within the targeted industries' supply chains
  - b. Priority areas for demand-driven training of youth to meet the needs of these specific SMEs, as well as the broader industry sector (*this includes larger enterprises that may be able to employ more youth at one time*)
  - c. Key gaps in the supply chain or in support services that may represent opportunities for new business start-up

## Process Overview

We will proceed according to the following steps (*to be further detailed before finalization of research methods and tools*).

1. Collect available data and studies on the industries in Algiers and Setif, to make a preliminary determination of 5-6 priority industry sectors or more specific value chains per city.
2. Conduct background interviews with key brokering stakeholders in each city, including chambers of industry and business associations to narrow down initial sector identification
  - a. Select 3 final industry sectors or specific value chains to focus on as the most promising
3. Map supply chains, for each of the three priority industry sectors, in each city
  - a. Conduct 10-15 interviews with small, medium, and large enterprises working in that sector (*proposed sample size may be adjusted*)
  - b. Focus questions on:
    - i. Potentials and plans for growth
    - ii. Recruitment needs and skills gaps
      - From this information we may identify demand-driven training and recruitment opportunities for youth
    - iii. Key constraints they face, particularly constraints to growing their market share, exports, and consequently being able to hire more people
      - From this we may identify some bottlenecks or missing products and services that a youth-led business could help meet
    - iv. Supply chain linkages (*which specific players are connected with which others through relationships of supply and purchasing at all points along the value chain in this industry sector*)
      - From this, we need to be able to diagram the relationships and identify some key players that we could support through our project
4. Write up one report for each city that includes:
  - a. The identified industry sector priorities and rationale behind them
  - b. 3 supply chain maps, one for each of these sector priorities
    - i. Identification of 5 SME priority partners to support in each city (*these could all be from one supply chain, if one seems most promising, or distributed among two or three supply chains*)
  - a. Analysis of needs to support SME business growth
  - b. Analysis of opportunities in:
    - i. Demand-driven training and recruitment
    - ii. New business creation

## Research Phases in Detail

### Phase 1: Preliminary sector selection

**Collect available data and studies on the industries in Algiers and Setif, to make a preliminary determination of 5-6 priority industry sectors per city.**

Initial criteria include:

1. Non-hydrocarbon/non-petroleum sectors
2. Included among government-identified priority industries, if possible (*the government's current seven priority industries for diversification and development country-wide are: iron and steel; mechanical and metals; electrical and electronics; agri-business; manufacturing; chemicals, plastics, and pharmaceuticals; and construction materials*)<sup>20</sup>
3. Show recent growth and potential to grow further, including potential for increased export to become a source of non-petroleum export revenue for the country
4. Have a notable presence of SMEs, not just a few large firms
5. Have the potential to employ youth

In general, we have not been able to identify a source of wilaya-level economic, SME, and labor force participation data. As a result, for this initial selection we have relied on our own prior research findings as well as additional sources such as economy news articles, online job postings, and some less specific government profiles of each wilaya.

#### Initial sector list for Setif

Based on World Learning's recent labor market analysis in Setif under the Youth Employment Project (YEP)<sup>21</sup>, likely possibilities include:

1. Agri-business: including possibilities in dairy, animal fodder, olives, figs; integrated farming
2. Food processing
3. Plastics (*2,000 companies in Setif*)
4. Consumer electronics (*to find out if this is large-company dominated, or not*)
5. Construction materials production (*e.g. gravel, cement, tiles & flooring*)

Setif does have petrochemicals industry but removed this due to MEPI's desire to focus on non-petroleum industries. We will nonetheless confirm with MEPI whether companies producing petrochemicals and derivatives like fertilizer could be included in this project or not.

#### Initial sector list for Algiers

Based on some initial market analysis in Algiers, using recent economy news articles and statistics available online,<sup>22</sup> as well as a rough analysis of online job board postings,<sup>23</sup> we suggest a preliminary investigation of:

1. Agribusiness (*possibly declining in Algiers*)
2. Food processing
3. ICT
4. Pharmaceuticals (*companies may be too large?*)
5. Medical equipment & supply
6. Metal works & construction materials (*companies may be too large?*)

Our information on Algiers is less reliable than that on Setif; nonetheless the Background Interviews phase should allow us to confirm or revise this list and narrow it down to the top three sectors.

<sup>20</sup> Oxford Business Group, 2018. Algeria's industrial policy of small business creation and local integration. <https://oxfordbusinessgroup.com/overview/productivity-boost-industrial-policy-focuses-facilitating-small-business-creation-and-raising-local>

<sup>21</sup> Rather than doing further background research on Setif, for which there is little published information available on the internet, we can use the existing LMA data to justify this initial selection when writing the final report. Consult the YEP Final Report folder to find it.

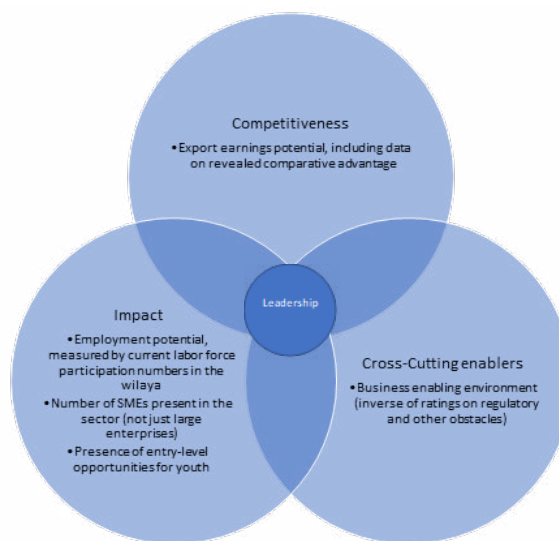
<sup>22</sup> <http://www.andi.dz/PDF/monographies/Alger.pdf>

<sup>23</sup> <https://www.emploitic.com/>

## Phase 2: Background Interviews

**Conduct background interviews with key brokering stakeholders in each city, to gather further data and narrow down the initial sector identification**

We will apply a streamlined version of USAID's value chain selection approach<sup>24</sup> to narrow these options to the 3 industry sub-sectors or more specific value chains that are the most promising, based on four major criteria: competitiveness (*in the context of the E&E project, we are most interested in export revenue potential*), impact (*here, in terms of SME growth and youth employment potential*), cross-cutting enablers (*in the Algerian context, focusing on sectors with relatively lower bureaucratic and regulatory obstacles*), and leadership (*the willingness of lead firms or a formal or informal industry association to invest time and effort in increasing value chain competitiveness*).



Background interviews in both Algiers and Setif will focus on gathering quantitative and qualitative data on these indicators to make a final selection of three industry sub-sectors per site. Note that this selection process is intended to be rapid and based on well-recognized issues within each project site. As USAID guidance states, “An overly detailed or exhaustive selection process can preempt the value chain analysis, add complexity without adding value, and significantly increase the cost of the selection process.”<sup>25</sup>

### Sample

Target a total of 10 background interviews in each city. Interview subjects should be stakeholders with well-informed perspectives about the local economy as a whole, not just about a single sector. Examples include:

- ◆ Chamber of commerce representatives
- ◆ Industry association representatives
- ◆ ANEM or other active labor market agency or relevant government agency representatives
- ◆ Academics, think tank researchers, or other organizations studying the local economy
- ◆ Export agencies

### Background interview protocol (Algiers)

**[Interviewer: Introduction and consent statement to be read out loud]** “I am a representative of World Learning, a global non-profit organization. World Learning is implementing the Algeria Entrepreneurship and Employment Project to promote economic diversification and opportunities for Algerian youth in non-petroleum based industry sectors. We would like your input on which industry sectors in this city offer the most potential for increased youth employment. We will not use your name in our report, but will combine your responses with others so that we can choose the best focus for our project. The overall report will be shared with project staff and participants as well as stakeholders in each city like yourself. Are you willing to participate in this interview?”

**[Interviewer: Provide your contact information in case of later questions about the study or project. Proceed only if consent is given based on the above information.]**

1. Interviewee organization/institution: \_\_\_\_\_

2. Interviewee title: \_\_\_\_\_

<sup>24</sup> See USAID MarketLinks guidance: <https://www.marketlinks.org/good-practice-center/value-chain-wiki/value-chain-selection-overview>

<sup>25</sup> <https://www.marketlinks.org/good-practice-center/value-chain-wiki/value-chain-selection-overview#criterion-1>

3. Interviewee contact information for future project event invitations: \_\_\_\_\_

**[Interviewer: Further introduction to read out loud]** *"We are interested in identifying non-petroleum industry subsectors with the potential to increase their exports, with opportunities to employ a higher number of youth, with relatively fewer bureaucratic and regulatory barriers, and with particular companies or associations that are taking leadership to increase the sector's competitiveness."*

4. What do you think are the sectors in Algiers that best meet the above criteria?

5. Based on our initial research, we had tentatively identified the following industry sectors as having significant potential in Algiers

- ◆ Agribusiness
- ◆ Food processing
- ◆ ICT
- ◆ Pharmaceuticals
- ◆ Medical equipment & supply
- ◆ Metal works & construction materials

Do you agree that these are the most promising industry sectors in Algiers, based on the criteria I mentioned earlier? Is there anything we have forgotten from this list? [Select one response]

1. This list is complete
2. This list is missing an important local industry/industries (specify below): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**[Interviewer: If the subject adds one or more industries in #4 or 5.b. above, you should include those in your questions about ranking below, so that you refer to the complete list each time. Note the blank lines in the following table are provided for that purpose, for example]**

6. Could you please tell me a bit more about each of these industry subsectors? What are the major Algiers-based companies in each subsector and what products do they produce?

Industry Sub-Sector	Companies	Products
Agri-business		
Food processing		
ICT		
Pharmaceuticals		
Medical equipment and supply		
Metal works and construction materials		

[The below table is for recording all ranking responses. Add other industry sectors if necessary.]

Industry Sector	Competitiveness	Employment Impact Potential		Enabling Context	Leadership
	Interviewee Rank: Export growth potential (Q7)	Interviewee Rank: SME participation (Q8)	Interviewee Rank: Youth employment (Q9)	Interviewee Rank: Fewest bureaucratic/regulatory barriers (Q10)	Interviewee Rank: Committed leadership (Q11)
Agri-business					
Food processing					
ICT					
Medical equipment Pharmaceuticals					
Metal works & construction mat					

7. Now I would like to ask you to rank these industry sectors according to some different criteria. First, which of these industry sectors do you think offers the most potential for **increasing export revenue**? How would you rank the others relative to this one? Please put them in order from **highest export potential** (#1) to lowest export potential (#5 or highest number cited).

**[Interviewer: Note that you will be recording all of their ranking responses to this and the following questions on the above table. Ensure that you assign the #1 to the highest potential sector, and then subsequently rank each of the others. Below, you can record any additional qualitative details the interviewee provides while considering their ranking response.]**

[additional comments, including responses to “why”?]

8. Which of these industry sectors has the highest number of small and medium enterprises (SMEs) involved in it, rather than just a few large companies? How would you rank the others relative to this one? Please put them in order from **highest number of SMEs** (#1) to lowest.

**[Interviewer note: Even if all sectors are dominated by SMEs, a sector with 900 firms should be ranked higher (#1) than a sector with just 50 firms]**

[additional comments]

9. Which of these industry sectors offers the most entry-level jobs, which youth could access? How would you rank the others relative to this one? Please put them in order from **highest youth employment potential** (#1) to lowest.

[additional comments]

10. Which of these industry sectors has the **fewest** bureaucratic or regulatory barriers; in other words which has the best enabling environment to operate and grow? How would you rank the others relative to this one? Please put them in order from **fewest obstacles** (#1) to the most.

[additional comments]

11. Which of these industry sectors has the most committed leadership trying to promote improved competitiveness and increased exports? How would you rank the others relative to this one? Please put them in order from **most committed leadership** (#1) to the most.

[additional comments]

12. Based on the discussion we have had so far, what are the top three industry sectors you would recommend that we focus on for our project in Algiers?

- a. If there are more specific sub-sectors within these that you recommend we focus on in Algiers, please mention those in addition to the broader sector.
- b. What are some of the companies that you recommend we speak to within each sub-sector, in order to learn more? Could you introduce us to any contacts there?

Top 3 Industry Sub-Sectors	Recommended companies to contact & Contact persons

Thank you very much for your time and for the perspectives you have shared.

### Criteria weighting

We will use the following chart to weight findings from these background interviews, focusing on the average rank given to the sub-sector by interviewees (*with a rank of 1 indicating more positive factors, compared to a rank of 5 or 6*). Where available, we will triangulate these rankings with other data (*shown in blue below*); however, given the absence of reliable wilaya-level economic and labor market information in Algeria, qualitative information will also be given significant consideration.

Industry Sub-sector	Competitiveness		Employment Impact Potential			Enabling Context	Leadership	Overall Rank
	Interviewee Rank: Export growth potential	RCA from OEC Rank	Interviewee Rank: SME participation	Interviewee Rank: Youth opportunities	Labor Force Participation Rank	Interviewee Rank: Fewest Bureaucratic/Regulatory Barriers  (ONLY 1-2 responses)	Interviewee Rank: Committed leadership	



## Phase 3: Private sector interviews & supply chain mapping

**Map supply chains, for each of the three priority industry sectors in each city and determine which SMEs to support through the project.**

Focus questions on:

- Potential and plans for growth, recent growth/investment
- Supply chain linkages (*which specific players are connected with which others through relationships of supply and purchasing at all points along the value chain in this industry sector*)
  - From this, we need to be able to diagram the relationships and identify some key players with important growth potential that we could support through our project
- Recruitment needs and skills gaps
  - From this information we may identify demand-driven training and recruitment opportunities for youth
- Key constraints they face, particularly constraints to growing their market share, exports, and consequently being able to hire more people
  - From this we may identify some bottlenecks or missing products and services that a youth-led business could help meet

### Sample

In each selected sub-sector:

- 1-2 interviews with industry/association representatives
- 8-9 interviews with small, medium, and large enterprises working in each identified priority sub-sector
- For a total of 10 interviews per sector, and 30 interviews per city.
  - a. Begin with the industry/association representatives and ask them to identify lead firms and SMEs
  - b. Additionally, follow up on contacts provided during the background research phase
  - c. Ask for additional introductions to other companies identified within the above interviews
  - d. Reserve some time at the end to meet with any additional company that seems to occupy an important place in the supply chain based on others' feedback

## Private Sector Focus Group Discussion Protocol (Industry/Sector/Subsector Level)

**Researcher Name:** \_\_\_\_\_ **Governorate:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Provide written consent form to each member of the group. Also read it aloud (below). Have each participant provide their consent before proceeding.**

### Consent script:

**Purpose** You have been invited to participate in a focus group sponsored by World Learning, a global non-profit organization, under the direction of [NAME OF MODERATOR]. World Learning is implementing the Algeria Entrepreneurship and Employment Project to promote economic diversification and opportunities for Algerian youth in non-petroleum-based industry sectors. The purpose of this focus group is to find out more about your industry sector so that we can see how our project might support it through training and business growth advising. We would like you to participate in the discussion and share with us your experience, thoughts, and priorities.

**Procedure** As part of this study, you will be placed in a small group of individuals. A moderator or moderators will ask you several questions while facilitating the discussion. This focus group will be audio-recorded and a note-taker will be present. However, your responses will remain confidential, and no names of individuals or businesses will be published.

This is a totally voluntary exercise and you are free to refuse participation. You are also free to leave at any point of time during the discussion. You can also refuse to answer any question or query at any point of the discussion.

Please note that there are no right or wrong answers to focus group questions. World Learning wants to hear the many varying viewpoints and would like for everyone to contribute their thoughts. Out of respect, please refrain from interrupting others. However, feel free to be honest even when your responses counter those of other group members.

After the group discussion, we will ask you to fill out a questionnaire about your business. Again, your responses will be confidential, and will only be used internally to better understand how our project might support firms in this sector.

**Benefits and Risks** Your participation may benefit you and other firms by helping you to map opportunities and identify gaps and common obstacles across your industry in [WILAYA]. If you are interested, you may also receive training and business growth advisory services through the project. However, no risks are anticipated beyond those experienced during an average conversation.

**Confidentiality** Should you choose to participate, you will be asked to respect the privacy of other focus group members by not disclosing any content discussed during the study. Researchers within World Learning will analyze the data, but your responses will remain confidential, and no names of individuals or businesses will be published.

**Contact** If you have any questions or concerns regarding this study, please contact:

[CONTACT INFORMATION OF MODERATOR]

## Focus Group Questions

1. To begin, could you give me an introduction to your industry sector?
  - a. What are the main products, and who are the major clients/customers for these products?
  - b. How long has this sector been in existence here in [wilaya]?
  - c. What is the estimated level of employment in this sector here in [wilaya]?
    - i. Has the number of employees increased or decreased in the last 5 years?
  - d. What is the estimated annual revenue of this sector here in [wilaya]?
    - i. Has revenue increased or decreased in the last 5 years?
  - e. [Any other information provided, such as industry's history, competitiveness/market share compared to rest of country, etc.]
  
2. I'm trying to understand better all the different actors involved in this sector, such as who supplies inputs to whom, and who buys outputs, transforms them, and brings them to market. Can you help me understand what are some of the main actors involved in these different stages? **(Show the draft/example supply chain map.)** We are going to update and refine this map as we discuss this topic.
  - a. Which actors generate the inputs or raw materials?
  - b. Which actors process the raw materials and transform them into a wholesale product?
  - c. Which actors are involved in getting this product ready for the market (*packaging, labeling, regulatory, legal processes, quality control, etc.*)?
  - d. Which actors are involved in transportation and distribution of this product?
  - e. Who is involved in the order-to-cash process?
  - f. Which actors provide services to actors in the chain: finance, accounting, security, IT, etc.?
  - g. Is there anything we left out of this chain?
  
3. What are the major constraints or obstacles the sector faces, which have made it difficult to grow in recent years?
  - a. [open response]
  - b. Are there any supplies or products that actors have trouble obtaining?
  - c. Are there any services that actors need better access to in order to operate their companies?
  - d. Are there any regulatory or bureaucratic obstacles the sector faces?
  - e. Do firms have any problems recruiting the workforce that they need?

## Individual Private Sector Questionnaire (Firm Level)

*Your responses will remain confidential, and no names of individuals or businesses will be published.*

1. Interviewee Name: \_\_\_\_\_
2. Company or organization: \_\_\_\_\_ Industry Sector: \_\_\_\_\_
3. Position or title: \_\_\_\_\_
4. Contact information to invite you to project activities: \_\_\_\_\_
5. Could you give me an introduction to your business?
  - a. What do you produce, and who are the major clients/customers for these products?
  - b. How many different original products do you manufacture?
  - c. What are the external inputs? *E.g. Do you input raw materials, do you need the services of a lab?*
  - d. Can you describe your internal supply chain?
  - e. What are the external inputs once your product is manufactured?
  - f. What are the various ways your buyers communicate with you?
  - g. How do you respond (*e.g. through a sales force in the field, a secretary that watches a website, get an alert, buy a journal, go to trade shows? Do you send out samples, train doctors, go to congresses?*)
  - h. What are the steps you take to internally process an order, up to closing an invoice? If you are buying rather than selling, is the process the same?
  - i. How long have you been in business?
  - j. How many employees do you have, and what are their different roles?
    - Has your number of employees increased or decreased in the last 5 years?
  - k. What is your annual revenue?
    - Has your revenue increased or decreased in the last 5 years?
  - l. Please share any other relevant information, such as company's history, market share, etc.

6. What positions in your company do you expect to be open to young people in the coming year?

Name of position	Type of position <i>(internship, part time, full time, seasonal, irregular)</i>	Do women work in this position?	What is the minimum education level required?	Does this position require a technical background?

7. What were the characteristics/skills of the last successful entry-level employee you hired?

8. Which of the following soft skills is usually missing from young people you have interviewed or hired?

<b>A. Psychosocial and Emotional Skills</b>	<b>D. Communication Skills</b>
<input type="checkbox"/> Self-care (rest, nutrition, exercise); Making healthy choices	<input type="checkbox"/> Effective listening and understanding others' perspectives
<input type="checkbox"/> Emotional intelligence; Managing emotions	<input type="checkbox"/> Reading and writing: written communication
<input type="checkbox"/> Positive self-concept, self-efficacy, confidence	<input type="checkbox"/> Speaking and presenting: oral communication
<input type="checkbox"/> Resilience in the face of setbacks; Coping with stress	<input type="checkbox"/> Online and digital communication
<b>B. Intra-personal Skills</b>	<input type="checkbox"/> Awareness of non-verbal communication norms and cues
<input type="checkbox"/> Self-control and self-discipline	<input type="checkbox"/> Communicating across ages, genders, cultures, or identities
<input type="checkbox"/> Conscientiousness, reliability/dependability, responsibility	<b>E. Cognitive and Higher-order Thinking Skills</b>
<input type="checkbox"/> Truthfulness, honesty, integrity, and trustworthiness	<input type="checkbox"/> Attention, focus, memory, and concentration
<input type="checkbox"/> Attention to detail and/or Seeing the big picture (specify)	<input type="checkbox"/> Critical thinking and evaluation
<input type="checkbox"/> Goal-orientation/goal-setting, self-motivation	<input type="checkbox"/> Information-seeking and independent learning
<input type="checkbox"/> Perseverance, determination, and grit	<input type="checkbox"/> Problem analysis, problem-solving, synthesis, creativity
<input type="checkbox"/> Growth mindset, and recognizing need for improvement	<input type="checkbox"/> Decision-making and planning
<b>C. Inter-personal (Social) Skills</b>	<input type="checkbox"/> Self-reflection and learning from experience
<input type="checkbox"/> Demonstrating context-appropriate behavior	<input type="checkbox"/> Financial literacy, budgeting, and financial management
<input type="checkbox"/> Respecting and expressing appreciation for others	<b>F. Employability Skills</b>
<input type="checkbox"/> Empathy and ability to notice the effects on others	<input type="checkbox"/> Workplace-appropriate verbal and written communication
<input type="checkbox"/> Valuing diversity of perspectives	<input type="checkbox"/> Navigating workplace roles and relationships
<input type="checkbox"/> Conflict management and resolution; Fairness	<input type="checkbox"/> Judging appropriate styles of dress and grooming
<input type="checkbox"/> Agreeableness, flexibility, collaboration, and teamwork	<input type="checkbox"/> Punctuality, work planning, and meeting deadlines

9. Is there anything missing from the above list? What is it?
10. What are some technical or occupation-specific skills that are usually missing from young people you have interviewed or hired?
11. Are there other challenges you face in hiring young people? If so, what are they?
12. Which firms in this sector would you suggest that we meet with to get more information? Please share contact information.
13. How might a project like ours be able to support you? If you are selected, we will be offering help with business strategy, help finding a trained workforce, help connecting you to products and services you need as inputs, and opportunities for interaction with other Algerian companies interested in strategic growth. (circle options you are interested in)
  - a. Business strategy
  - b. Help finding trained workforce
  - c. Connecting to products and services needed as inputs
  - d. Chance to interact with companies from other sectors and cities

## Individual Private Sector Questionnaire (Industry Representative Level)

Your responses will remain confidential, and no names of individuals or businesses will be published.

1. Interviewee Name: \_\_\_\_\_
2. Company or organization: \_\_\_\_\_ Industry Sector: \_\_\_\_\_
3. Position or title: \_\_\_\_\_
4. Contact information to invite you to project activities: \_\_\_\_\_
5. What positions in the sector do you expect to be open to young people in the coming year?

Name of position	Type of position (internship, part time, full time, seasonal, irregular)	Do women work in this position?	What is the minimum education level required?	Does this position require a technical background?

6. Which of the following soft skills is usually missing from young people seeking jobs in this sector?

<b>A. Psychosocial and Emotional Skills</b>	<b>D. Communication Skills</b>
<input type="checkbox"/> Self-care (rest, nutrition, exercise); Making healthy choices	<input type="checkbox"/> Effective listening and understanding others' perspectives
<input type="checkbox"/> Emotional intelligence; Managing emotions	<input type="checkbox"/> Reading and writing: written communication
<input type="checkbox"/> Positive self-concept, self-efficacy, confidence	<input type="checkbox"/> Speaking and presenting: oral communication
<input type="checkbox"/> Resilience in the face of setbacks; Coping with stress	<input type="checkbox"/> Online and digital communication
<b>B. Intra-personal Skills</b>	<input type="checkbox"/> Awareness of non-verbal communication norms and cues
<input type="checkbox"/> Self-control and self-discipline	<input type="checkbox"/> Communicating across ages, genders, cultures, or identities
<input type="checkbox"/> Conscientiousness, reliability/dependability, responsibility	<b>E. Cognitive and Higher-order Thinking Skills</b>
<input type="checkbox"/> Truthfulness, honesty, integrity, and trustworthiness	<input type="checkbox"/> Attention, focus, memory, and concentration
<input type="checkbox"/> Attention to detail and/or Seeing the big picture (specify)	<input type="checkbox"/> Critical thinking and evaluation
<input type="checkbox"/> Goal-orientation/goal-setting, self-motivation	<input type="checkbox"/> Information-seeking and independent learning
<input type="checkbox"/> Perseverance, determination, and grit	<input type="checkbox"/> Problem analysis, problem-solving, synthesis, creativity
<input type="checkbox"/> Growth mindset, and recognizing need for improvement	<input type="checkbox"/> Decision-making and planning
<b>C. Inter-personal (Social) Skills</b>	<input type="checkbox"/> Self-reflection and learning from experience
<input type="checkbox"/> Demonstrating context-appropriate behavior	<input type="checkbox"/> Financial literacy, budgeting, and financial management
<input type="checkbox"/> Respecting and expressing appreciation for others	<b>F. Employability Skills</b>
<input type="checkbox"/> Empathy and ability to notice the effects on others	<input type="checkbox"/> Workplace-appropriate verbal and written communication
<input type="checkbox"/> Valuing diversity of perspectives	<input type="checkbox"/> Navigating workplace roles and relationships
<input type="checkbox"/> Conflict management and resolution; Fairness	<input type="checkbox"/> Judging appropriate styles of dress and grooming
<input type="checkbox"/> Agreeableness, flexibility, collaboration, and teamwork	<input type="checkbox"/> Punctuality, work planning, and meeting deadlines

7. Is there anything missing from the above list? If so, what is it?
8. What are some technical or occupation-specific skills that are usually missing from young people seeking jobs in this sector?
9. Are there other challenges the sector faces in hiring young people? If so, what are they?
10. Which firms in this sector would you suggest that we meet with to get more information?  
(Please provide contact information)
11. How might a project like ours be able to support firms in this sector? If selected, we will be offering help with business strategy, help finding a trained workforce, help connecting firms to products and services they need as inputs, and opportunities for interaction with other Algerian companies interested in strategic growth. (circle promising options)
- a. Business strategy
  - b. Help finding trained workforce
  - c. Connecting to products and services needed as inputs
  - d. Chance to interact with companies from other sectors and cities



## Annex B: Sector Analysis–Algiers

Eleanor Sohnen

Based on research led by Naman Demaghatrous and Amel Belaid and methodology by Dr. Catherine Honeyman

### Sample

All interviewees were informed of the purpose of the research and gave their consent to participate, with the understanding that their comments would not be attributed to them by name.

- 3 investment consulting experts
  - WORLD TRADE CENTER-ALGIERS
  - An International Financial consulting firm (independent)
  - An international Finance & Investment consulting firm
- 2 economic research experts
  - CARE
  - Independent researcher with economic expertise
- 2 Industry representatives
  - AAFSI (Association of ICT and Internet providers)
  - Union National des operateurs pharmaceutiques
- 1 enterprise governance institute
  - Hawkama El Djazair
- 1 private sector recruitment firm

2 of the interviewees were CEOs, 1 was a President, 1 was a Founder/General Manager, 1 was a founding member, 1 was an executive member and senior economist, 2 were individual experts, and 1 was a spokesperson. Only 1 was willing to give their contact information to be invited to project events.

### Q4. Open-ended question about the most promising sectors

Sectors mentioned	Tally	# of mentions
Agriculture/Agro-business	1111111	7
Pharmaceuticals	11111	5
Food processing	11111	5
IT/ICT/tech/tech services	11111	5
Tourism	111	3
Renewables/green economy	11	2
Healthcare	11	2
Packaging	1	1
Value added services in general	1	1
CVM related sectors/subsectors	1	1
Creative industry ( <i>ICT, culture, social innovation</i> )	1	1
Construction	1	1
Petrochemicals	1	1

## Q5. Other sectors we should be considering, not in our original list:

- Tourism (3 mentions)
- Green economy sectors e.g. green services solutions, renewables, recycling (3 mentions)

Other sectors mentioned, but which were not included in the analysis because of restrictions (*petrochemicals*) or because there was only one mention, include:

- Petrochemicals (2 mentions)
- Creative industry (1 mention)
- Mining sector (1 mention)
- Precision mechanical engineering (1 mention)

Note our original list included the following:

- Agri-business
- Food processing
- ICT
- Pharmaceuticals
- Medical equipment
- Metallurgy and construction materials

## Q6. Sectors, Companies, Products

All in all, the complete list of sectors to consider is below, in a tentative order of priority based on open-ended responses (*#1 as the highest priority*), along with company and product examples:

Sector	Companies	Products
1. Agri-business	CEVITAL SIM DAHMANI ( <i>la Belle</i> ) Amar Benamor Sosemi Metidji IFRI ( <i>out of Algiers</i> ) CONDOR BERRAHAL SAHRAOUI GROUPE OTHMANI GROUPE AGLI GROUPE ISIAKHEM DANONE VITAJUS Coca-Cola Ramy	Oil Sugar Milk Fatty product Sauces
2. ICT	Mobilis ( <i>SME?</i> ) Algerie Telecom Djezzy KEPLER ( <i>solutions provider</i> ) WEB services IRIS Yassir Tem-Tem Oued Kniss	Traffic GSM Voice SATA 4G VSAT Outsourcing value-added services
3. Pharmaceuticals	SANOFI BIOPHARM SAIDAL PHARMALLIANCE HYRDAPHARM NOVARTIS ROCHE SANDOZ MERINAL Generiqlab CPCM	All the non-liquid products Generics

4. Food processing	(Same as agri-business) DANIMEX DATTES Hammoud Boualem Rouiba NCA Bellat BIFA	Juices Pasta Biscuits Soft drinks
5. Tourism	Groupe AZ Groupe MEHRI	Eco-tourism
6. Green economy	none given	Renewables ( <i>potential</i> ) Recycling Green services solutions ( <i>potential</i> )
7. Metallurgy and construction materials	Groupe Zetchi Groupe Omar Ramdane Lafarge Rhamoun Group	Green building materials for energy efficiency ( <i>promoted initiative</i> )
8. Precision machining	none given	Spare parts Instrumentation for the industry
9. Medical equipment	none given	None given

## Q7-Q11

All 9 respondents ranked at least one industry for each of the questions.

### Q7: Export Potential

There was general agreement on this question around agro-business being the sector of highest export potential: all respondents put it in either 1<sup>st</sup> or 2<sup>nd</sup> place. 7 respondents gave the top place to Agro-business (*two of whom stated that food processing was tied for 1<sup>st</sup>*), while 2 gave the top place to ICT. A respondent commented that the high value ICT services is a promising export sector. Another respondent noted that agro-industry and pharma have the best potential despite difficulties in the ecosystem and regulatory framework, as the industries are mature enough in terms of know-how and quality of products.

Second place responses went to: Food processing (4/9), pharmaceuticals (3/9), and agro-business (2/9).

Third place responses went to ICT (3/7), pharmaceuticals (2/7), food processing (1/7), and tourism (1/7).

The lowest rankings went to Metallurgy and Construction materials (2/3). One respondent commented that construction materials has an orientation for the domestic market. One respondent also put food processing in this category.

The straight average (*mean*) ranking outcome across these four respondents is presented further below in the Summary of Ranking section, showing the following sectors as receiving the highest export potential rankings:

1. Agribusiness
2. Pharmaceuticals
3. Tourism\*  
Green Economy\* (*tie*)
4. ICT

(\*Tourism and green economy only received one response each in this category.)

### Q8: High presence of SMEs

High presence of SMEs is one of our measures of employment growth potential. There was general agreement here that agriculture and food transformation were the sectors with the highest representation of these enterprises, with ICT also having strong representation.

Five of the nine responding interviewees classified agribusiness as having the highest number of SMEs; two gave this ranking to the ICT sector, and one to pharmaceuticals.

5 put food processing in 2<sup>nd</sup> place, with 2 mentioning agro-industry and 2 mentioning ICT.

4/8 put ICT in 3<sup>rd</sup> place, and two each mentioned food processing and pharmaceuticals.

Notably, 5 put pharmaceuticals in 4<sup>th</sup> place (*one respondent mentioned the pharmaceutical sector's "huge potential of outsourcing" and large capacity of production installed, which can be capitalized on.*), one put it in 6<sup>th</sup> place, and 1 put it in 8<sup>th</sup> place, which indicates that this industry may be dominated by large players.

4 interviewees put metallurgy/construction materials in 5<sup>th</sup> place, indicating the same. One respondent mentioned SME opportunities in tourism (*agencies, services companies, hotels, tour operators*).

In terms of overall averages, below is the ranking of the top four:

1. Agribusiness
2. Food processing
3. ICT
4. Pharmaceuticals

### **Q9: Volume of entry-level jobs**

Another measure of employment growth potential in our model is volume of entry-level jobs that could be open to youth. Here, there was general agreement around agro-industry and ICT being the top sectors offering employment to young people. According to one respondent, *"Agribusiness and ICT services have a very high potential for entry level jobs. Food transformation, pharma and construction materials target a more qualified segment and a lesser population due to the industry automated processes."* Services, including ICT value added services, trade, services in general is a segment another interviewee could see as a major employment provider. However, another respondent disagreed on ICT offering entry level jobs, stating that high value-added services in technology require a certain expertise and knowledge of the core businesses.

6 ranked agro-industry 1<sup>st</sup>, 2 ranked ICT first, and 1 ranked pharmaceuticals first.

As for second place, 5 ranked ICT in this spot, 2 ranked agro-industry, and 2 ranked food processing.

Not all respondents gave a third-place ranking, but 3 mentioned food processing, and one each mentioned ICT, tourism pharmaceuticals, metallurgy/construction materials, and precision machining.

Notably, 5 respondents put pharmaceuticals in 4<sup>th</sup> place, indicating that this sector may offer fewer opportunities to young people than the others, despite a top ranking by one respondent.

In terms of overall averages, below is the ranking of the top four:

1. Agribusiness
2. ICT
3. Food processing
4. Pharmaceuticals

### **Q10: Enabling environment (comparatively fewer regulatory and bureaucratic obstacles)**

As Algeria is an environment with significant regulatory and bureaucratic obstacles, these can be a hindrance to growth and a reason to prefer working with one sector over another.

All 9 respondents agreed that agro-industry presented the best enabling environment.

In second place, food processing received 6 votes, and ICT and metallurgy/construction materials one each.

In third place, ICT received 3 votes, and pharmaceuticals and metallurgy/construction materials one each.

Again, notably, pharmaceuticals received a number (5) of 4<sup>th</sup>-place votes in this category as might be imagined given export quality requirements.

One respondent perceived ICT as the most unstable enabling environment, as it is often subject to new taxes and/or new rules.

In terms of overall averages, below is the ranking of the top four:

1. Agribusiness
2. Metallurgy and construction
3. ICT  
Pharmaceuticals (*tie*)

### **Q11: Committed Leadership**

A final ranking criterion is the presence of some form of leadership (*whether an industry body, a government agency, or a couple of leading companies*) working towards increased exports and improved quality.

Here, the first place was more or less split between agro-industry (5 respondents) and pharmaceuticals (4 respondents).

In second place, there was general agreement that food processing offered committed leadership (5/9), with 2/9 mentioning agro-industry, and one each mentioning ICT and pharmaceuticals. The soft drinks sub sector in particular has a very active business association, APAB.

In third place, 4 respondents mentioned pharmaceuticals, and two each mentioned agro-industry and ICT.

Four respondents put ICT in fourth place according to this criterion. However, another respondent disagreed, saying that ICT has very strong leadership with a very dynamic Cluster of Digital Industry organizing the ecosystem and with a structured advocacy approach with stakeholders. This network has largely contributed to the creation of the “National Agency of the Digital Economy”, recently set up as a governmental institution, with a defined mission and framework.

In terms of overall averages, below is the ranking of the top four:

1. Agribusiness
2. ICT
3. Food processing
4. Pharmaceuticals

### **Q12: Interviewees’ final recommendations**

After leading them one by one through our primary criteria, we asked interviewees a confirming question to determine which sectors they would finally recommend that we work with. We also asked for company recommendations, and several interviewees gave such information. The below table shows the responses from the 9 interviewees.

Sector Priority #1	Sector Priority #2	Sector Priority #3
Agro-business	Food processing	Tourism
Food processing	Pharmaceuticals	ICT
ICT	Pharmaceuticals	Tourism ( <i>eco friendly</i> )
Food processing	Pharmaceuticals	ICT
Agro-business: CEVITAL BARRAHAL BENAMOR OTHMANI GROUP	Food processing: CEVITAL BARRAHAL BENAMOR OTHMANI GROUP	-
Agro-business: Loya	ICT: Kepler	Pharma: SANOFI
Agro-business: Cevital	-	-
ICT: Sidi Abdallah Incubator Mehdi O President Cluster Wafa Bentorki Nassima	Pharma: Merinal Biopharm	Agro-business
Pharmaceuticals CPCM Hakim Bouzid Generiquelab Lekhal Ayat Nabil	ICT	Food processing

On this question, there appeared to be strong consensus over the following industries:

1. Agro-business (1<sup>st</sup> place 4 times, 3<sup>rd</sup> place 1 time)
2. ICT (1<sup>st</sup> place 2 times, 2<sup>nd</sup> place 2 times, 3<sup>rd</sup> place 2 times)
3. Food processing (1<sup>st</sup> place 2 times, 2<sup>nd</sup> place 2 times, 3<sup>rd</sup> place 1 time)
4. Pharmaceuticals (1<sup>st</sup> place 1 time, 2<sup>nd</sup> place 4 times, 3<sup>rd</sup> place 1 time)

### Revealed Comparative Advantage

A country has a revealed comparative advantage if its exports are greater than world exports of that product; in other words if the  $RCA > 1$ . If the RCA is less than one, the country has a comparative disadvantage in that export commodity. In other words, the higher the RCA, the better the sign of export potential. Information about RCAs for each country is available via the Observatory of Economic Complexity: [https://oec.world/en/visualize/tree\\_map/hs92/export/dza/all/show/2017/](https://oec.world/en/visualize/tree_map/hs92/export/dza/all/show/2017/)

Because Algeria's exports are highly dominated by mineral products (*petroleum gas, crude petroleum, and refined petroleum together make up 96% of all Algerian exports*), the country has little revealed comparative advantage in any other product. Nonetheless, a comparison of RCAs across exports has the potential to yield additional ranking information for criteria important to this project.

Agribusiness and food processing are somewhat difficult to disentangle using the OEC data, which has the categories of "Foodstuffs" (overall RCA 0.24) and "Vegetable products" (RCA 0.35), both of which contain within them both unprocessed and processed food types. Additionally, the RCAs for specific products are very diverse, with high RCAs for tropical fruits (12.0), sugar cane (6.72), raw sugar (4.35), refined soy bean oil (2.22), fat and oil residues (1.97) and pasta (1.47) far above the average for RCA for the larger categories. In the ranking table that appears later in this report, I have applied a simple average of the RCAs for the above six products (4.79) to both the agribusiness and food processing lines, since this appears more representative of the export potential for enterprises that are focusing on the correct export opportunities within the broader sectors. This method is debatable however, and could be revised if it appears to unfairly weight the overall rankings.

For ICT, I used an average of computers (RCA 0.002) and telephones (RCA 0.002). For construction materials, I use the stone and glass category, which includes ceramics (RCA 0.16). For pharmaceuticals, I use the packaged medicaments category (RCA 0.0087). For medical materials, I used medical instruments (RCA 0.0044).

RCAs were not available at the sector level for services.

## Trade Share Analysis

An analysis of Algeria's vis-à-vis the world's export data from 2013-2017 shows that the relevant products (*2-digit*) which Algeria exported more than US\$1m in value in 2017, in which Algeria's market share is growing faster than average, and world demand is growing faster than average are the following (*upper righthand corner of the graph*) are the following:

Agribusiness and food processing:

- ◆ Essential oils and resinoids; perfumery, cosmetic or toilet preparations
- ◆ Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal ...
- ◆ Edible fruit and nuts; peel of citrus fruit or melons
- ◆ Preparations of vegetables, fruit, nuts or other parts of plants
- ◆ Cocoa and cocoa preparations
- ◆ Fish and crustaceans, molluscs and other aquatic invertebrates
- ◆ Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...
- ◆ Cork and articles of cork
- ◆ Sugars and sugar confectionery

ICT

- ◆ Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television ...

Pharmaceutical

- ◆ Pharmaceutical products

Construction materials

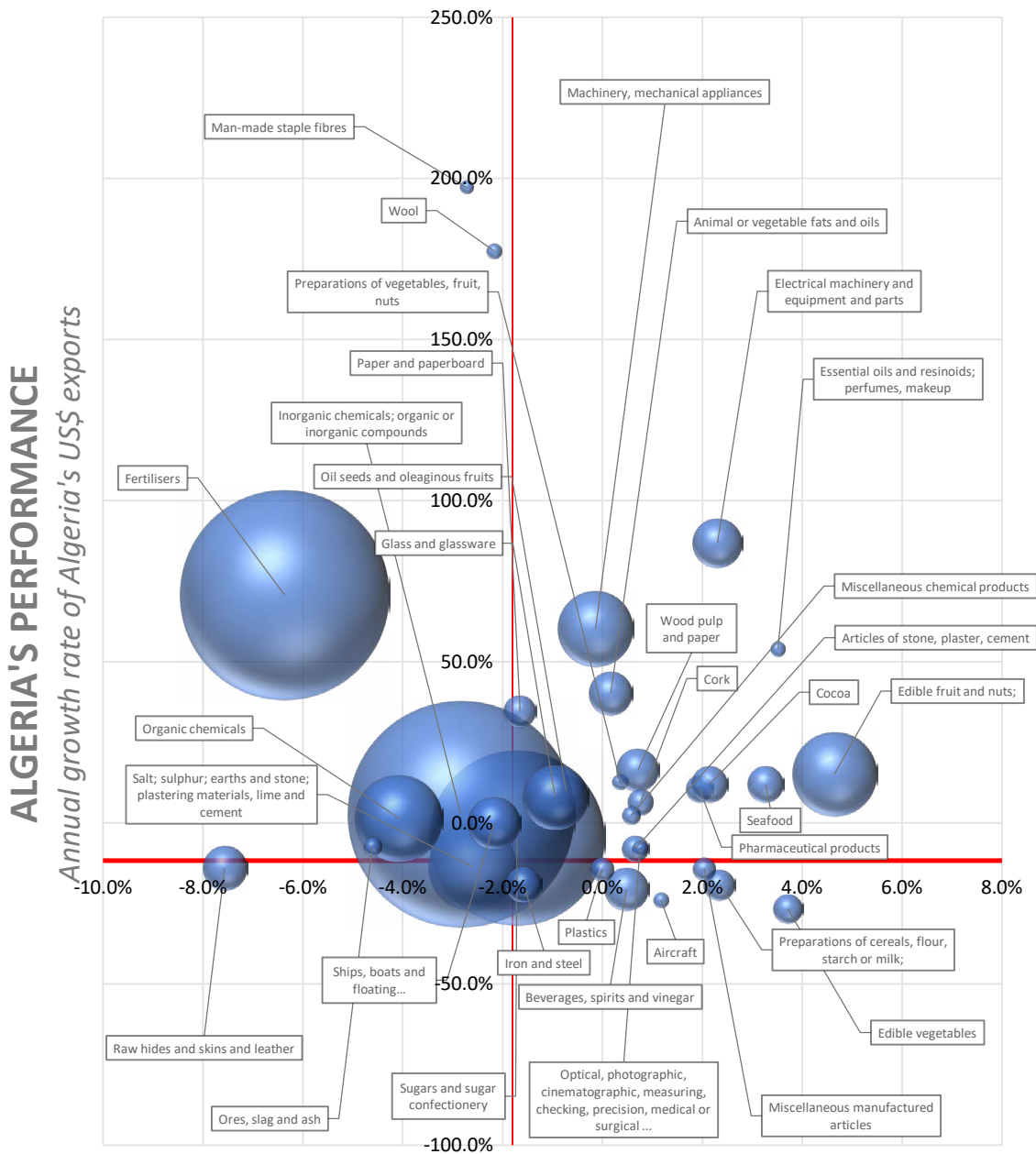
- ◆ Articles of stone, plaster, cement, asbestos, mica or similar materials
- ◆ Glass and glassware

Green sectors

- ◆ Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or ...

Medical materials/precision machining

- ◆ Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments



## GROWTH IN DEMAND

*Annual growth rate of the world market*

### Labor Force Participation

Researchers were not able to find sector-specific information about the number of employed persons, although we can continue to look for this. For now, we are not able to include this triangulation in the analysis.

### Additional Resources

Although RCA and trade share figures were not available for services exports, the research team was also able to gather certain supplementary data about Algeria's services sectors.

Services exports were US\$3 billion in 2017:

- Travel + transport = \$848.4m
  - In 2017, international tourism accounted for 0.458% of export revenue. <https://data.worldbank.org/indicator/ST.INT.RCPT.XP.ZS?locations=DZ>



And 4.68% of services exports = \$140.4m

◦ Transport services were 23.6% of services exports = \$708m

- ICT services exports totaled US\$157 million in 2017 (5.24% of services exports). <https://data.worldbank.org/indicator/BX.GSR.CCIS.CD?locations=DZ>,  
<https://data.worldbank.org/indicator/BX.GSR.CCIS.ZS?locations=DZ>

## Summary of Rankings

Below are the strict means/averages gathered from interviewees.

Industry Sub-sector	Competitiveness		Employment Impact Potential			Enabling Context		Leadership		Overall Rank
	Interviewee Rank: Export growth potential	RCA from OEC <sup>26</sup>	Interviewee Rank: SME participation	Interviewee Rank: Youth opportunities	Labor Force Participation	Interviewee Rank: Fewest Bureaucratic/Regulatory Barriers	Interviewee Rank: Committed leadership			
Agri-business	1.22222222	1	1.625	1.25		1	1.22222222			
Food processing	4	1	2.28571429	2.83333333		6	2.88888889			
ICT	3.13	5	2.44444444	2.11111111		4.5	1.71428571			
Pharmaceuticals	2.22222222	3	3.75	3.77777778		4.5	3			
Medical materials	*	4	5.5	*		*	*			
Metallurgy and Construction	7.66666667	2	4.8	4.33333333		2.5	*			
Tourism	*	*	*	*		*	*			
Green Economy	*	*	*	6		*	*			

Below is a simplified rank order that also takes into account factors such as respondent disagreement and some qualitative remarks. Tie rankings are preserved as ties and no ranks are skipped.

Industry Sub-sector	Competitiveness			Employment Impact Potential				Enabling Context		Leadership		Overall Rating (Simple Average, lower is better)	Weighted Rating (major factors weighted equally)
	Interviewee Rank: Export growth potential	RCA from OEC Rank	Competitiveness Category Weight	Interviewee Rank: SME participation	Interviewee Rank: Youth opportunities	Labor Force Participation Rank (unavailable)	Employment category weight	Interviewee Rank: Fewest Bureaucratic/Regulatory Barriers	Enabling Context Weight	Interviewee Rank: Committed leadership	Leadership Weight		
Agri-business	1	1	3	1	1		3	1	3	1	3	1.0	3.0
Food processing	4	1	7.5	2	3		7.5	4	12	3	9	2.8	9.0
ICT	3	5	12	3	2		7.5	3	9	2	6	3.0	8.6
Pharmaceuticals	2	3	7.5	4	4		12	3	9	4	12	3.3	10.1
Medical materials	*	4	12	6	*		18	*	*	*	*	5.0	15.0
Metallurgy and Construction	5	2	10.5	5	5		15	2	6	*	*	3.8	10.5
Green Economy	*	*	*	*	6		18	*	*	*	*	6.0	18

Tourism was omitted, as there was only one response in each category. According to a simple ranking, the top sectors are ranked thusly:

1. Agribusiness
2. Food processing

**26** The revealed comparative advantage from the Observatory of Economic Complexity: [https://oec.world/en/visualize/tree\\_map/hs92/export/dza/all/show/2017/](https://oec.world/en/visualize/tree_map/hs92/export/dza/all/show/2017/) While Algeria's economy is strongly dominated by petroleum products, RCA data is available for the small market share of other types of exports and can be used for comparative rankings needed for the purposes of this study. A higher RCA shows higher export competitiveness.

3. ICT
4. Pharmaceuticals

I also calculated the results differently, by weighting each criteria category the same way (*whether they had one, two, or three sources of data*). This slightly changes the order. The final ranking with this system is as follows:





1. Agribusiness
2. ICT
3. Food processing
4. Pharmaceuticals

### **Recommendation**



In Algiers, we should focus on the sectors of: agri-business combined with food processing, ICT, and pharmaceuticals. More in-depth understanding of the ICT industry (*services vs. products and their export potential*) as well as of the pharmaceuticals industry (*are there sufficient SMEs for the project to work with?*) will be necessary, however.

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