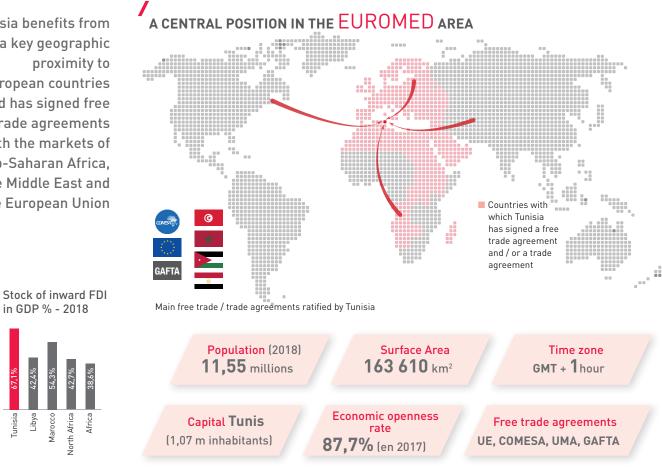
PHARMACEUTICAL SECTOR SECTOR PRESENTATION



Tunisia benefits from a key geographic proximity to **European countries** and has signed free trade agreements with the markets of Sub-Saharan Africa. the Middle East and the European Union

in GDP % - 2018

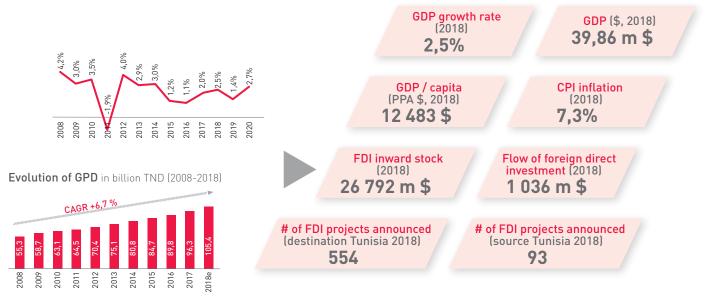
Tunisia Libya Marocco **North Africa** Africa



Source: World bank, Eurostat, CBT exchange rate on 24/07/191 Tunisian Dinar = 0,3119 €, INS, Deloitte analytics, World Investment Report 2019

Tunisia's growth rate rose from 1.5% in 2015 to 2.5% in 2018 - According to Government estimates, this trend is likely to continue, reaching 2.7% in 2020

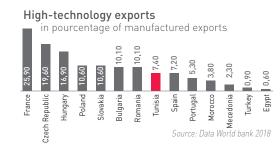




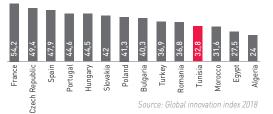
Source: African Development Bank, INS, World Bank, IMF: World Economic Outlook (WEO) Database, April 2019, World Investment Report 2019 / 2018e: GDP 2018 according to the CBT estimates

Tunisia has a competitive edge compared to competing destinations on the basis of the most relevant international rankings

TUNISIA IN THE INTERNATIONAL RANKINGS



« Global innovation 2018 » Score



Networked readiness index

Spain

Slovakia Poland Bulgaria Tunisia Turkey Morocco Romania Algeria Egypt

4441 4291 3690 2924

France Portugal Republic

Czech

Hungary

Number of researchers in R&D

per million inhabitant

138

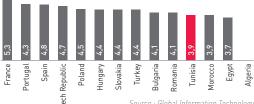
1069

890

Source: Data World bank 2018

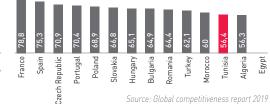
699

821

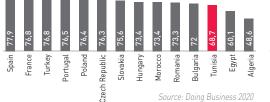


Report | Facilité d'adoption des technologies émergentes et de la transformation digitale = 7 étant le meilleur

Global competitiveness index

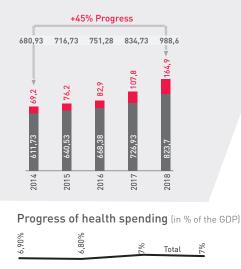


Doing Business Score



The sector grew by more than 45% over the 2014 - 2018 period. The share of exports increased from 10% in 2014 to more than 17% in 2018.

Health spending stands at 7.0% of the GDP, slightly up from 2013 levels mainly driven by the private sector - Health spending per capita is in the upper end compared to countries in the region but remains far from developed countries' averages



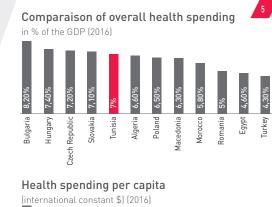
4,10%

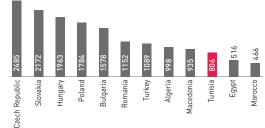
2013 2,80%

4%

2,90%

2014





- Health expenditure includes the provision of health services (preventive and curative), family planning activities, nutrition and emergency aid activities, and excludes the provision and water sanitation
- Health spending per capita was **\$ 256.5** in 2016

4%

3,0%

2015

• About 35% of household health spending goes for the purchase of medicines

3,90%

3%

2016

Public

Privé

In 2018, the sector had around 120 companies operating across all activities in the value chain, including more than 33 in the production of medicines - the sector counts for almost 2% of the GDP

Evolution of the number of pharmaceutical companies



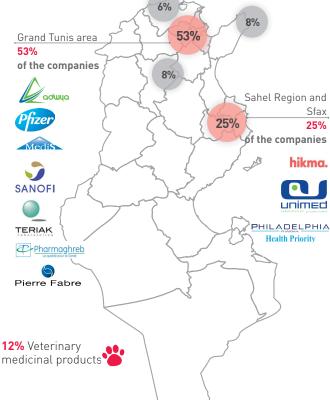
- The pharmaceutical sector counted for around 2% of the national GDP in 2018
- Tunisia performs more than **3.5% of clinical trials in the African** continent
- **119 companies** in 2017, including **33 units** for the production of drugs for human use, distributed as



27% single use pharmaceutical products







BREAKDOWN OF COMPANIES

BY REGION

6% Packaged bandages and gauzes

Tunisia has several «success stories» and international champions that have emerged over the last few years contributing to positioning Tunisia as a key hub in the African continent

SUCCESS STORIES AND REGIONAL CHAMPIONS

• Sanofi is the first international pharmaceutical group that invested in an operational production unit since 1992 - The Megrine site has more than 400 employees and SANOFI produces more than 30 million units per year

• Sanofi's activities in Tunisia include the registration, production, distribution and marketing of therapeutic solutions focused on the needs of patients in the main therapeutic areas: Diabetes and Cardiovascular diseases, General Medicine, Rare Diseases, Vaccines and **General Public Health**



• TERIAK Laboratory, a subsidiary of the KILANI group, has been a major player in the Tunisian pharmaceutical industry since its creation in 1996



- TERIAK laboratory currently employs more than 500 people in over 3 sites, including 2 in Tunisia and 1 in Douala, Cameroon
- The company mainly serves the local market but also export markets in North Africa, Sub-Saharan Africa and the Middle East



UNIMED laboratories established in 1993, is the Tunisian leader in sterile generic products

- UNIMED laboratories manufacture, develop and market a wide range of eye drops and injectables for pharmacies and hospitals, according to the applicable standards
- The laboratory, which employs more than 650 people, has developed over the years on an international scale, establishing itself in various countries: Algeria, Saudi Arabia, Côte d'Ivoire, Iraq, Libya and Yemen



• Founded in 1995, MEDIS has a large portfolio of tried and tested products as well as a large commercial network and employs over 600 people

- Besides the manufacture of dry forms (tablets, capsules, sachets), eye drops and injectable solutions, MEDIS laboratories produce high-tech galenic forms such as vials of lyophilisates, dental carpules and pre-filled syringes
- The group has numerous production sites in Tunisia, Algeria, the Czech Republic and Senegal

In 2018, the sector had more than 8,800 employees, increasing annually at 10% since 2013 - According to the «Global Competitiveness Report», Tunisia ranks first in North Africa in terms of the quality of vocational training, skills of graduates and the ease of finding qualified employee

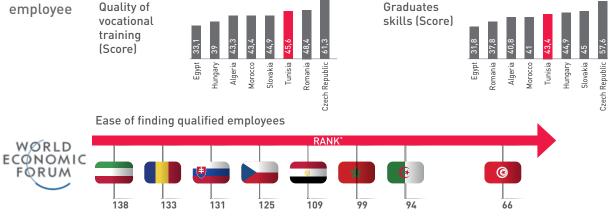
Progress of sector employability (2013 – 2017)



- The sector employs more than **8,800 people** with an **average annual growth of 10%** recorded between 2013 and 2017
- In total, **18 public and private schools and establishments** offer trainings adapted to the sector's needs



• More than **5,200 students graduate** on average each year, 36% of whom are **doctors** and **pharmacists**



Rank « 1 » means the best

The cost of labor is one of the main assets of the Tunisian market - The average annual cost of a Tunisian engineer is highly competitive compared to the main competing destinations

> ... the same applies to operators and technicians (1/2)

. . .

Slovakia Poland Hungary Romania Turkey

Czech Republic

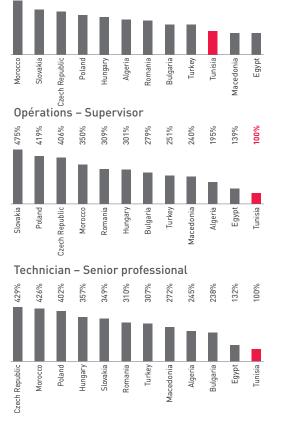
... the same applies to operators and technicians(2/2)





Bulgaria Morocco Algeria Tunisia

Macedonia



101%

Engineer - Senior Professional

175% 163% 159% 140% 139%

84%

249% 210% 200%

Egypt

The pharmaceutical sector benefits from a rich ecosystem thanks to the presence of research & development centers, promoting scientific progress and the development of clusters

RESEARCH & DEVELOPMENT CENTERS DEDICATED TO THE PHARMACEUTICAL SECTOR

THE BIOTECHNOLOGICAL TECHNOPOLE OF SIDI THABET

- A technopole dedicated to biotechnologies, he mission of which is to:
 - Strengthen partnerships between companies, R&D establishments and training organization
 - Organize workshops and seminars ensuring the transfer of knowledge within the sector
 - Develop the skills in the sector (continuous training in biotechnology, LMD (Bachelor's/ Master's/Doctorate) training in biotechnology and life sciences)
- Start point of the «Pharma In» cluster which aims to allow better access to financing and to new markets and has 11 members:



INSTITUT PASTEUR DE TUNIS

Scientific research establishment, which:

- Performs research and analyzes necessary for human and animal health
- Offers training to students and young researchers
- Provides funding to research programs
- Organizes seminars and meetings with manufacturers thanks to:
 - its "Training & Internship" committee
 - its technology transfer unit

BIOTECHNOLOGY CENTER IN SFAX

- 7 research laboratories
- 1 special unit for promoting research results
- Over 100 employees, including 30 researchers and nearly 50 engineers and technicians
- Over 50 cooperation projects, including 4 European projects
- 4 start-ups in the health and environment field
- 16 agreements signed with manufacturers

The country has also many integrated and developed facilities promoting R&D, production and training activities ...

COMPETITIVENESS CENTERS, **TECHNOPOLES AND CYBER PARKS**

- 10 Competitiveness centers and Technopoles spread over the whole Tunisian territory focusing on the promising sectors of the Tunisian economy
- 18 regional cyber parks support new business creators during the incubation phase of business projects



- One of the biggest technology parks in Africa
- A surface area of 155 hectares
- More than 100 national and foreign ICT companies







TECHNOPOI E

• A surface area of 10.5

• An integrated facility

research training

transfer of techno-

- Academic and

activities

- Innovation and

logy activities

development acti-

- Production and

cities

hectares

to host.

A R&D center

NOVATION CITY

- A surface area of 60 hectares
 - More than 65 companies
 - The technopole has 3 laboratories:
 - Microelectronic systems
 - Advanced Material Systems and nanophysical systems
 - Microsystems of physical chemical and biological weapons



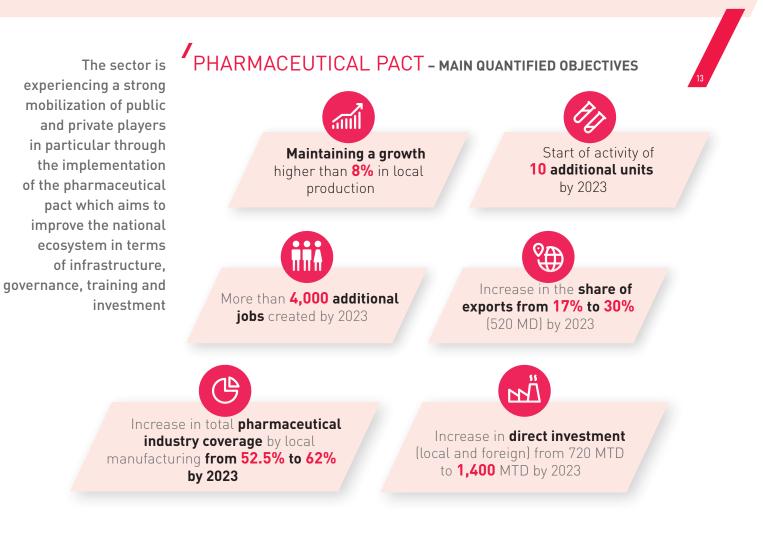
... and has set up a development program for industrial parks, in line with its national strategy for regional development

A LAND DEVELOPMENT PLAN THAT MEETS THE INDUSTRIAL SECTOR'S NEEDS

New industrial parks and industrial parks currently up for sale- 2017

- Tunisia has more than 150 industrial parks covering more than 10 thousand hectares. The average price per square meter in the areas currently up for sale is about 40 TD / m² equivalent to around 12 € / m²
- Tunisia has set up a 2016-2020 program for the development of industrial parks aiming to develop more than 65 industrial parks for a total surface area of more than 2,000 ha at an estimated cost of more than 650 million Dinars, distributed as follows :
 - 51 regional development zones over a surface area of 1,508 Ha
 - **18 industrial parks** over a surface area of 746 Ha in the rest of the country
- ...as well **as a program to renovate 60 industrial parks** for a total surface area of over 1,576 ha at an estimated cost of more than 150 million Dinars, distributed as follows :
 - 20 regional development areas over a surface area of 400 Ha
 - 40 industrial parks over a surface area of 1,176 Ha in the rest of the country





The pharmaceutical sector is one of the priority sectors mentioned in the new investment law which aims to promote investment, regional development and innovations (1/2)

Type of incentive	Rate of incentive / Tax Incentives	Incentive limit	
Regional Development (except negative list)	Zone 1 : 15%/ investment cost Zone 2 : 30%/ investment cost	Zone 1: 1,5 MDT Zone 2: 3 MDT	
	Zone 1: Total deduction at 100% from the tax base for 5 years and payment of 10% after		
	Taking in charge of the employer's cor	tribution= 5 years	
	Zone 2: Total deduction at 100% from the tax base for 10 years and payment of 10% after		
	Taking in charge of the employer's cor	tribution = 10 years	
	Deduction from the corporate tax base, revenues or profits reinvested in the subscription to the initial capital or in its increase		
Priority sectors	15% /investment cost	1 MDT	
	Taking in charge of the employer's contribution= 3 ans		
Economic branches	15% /investment cost	1 MDT	
Infrastructure subsidy (DR)	Zone 1: 65%	10% /project cost	
	Zone 2: 85%	Maximum limit 1MD	

The pharmaceutical sector is one of the priority sectors mentioned in the new investment law which aims to promote investment, regional development and innovations (2/2)

Incentive Type	Incentive rate / Tax Incentives	Incentive limit	
Material investment : New technologies and productivity enhancement	50% component cost	500 KD	
Intangible investment	50% component cost	300 KD	
Research and development expenses	50% component cost	500 KD	
Certified trainings expenses	70% component cost	20 KD/company	
Employability incentive	Taking in charge of the of salaries according to management rate		
Sutaibnable development incentives	50% component cost	300 KD	

Mapping of bonuses and incentives for projects of national interest (PNI)

PROJECTS OF NATIONAL INTEREST PIN

Eligibility criteria	Process for obtaining bonuses and incentives	Bonuses and incentives
Investment cost is higher than 50 MTD or crea-	Study of projects at the level of the l'Instance	Investment incentives within the limit of 1/3 of the investment cost with a maximum 30 MTD
tion of minimum of 500 jobs over	Tunisienne de l'Inves- tissement (Tunisian Investment Authority) Submission to the Investment Council for approval of advantages	Tax exemption over a period up to 10 years
		Infrastucture works taken in charge by the State
3 years		Support for the employer's contribution to the social
Meets one of the 4 objectives of the investment law		security scheme up to 10 years
		Granting of non-agricultural state land : long-term rental or in symbolic dinar

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Rue du Lac Huron, Les berges du Lac 1, 1053 Tunis /Tél.: +216 70 248 148 Fax: +216 70 248 100

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