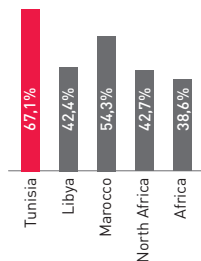




AVIATION SECTOR
SECTOR PRESENTATION

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

Stock of inward FDI in GDP % - 2018



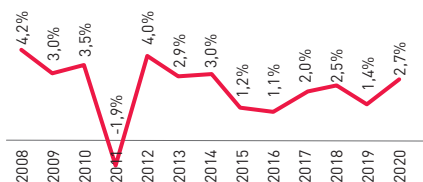
A CENTRAL POSITION IN THE EUROMED AREA



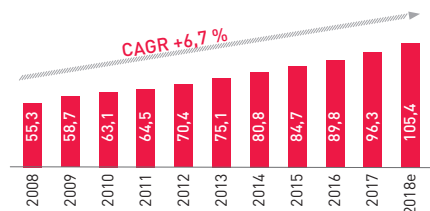
Main free trade / trade agreements ratified by Tunisia



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



Evolution of GDP in billion TND (2008-2018)



KEY FIGURES

GDP growth rate
(2018)
2,5%

GDP (\$, 2018)
39,86 m \$

GDP / capita
(PPA \$, 2018)
12 483 \$

CPI inflation
(2018)
7,3%

FDI inward stock
(2018)
26 792 m \$

Flow of foreign direct
investment (2018)
1 036 m \$

of FDI projects announced
(destination Tunisia 2018)
554

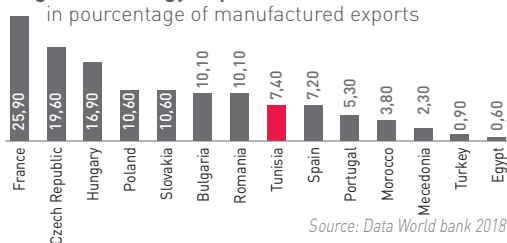
of FDI projects announced
(source Tunisia 2018)
93

Tunisia has a favorable position compared to competing destinations on the basis of the most relevant international rankings

TUNISIA IN THE INTERNATIONAL RANKINGS

High-technology exports

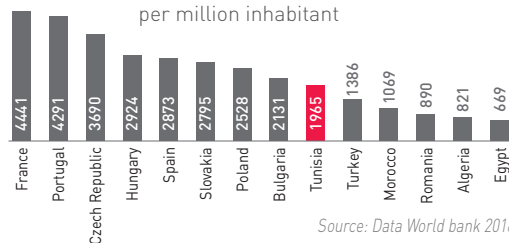
in pourcentage of manufactured exports



Source: Data World bank 2018

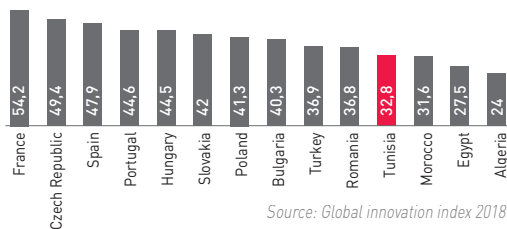
Number of researchers in R&D

per million inhabitant



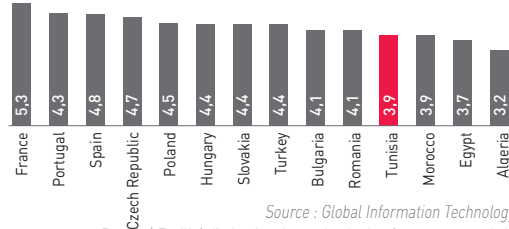
Source: Data World bank 2018

« Global innovation 2018 » Score



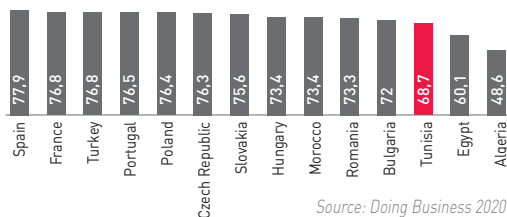
Source: Global innovation index 2018

Networked readiness index



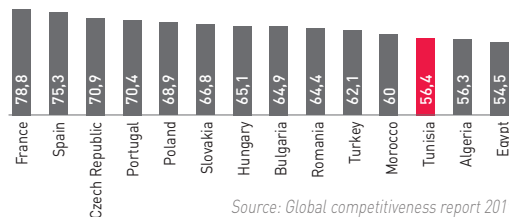
Source : Global Information Technology Report | Facilité d'adoption des technologies émergentes et de la transformation digitale = 7 étant le meilleur

Doing Business Score



Source: Doing Business 2020

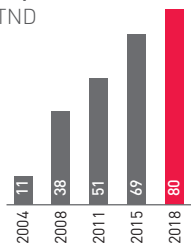
Global competitiveness index



Source: Global competitiveness report 2019

In 2018, the aviation sector has contributed to around 3.8% of the GDP - since 2004, the number of companies operating in the sector has been growing steadily, around 8% per year, to reach 80 companies with a vast majority of which are foreign companies

Progression of the number of companies in M TND



- The **aviation sector** in Tunisia contributes nearly **3.8%** of the **national GDP** and has recorded **continuous growth** since 2004. The sector **has 80 national and international companies** operating throughout the value chain, distributed as follows:

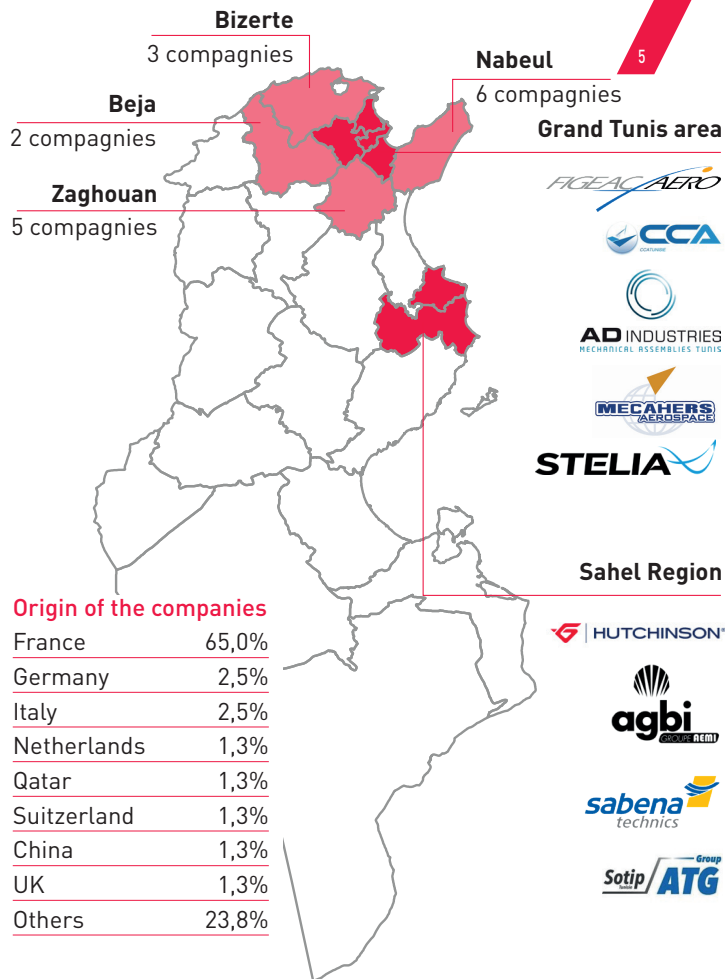
57%
Metal works

19%
Electrical and Electronic works

13%
Engineering, consulting and training services

7%
Composite Systems

4%
Aviation Maintenance



Since 2006, the main players in the sector have been grouped together within GITAS in order to strengthen and promote exchange, collaboration and synergies between them

THE GROUP OF TUNISIAN AVIATION AND SPACE INDUSTRIES GITAS

- CCreated in 2006, **GITAS** is a Group of **50 Tunisian and foreign companies operating** in the Aviation and Space sectors concentrated around 4 big poles: the Greater Tunis area, the Sahel region, Soliman and Zaghouan
- **GITAS's mission is to:**
 - **Support exchange, collaboration and synergies** between companies working in the aeronautics and space sector located in Tunisia
 - **Promote the development of an environment favorable** to the aviation and space industry in Tunisia and abroad
 - **Support the emergence** of local suppliers with the **necessary approvals**
 - Actively and directly **participate in the implementation of training modules** adapted to the current and future needs of the aerospace industry



COVERING THE WHOLE CHAIN OF VALUE OF THE SECTOR ENGINEERING AND DESIGN | MANUFACTURING | MAINTENANCE



Several «success stories» and regional champions have emerged in recent years, and have contributed to making Tunisia one of the main hubs of the African continent in this sector

...



EXAMPLES OF SUCCESS STORIES AND REGIONAL CHAMPIONS

- Established in **Tunisia in 2003** (formerly ZODIAC AEROSPACE) in Soliman in the governorate of Nabeul - the company has experienced **significant growth** leading to its **diversification** on **several axes** and the creation of 4 sites: Zodiac automotive, Zodiac equipment, Zodiac seats and Zodiac composites sites monuments
- The company employs more than **3500 people**
- Zodiac Tunisie **has set up** one of the group's most important **research and development centers** on a **regional scale**

- STELIA Aerospace Tunisie is located in the city of M'Ghira (south of Tunis) on a site with a surface area of **around 15,000 m²**
- The company, **specialized in the assembly of subsets**, has expanded, with a 20 hectares park and 6 partners, thus creating a one of its kind aviation park in **Africa**
- The company, considered as the main world producer of the front part of the Airbus A320, has a steadily growing activity, in particular thanks to the increasing production of the **A320, NEO and CEO** aircraft families.



- The company **MECAHERS AEROSPACE** was created in 2010 in Soliman in the governorate of Nabeul then relocated to El Mghira on a **site of 10,400 m²** including **5,400 m² covered area**.
- The company, which specializes in the production of **subsets, sets and sheet metal parts** intended for the aviation sector, currently employs more than **300 employees**.
- **With Stelia** as its main customer, the company produces parts for the AIRBUS A320, A330 and A350 programs
- The company recorded an average growth of 30% between 2012 and 2015

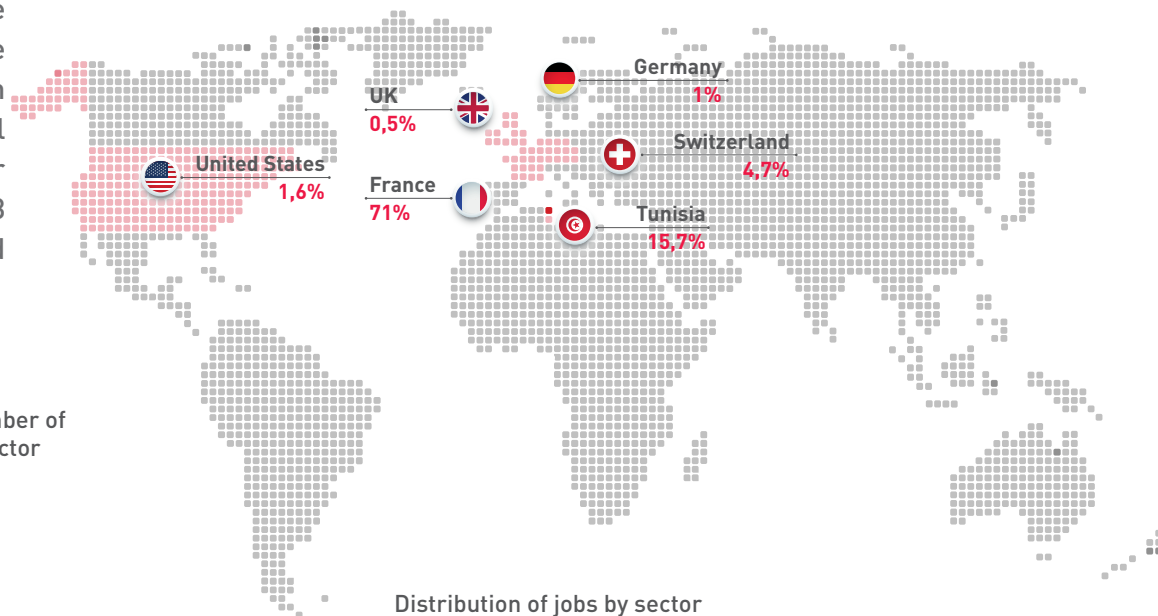


- **Established since 2012**, the company is located in El M'Ghira in the Stelia park and had more than **620 employees in 2018**
- The company has a production capacity of more than **20,000 hours per month** and specializes in the **manufacture and assembly of structural parts and subset parts intended for aeronautics as well as surface treatment and painting**.

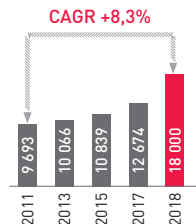


The aviation sector employed more than 17 000 people in 2018, with an average annual growth of 8,3% over the 2011 – 2018 period

BREAKDOWN OF JOBS BY COMPANIES NATIONALITY



Progress of the number of employees of the sector



Distribution of jobs by sector



42%
metalworking



31%
Electrical and
electronic works



10%
Engineering and
consulting services



8%
Composite
Systems



8%
Aviation
Maintenance

**Number of employees in 2018 based on GITAS estimates - 18,000 in the aeronautic sector excluding transport*

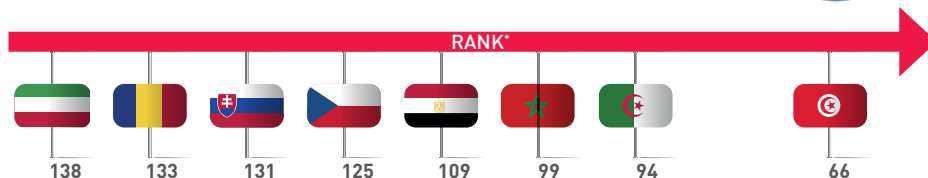
On average, more than 7500 engineer graduate each year - according to the «Global Competitiveness Report». Tunisia ranks first in North Africa in terms of quality of vocational training, graduates skills as well as with regards to the ease of access to skilled employees

A POOL OF TALENTS COVERING THE AUTOMOTIVE SECTOR'S NEEDS

- **Over 7,500 engineers graduates annually**
- **47 Schools and establishments** (public and private), **offering engineering training**
- **25 Higher institutes of technological studies** ensuring the training of qualified middle managers and technicians and meeting the needs of companies
- **+ 60 public vocational training centers**, covering the entire Tunisian territory

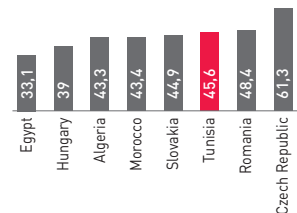
Ranking of countries by ease of finding skilled employees

WORLD
ECONOMIC
FORUM

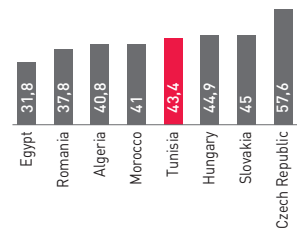


Rank « 1 » means the best

Quality of vocational training (score)

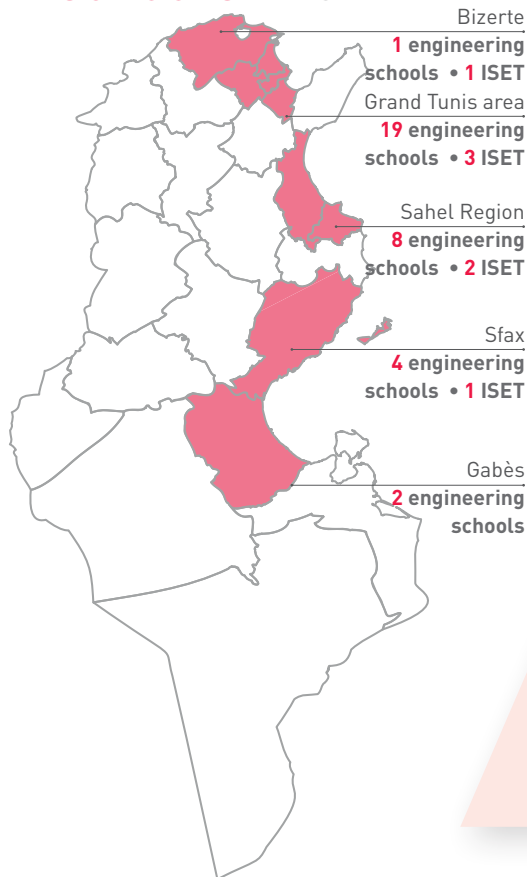


Graduates ' skills (score)

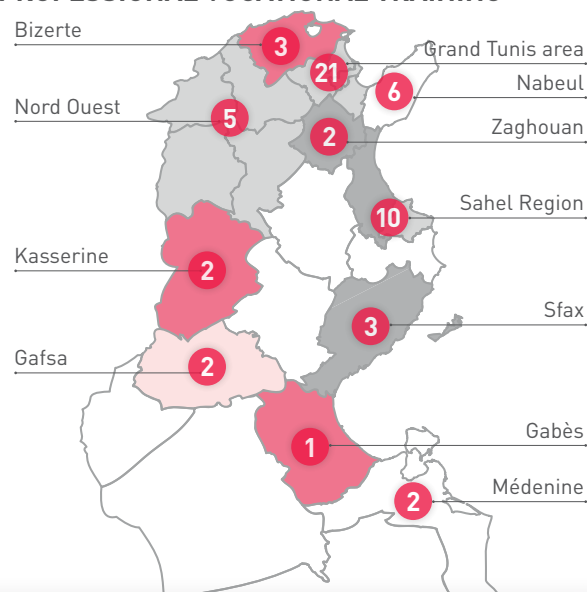


Several engineering schools and the Higher Institute of Technological Studies cover the various needs of the aviation sector, by ensuring the training of a talent pool made up of qualified engineers and technicians...

DISTRIBUTION OF ENGINEERING SCHOOLS AND ISET



DISTRIBUTION OF STATE CENTERS OF PROFESSIONAL VOCATIONAL TRAINING



+60 state Centers of vocational training distributed over the whole tunisian territory

- Automobile inspection training
- Maintenance training
- Technology training
- Electromecanical training

... As well as training structures dedicated to the aviation sector offering training courses oriented towards the needs of the sector and integrating the new challenges facing the sector

TT TRAINING CENTER : 1ST AFRICAN CENTER DESTINED TO THE AERONAUTIC MAINTENANCE SECTOR

- **1st african center** dedicated to the aeronautic maintenance
- **A partnership with Airbus** for the training of 30 trainees per month from the Arab world and the African continent on Airbus and Boeing aircraft
- **An accredited** training in conformity with the European requirements offers a set of training courses administered by the major players in MROs
- **Aircraft PART 145 certification** and educational infrastructure identical to that used by Airbus

AN EXCELLENCE CENTER DEDICATE TO THE PROFESSIONS OF AERONAUTIC INDUSTRY (CEMIA)

- ... Set up on a 6,500 m² plot in the El Mghira region, the center includes **10 workshops, 1 computer laboratory, 1 control laboratory, 1 electrical and electronic works laboratory** and **6 teaching rooms** ...
- ... and delivers a 2 year certification course, leading to a **Brevet de Technicien Professionnel (BTP)** (Professional Technician Certificate)
 - Technicians specialized in Mechanical manufacturing technicians on numerically controlled machines
 - aviation cable assemblers
 - Aircraft structure fitters
 - aviation boilmakers
 - Surface treatment and aviation painting technicians
 - Specialists in stratification of composite materials

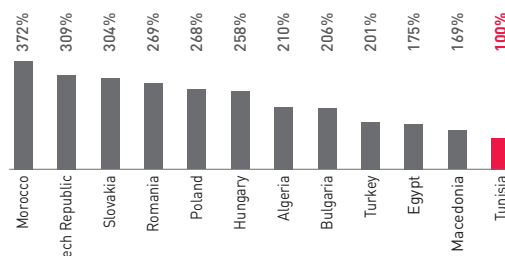
The cost of labor is a major competitive asset of the Tunisia destination. The average annual cost of Tunisian engineers is largely competitive compared to the main competing destinations ...

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

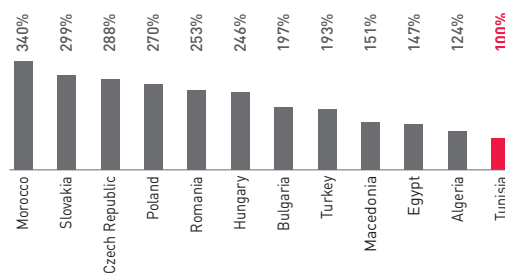
... the same applies to operators and technicians (2/2)

COST OF THE LABOR

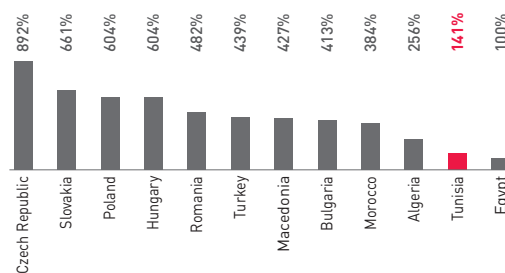
Engineer - Manager



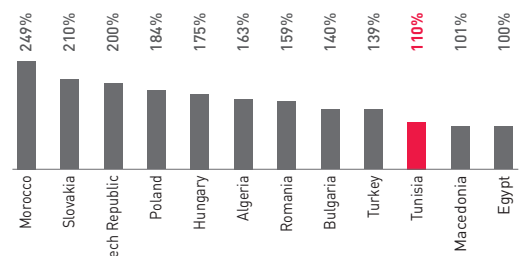
Opérations - Manager



Operations - Operator - Professional



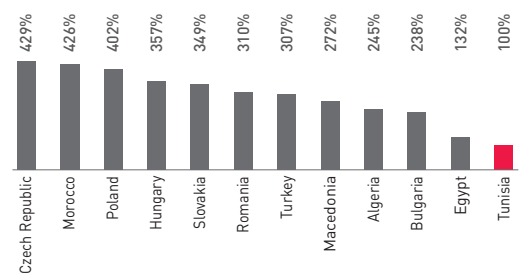
Engineer - Senior Professional



Opérations - Supervisor



Technician - Senior professional



The country has also a multitude of integrated and developed facilities aiming to promote 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



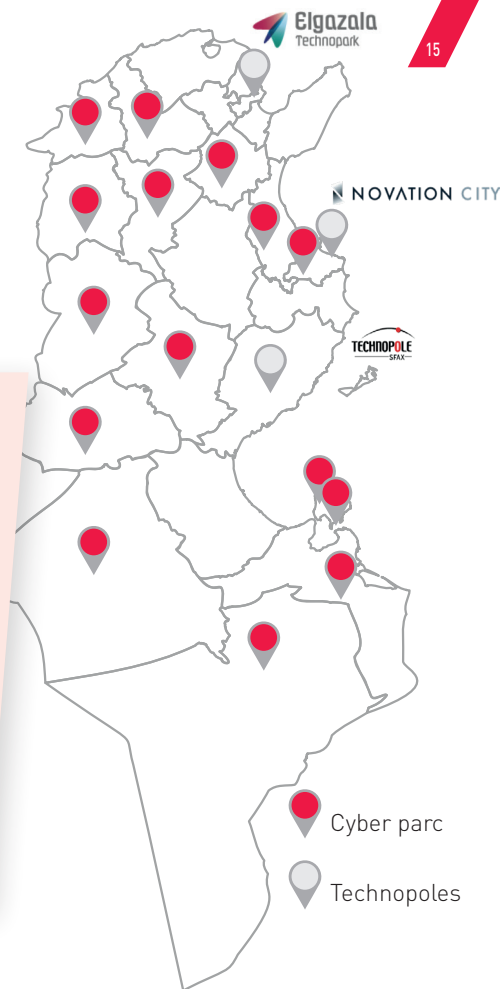
- One of the biggest technology parks in Africa
- A surface area of 155 hectares
- More than 100 national and foreign ICT companies



- A surface area of 10,5 hectares
- A R&D center
- An integrated facility to host:
 - Academic and research training activities
 - Innovation and transfer of technology activities
 - Production and development activities



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

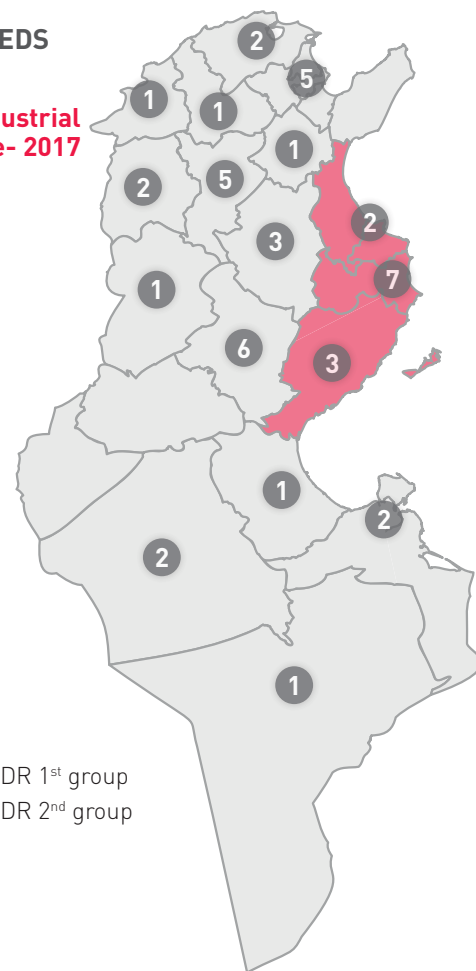


... and has set up a development program for industrial parks, in line with its national regional development strategy

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

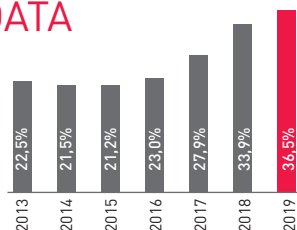
New industrial parks and industrial parks currently up for sale- 2017

- 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 penetration rates of fixed and mobile internet have been growing strongly over the 2013 – 2019 period driven by the democratization of 4G and Data Boxes

PENETRATION RATE FOR FIXED TELEPHONY DATA

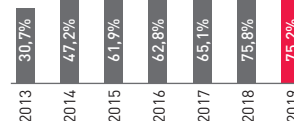


DISTRIBUTION OF SUBSCRIBERS IN FIXED TELEPHONY DATA BY CONNECTION

	4Mb/s	8Mb/s	12Mb/s	Other
2017	67,5% ▼	24,7% ▲	3,6% ▲	4,2%
2018	54,2% ▼	34,1% ▲	8,0% ▲	3,7%
April 2019	47,2% ▼	38,0% ▲	11,3% ▲	3,5%

- The **fall in internet access costs** was accompanied by a significant improvement in ADSL access with speeds of 8.MB / s and 12MB / s

PENETRATION RATE FOR MOBILE TELEPHONY DATA



- The growth in the number of internet connections **is driven by the democratization of mobile data**
- The **mobile data penetration** rate was **75.2%** at the end of April 2019
- Tunisia has started preparations for the launch of **5G networks** - a study on the advisability and the technical and economic conditions for the introduction of 5G is **scheduled for the end of 2021**

The aeronautical 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 contribution= 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 contribution = 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 aeronautical 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	
Sustainable development incentives	50% component cost	300 KD

19

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

@2019 Tunisia Investment Authority