

Startup Ecosystem Report Tunisia

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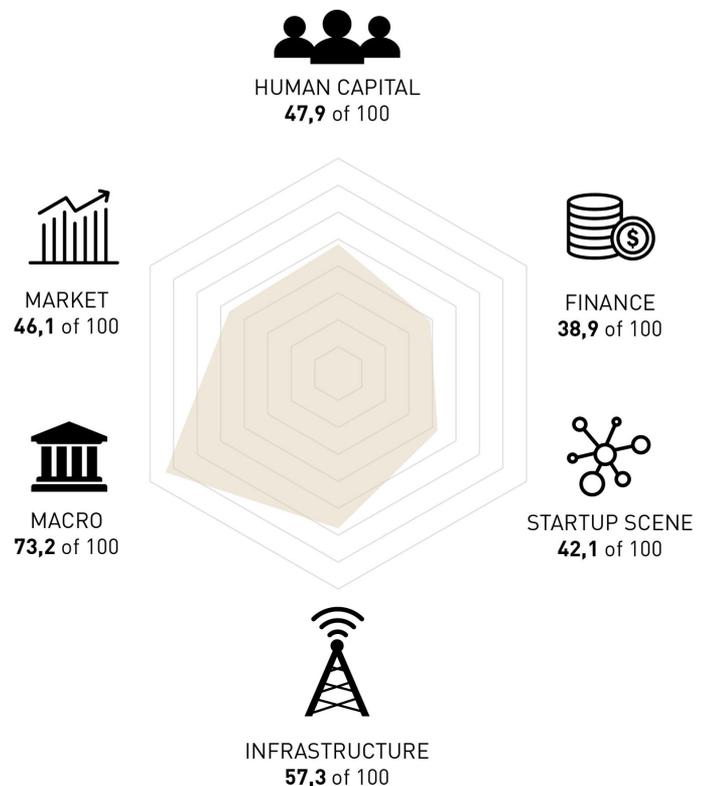
The Startup Friendliness Index (SFI)

In the field of entrepreneurship, startup ecosystems play an important role. A startup ecosystem is formed by entrepreneurs, startups in their various stages, and numerous other organisations such as universities, investors, accelerators, co-working spaces, legal and financial service providers, and government agencies. Through the complex interaction of these players, a startup ecosystem has the capacity to empower entrepreneurs to develop new ideas and bring innovation to the market.

The composition and maturity level of startup ecosystems are essential components of the success rate for entrepreneurs and new enterprises. A good understanding of ecosystem states, strengths, and weaknesses enables specifically-targeted policies, enhances investment decisions, and improves the impact of development cooperation.

The Startup Friendliness Index (SFI) analyses the friendliness of cities for advancing entrepreneurship by measuring six key features (domains) of the startup ecosystem, and the interactions between them: Human Capital, access to Finance, the liveliness of the Startup Scene, Infrastructure, Macro framework, and Market conditions. Together, these six domains interact to form an urban environment that can champion or hinder entrepreneurship.

Startup Ecosystem Approach



Research Design

The SFI analyses data on 81 key indicators within the six domains representing core elements of a startup ecosystem. The SFI utilises a novel methodology that reflects the importance of interconnectedness between domains.

The SFI relies on data procured from a combination of primary data, collected through surveys and interviews, and secondary data from established sources such as the World Bank and World Economic Forum. All data in this report are from the city analyses in 2017 and 2018.

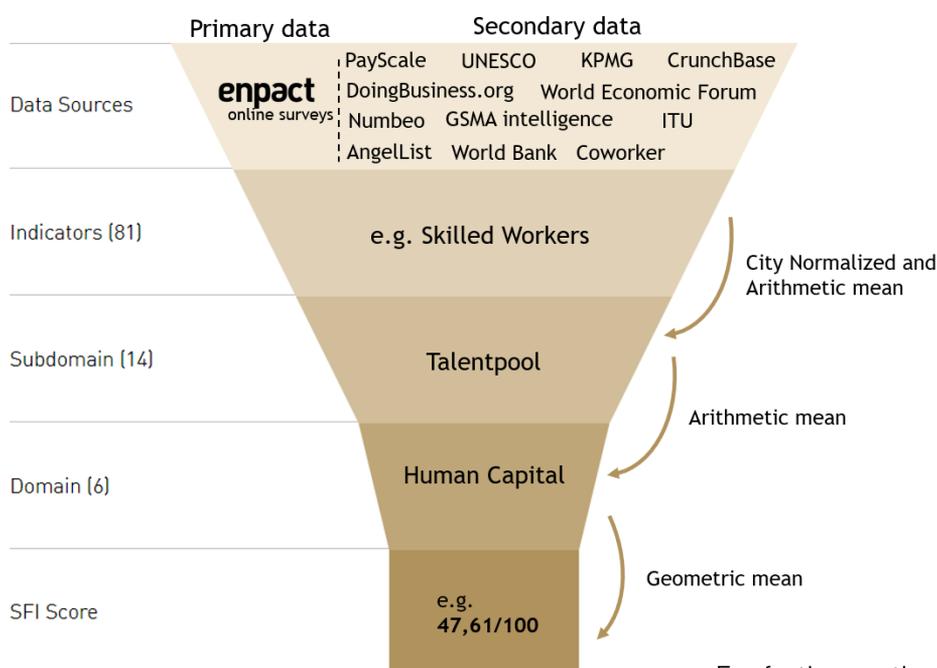
Once gathered, the data are normalised so that the index values can be used to compare the cities in the SFI. The normalised indicator values range from 0 (for a city that has the lowest performance relative to the others) to 100 (for the city that has the best relative performance). Where relevant, normalised scores are adjusted to the population of the city.

All scores are generated simultaneously and reflect essentially the same point in time for all cities.

As a final step, the data are aggregated. Drawing from best practices in composite-indicator building [1], we utilise a combination of the familiar arithmetic mean as well as the geometric mean, resulting in an index which accurately reflects the importance of balance (having relatively even levels of maturity across all domains) within an ecosystem.

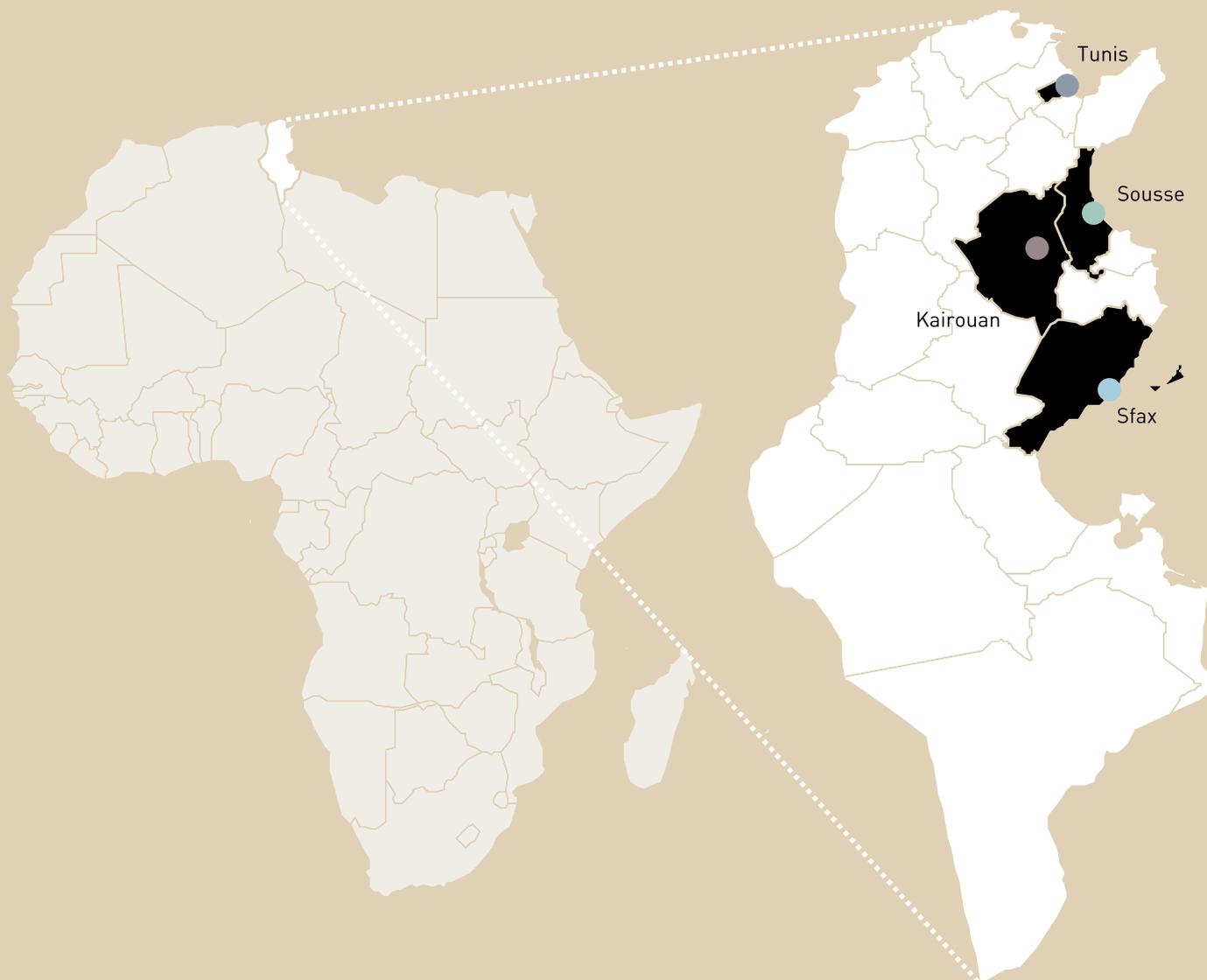
The logic behind this method is simple; imbalances in an ecosystem have a negative impact, because deficiency in even one area may slow or impede entrepreneurship completely. For example, excellent infrastructure is of limited use if there are no funding opportunities available to initiate a new venture. In other words, there are no substitution effects between domains [2].

The final SFI scores can be used both as a tool to compare cities on common indicators, and also offer a structured lens to evaluate areas of strengths and weaknesses within individual cities.



For further methodology details, see: www.startup-meter.org/methodology/

Tunisia



Africa and Tunisia

Tunisia and the Governorates of Sousse,
Sfax, Kairouan and Tunis

Tunisia, located in the Maghreb region of North Africa, is bordered by Libya, Algeria, and the Mediterranean Sea. Considered to be the only fully democratic sovereign state in the Arab world, Tunisia has been in the process of a democratic and economic transition since the Arab Spring, offering both challenges and opportunities for the country. Tunisia's transformation to a more market-oriented economy has been slow, with primary economic activity being export-based, largely destined for the European Union.

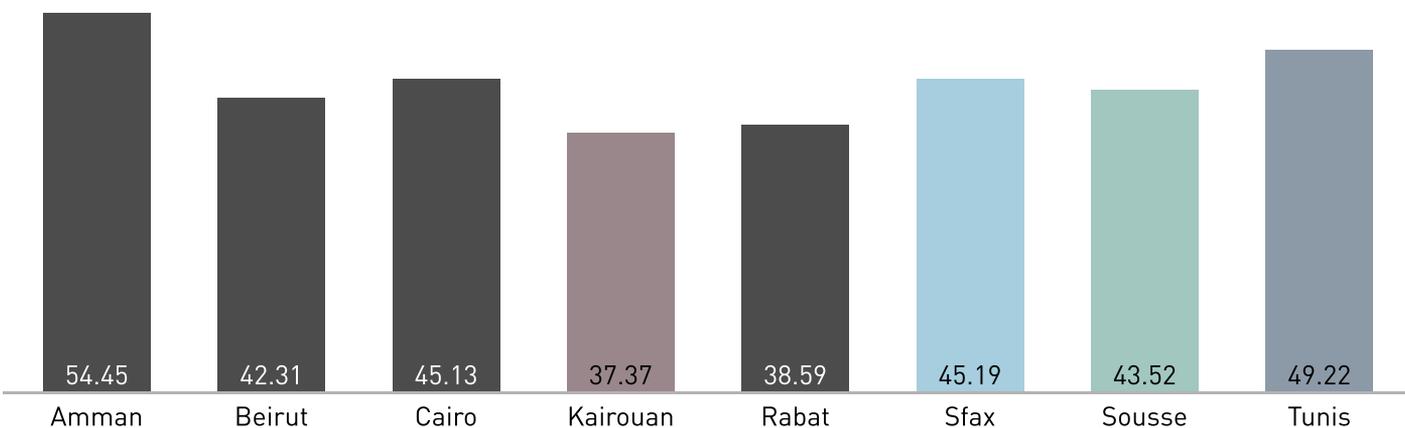
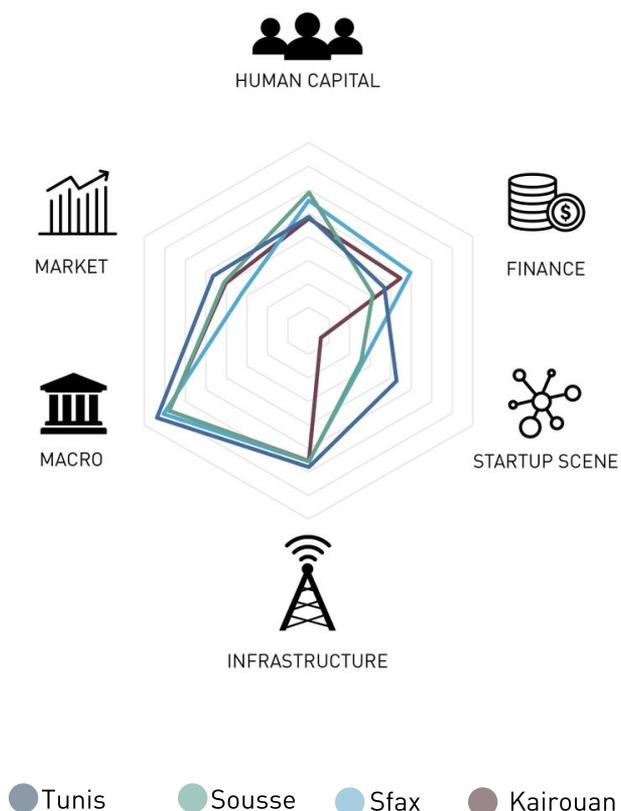
Overall, the Tunisian startup ecosystems are developing well. While the startup scene is in the early stages, there is significant interest in entrepreneurship both on a political and social level at this time, as evidenced by the landmark Startup Act passed last year. Tunisia has a wealth of potential in the form of strong human capital and generally favourable macro conditions, potentially creating fertile ground for the birth of a strong entrepreneurial sector.

Executive Summary

In general, Tunisian cities are fairly well positioned in the Startup Friendliness Index (SFI). This report compares four Tunisian cities - Kairouan, Sfax, Sousse, and Tunis - to four other MENA-region cities in the MENA regional SFI, as well as to 15 cities in Asia, Latin America, and Africa in the global SFI. Scores range from 0 - 100, with a score of 0 for the city with the weakest performance, to 100 for the strongest. Throughout the report, the referenced SFI scores are from the MENA regional SFI, and the cities are ranked both in comparison to the MENA and global SFI.

Three of the measured Tunisian cities (Sfax, Sousse, and Tunis), rank in the middle of both the global and MENA regional SFIs. The situation is more difficult in Kairouan, which is currently in the second-to-last position in both rankings. Within Tunisia, Tunis has the strongest performance, scoring 49,22 out of 100, and ranking eighth in the global SFI. Sfax follows with a score of 45,19, then Sousse (scoring 43,52), and lastly Kairouan with a score of 37,38.

Tunisia's Startup Ecosystems

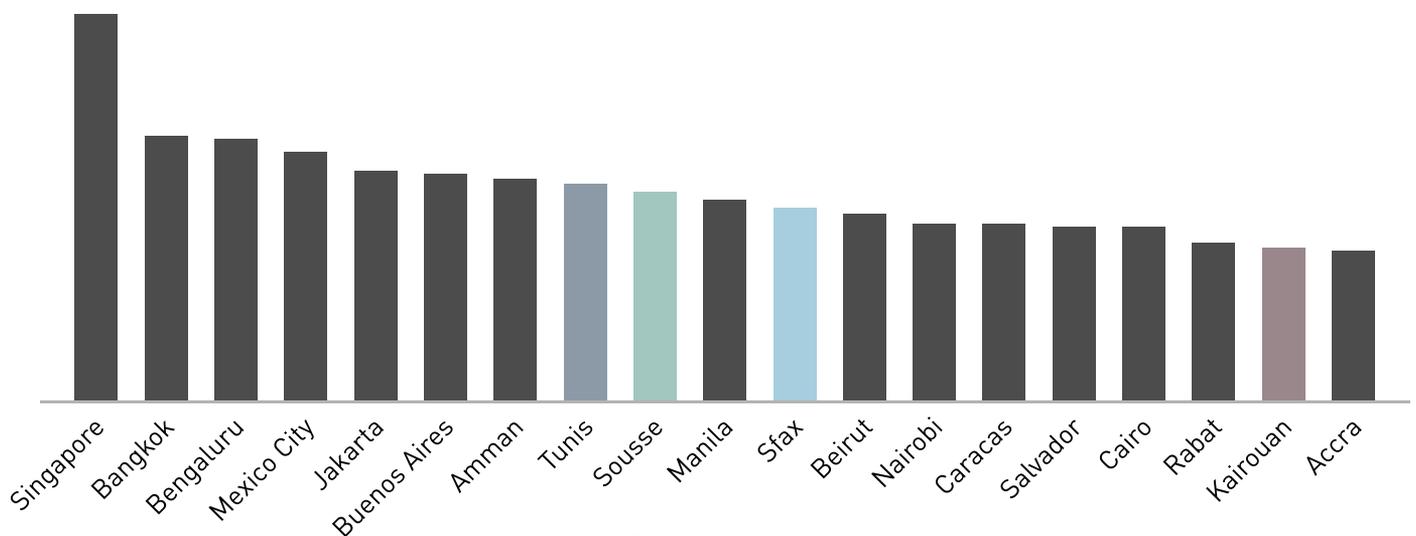


SFI Scores for the MENA region

Startup Friendliness Index scores are determined by examining 81 indicators in six domains: Human Capital, access to Finance, the liveliness of the Startup Scene, Infrastructure quality, Macro framework (describing the political and legal system), and Market conditions (such as trade balance and capacity utilisation). Cities with relatively even scores across domains receive a higher overall score than a city with strong performance in one area, and weak performance in another.

For Tunis, the city with the highest overall SFI score, Infrastructure and Macro are the strongest domains, while Finance is particularly challenging. In contrast, Sfax finds strength in the Finance domain, but Market conditions are not favourable. Human Capital is notably strong in Sousse due to a high number of educational institutions relative to its small population, though accessing Finance is a hindrance for entrepreneurs. Kairouan has fairly even scores across most domains, though its Startup Scene is in the very early stages.

Based on findings from the Startup Friendliness Index, this report concludes with a series of policy recommendations to support the development of the startup ecosystem. These include enhancing the quality of education to better prepare future entrepreneurs, strengthening local policies, increasing opportunities for financing, improving the startup scene’s connectedness with programmes and spaces that boost business ideas and foster networking among Tunisian entrepreneurs, and including women more fully in entrepreneurial roles and the economy.



Distribution of SFI scores for all global cities

National Diagnosis

Supporting Entrepreneurship on a Country-Level

The Tunisian government has made active efforts in recent years to support the promotion of entrepreneurial ventures in the country. A key pillar of the strategy is the Startup Act, part of the National Strategic Plan Digital Tunisia 2020. Given the importance of these plans for entrepreneurship on a national as well as city-level, a summary of key features follows.

National Strategic Plan Digital Tunisia 2020

Tunisia's National Strategic Plan (NSP) "Digital Tunisia 2020" is an initiative aiming to position the country as an international reference for digital development, utilise ICT as an important lever for socio-economic growth, and to provide Tunisia with the technological infrastructure suitable for a modern economy.

The strategy has been developed through a broad consultative framework that includes the public and private sectors and civil society through a series of sharing events over the course of several years. The African Development Bank works together with the Tunisian government in the implementation of the NSP. The NSP revolves around Four Axes integrating Six Strategic Orientations (SO). These SOs are supported by three steering structures (Governance, Communication & Change Management, and Financing & Budget) and three support structures (Regulatory & Legal, Skills Development, and Digital Trust).[3][4]



The Startup Act

The bill on the promotion of startups presents a real opportunity for the establishment of favourable startup ecosystems in Tunisia. In order to encourage and motivate young people to form startups, the bill covers 20 measures in five key areas: (1) defining startups, (2) encouraging entrepreneurship, (3) the creation of an environment that allows for the formation and liquidation of companies, (4) access to funding, and (5), access to international markets. The bill is relatively comprehensive, with several measures in each thematic area.

Some key features of the Startup Act include:

| | |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Startup Leave | Individuals matching certain criteria in Tunisia will be granted one to two years of leave from their employment in the public or private sectors to begin a new enterprise. |
| Startup Scholarship | Any promoter of a startup can benefit from a startup grant for a duration of one year. The grant provides for the wages for up to three founders/shareholders and full-time employees in the relevant startup. The amounts allocated to the startup scholarship come from National Employment Fund resources, donations, and any other resources provided by the legislation and regulations in force. This amount is between 1000 - 5000 dinars (around 300 - 1.500 euro) per month. |
| Employment Programmes | In an effort to reduce the cost of hiring new employees, the Act provides for employment programmes to facilitate recent graduates to start a new venture, or join a startup organisation. |
| Patent Fees | The Tunisian government will cover the expenses for patents under certain circumstances. |
| Exemption for Corporation Tax & Social Security | Startups can benefit from the exemption of corporation tax and the State's assumption of employer contributions and wage earners to the statutory social security scheme. |
| Foreign Currency | Several measures are in place to facilitate easy transactions with foreign suppliers and customers in international currencies. |
| Special Customs Procedures | Special customs procedures will be in place for startups, particularly in telecoms and electronic equipment. |

In addition to these highlights, further measures are included in the Startup Act. Given that there has been less than one year since the Act's inception, a key consideration will be the implementation and evaluation of practical impact.

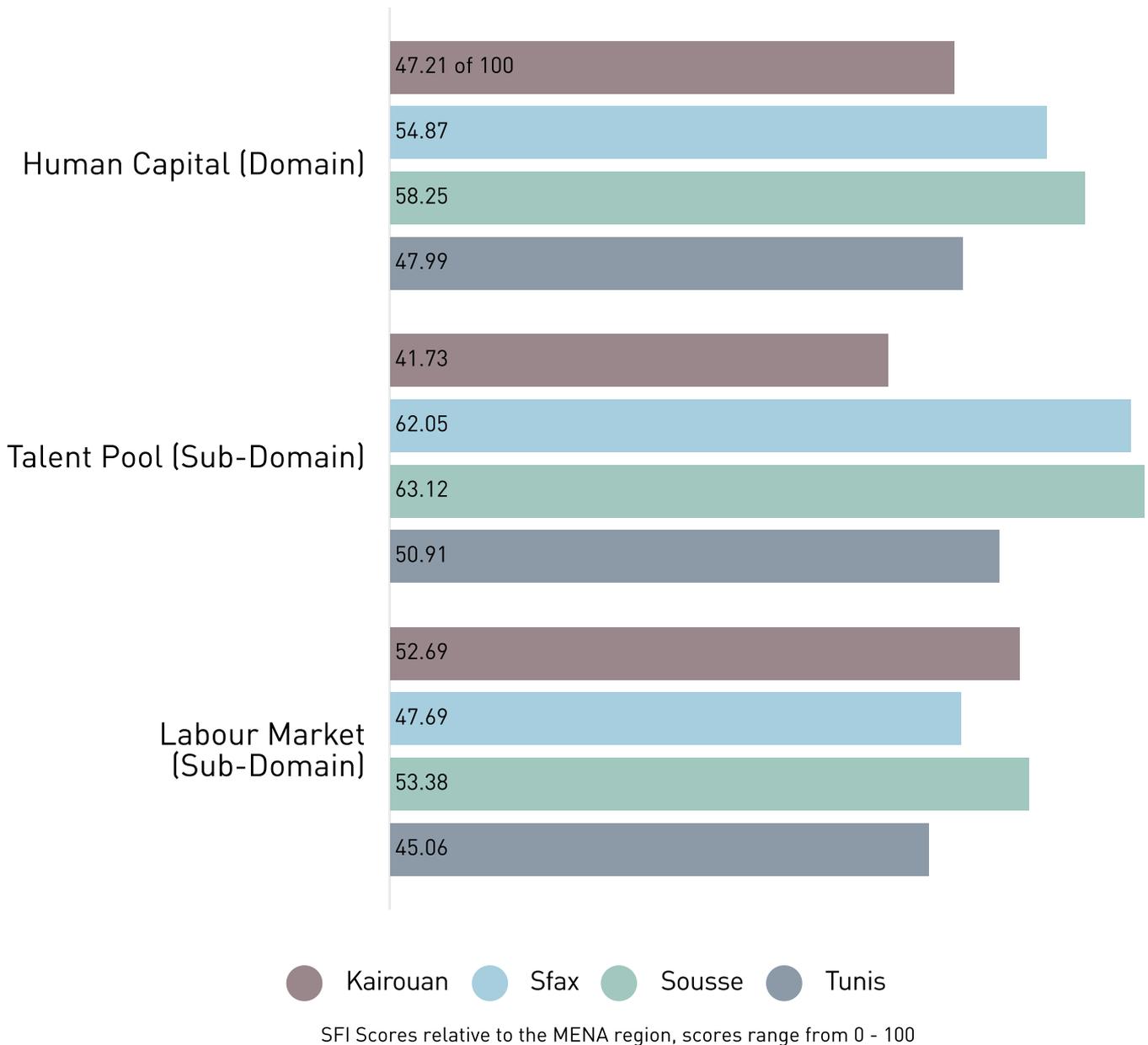


Startup Friendliness Index Tunisia

DOMAINS AND INDICATORS

1. Human Capital

Human Capital is critical for starting a new venture. Being able to access talent with the right skills during the early stages of a business makes a significant impact on a startup’s future success. The Human Capital domain is generally fairly strong for cities in Tunisia, particularly for Sousse (which ranks 5th out of 19 global SFI cities). Tunis ranks 11th in the global SFI, followed closely by Sfax (ranking 13th). The domain is more challenging for Kairouan, which ranks 16th of 19.



Human Capital

Talentpool Subdomain

Tunisia’s success in the Human Capital domain is due to strong scores within the Talentpool subdomain. On a country level, 75% of Tunisians are considered skilled workers, approximately in-line with the global SFI average of 77%, and above the MENA regional average of 71%.



Thirty-three percent of Tunisians are enrolled in tertiary education, ranking these indicators in positions 11-15 of the global SFI. Another country-level indicator, R&D expenditure, positions cities in Tunisia relatively favourably as well (ranking 7-11 in the global SFI), and right in the middle of MENA region SFI cities (though the total expenditure is less than 1% of GDP).

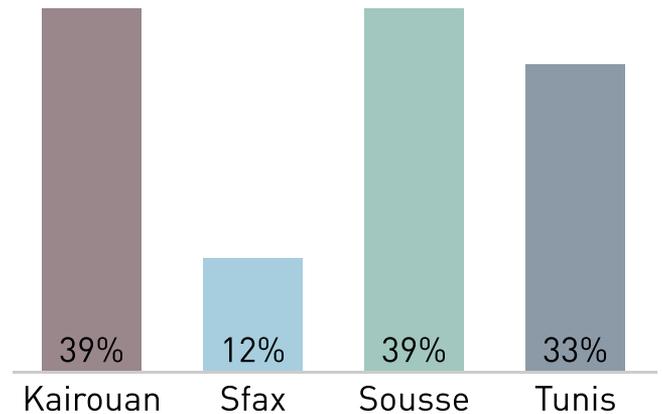


33%
of Tunisians have enrolled in tertiary education



< 1%
National R&D expenditure

On a city-level, there is significant divergence on the Workforce Constraint indicator, which measures the percentage of firms that identify an inadequately educated workforce as a major constraint, with results ranging from a low of 12% (in Sfax) to 33% in Tunis, and 39% in Sousse and Kairouan. In contrast, the indicators on Total Universities and University Students (relative to population) are much more similar, with all four Tunisian cities ranking in the top 4-5 positions in the global SFI.



Percentage of firms identifying access to talent as a major constraint to doing business

The high number of skilled individuals and university graduates implies that, at least for more traditional fields where university education is applicable, there is an abundance of skilled individuals available for work. However, there is also evidence that the education system is in need of modernisation. While Tunisia has made significant gains in ensuring baseline education for its citizens, many in the country are dissatisfied with the education system's focus on theory and memorisation at the expense of the practical skills necessary for success in the modern economy, such as IT and engineering courses. Additionally, few partnerships exist between educational institutions and employers, so practical skill development is often a challenge for Tunisian students.[6] There are also concerns about infrastructure in schools, educational regulations, and expectations, leading to continued calls for reform.[7]

Tunisian entrepreneur Sabine Ibrahim is the CEO and co-founder of an educational videogame startup. She says that she struggles to find the right talent to join her team: “At the beginning, you need great talent, good people to help you build your company...In Tunisia, the gaming industry is really something new,” so there is a lack of individuals who have the appropriate skills to meaningfully contribute in these newer fields.

This implies that though Tunisian cities score well on the Talentpool subdomain, there is room for improvement of the education system to better prepare students for success in modern fields. Until then, startup founders may continue to struggle to access adequately trained talent in fields such as engineering and technology.

”

**At the beginning, you need
great talent.**

Sabine Ibrahim - Entrepreneur

Human Capital

Labour Market Subdomain

The Labour Market subdomain is challenging for Tunisian cities generally. The highest scorer, Sfax, ranks at position 14 in the global SFI, and Tunis takes the second-to-last position. This is largely due to extremely poor scores on the Unemployment Rate indicator. At around 15% unemployment country-wide, Tunisian cities rank at the very bottom of the global SFI.



SFI Scores relative to the MENA region, scores range from 0 - 100

15%

Average unemployment rate

Because of persistent unemployment, Tunisia is suffering from a significant flow of talent out of the country in favour of employment prospects in Europe and other international destinations.[8] Attracted by the prospect of higher wages, better career opportunities, or simply frustrated with the difficulty of finding suitable employment at home (given that over 30% of college graduates are unemployed),[9] nearly 100.000 Tunisians left the country between 2011 and 2017, with the large majority being highly skilled young people.[8] Indeed, Tunisia is a rare example of a country where higher levels of education are associated with decreased employability, especially for women.[10]

Overall, women are particularly impacted by unemployment and other forms of labour inequality in the country. As of 2014, the unemployment rate for women was 22% (compared to 11% for men), despite women having higher levels of educational attainment across the country.[11] While gender gaps are generally smaller than in many other MENA countries, women are persistently employed less in highly-skilled positions, and more frequently in the informal sector.



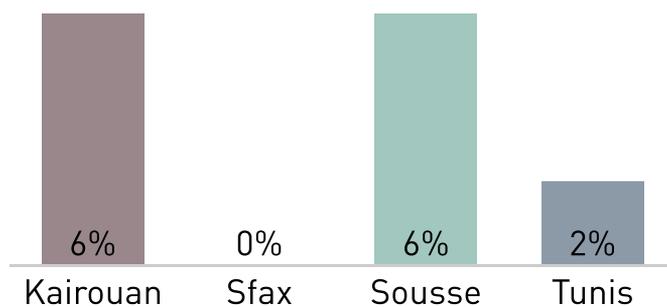
11% unemployment for men



Compared to 22% for women

This leads to significant regional inequalities in terms of living standards and employment for women. At 24%, the female participation rate in the economy is low relative to the global SFI average of 40%.

According to the World Bank Enterprise Survey, the percentage of firms with majority female ownership varies in the country, from a low of essentially 0% in Sfax, 2% in Tunis, to 6% in Sousse and Kairouan. These scores are all in the bottom half of the global SFI. The proportion of women holding management positions in the public and private sectors is the highest in the MENA region, however, at nearly 15%.[12]



Percentage of firms with majority female ownership

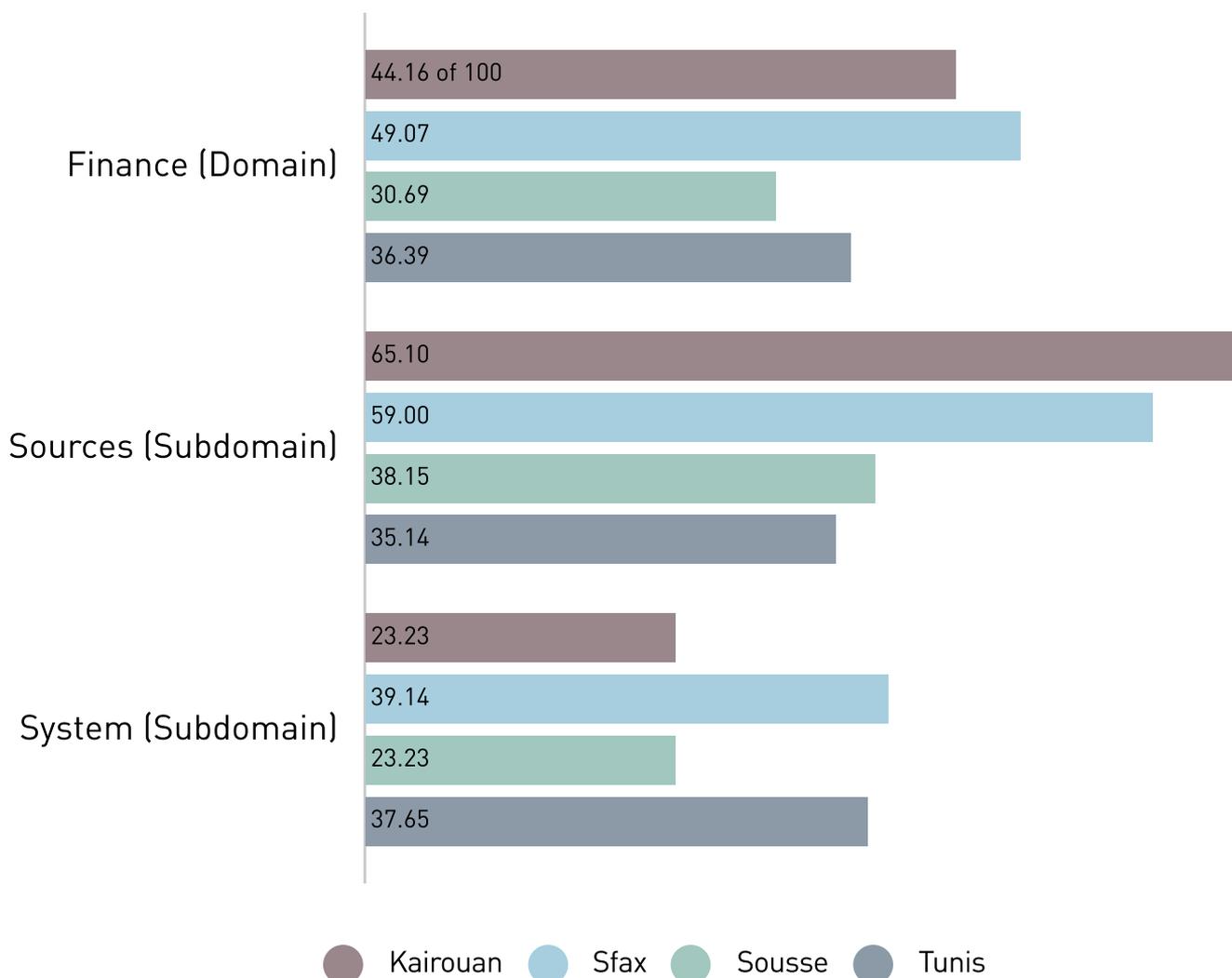
This presents a huge area of opportunity for Tunisia; more meaningfully integrating women into the economy could have a massive impact on future success.

For those that are looking to start a new venture, labour is available fairly affordably in Tunisia, ranging from about \$250 USD (Sfax) to \$600 USD (Tunis) per month for a recent graduate. This places Tunisian cities approximately in line with both the global SFI and MENA region averages. Software developers in Tunisia can expect a monthly wage of about \$1,500 USD per month on average, however, which is above the global SFI average of near \$1,300 USD.

2. Finance

Accessing adequate financial resources is a key element for starting and scaling a new venture. While many entrepreneurs around the world struggle to overcome this hurdle, the challenge is particularly pronounced for some Tunisian entrepreneurs. There is notable variation in scores between the studied cities; the highest ranking city on this domain is Sfax (which ranks at position 6 of 19 global SFI cities), followed by Kairouan (11 of 19), Sousse (14 of 19), and finally Tunis (15 of 19).

The Finance domain is composed of two subdomains: Sources, which describes the methods entrepreneurs rely on to secure funds, and System, which covers systemic factors such as collateral requirements and FDI inflow which may support or hinder financing efforts.



SFI Scores relative to the MENA region, scores range from 0 - 100

Finance

Sources Subdomain

The Sources subdomain is generally fairly favourable for Tunisian entrepreneurs. Sfax ranks 2nd in the global SFI on this subdomain, followed by Kairouan (ranking 3rd), Sousse (ranking 7th), and Tunis at 13th of 19 global SFI cities.



Funding Sources (entrepreneurs may report using more than one, and may access funding outside of their city)

SFI Scores relative to the MENA region, scores range from 0 - 100

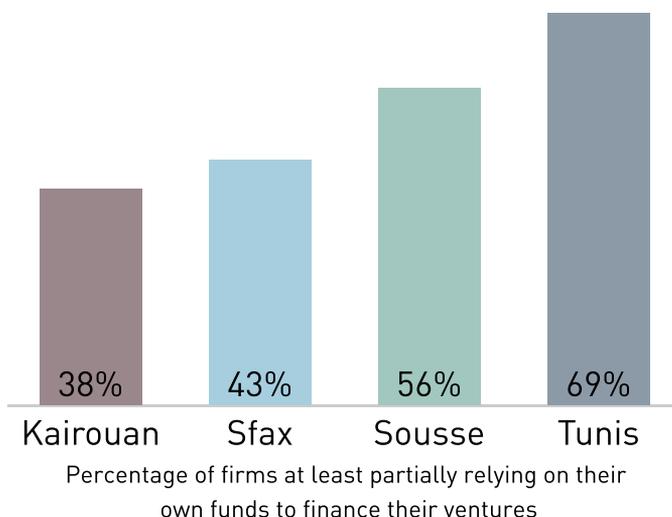
Within the Sources subdomain, scores on the Bank Loan indicator are relatively favourable for all the measured Tunisian cities, taking four of the top five rankings on this indicator in the global SFI. The Bank Loan indicator assumes that higher reported percentages are preferred, since that suggests external financing is available for some entrepreneurs. At 38%, Kairouan is the highest scorer on the global SFI and within Tunisia. Sousse follows, with 22% of entrepreneurs at least partially relying on a bank loan for financing. Sfax is next at 19%, and Tunis concludes (10%).*

Conversely, the Self-financing domain favours low scores, since ideally entrepreneurs should be able to finance their ventures without pulling from personal funds. Kairouan also scores well here, with only 38% relying on self-financing (compared to the global SFI average of 65%). The poorest scorer in Tunisia on this indicator, Tunis, measures 69%.

22%
**of Tunisians are able to access
 funding through bank loans**

*When evaluating performance on this indicator, it is important to also consider two additional indicators in the System subdomain which examine the percentage of loans that are rejected, and collateral requirements. Considered together, these three indicators paint a more nuanced picture of the availability of bank loan funding in Tunisia.

There is more divergence on the indicators measuring financing through Business Angels (with Sousse at the top and Kairouan at the bottom), Accelerators (where Sfax performs the best), VC funds (less successful overall), and Public Financing (with strong performance in Sfax and Kairouan, and very low performance for Sousse).**



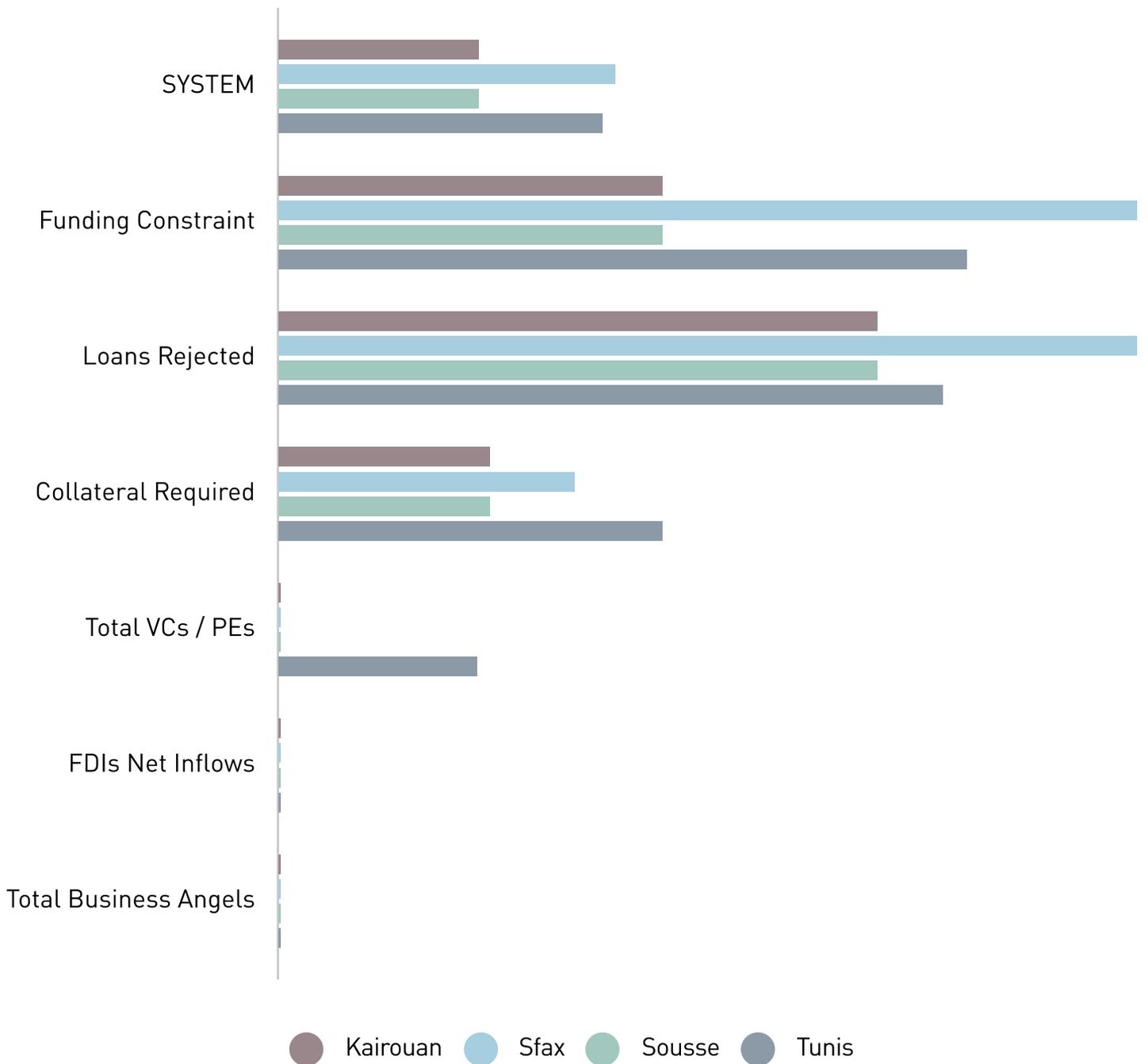
Overall, Tunisian entrepreneurs generally finance through bank loans, self-finance, or a combination. Public financing is an option for some, while Business Angels, Accelerators, and VC funds remain very low. This implies that opportunities may be limited for entrepreneurs without the means to self-finance that also are unable to access funds through loans.

**Entrepreneurs may rely on funding sources that are not physically located in their city - for example, there are no VCs based in Kairouan, but VC funds are available to entrepreneurs there.

Finance

System Subdomain

The System subdomain is generally more challenging for Tunisian cities. The highest scorer, Sfax, only ranks at position 12 of 19 in the global SFI. This is due to low FDI inflow into the country, and few VCs and Business Angels.



SFI Scores relative to the MENA region, scores range from 0 - 100

On national level, a poor score on the indicator of FDI inflow is a contributing factor. At less than \$1 billion USD per year, FDI net inflow is considerably lower in Tunisia than the global SFI average (almost \$14 billion USD annually), and half as much as the MENA regional annual average of about \$2 billion USD.



Less than \$1 billion USD
national annual FDI net inflow

Throughout Tunisia, the numbers of Business Angels and VCs are notably low, with all four cities scoring towards the bottom of the global SFI on these indicators. Tunis stands out on the indicator for VCs, since there are three legally based in the city (as opposed to none in the other three cities), including UGFS and CFE Tunisie. The average number of VCs legally based in MENA region SFI cities is just over four.

Two indicators in the System subdomain measure the availability of loans; Loans Rejected, and Collateral Required. On both indicators Tunisian cities score in the bottom half of the global SFI, though considerable divergence remains between them. With regards to Loans Rejected, Sfax scores most favourably, with only 2% of loan applications resulting in rejection. Kairouan, Sousse, and Tunis all range from 8-10%, compared to the global SFI average of 6%. On the Collateral Required indicator, Tunis fares best, given that 82% of loans require collateral, though this is still higher than the global SFI average of 73%. In Sfax, 86% require collateral, while the figure is still higher (89%) in Sousse and Kairouan.

Between

2% - 10%

of loan applications are rejected

(depending on the city)

One potential reason for lower performance on the loan indicators may be the recent increase in non-performing loans (which saw about a 25% rise between 2010 and 2016, reaching as high as 20% for public banks), which constrains resources and impedes their efficient allocation.[12]

A final area of divergence is the Funding Constraint indicator, which measures the percentage of firms identifying access to finance as a major constraint. Sfax is the most successful on this indicator, with only 11% of firms indicating this issue as a major problem. In Tunis, the result is 18%, up to 32% in Sousse and Kairouan. The average in the global SFI is 23%, and 27% in the MENA region.

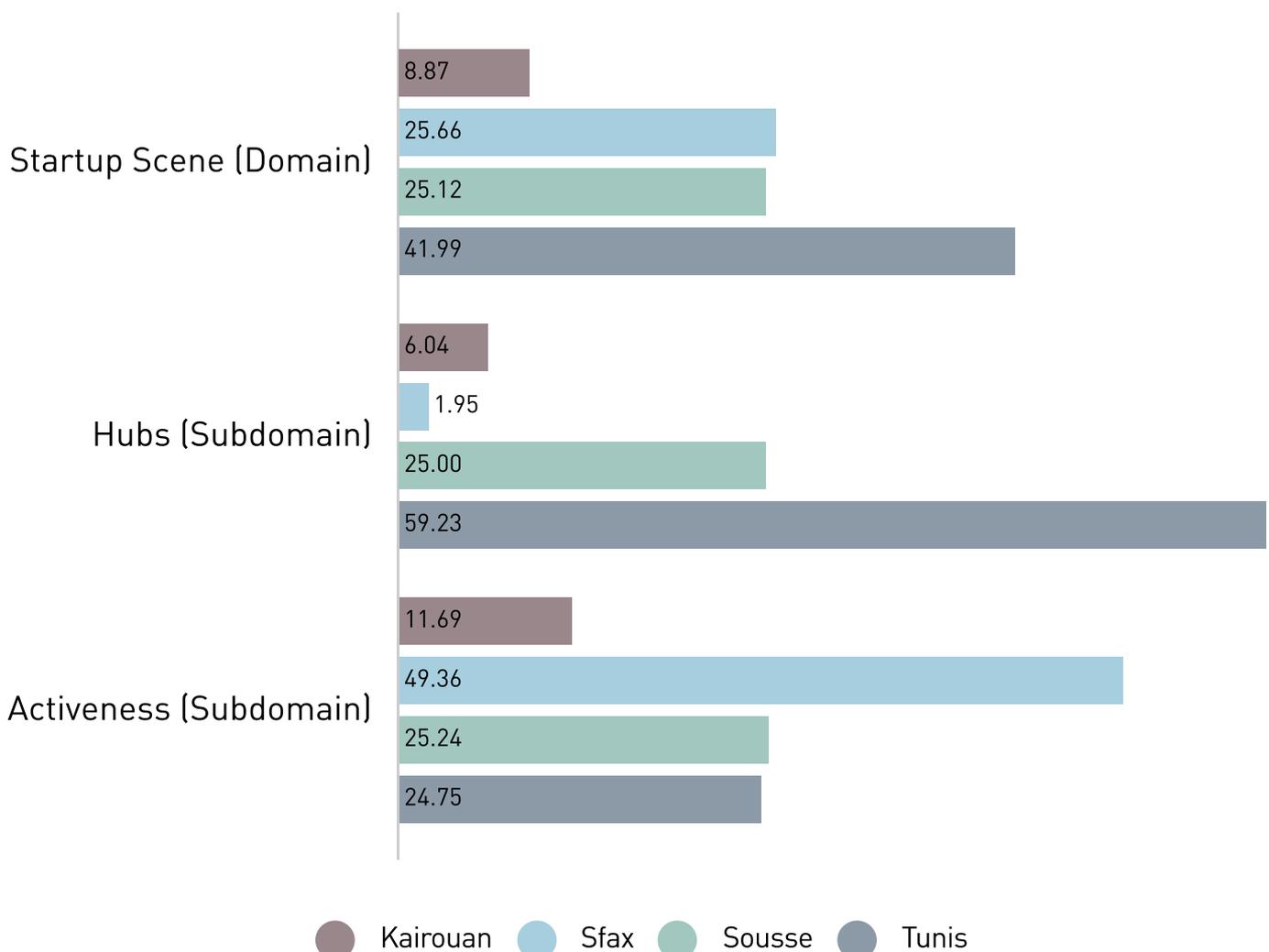
Overall, according to Mike Doherty (Principal at Doherty & Associates in Berlin), "the funding environment isn't as mature as we see in Europe in the US. The idea of raising money is very difficult, because there are limited places [entrepreneurs] can raise money from." [13]

From the perspective of Tunisian entrepreneur Lobna Miladi, access to finance may be improved through, "the establishment of seed funds, and regional capital funds for proximity to startups and speed of response," as well as "relevant support services [throughout] all stages of business-creation, including [initial] financing and business development."

3. Startup Scene

The Startup Scene domain seeks to measure the maturity and liveliness of a city's startup culture. Cities with a more vibrant startup scene foster continued growth for startups by facilitating networking and learning, providing resources, and encouraging an entrepreneurial spirit. Within Tunisia, Tunis is the highest scorer on this domain, scoring 41,99 out of 100 and ranking third in the global SFI (though the city has clear areas of opportunity for further development). Sfax (scoring 25,66) and Sousse (scoring 25,12) follow. Kairouan fares poorly in the Startup Scene domain overall, scoring only 8,87 and ranking in the last position in the global SFI.

The Startup Scene domain is composed of two subdomains, Hubs and Activeness. The Hubs subdomain measures the availability of institutional capacities such as accelerators and co-working spaces, while the Activeness subdomain covers indicators related to events, number of startups, and if there high-equity cases. The most active active Startup Scene is in Sfax, while the most institutionalised scene is in Tunis. In all categories, Kairouan trails behind.

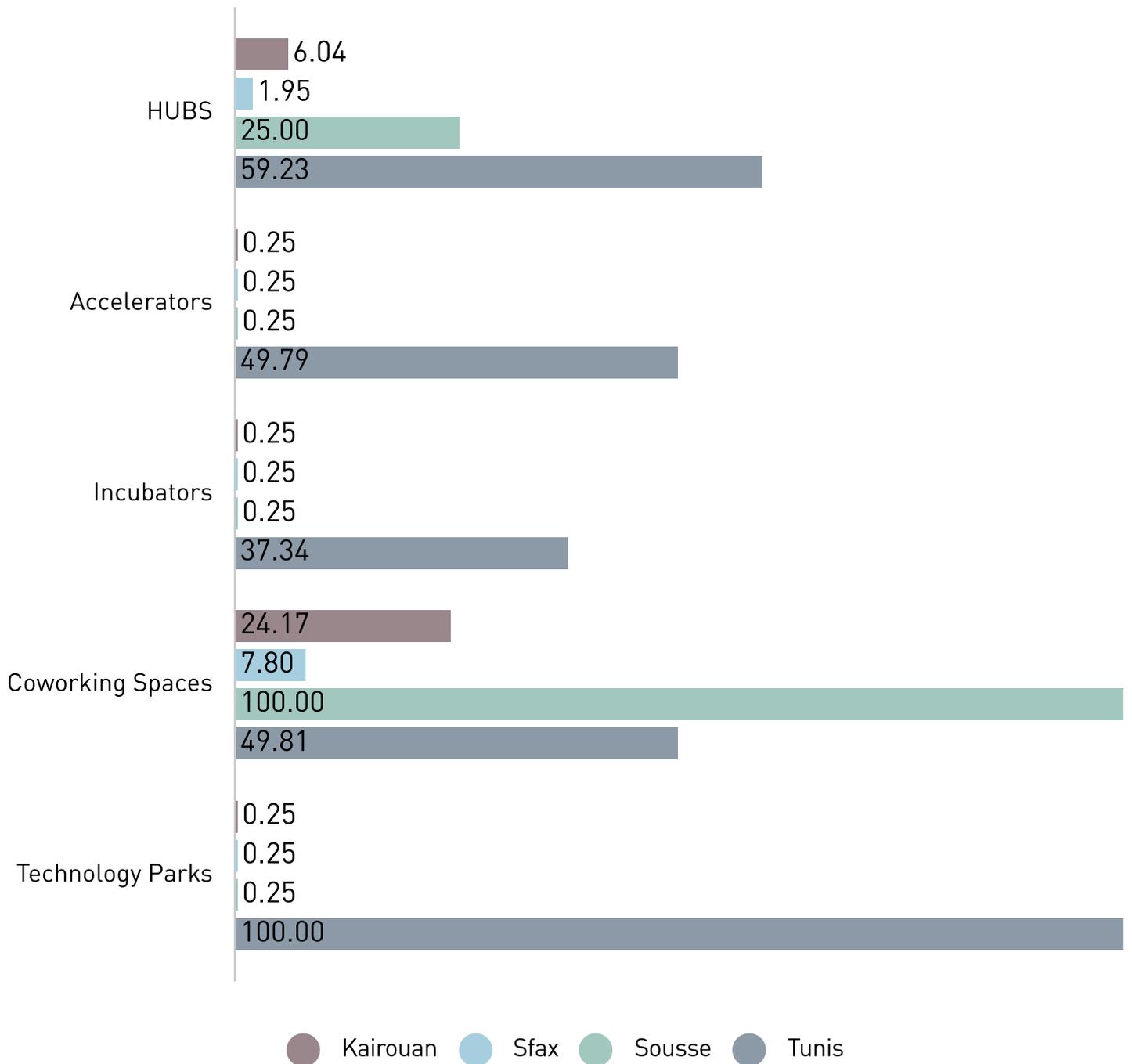


SFI Scores relative to the MENA region, scores range from 0 - 100

Startup Scene

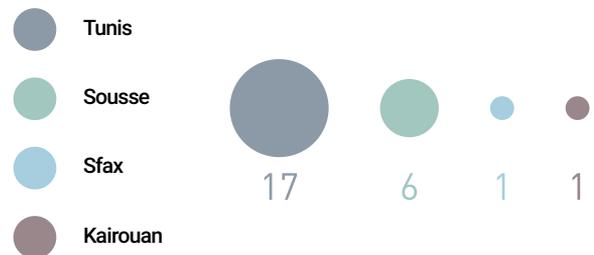
Hubs Subdomain

In terms of the Hubs subdomain, Tunis ranks in position #1 of the global SFI due to a respectable number of accelerators (3), incubators (1), co-working spaces (17), and technology parks (2) relative to its population.



SFI Scores relative to the MENA region, scores range from 0 - 100

Sousse has the next most favourable score on this subdomain, ranking at position seven in the global SFI. There are currently few active accelerators, incubators, or technology parks in Sousse. The first incubator in the city, The 777, opened in late 2017, illustrating the relatively recent nature of the startup scene's growth. However, a bright spot for the city is the availability of co-working spaces; there are approximately six, which while a low total number relative to a larger city like Tunis (with 17), is a significant number for a city with a population as small as Sousse's.



Number of co-working spaces per city

The situation is similar in Kairouan and Sfax, which rank very low compared to the global SFI on the Hub subdomain (positions 15 and 19, respectively). In Sfax, there is one co-working space (COART), zero accelerators, and only one incubator (IntlaQ). In Kairouan, the first and only accelerator and co-working space, GO Community, opened last year, and is essentially the only institutionalised resource available to entrepreneurs at this time.

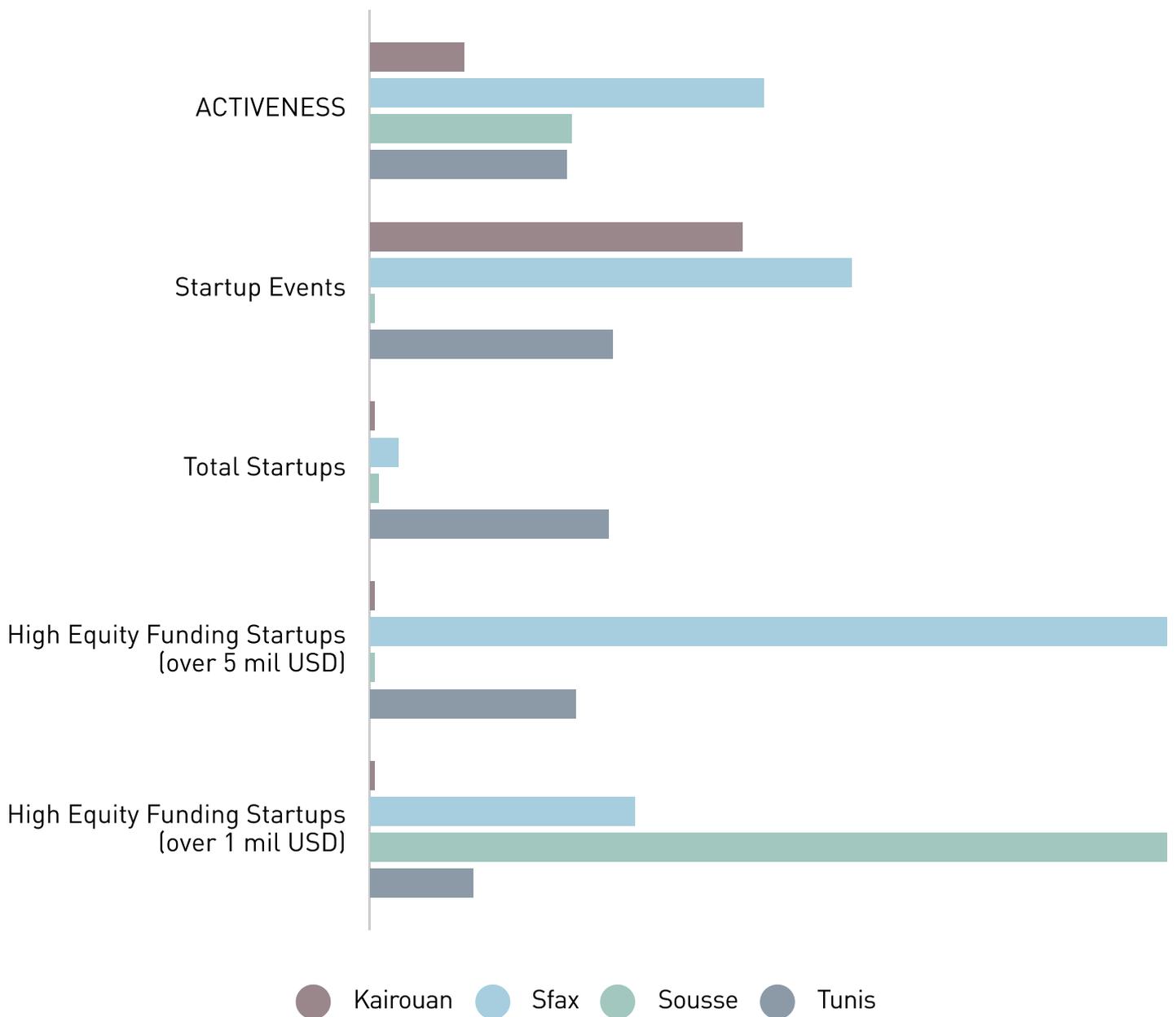
Institutionalised resources support entrepreneurs through services, networking, and learning between peers.

The divergence in availability of institutionalised resources can have a significant impact on the future development of a startup scene. In addition to services for entrepreneurs, incubators, accelerators, and co-working spaces also serve as a meeting place for networking and learning between peers.

Startup Scene

Activeness Subdomain

On the Activeness subdomain, Sfax takes the highest rank of the Tunisian cities (3rd in the global SFI), scoring 49,3 out of 100. Sfax is followed by Sousse with 25,24 (ranking 5th), Tunis at 24,7 (ranking 15th), and Kairouan at 11,69 (ranking 18th, above only Rabat in the global SFI).



SFI Scores relative to the MENA region, scores range from 0 - 100

Sfax and Sousse are supported by high-equity success cases: Agromed in Sfax, and Enova Robotics in Sousse. In Tunis, there are approximately five high-equity success cases as well (Enda Tamweel, IP-TECH, Gourmandia, Tunisie Telecom, and BITAKA Cards & Solutions), though the scores are not as favourable given Tunis' larger population.*

High Equity Success Cases:

Over \$1 million USD

- Agromed - Sfax
- BITAKA Cards & Solutions - Tunis
- Enda Tamweel - Tunis
- Enova Robotics - Sousse
- Gourmandia - Tunis
- IP-TECH - Tunis
- Tunisie Telecom - Tunis

Success cases are relevant for the future strength of the ecosystem, as high-equity stories can provide a blueprint for future startup founders, bring knowledge into the ecosystem, and importantly bring attention to the city as a potential location for investment. Successful startups can also encourage others to become a part of the startup scene, and employees of such startups often later begin their own ventures.

*The total number of high equity fundings startups (5 and 1 mil USD) is very small and in ratio to the total number of startups. Therefore, first success cases have a strong impact on SFI calculations, but similarly, they have a strong impact on the local startup scene as they plant a seed and are a role model for future success cases.

In terms of the total number of startups, unsurprisingly Tunis has the most favourable score, though the city still ranks low in the global SFI (14 of 19). Sfax, Kairouan, and Sousse rank in the bottom three positions of the global SFI on this indicator given the low total number of startups identified by the SFI in these cities at this time.

Overall, Tunisian cities are still generally in the early stages in terms of startup scene development (with the exception of Tunis). However, Tunisian entrepreneur Sabine Ibrahim also points to the strong spirit of entrepreneurs in Tunisia:

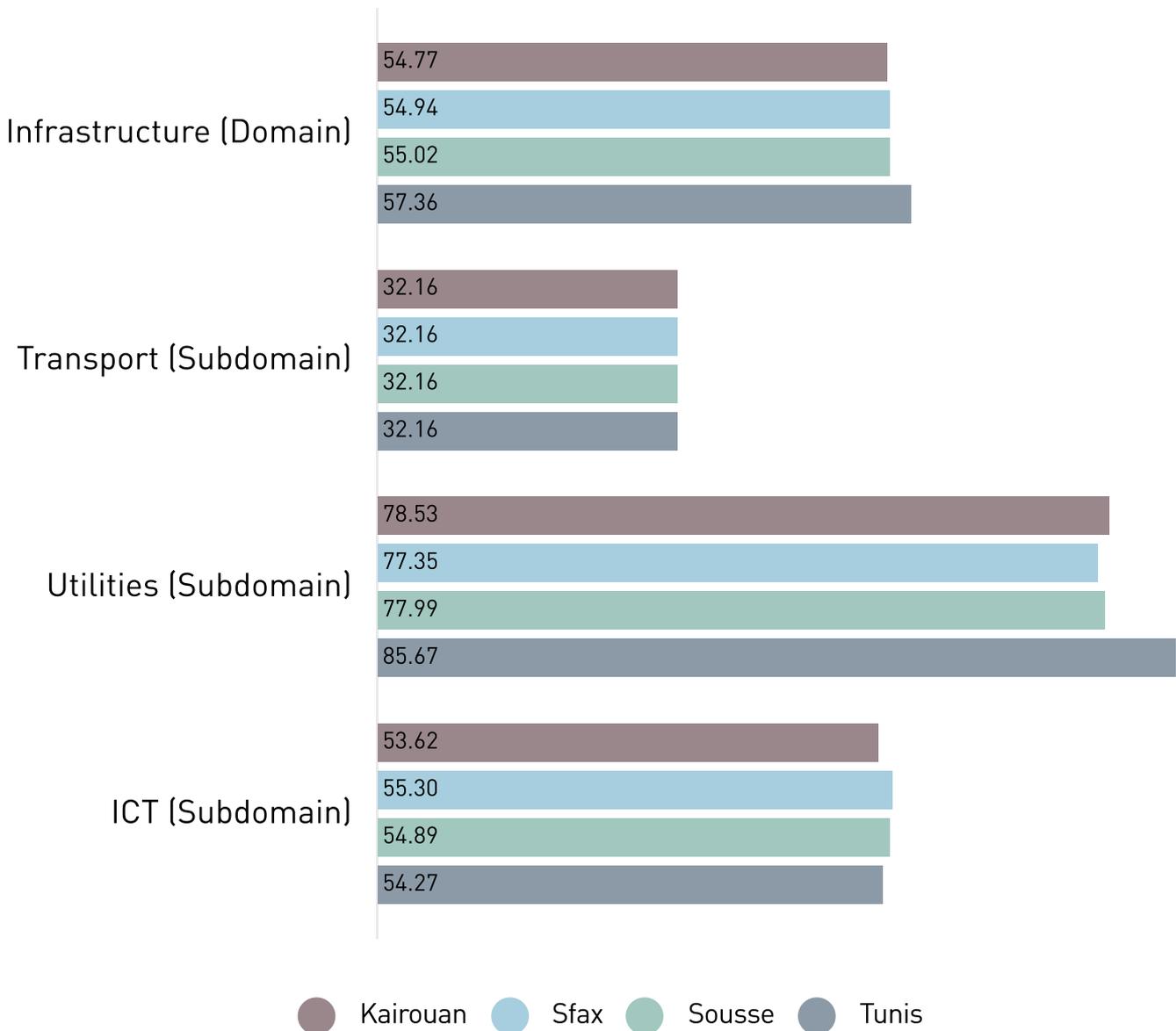


We are really lucky in Tunisia because we have a really strong community of entrepreneurs. All the people in the entrepreneurial ecosystem are working together and we are trying to support each other, and trying to figure out how we can go forward, enhance this ecosystem, and create opportunities for each other.

This, along with the recent growth in the number of incubators and overall awareness, paint an optimistic outlook for the future of the Tunisian startup ecosystems.

4. Infrastructure

High quality infrastructure, from basic necessities such as roads and consistent access to water and electricity, to ICT and internet penetration, is an important foundation from which startups can build. Given that much infrastructure is national in nature, Tunisian cities score similarly in this domain; Tunis has the highest score (57,36, ranking 8th in the global SFI), Sfax scores 54,94 (ranking 9th), Sousse scores 55,02 (11th in the global SFI), and Kairouan has the lowest score (54,77, ranking 12th).

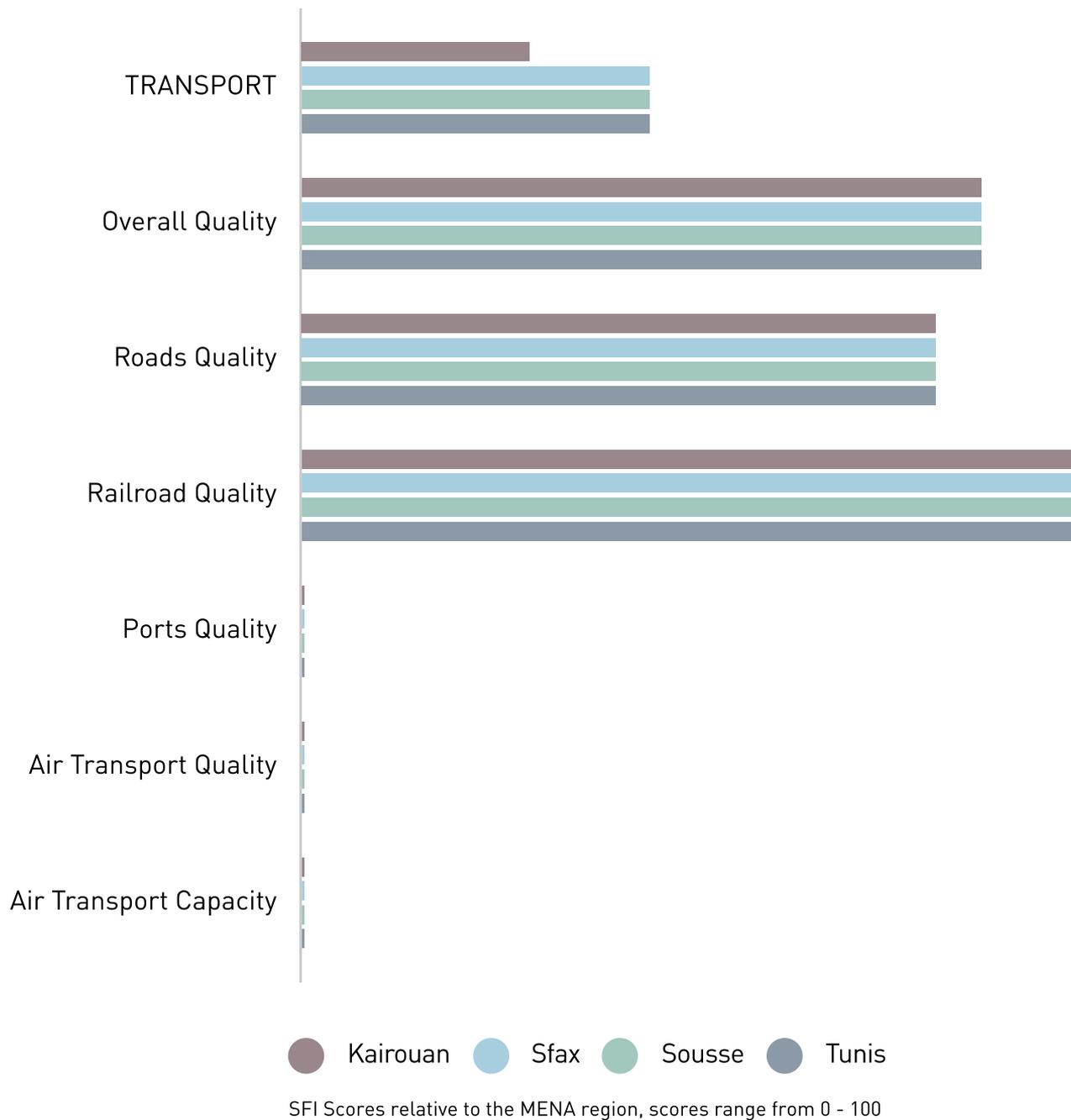


SFI Scores relative to the MENA region, scores range from 0 - 100

Infrastructure

Transport Subdomain

In the Transport subdomain, Tunisia generally has low scores (ranking at positions 12 to 15 in the global SFI). Compared to the MENA region, several other cities outperform Tunisia in terms of transport connections, including Rabat, Amman, and Cairo.



On a national level, Tunisia scores 62,87 on the Overall Quality of Transport indicator. Roads Quality fares similarly, with Tunisian cities scoring 58,76 on the MENA SFI, and ranking in positions 9 through 12 on the global SFI.[14]

Despite historically strong performance in terms of transport-related infrastructure, recent years have seen a decline in quality. There is an extensive highway network, though it is largely concentrated on the coast, and there is room for improvement to connect the poorer interior regions. Several initiatives are planned to improve roads quality and connectivity in the coming years. (14)

In terms of Railroads, performance is slightly higher for Tunisian cities (scoring 71,34). In contrast, scores on Ports Quality are less positive; Tunisian cities score very low compared to both the MENA region and the global SFI on this indicator.

This is critical, since 96% of foreign commercial trade is conducted by sea in Tunisia. World Bank reports have indicated that there is room for improvement in both port infrastructure and operational efficiency.

96%

of foreign commercial trade in
Tunisia is conducted by sea

For the Air Transport Quality and Capacity indicators, Tunisian cities face serious challenges. They have the lowest score in the MENA region, and again, share the bottom positions in the global SFI, above only Salvador, Manila, and Caracas.

Overall, the foundational infrastructure requirements are there in Tunisia, though there is room for improvement on many fronts, and several reforms are either proposed or underway.

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The infrastructure is not very good, but we have various means of transport that we can count on.

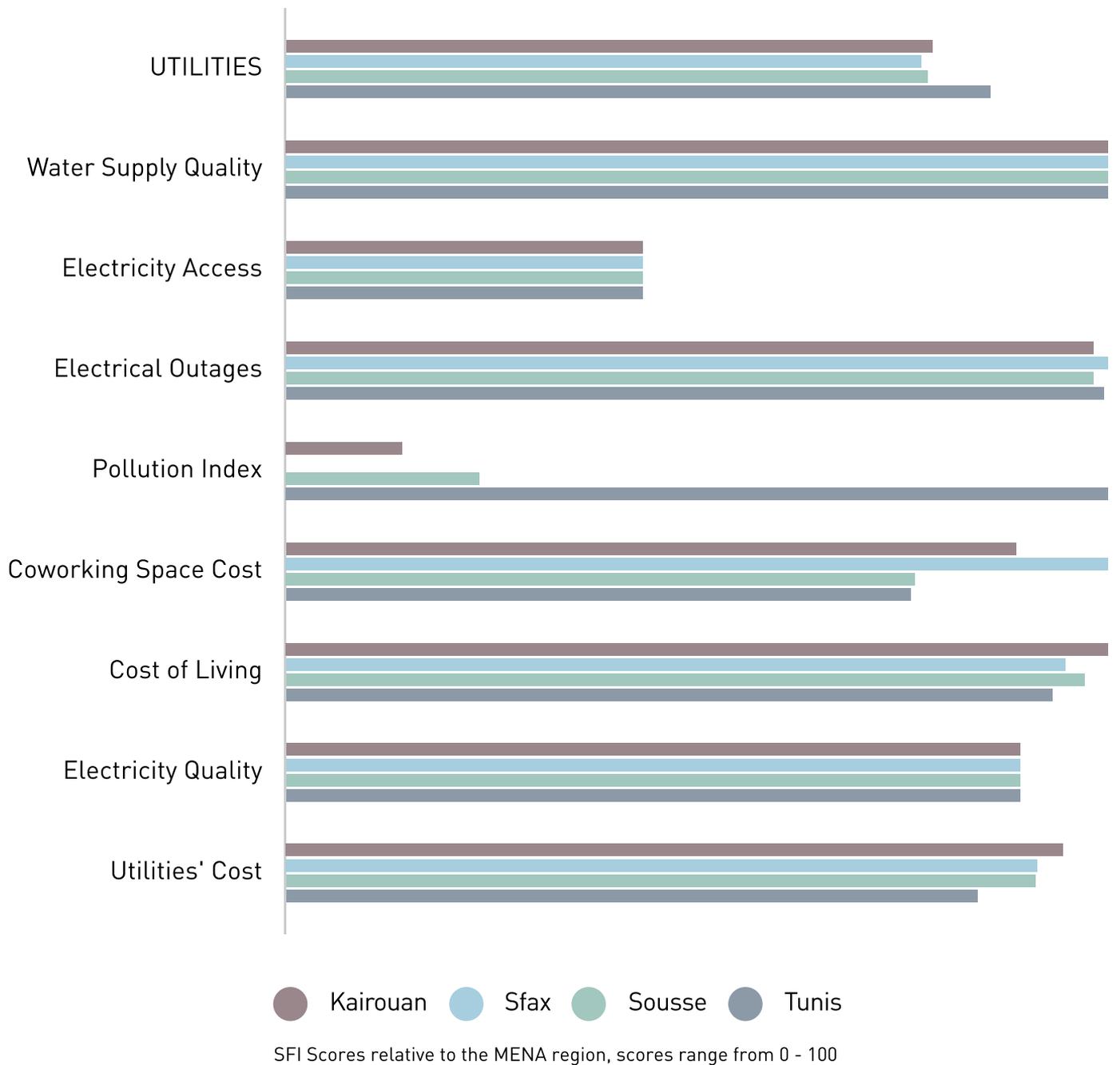
Emna Triki - Entrepreneur

High-quality infrastructure is important for entrepreneurs, since it can impact many aspects of the business, from importing supplies to commuting to work and delivering goods to customers. Improvement on the Transport subdomain would likely help improve the situation for Tunisian entrepreneurs.

Infrastructure

Utilities Subdomain

In contrast to the low performance on the Transport subdomain, on the Utilities subdomain Tunisian cities have the highest scores in the MENA region as well as the global SFI. Tunis ranks first with a score of 85,67, Kairouan second with 78,53, Sousse ranks fourth in the global SFI with a score of 77,99, and Sfax comes fifth with a score of 77,35. Generally, utilities are available reliably and affordably.



Zero water shortages in a typical month...

In terms of Water Supply Quality, Tunisian cities top the SFI, with no water shortages in a typical month.

Electric outages are also rare in Tunisia, with less than one per month on average for all the four cities. The exact reported numbers of electric outages range from zero electric outages per month in Sfax, to 0,2 in Tunis, and 0,6 in both Sousse and Kairouan on average. Electrical Quality is also fairly good, with Tunisian cities ranking in positions 4-7 in the global SFI on this indicator.

Outcomes are more diverse on the Pollution Index indicator. Tunis stands out among the Tunisian and MENA cities, taking the 1st position in the MENA SFI (and ranking 4th in the global SFI). Sousse comes 5th in the MENA region with a score of 28,38 (14th in the global SFI), Kairouan scores 14,19 and ranks 16th in the global SFI, and Sfax ranks last in the MENA SFI (and 18th in the global SFI). This indicates that air pollution affects residents in Sfax to a significantly greater degree than those in Tunis.

...though **pollution**
is a problem in some cities

The Co-working Spaces Cost indicator presents a strength for Tunisian cities, with all four ranking in the top half of the global SFI. Sfax ranks first in the MENA region and the global SFI, followed by Kairouan (ranking fourth in the global SFI), Sousse, ranking sixth, and Tunis, ranking seventh. The monthly cost for a co-working space in Sfax is around \$27 USD, whereas in Kairouan the figure raises to \$46 USD, up to \$68 USD in Sousse, and \$69 USD in Tunis.[15] The average cost in the MENA region is \$96 USD per month and \$109 USD in the global SFI, indicating a favourable result for even the most expensive Tunisian cities.



Average cost of living (including rent) in \$USD per month in Tunisian Cities

The cost of living is also among the lowest in the MENA region, and globally. Tunisian cities rank in the top five positions of the global SFI (along with Cairo). The cost of living in Kairouan is the lowest, with an average of \$408 USD per month. Sousse's average increases to \$452 USD per month, and Sfax is similar at \$483 USD per month. Tunis the most costly Tunisian city, with an average of \$506 USD per month for living expenses.

In terms of the Utilities' cost, Tunisian cities again rank in the top of both the MENA and global SFI (after Caracas and Cairo). Kairouan scores 94,53, Sfax 91,33, Sousse 91,21, and Tunis 84,18. In absolute terms, the monthly cost for basic utilities (electricity, heating, water, and garbage) for a 85m² apartment in Tunisian cities averages \$30 USD. This ranges from \$25 USD/month in Kairouan, to \$29 USD/month in Sfax and Sousse, and \$37 USD/month in Tunis.

Overall, utilities are available reliably, and necessities such as co-working spaces and general living costs are affordable in Tunisia, offering clear benefits for entrepreneurs requiring a stable and affordable environment to work.

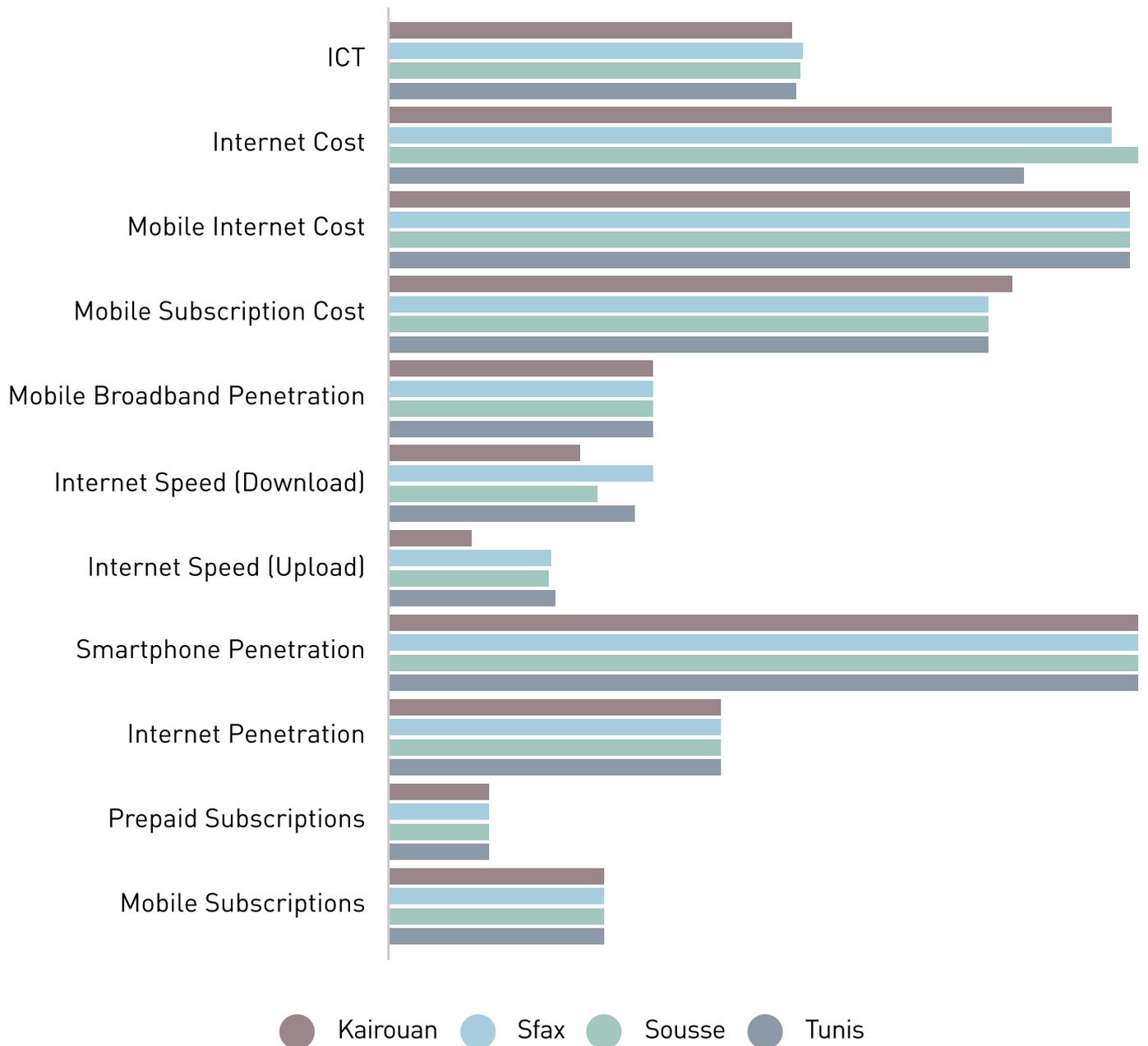


Cost of utilities in USD per month in Tunisian Cities

Infrastructure

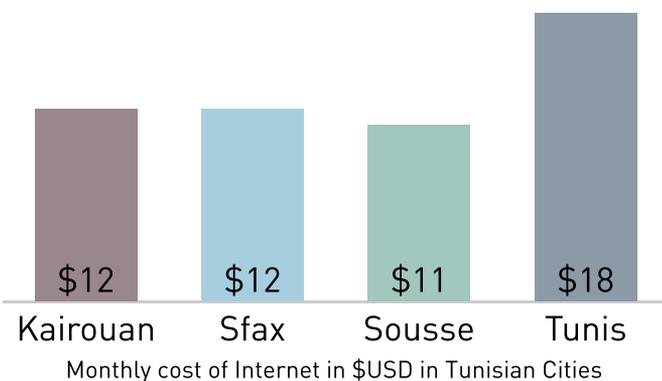
ICT Subdomain

In the ICT Infrastructure subdomain, Tunisian cities score about in the middle of the global SFI, and favourably relative to the MENA region. Sfax has a score of 55,30 (2nd in the MENA SFI and 6th in the global SFI), Sousse scores 54,89 (3rd in MENA SFI and 8th in the global SFI), Tunis scores 54,27 (4th in MENA SFI and 9th in the global SFI), and lastly comes Kairouan, with a score of 53,62 (5th in the MENA region and 10th in the global SFI).



SFI Scores relative to the MENA region, scores range from 0 - 100

On the Internet Cost indicator, all the Tunisian cities score well, ranking them in the top 4-6 positions of the MENA and global SFI. Sousse has the lowest cost at \$11 USD/month, followed by Kairouan and Sfax with a cost of \$12 USD/month, and the most expensive is Tunis (with a monthly cost of \$18 USD). These results are far below the global SFI average of \$29 USD/month.



There is quite a bit of variation in terms of Internet Speed (upload and download) within the country. The download average for the MENA region is 10,77 Mbps, and the upload average is 5,94 Mbps. Kairouan has the lowest average for both indicators (9,58 Mbps download and 4,55 Mbps upload). Sfax has the highest download speed of 13,05 Mbps, while Tunis has the most favourable upload speed (8,53 Mbps upload).

Full internet penetration is still in progress in Tunisia, with 56% of the population online, ranking in the middle of the global SFI. Internet availability is growing rapidly in the country, with many positive benefits. Indeed, growth in internet freedom and openness is widely cited as a driving factor helping to improve the opportunities for startups.

Mobile Internet Costs in Tunisia are also low, and the four Tunisian cities rank at the top of the MENA SFI on this indicator. On average, the monthly cost of mobile internet in Tunisia is around \$1,20 USD for 1 GB. In comparison to other MENA cities, Rabat and Cairo have lower costs for mobile internet, whereas this service is more expensive in Amman and Beirut.

Findings on the Mobile Subscription Cost indicator are still strong, though not as favourable, with the Tunisian cities ranking between positions 6 to 11 in the global SFI. This indicator measures the costs for a mobile subscription, specifically one minute of Prepaid Mobile Tariff Local. The cost in Kairouan and Tunis is \$0,06 USD, and \$0,07 USD for Sousse and Sfax.

In Tunisia, 44% of total mobile subscriptions have 3G or 4G. Compared to other MENA cities, Tunisian cities have higher percentage of penetration than Rabat and Cairo, but lower than the average with respect to the global cities in the SFI (which average 56% penetration).

65% of the population uses smartphones

For the Smartphone Penetration indicator, Tunisia has strong performance compared to the rest of the MENA region, and globally, only Singapore has a better score. Our research shows that 65% of the total population uses smartphones in the country, much higher than the regional average of 38% and the global SFI average of 40%.

94%

of mobile subscriptions are pre-paid plans

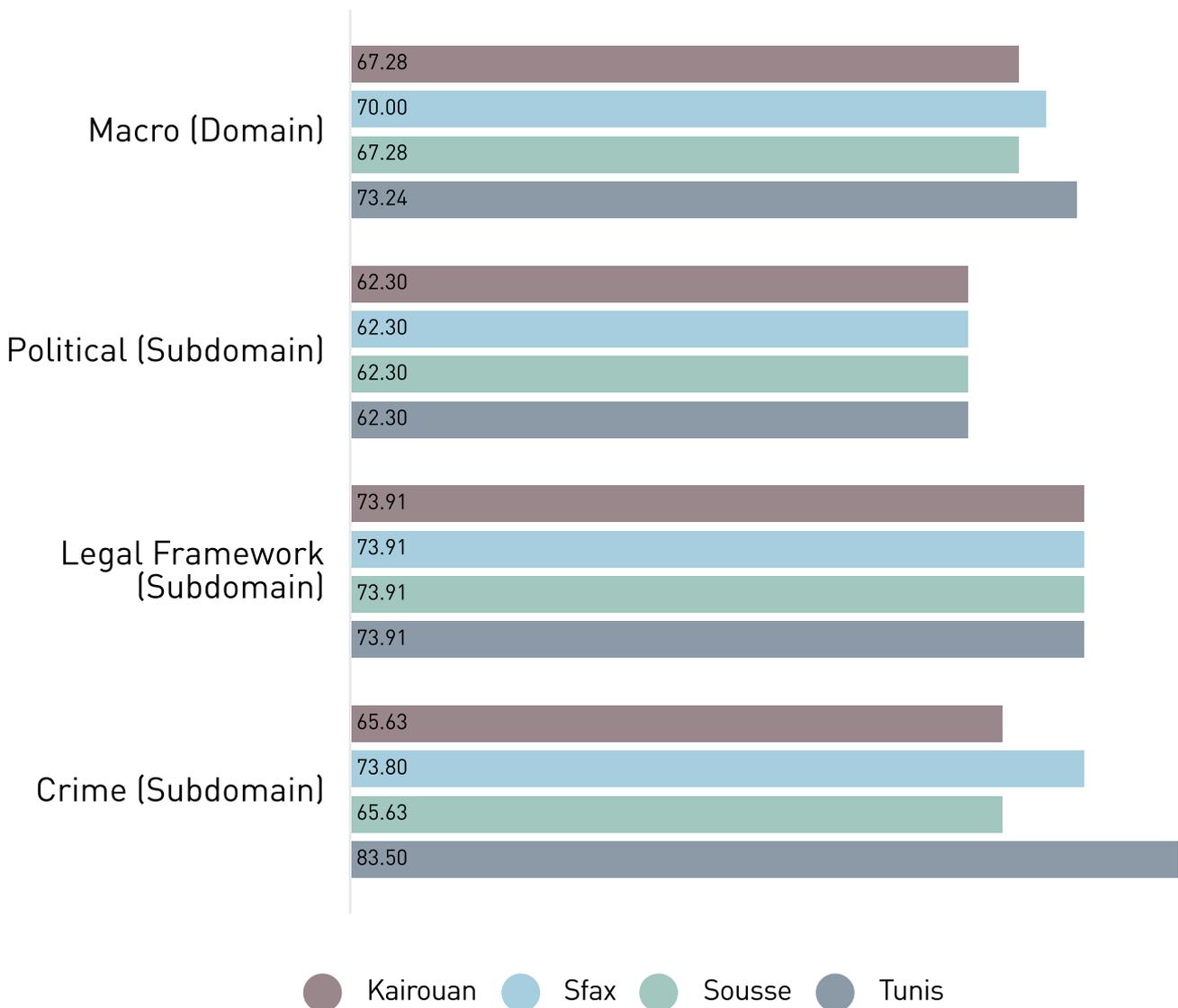
In terms of prepaid subscriptions, 94% of total mobile subscriptions are prepaid connections in the country. Tunisian cities are at the bottom of the MENA SFI on this indicator, and between the 10th and 13th positions of the global SFI. The indicator on Mobile Subscriptions scores slightly better, with Tunisian cities scoring a bit above average for the global SFI.

While Tunisia is making strong gains on the indicators in the ICT domain, continuing to improve will have a significant impact on the country's likelihood of future success, given the core role that internet and technological advancement play for many modern startups.

5. Macro

Fair and reliable legal systems, political stability, and low crime are important fundamentals for creating an environment where individuals can start new ventures. The Macro framework in Tunisia is generally stable in comparison to other cities in the MENA region, and about average compared to the global SFI. Tunis is at the top of the MENA SFI with a score of 73,24, ranking fifth in the global SFI. Sfax scores 70,00 and ranks seventh in the global SFI, and Sousse and Kairouan follow (each scoring 67,28, and ranking at position nine).

In the Political and Legal Framework subdomains, the indicators are measured from a country-level, given that these are issues of national concern. The Crime subdomain integrates city-level indicators.



SFI Scores relative to the MENA region, scores range from 0 - 100

Tunisia has undergone considerable change in recent years: a political transition towards a democratic system of governance, and an imperfect economic transition. There is fragmentation of the political party system that serves to hinder consensus on economic reforms, and regional instability which presents challenges to the internal stability of the country on both political and economic levels. (10)

Nonetheless, there are current efforts from the Tunisian government to further develop the entrepreneurship industry with an improved legal framework and structured regulatory quality with the Tunisia Digital 2020 - National Strategy, and the Startup Act (to be implemented in 2019).

This responds to the general concerns regarding gaps in:

”

Coordination and networking of all actors, and the need for digitalisation of administrative services.

Lobna Miladi - Entrepreneur

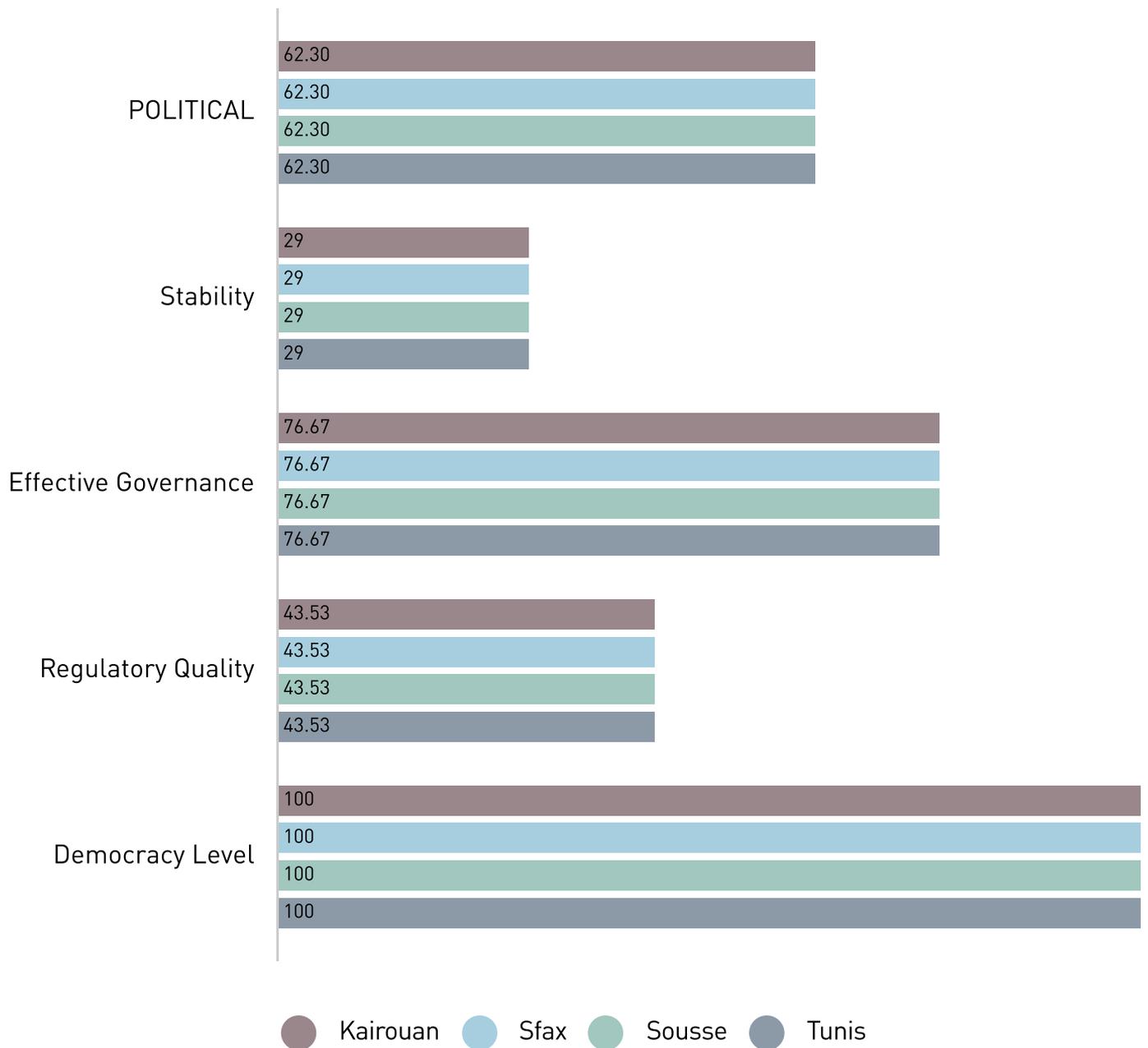
While Tunisia is making significant gains on the indicators in the ICT domain, continuing to improve will have a notable impact on the country's likelihood of future success, given the core role that internet and technological advancement play for many modern startups.



Macro

Political Subdomain

Overall, Tunisian cities score 62,30 in the Political subdomain, and rank approximately in the middle of both the MENA and global SFI.



SFI Scores relative to the MENA region, scores range from 0 - 100

On the indicator of Political Stability, which measures perceptions of the likelihood of political instability and/or politically motivated violence (including terrorism), Tunisian cities rank below Amman and Rabat but above Beirut and Cairo, and rank a bit below average on the global SFI (positions 11-14 of 19 global SFI cities).

In terms of the Effectiveness of Government, Tunisia fares similarly. This indicator captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. The score for the country is 76,67 out of 100 (and ranks in positions 10-13 in the global SFI).

The score for the Regulatory Quality indicator is lower (43,53 out of 100). The Regulatory Quality indicator captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. From a regional perspective, Amman, Rabat, and Beirut are doing comparatively better than Tunisian cities, and compared to the global SFI, the Tunisian cities rank towards the bottom (positions 14 through 17).

The country has the best score on the indicator of Democracy Level in the MENA region, and ranks in the middle of the global SFI. The country scores 6,32 (out of a possible range of 1 to 10) in The Economist Intelligence Unit's Democracy Index (16), based on five categories: electoral process and pluralism, civil liberties, the functioning of government, political participation, and political culture.

Tunisia has the

best score on

"Democracy

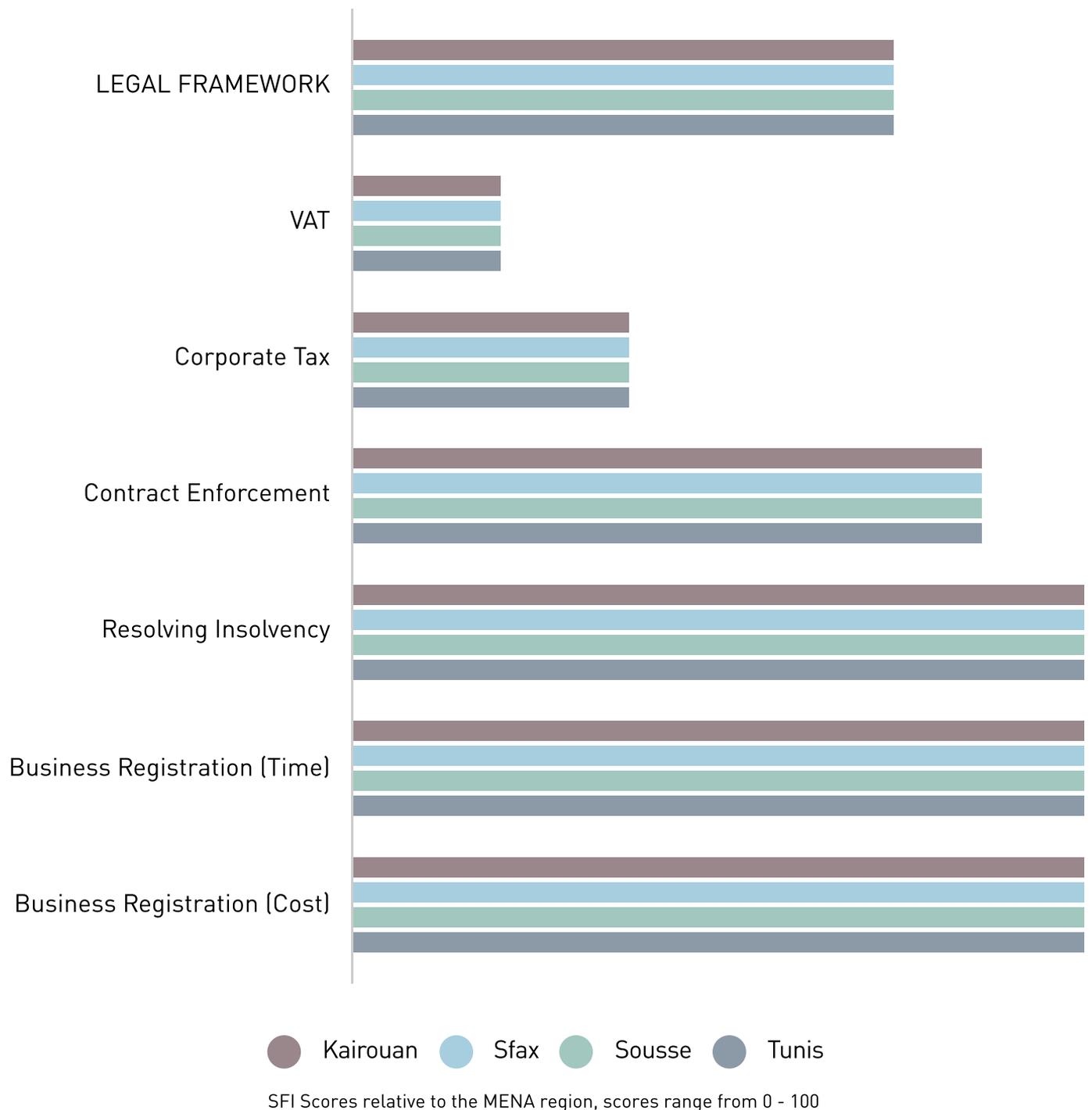
Level"

in the MENA region

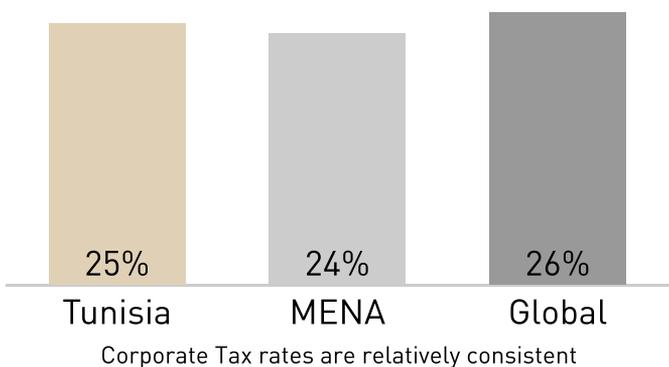
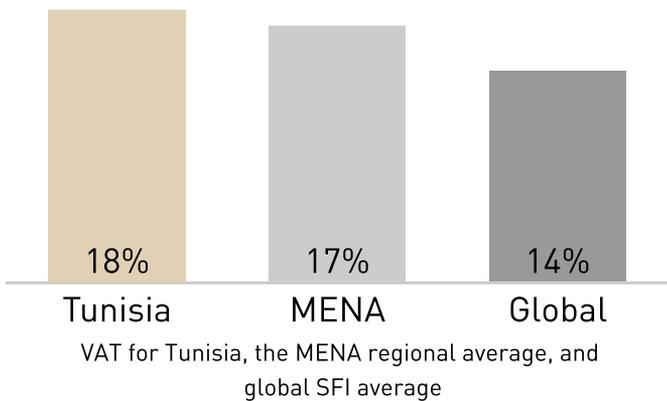
Macro

Legal Framework Subdomain

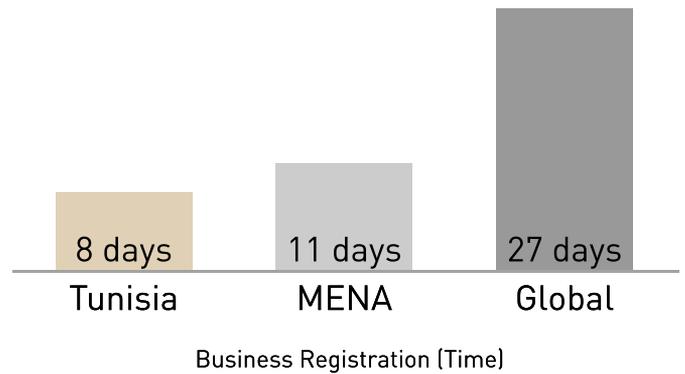
In the Legal Framework subdomain, Tunisian cities rank at the top of the MENA SFI and are very well positioned in the global SFI (after Singapore, Bangkok, and Jakarta). The country-wide score is 73,91 out of 100 in the MENA SFI.



Within this promising subdomain, the VAT indicator is a challenge, with Tunisian cities ranking towards the bottom of the global SFI. This is due to a high VAT (18%), higher than the global SFI average of 14%, and increasing as a consequence of inflation in the past few years. At 25%, the corporate tax rate is approximately in line with the global SFI average, as well as the average in the MENA region.



On the Contract Enforcement indicator, Tunisian cities score relatively well, and rank in positions six through nine in the global SFI. Tunisia also fares favourably on the Resolving Insolvency indicator, scoring the highest in the MENA SFI and below only four cities in the global SFI.



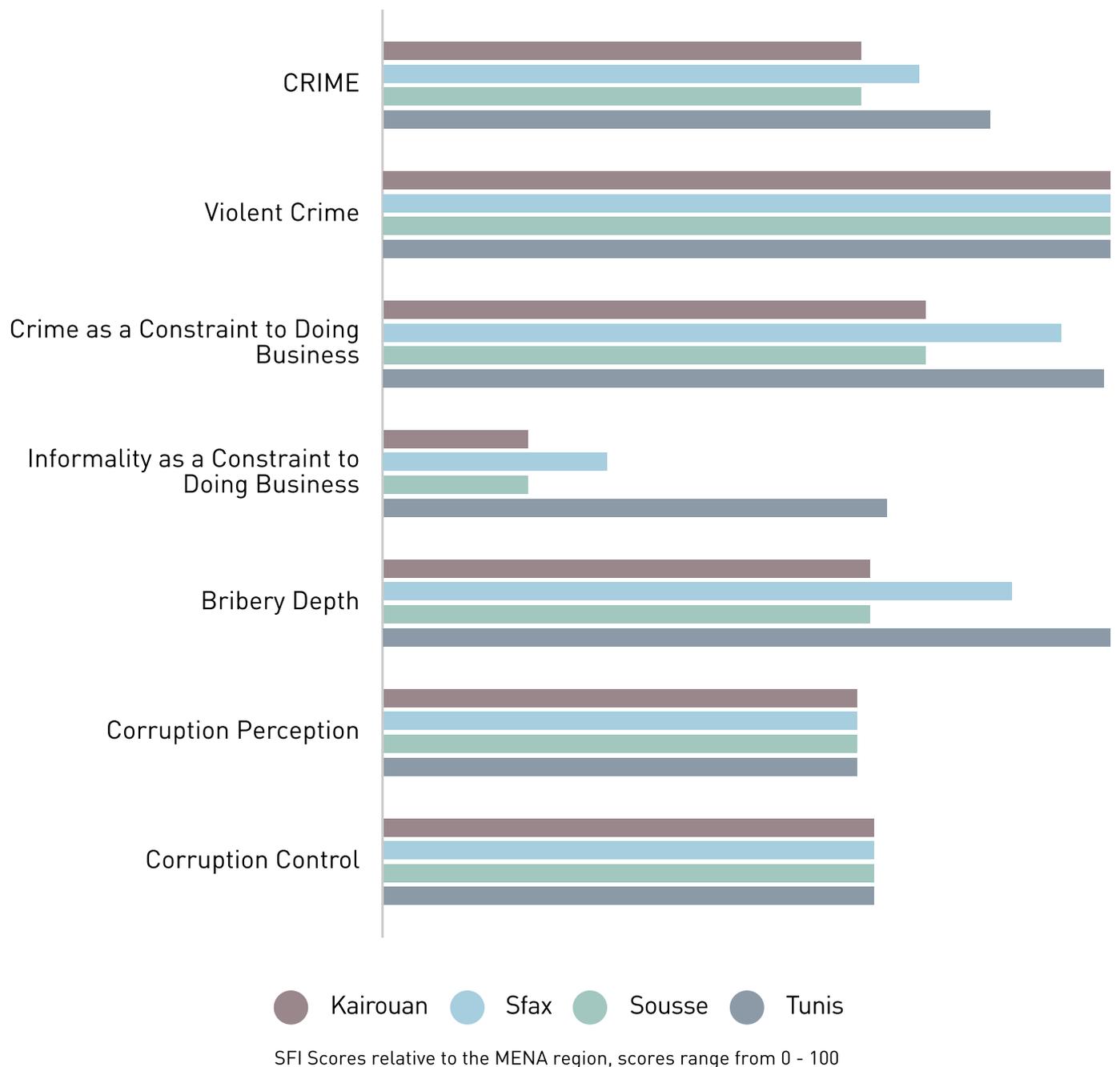
There are two Business Registration indicators: Time and Costs. Tunisian cities stand out from the rest of the MENA region cities with good performance on both. Registering a new business takes an average of eight days (compared to the global SFI average of 27 days) and cost are approximately 4% out of total income per capita (much lower than the global SFI average of 11%).

The legal framework can have far-reaching consequences for entrepreneurs. Being able to register a new business quickly and affordably, and not being burdened with excessive regulations or taxes, allows entrepreneurs to easily create new ventures and focus on their business over regulation.

Macro

Crime Subdomain

In the Crime subdomain, more variation exists on a city-by-city level. Overall, Tunisian cities top the MENA SFI (after only Amman) on this indicator. Tunis takes the highest rank with a score of 83,50, Sfax scores 73,80, followed by Sousse and Kairouan with the same score of 65,63.



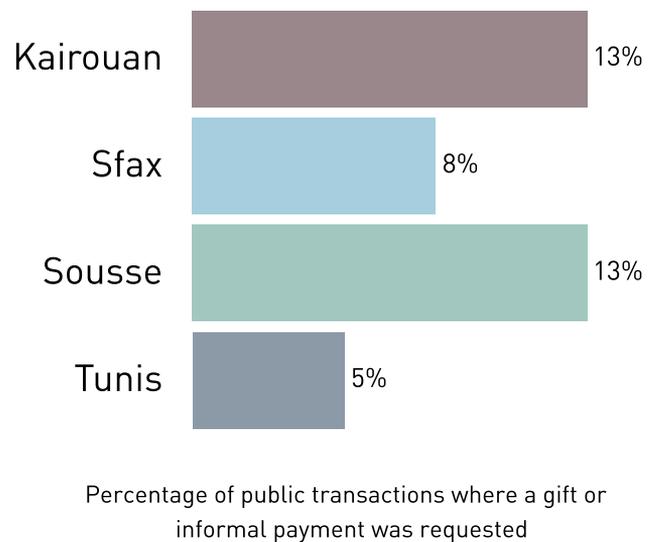
Scores on the Violent Crime indicator are generally good, with a likelihood of 2 out of 5 (with 1 being very low). The four Tunisian cities rank at the top of both the MENA region and the global SFI (after Singapore and Amman) on this indicator.



On the indicator of Crime as a Constraint to doing business, 12% of firms identify that crime, theft and disorder are major hurdles for their business in Sousse and Kairouan (compared to the MENA SFI average of 11%). Tunis and Sfax report lower percentages, with 3% and 5% of firms identifying crime as a constraint to their business in these two cities.

Informality remains a constraint in every Tunisian city, though it appears to have less of an impact in Tunis than in the other three cities assessed. Thirty-eight percent of firms identify practices of competitors in the informal sector as a major constraint in Kairouan and Sousse, 34% in Sfax, and 21% in Tunis. However, the country average is close to MENA average of 29%, and the global average of 30%.

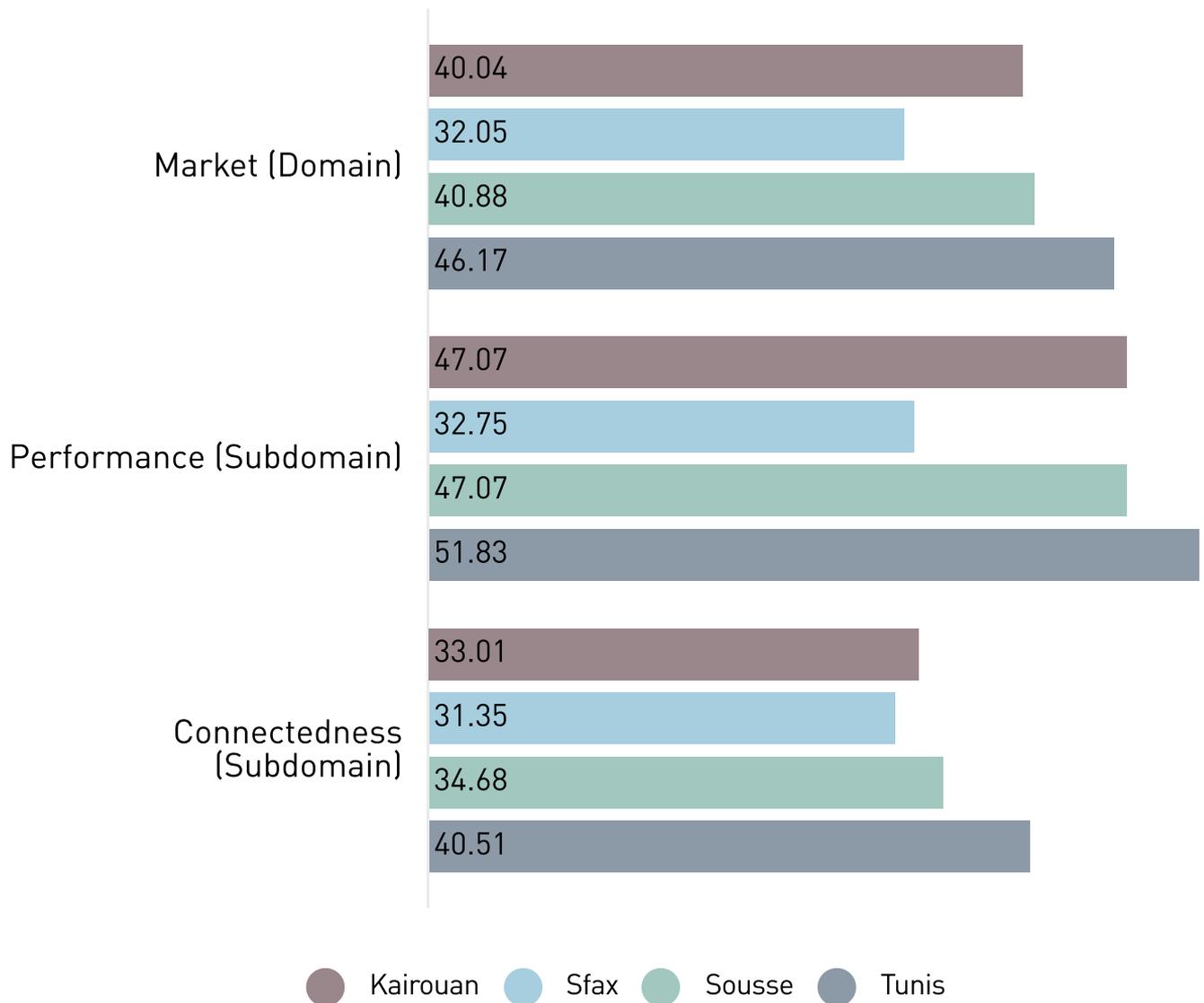
The Bribery Depth indicator ranks Tunisian cities in the top of the MENA SFI (along with Cairo) given their favourable scores. This indicator measures the percentage of public transactions where a gift or informal payment was requested. In the case of Sousse and Kairouan, this figure was identified at over 13%, dropping to 8% in Sfax, and to 5% in Tunis. All of these scores are below the regional average of 14%, and the global average of 17%.



In terms of corruption, two indicators seek to illustrate its impact: Corruption Perception (scoring from 0 for low perception of corruption to 100 for high), and Control of Corruption (which captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests). On both measures Tunisia scores in the top third of the global SFI, and below only Amman in the MENA SFI, indicating promising results.

6. Market

A thriving economy has a direct effect on entrepreneurs’ ability to maximise their potential. An open and connected market with strong growth and logistic performance allows startups to reach a larger audience and thrive. In the Market conditions domain, Tunisian cities rank towards the bottom of the global and MENA regional SFI. Tunis scores 46,17 and ranks 12th of 19 cities in the global SFI, Sousse ranks 16th with a score of 40,88, Kairouan ranks 17th and scores 40,04, and Sfax is last, with a score of 32,05 (ranking 18 of 19 in the global SFI - above only Accra).

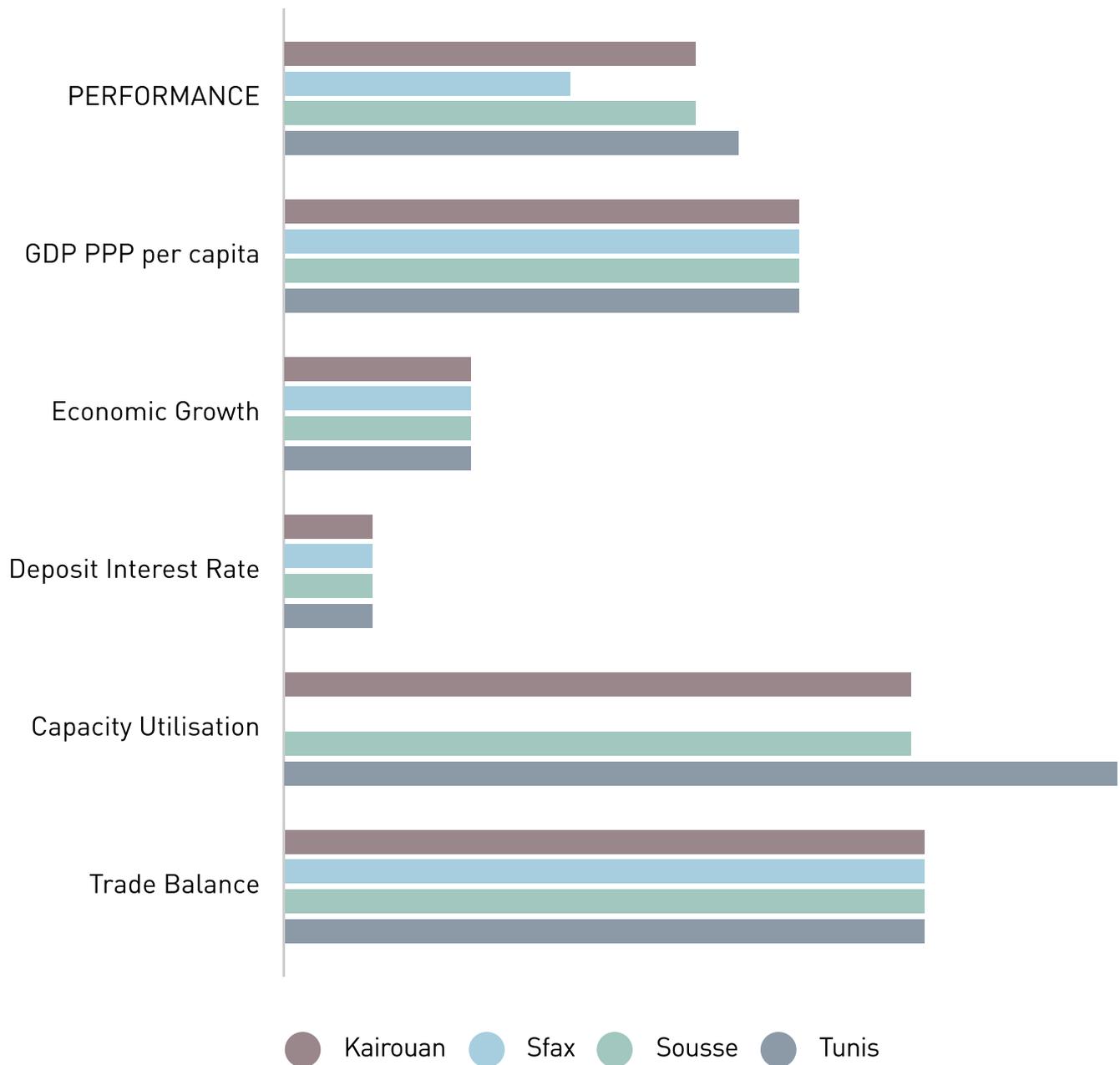


SFI Scores relative to the MENA region, scores range from 0 - 100

Market

Performance Subdomain

For the Performance subdomain, Tunisian cities have a similar pattern to the domain overall, ranking the lowest in the region. Tunis scores 46,17, Sousse 40,88, Kairouan 34,73, and Sfax 32,05. In the global SFI, Tunis ranks at position 14, Sousse at 16, Kairouan at 17, and Sfax is ranked 19, signaling significant challenges on the subdomain in general for Tunisia.

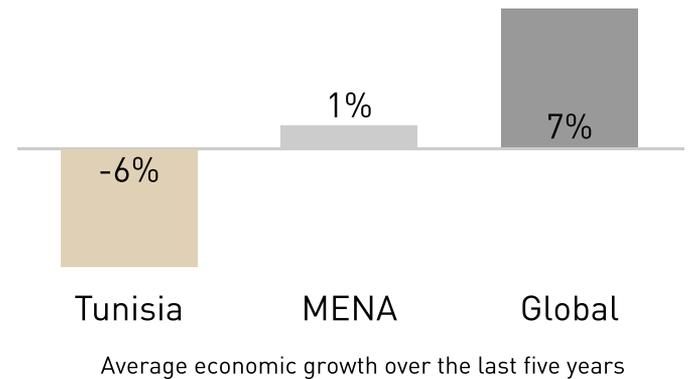


SFI Scores relative to the MENA region, scores range from 0 - 100

The OECD expects to see benefits from raised business investment as a positive consequence from the new investment law and the recovery in European markets. Nonetheless, risks of instability remain, with inflation rising and currency depreciation impacting wages and VAT. [12]

In contrast, the Economic Growth indicator for Tunisian cities is lower than almost all MENA cities. Scoring 21,26, the four cities are ranked at the bottom of the region. In the global SFI, the same trend persists, with all cities at the last positions (with Beirut and Accra). This reflects the imbalances in the economic recovery of the country. According to the World Bank, it is slowly gaining steam, driven by exports and investment from the demand side.[10] The OECD expects growth to become stronger despite inflationary pressure and deficits, reaching 3,4% this year.

The GDP PPP per capita indicator shows an average score of 58,96 for Tunisian cities. This score is higher than most MENA cities (below only Beirut), and positions the Tunisian cities in the middle of the global SFI. The GDP PPP per capita in Tunisia is around \$11.910,95 USD, according to World Bank estimates.



\$11.911 USD

GDP PPP per capita



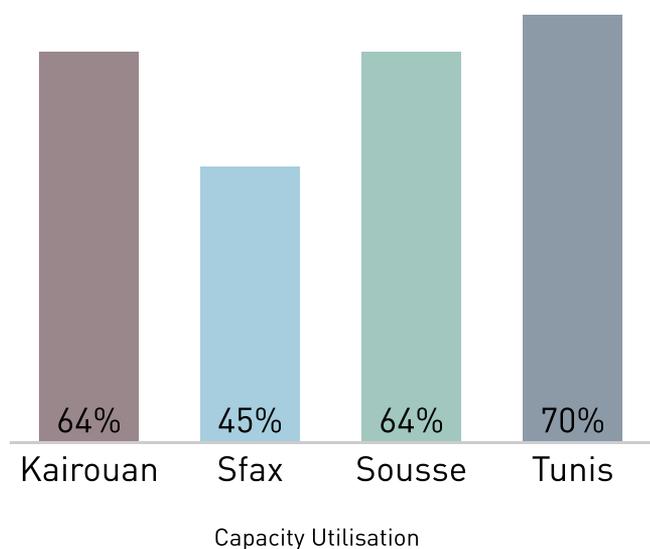
7%

Deposit Rate

In terms of the Deposit Interest Rate, Tunisia in general has a low score of 10,14, positioning Tunisian cities behind Amman, Rabat, and Beirut. Tunisia's deposit interest rate (the rate paid by commercial or similar banks for demand, time, or savings deposits) is currently approximately 7%.

NOTE: Due to data availability limitations, the Market Conditions domain considers mainly country-level indicators, except for Capacity Utilisation and the Total Number of Sister Cities, which are based on available city-level data. Thus, there may be some discrepancies in the rankings between cities. Access to city-level data in this indicator is a limiting factor, and increased availability of such data would be beneficial for future analysis.

On the Capacity Utilisation indicator, Tunisian cities have notable differences. Tunis scores 95,40 (second after Beirut in the MENA regional SFI), Sousse and Kairouan have a score of 71,75, and Sfax is at the bottom of the region. In absolute numbers, the capacity utilisation (or the percentage of potential used at its maximum by the cities) is highest in Tunis with 70%, followed by Kairouan and Sousse with 64%, and lastly Sfax (with 45%).



In terms of the Trade Balance indicator, Tunisia has a country-wide score of 73,36, ranking in positions 14 through 17 of the global SFI. The Trade Balance indicator measures the external balance on goods and services of the country related to the GDP. OECD analysis indicates that GDP ratios of public and external debt have risen, and are in need of fiscal stabilisation and structural reforms of the economy.

An important factor for Tunisia is the long-standing trade relationship between the European Union and Tunisia, dating back to first trade agreement in 1969. After 2012 revolution, the “Privileged Partnership” [17] between the EU and Tunisia was approved to further enhance relations, including stronger economic integration focused on manufactured products and new services and agriculture relationships [18].

A final challenge in this subdomain is highlighted by Tunisian entrepreneur Aicha Frikha:

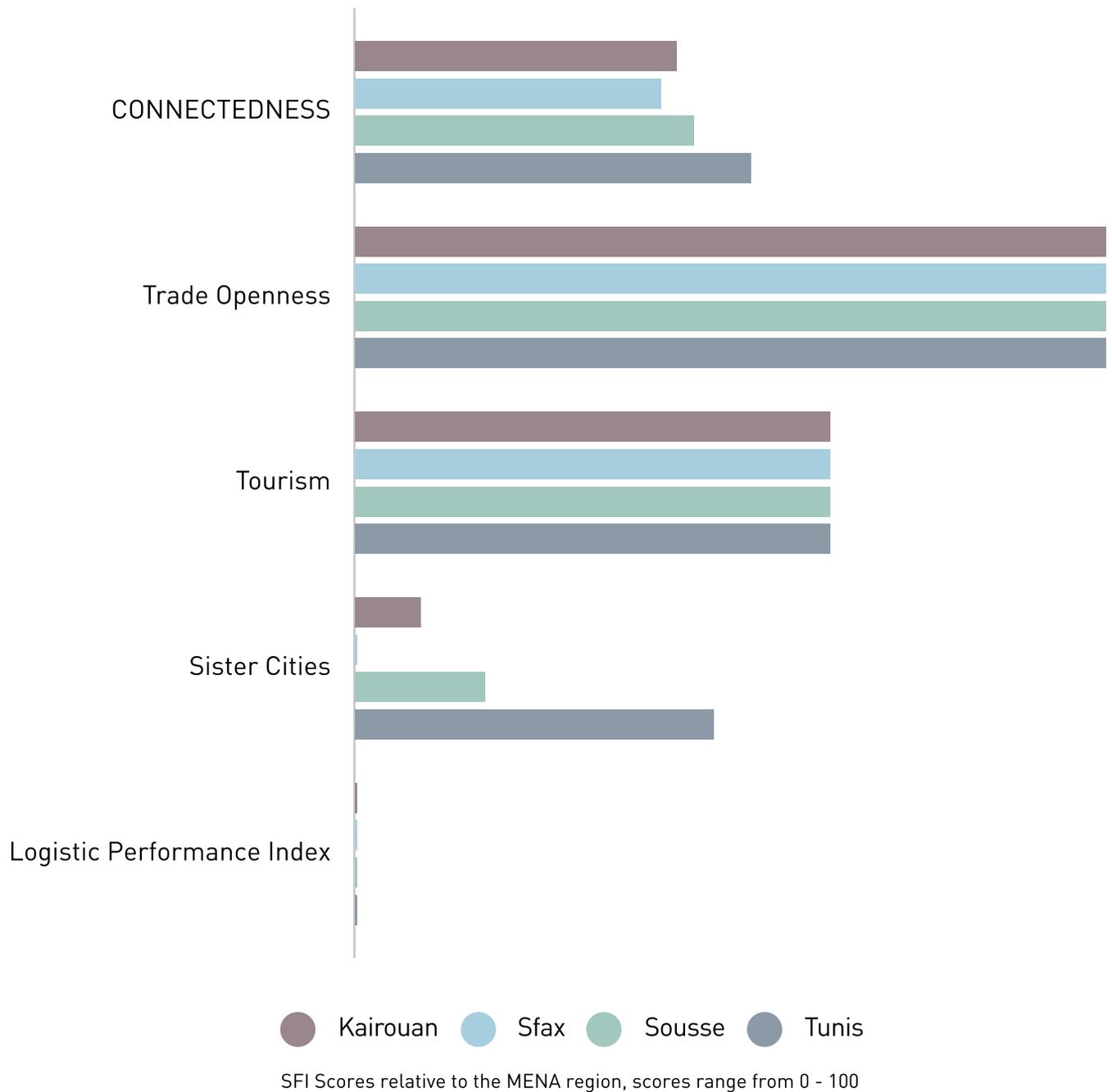
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The anarchic fluctuation of raw material prices and the frequent shortage of import products.

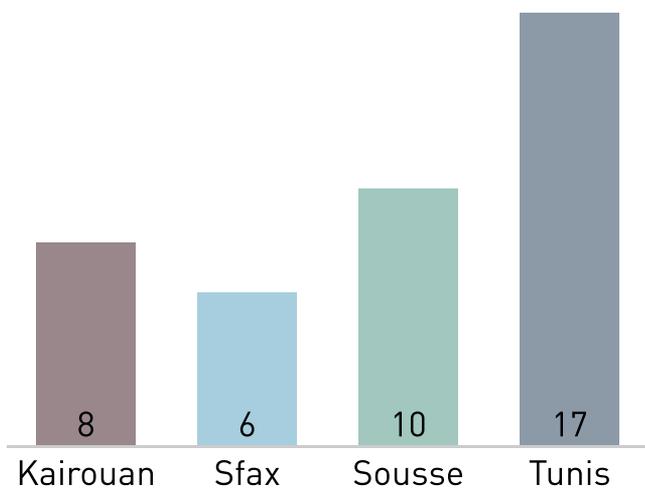
Market

Connectedness Subdomain

In the Connectedness subdomain, Tunisian cities share the bottom of the MENA SFI with Beirut. Tunis scores 40,51 (fourth in MENA SFI), Sousse scores 34,68 (in the sixth position), Kairouan has a score of 33,01 (seventh position), and in the last position, Sfax scores 31,35.



On the Trade Openness indicator, Tunisian cities have a good score of 76,81, ranking just after Beirut on the MENA SFI, and also in the top eight of the global SFI. Trade Openness measures imports plus exports as percentage of GDP; in the case of Tunisia, the sum of exports and imports represented 99,5% of the GDP in 2017, according to the World Bank World Development Indicators.



Number of Sister Cities per city

For the Sister Cities indicator, Tunisian cities range in performance due to a large diversity in absolute number. Tunis has the highest number of sister cities, 17 in total, whereas Sousse has 10, Kairouan eight, and Sfax six.

In terms of tourism, Tunisian cities are positioned around the middle of the global SFI. The Tourism indicator measures international tourism in absolute numbers of arrivals per year. As of 2016, the country received 5.724.000 tourists, and tourism is signaled as an area for improvement by the national strategic plans for economic development. Although this sector was negatively impacted after the terrorist attacks in 2015, tourist arrivals began recovering in 2017 as a consequence of the travel alert lifting in many European countries. (12)

Logistic Performance is a challenging area for Tunisian cities, with the lowest performance in the MENA region, and only above Caracas in the global SFI. Local entrepreneur shared that they face challenges because of poor logistics.

”

**It is hard to share
your product with
customers in the
region or on an
international scale.**

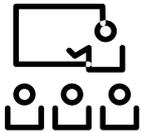
Sabine Ibrahim - Entrepreneur



Policy

Recommendations

Tunisia has undergone a significant transition in recent years, and made active efforts to support startups. The following is a selection of policy and campaign recommendations based on findings from the Startup Friendliness Index. The recommendations centre around four main topic areas: Preparing Entrepreneurs, Improving Policies, Supporting Entrepreneurs, and Including Women.



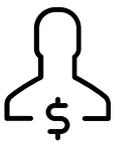
Preparing Entrepreneurs

Reduce the skill gap by training entrepreneurs with low-cost continuing education programmes, mentoring programmes with partner institutions, and matching programmes.



Improving Policies

Adapt national digital policies to local needs and develop local policies in entrepreneurship to boost the ecosystems' potential.



Supporting Entrepreneurs

Increase financing channels and the startup scene's connectedness with programmes and spaces that boost business ideas and foster networking among Tunisian entrepreneurs.



Including Women

Generate gender-inclusive programmes for women entrepreneurs to allow them to gain skills, have access to funding, and develop their business ideas.

Preparing Entrepreneurs

Despite a highly educated population in traditional terms, the education system is in need of reforms to adequately prepare graduates to meaningfully contribute to a career in the modern economy. Improving curriculum throughout the educational process to focus on technical and applied skills may help bridge the gap between talent and the skills needed by startups (for example, engineering and IT). For those that have already completed their education, low-cost continuing education programmes may be beneficial.

Beyond in-class education, improving opportunities for professional development through mentoring is an option to bridge the gap. This could be offered through non-profit programmes or by partnering with institutions. Both students and companies stand to gain from such a partnership.

Improving the match between the large number of (mainly young) unemployed individuals in the country and employers may help improve the persistent problem of unemployment, as would empowering youth with practical skills to create their own ventures in the future.

Improving Policies

While the Startup Act represents a significant campaign, the implementation of its provisions will be key. Monitoring commitments, impact on those within the startup scene, and efficacy with regards to its stated goals will be of the utmost importance.

Additionally, an outreach campaign to entrepreneurs and would-be entrepreneurs would likely be extremely beneficial. While many in the international development profession are likely to be very familiar with the Startup Act, in general, awareness about the Startup Act is limited at this time (according to enpact's survey data). Therefore, many may be unable to take advantage of the Act, and the provisions therein.

On a local level, there are also many areas of opportunity. Indeed, there seem to be few local initiatives to support entrepreneurship generally, which may be a missed opportunity as conditions and needs vary from city to city. Local policies could be adapted from national strategies; for example, one option may be to develop an implementation strategy for the Tunisia Digital 2020 goals on a local level.

In general, there remain areas where digitalisation and modernisation of the economy are not yet complete, and hinder entrepreneurs. An example is the lack of e-payment options, given that globally-utilised services such as Paypal are not available in the country.

Enabling a cross-sectoral dialogue can help to avoid siloed thinking and approaches. Formats should be created where professionals from the public and private sectors, academia, NGOs and startups mutually work towards finding a solution to a present problem. This promotes both intensive exchanges as well as personal networking between future leaders in the startup ecosystem, and fosters mutual awareness of challenges, requirements, and processes faced by others, thereby creating trust and enabling systemic solutions.

Supporting Entrepreneurs

Beyond policy support, there are a number of practical ways to support entrepreneurs. Given the early-stage development of the startup scene in Tunisia generally, but particularly in Sfax, Sousse, and Kairouan, improved access to institutionalised resources such as incubators, accelerators, and co-working spaces would offer key support services to startups, as well as create spaces that foster the growth of networking, learning, and the creation of new business ideas.

An additional benefit is increased visibility, which may have spillover effects on would-be startup founders, who may not be aware of the increasing potential and popularity in their cities.

Beyond improving access to these resources, continuing to enhance the standards and quality of entrepreneur support organisations through trainings (for example, with international experts or to train and certify mentors), would offer another value-add to the ecosystem.

Improving access to financial resources would be a major boon for Tunisian entrepreneurs. There are several options that may be able to assist with this, including:

1. Introducing local founder scholarship
2. Enhancing funding opportunities and relationships with alliances and delegation trips.
3. Improving access to crowdfunding, and awareness around its potential (both for funders and those seeking funding).
4. Raising standards for seed funding, which currently ranges from between \$4,000 - \$20,000, essentially requiring startups complete another round of funding shortly thereafter. [19]
5. Improving the local and global awareness of the potential of early stage startups in Tunisia.

Including Women

The status of women in Tunisia is generally favourable, particularly in comparison to other countries in the MENA region. However, given that women remain underrepresented in the workforce and leadership positions, there remain significant areas of opportunity for Tunisia in integrating women further into the economy.

In Tunisia, a significant portion of women are employed in the informal sector, impacting both government revenues, and employees' benefits. Encouraging transition into formal employment is difficult, but facilitated by making individuals aware of the benefits in the medium term. Improving benefits for transition to the formal sector would also play a role.

Women also face significant challenges accessing finance in comparison to their male counterparts. For example, women are denied loans at twice the rate of men, and collateral can often be a challenge for women that do not have property in their name.[20]

Potential options to address this include encouraging joint registration of property owned by both spouses in a marriage, implementation of the equal inheritance law,[21] and loans or other financing programmes targeted specifically for women.

Social stigma and traditional social roles play a part as well. Shifting cultural attitudes towards having a more favourable view of women in the workplace and as leaders, perhaps through information campaigns featuring successful female Tunisian entrepreneurs, could help to address this.

Additionally, courses on business and entrepreneurship for women may improve confidence and encourage women to start businesses, knowing that they have the necessary skills to run their businesses well. Finally, improved access to services such as childcare and elderly care may allow women more capacity to pursue their startup ventures.

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Indicators and Sources

| Indicator Name | Source |
|--------------------------------|--------------------------------------------------------------------------------------------------|
| Workforce constraint | World Bank, Enterprise Survey |
| Skilled workers | World Bank, Enterprise Survey |
| Universities | TopUniversity.com; 4icu.org; Own Research For the Missing Data |
| University Students | TopUniversity.com; 4icu.org; Own Research For the Missing Data; Berlin Business Location Center. |
| Tertiary education | World Bank - Gross enrollment ratio, tertiary, both sexes |
| R&D Expenditure | World Bank - Research and Development Expenditure / OECD Database |
| Labor regulation constraint | World Bank, Enterprise Survey |
| Graduate salary | Own Research, Berlin Startup Survey |
| Software developer salary | Payscale.com, Averagesalarysurvey.com |
| Female Participation | World Bank, Modeled on ILO estimate |
| Unemployment rate | International Labour Organization, ILOSTAT database. |
| Female Entrepreneurship | World Bank, Enterprise Survey |
| Bank loan | Own Research - Enpact Survey |
| Self-financing | Own Research - Enpact Survey |
| Business Angel (BA) | Own Research - Enpact Survey |
| Accelerators and Incubators | Own Research - Enpact Survey |
| VC funds | Own Research - Enpact Survey |
| Public funding | Own Research - Enpact Survey |
| Funding Constraint | World Bank, Enterprise Survey |
| Loans Rejected | World Bank, Enterprise Survey |
| Collateral Required | World Bank, Enterprise Survey |
| Total VCs / PEs | Map of Active VCs in Asia |
| FDIs Net Inflows | World Bank |
| Business Angels (total number) | Angel List |
| Accelerators | Own Research, Expert Consultation |
| Incubators | Own Research, Expert Consultation |
| Coworking Spaces | Own Research, Expert Consultation |
| Technology parks | Own Research, Expert Consultation |
| Startup Events | Own Research - Enpact Survey |
| Total Startups | Crunchbase Pro |

| | |
|-----------------------------------------------|----------------------------------------------------------|
| High Equity Funding Startups (over 5 mil USD) | Crunchbase Pro |
| High Equity Funding Startups (over 1 mil USD) | Crunchbase Pro |
| Overall Quality | World Economic Forum |
| Roads Quality | World Economic Forum |
| Railroad Quality | World Economic Forum |
| Ports Quality | World Economic Forum |
| Air Transport Quality | World Economic Forum |
| Air Transport Capacity | World Economic Forum |
| Water Supply Quality | World Bank, Enterprise Survey |
| Electricity Access | World Bank, Enterprise Survey |
| Electrical Outages | World Bank, Enterprise Survey |
| Pollution Index | Numbeo |
| Coworking Space Cost | Coworker |
| Cost of Living | Numbeo |
| Electricity Quality | WeForum |
| Utilities' Cost | Numbeo |
| Internet Cost | Numbeo |
| Mobile Internet Cost | Own Research |
| Mobile Subscription Cost | Numbeo |
| Mobile Broadband Penetration | GSMA intelligence |
| Internet Speed (Download) | Startup Meter Survey and testmynet.com |
| Internet Speed (Upload) | Startup Meter Survey and testmynet.com |
| Smartphone Penetration | Multiple sources; see country comments for more details. |
| Internet Penetration | ITU |
| Prepaid Subscriptions | GSMA intelligence |
| Mobile Subscriptions | ITU |
| Stability | World Bank |
| Effective Governance | World Bank |
| Regulatory Quality | World Bank |
| Democracy Level | The Economist Intelligence Unit's Democracy Index |
| VAT | World Bank Doing Business Report |
| Corporate Tax | KPMG Corporate income tax tables |

| | |
|------------------------------|---------------------------------------------------|
| Contract Enforcement | World Bank Doing Business 2017 |
| Resolving insolvency | World Bank Doing Business 2017 |
| Business registration (time) | World Bank Doing Business 2017 |
| Business registration (cost) | World Bank Doing Business 2017 |
| Violent Crime | Economic Intelligence Unit (EIU) analysts |
| Crime as a constraint | World Bank, Enterprise Survey |
| Informality as a constraint | World Bank, Enterprise Survey |
| Bribery Depth | World Bank, Enterprise Survey |
| Corruption Perception | Transparency International |
| Corruption Control | Worldwide Governance Indicators |
| GDP PPP per capita | World Bank |
| Economy Growth | World Bank |
| Deposit Interest Rate | World Bank |
| Capacity Utilization | World Bank, Enterprise Survey (under Performance) |
| Trade Balance | World Bank |
| Trade openness | World Bank |
| Tourism | World Bank |
| Sister Cities | Multiple Sources |
| Logistic Performance Index | World Bank, Logistic Performance Index |

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About **enpact**

The non-profit association enpact was founded in 2013 with the aim of empowering entrepreneurship in emerging and developing countries. enpact supports founders and startups in Africa, Asia, Latin America, and the Middle East through diverse programmes, from the early idea phase until global market entry. enpact academy develops trainings to foster the quality of startup support organisations, and enpact data lab measures framework conditions (such as the startup friendliness of cities), and derives policy recommendations.

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