



منتدى الاستراتيجيات الأردني
JORDAN STRATEGY FORUM

ICT & Professional Business Services Sector

Jordan's Economic Vision Roadmap



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The Jordan Strategy Forum (JSF) is a not-for-profit organization, which represents a group of Jordanian private sector companies that are active in corporate and social responsibility (CSR) and in promoting Jordan's economic growth. JSF's members are active private sector institutions, who demonstrate a genuine will to be part of a dialogue on economic and social issues that concern Jordanian citizens. The Jordan Strategy Forum promotes a strong Jordanian private sector that is profitable, employs Jordanians, pays taxes and supports comprehensive economic growth in Jordan.

The JSF also offers a rare opportunity and space for the private sector to have evidence-based debate with the public sector and decision-makers with the aim to increase awareness, strengthening the future of the Jordanian economy and applying best practices.

For more information about the Jordan Strategy Forum, please visit our website at www.jsf.org or contact us via email at info@jsf.org. Please visit our Facebook page at Facebook.com/JordanStrategyForumJSF or our Twitter account [@JSFJordan](https://twitter.com/JSFJordan) for continuous updates about Jordan Strategy Forum.

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This is an expert opinion report based on discussions and focus group meetings held by the Jordan Strategy Forum (JSF). The overall objective of this effort is to analyze different sectors (14) of the Jordanian economy and their respective challenges, and come-up with practical solutions and initiatives to enhance their competitiveness. Throughout this exercise, the JSF facilitated the focus group meetings, and supported the work-stream managers with any needed research and logistics.

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1. Introduction:

No one should underestimate the importance of the advances in technologies in improving productivity and economic growth, and in the creation of new and better jobs that replace old ones. However, while technologies have already brought enormous socio-economic benefits, they can have serious disadvantages if they outpace the ability of societies to adapt. In other words, the implications of technologies could be serious for developing countries if are either overwhelmed, or simply left behind.

Based on the market overview published by the International Trade Administration at the United States Department of Commerce in 2021, the ICT sector in Jordan accounted for 3.8% of the Kingdom's GDP with a total annual revenue of \$ 2.3 billion, which as an equivalent of JD 1.6 billion.

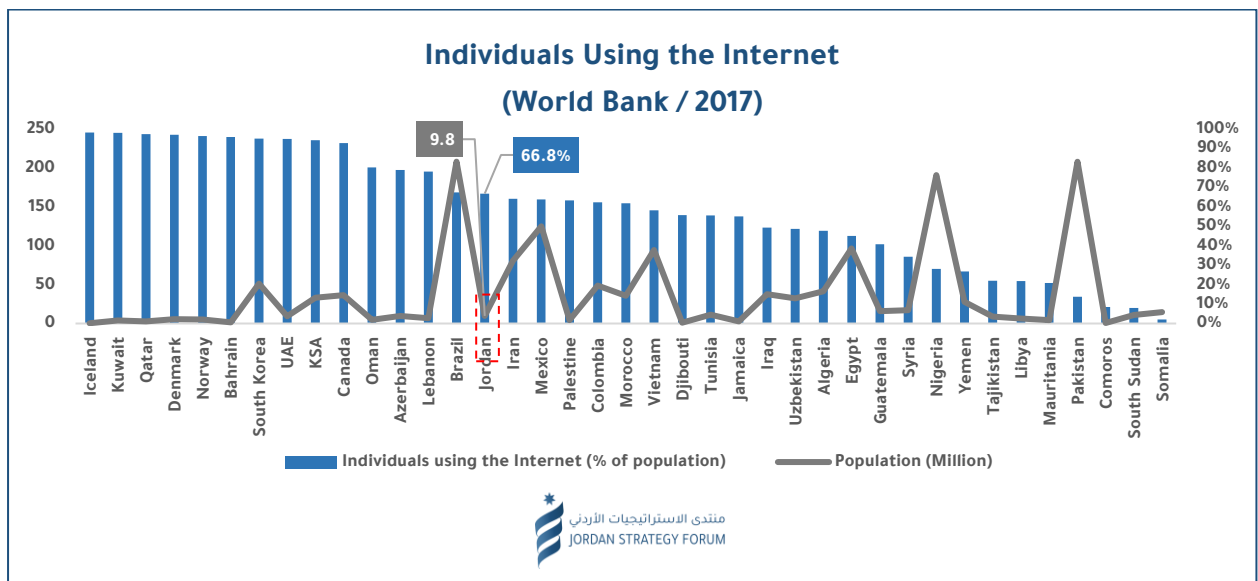
It is encouraging to note that Jordan constitutes 23% of the MENA region's tech entrepreneurs, in 2021, a number of Jordanian start-up companies were funded to expand their operations with approximately \$ 72 million. These companies operate in various activities such as education, health, trade, ICT, entertainment, and others. These companies include "Abwab" which applies technological and artificial intelligence (AI) methods in providing education services, "Eon Dental" which is specialized in tele-dentistry, "Verity" which is specialized in financial technology (fintech), and "Tamatem" which is a mobile game developer and publisher. It is also worth noting that the Swedish group "Stillfront" acquired the Jordanian online gaming company, "Jawaker", for \$205 million. This transaction was considered one of the largest in the Arab gaming sector.

Within the context of the above-mentioned, the ICT sector is an essential enabler to move forward with our ambitions and it should stand as a top priority on the Kingdom's agenda. We should not allow such opportunities for change go to waste, and we should harness our technical talents', indeed, they should be a windfall.

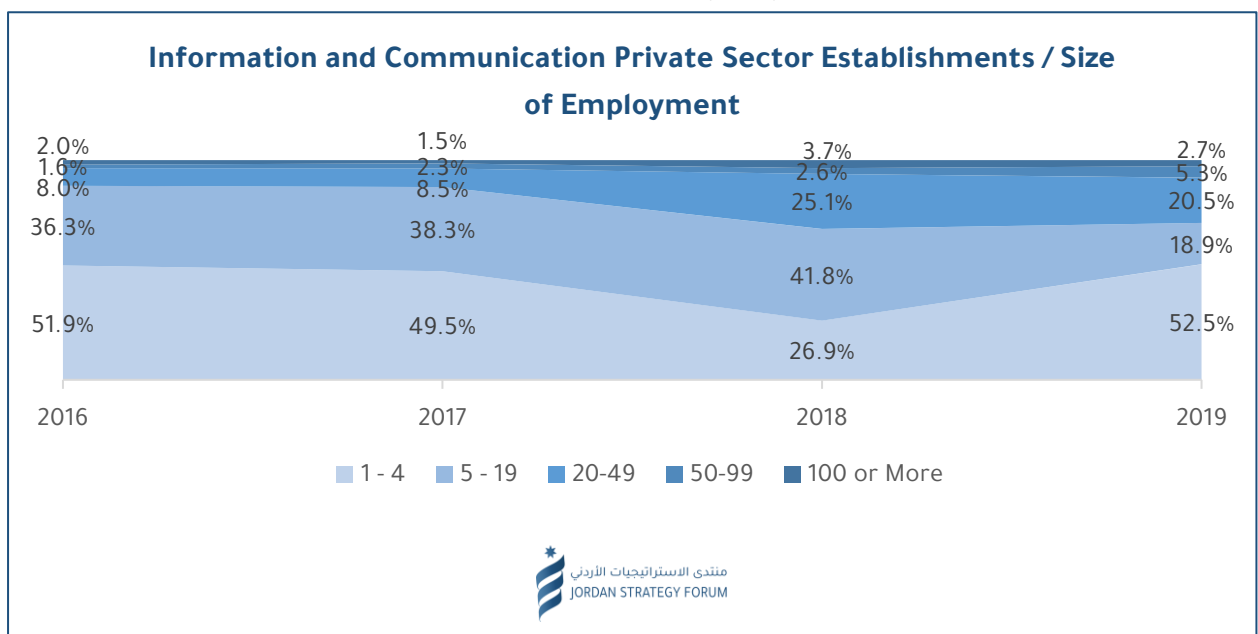
2. Performance of the ICT Sector:

A. Economic Overview

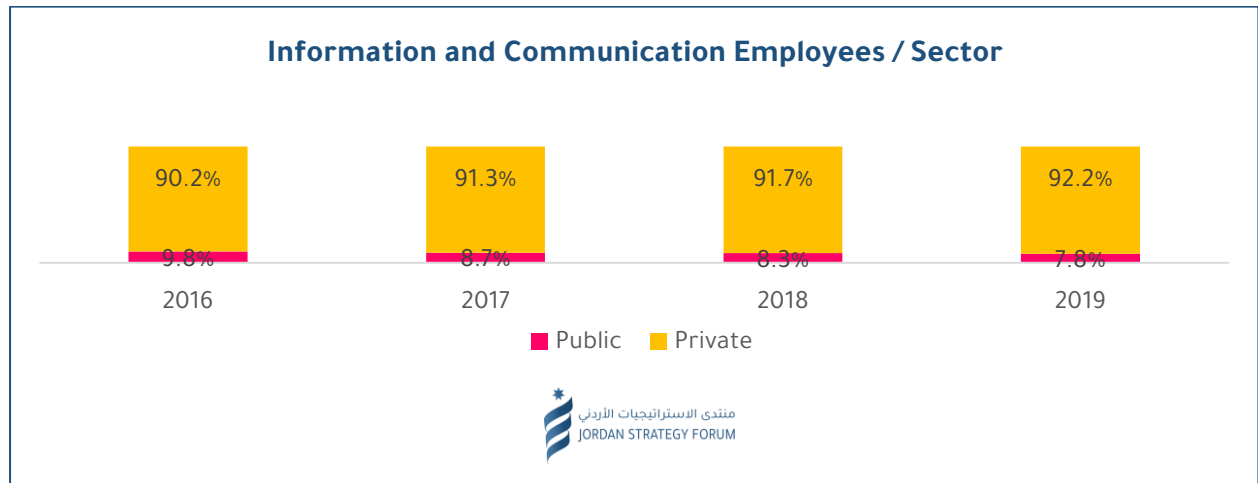
1. It is important to note that Internet accessibility has become a commonly used measure to assess the level of development in countries. In simple terms, a nation would never be considered prosperous if it has no access to the internet. Based on the database of the World Bank in 2017, about 66.8% of individuals can access the internet in Jordan, in other words, two in every three Jordanians have access to the internet.



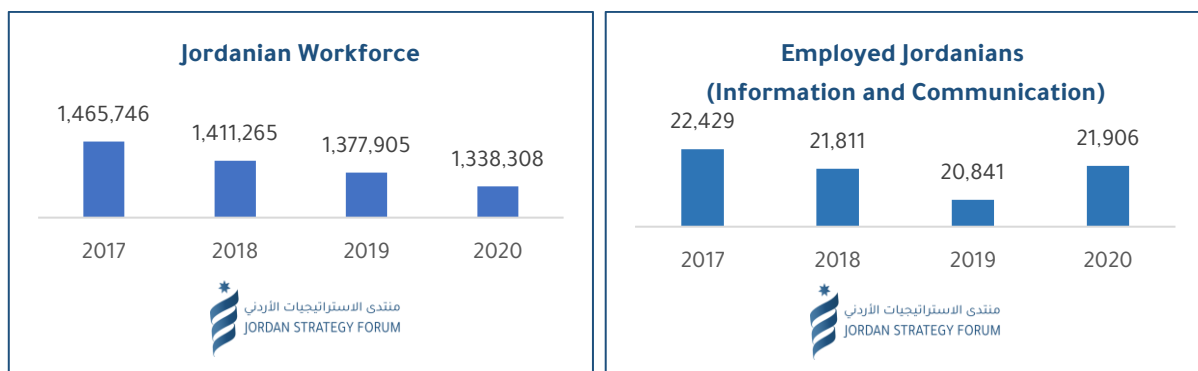
2. Based on the data of the Department of Statistics (DoS), the majority of private sector establishments in information and communication are small when looked at by the size of their employment. For example, 71.4% of the sectors' private establishments employ 1 - 19, were 52.5% of these establishments employ only 1 - 4 Jordanians.



3. Moreover, it is also worth noting that the private sector employs 92.2% of information and communication employees.



4. In addition to the above mentioned regarding the size of the sector, it is useful to note that the sector employs a total of 21,906 Jordanians, which is equivalent to 1.6% of the total Jordanian workforce. However, notwithstanding the onslaught of COVID-19 and its implications, which have unfortunately exacerbated the already decreasing numbers of Jordanian employees, yet, it is encouraging to note that the information and communication sector had managed to shift its already existing downward trend in employment to a 5.1% increase its employment by 2020.



B. Global Indicators: Some Observations

1. The Global Entrepreneurship Index: Where Does Jordan Stand?

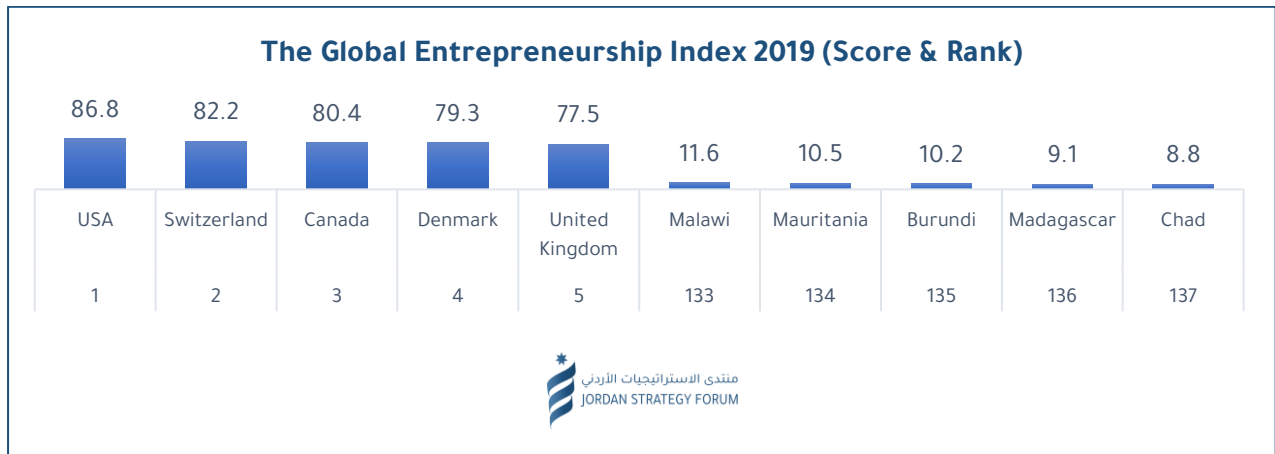
It is useful to note that the Global Entrepreneurship and Development Institute (GEDi) provides an evaluation on the level of the entrepreneurship ecosystem for countries. In 2019, the latest report for the Global Entrepreneurship Index was launched to assess the entrepreneurial ecosystem for 137 countries.

The GEI is composed from 3 main sub-indices, each contains a variety of indicators:

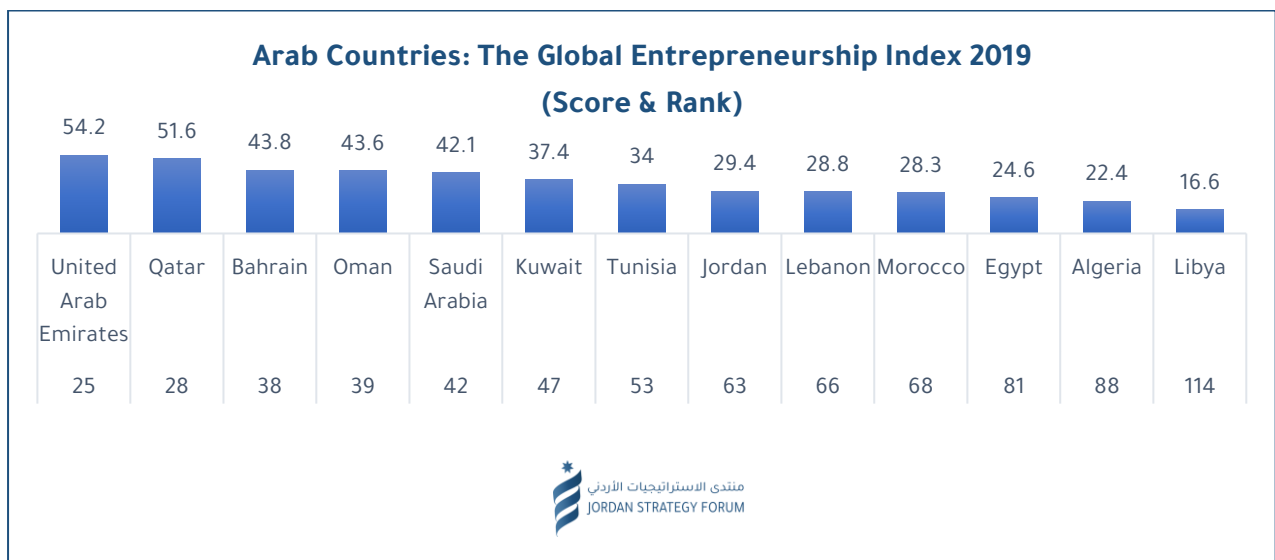
- A. Entrepreneurial Attitudes:** “Aims to measure societies’ attitudes toward entrepreneurship, which we define as a population’s general feelings about recognizing opportunities, knowing entrepreneurs personally, endowing entrepreneurs with high status, accepting the risks associated with business startups, and having the skills to launch a business successfully.”
- **Sub-Indices:** Opportunity Perception, Startup Skills, Risk Acceptance, Networking, and Cultural Support.
- B. Entrepreneurial Abilities:** “refers to the entrepreneurs’ characteristics and those of their businesses. Different types of entrepreneurial abilities can be distinguished within the realm of new business efforts.”
- **Sub-Indices:** Opportunity Startup, Technology Absorption, Human Capital, and Competition.
- C. Entrepreneurial Aspirations:** “Reflects the quality aspects of startups and new businesses. Entrepreneurial aspiration is defined as the early-stage entrepreneur’s effort to introduce new products and/or services, develop new production processes, penetrate foreign markets, substantially increase their company’s staff, and finance their business with formal and/or informal venture capital.”
- **Sub-Indices:** Product Innovation, Process Innovation, High Growth, Internationalization, and Risk Capital.

Below, we outline a number of observations on Jordan’s standing on the Global Entrepreneurship Index (GEI).

1. The best performing countries were USA, Switzerland, Canada, Denmark, and the United Kingdom, with the respective scores 86.8, 82.2, 80.4, 79.3, and 77.5.



2. Regionally, the UAE tops the Arab countries with a global ranking of 25/137 and a score of 54.2/100. Jordan comes in at 8th out of 13 Arab countries, and on the global level, Jordan ranks 63/137 and scores 29.4/100.



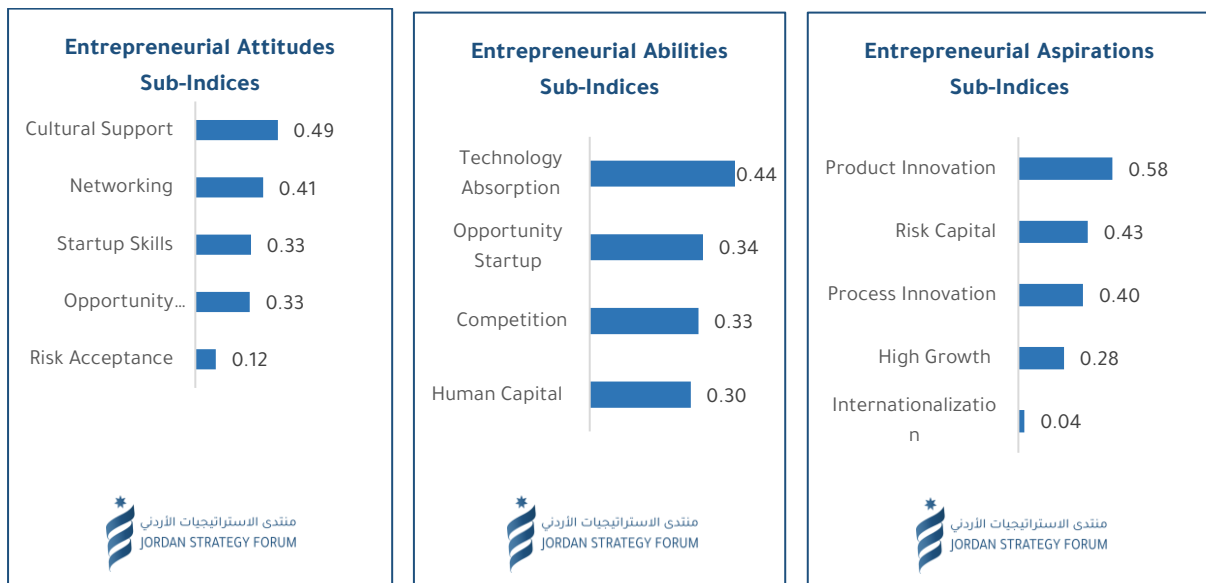
3. As for Jordan's performance on the sub-indices, clearly, the country performs the weakest in "entrepreneurial abilities".



4. Within the context of the above-mentioned, it is unfortunate to note that Jordan was listed among the countries with the biggest declines in the GEI Score. Jordan's performance deteriorated by 7.1 scores and by 14 rankings.

Biggest Declines in GEI Score				
Country	Score 2019	Score 2018	Difference in Score	Difference in Rank
Tunisia	42.4	34	-8.4	-13
Jordan	36.5	29.4	-7.1	-14
Lithuania	51.1	44.1	-7	-8
Macedonia	29.1	23.1	-6	-19
Uruguay	35	30.1	-4.9	-9
Turkey	44.5	39.8	-4.7	-7
Costa Rica	33.3	28.8	-4.4	-9
Brazil	20.3	16.1	-4.2	-20
Colombia	38.2	34.1	-4.1	-5
Belize	30	26.2	-3.8	-9

5. In order to outline the major contributors which deteriorated Jordan's standing on the index, we illustrate in the below figures the sub-indices for each pillar by order from the largest to the lowest scores (0 - 1).



Jordan's performance on the Global Entrepreneurship Index clearly leaves a lot to be desired. In order to enhance Jordan's standing on the index, all relevant stakeholders should look into addressing the weakest sub-indices per each pillar as demonstrated in the above figures.

2. World Digital Competitiveness Ranking: Where Does Jordan Stand?

In order to move forward in assessing the performance of the ICT sector in Jordan, it is interesting to note that in 2021, the IMD World Competitiveness Center had published the fifth edition of the World Digital Competitiveness Ranking (WDCR) report for 64 economies. The report analyzes and ranks the countries based on their adoption and exploration of digital technologies which lead to a transformation in government practices, business models, and in the society in general.

The ranking is composed of three main factors and a set of sub-factors for each:

- 1. Knowledge:** this main factor aims to assess the know-how to discover, understand, and build new technologies. The sub-factors are “Talent”, “Training and Education”, and “Scientific Concentration”
- 2. Technology:** this main factor aims to assess the overall context that enables the development of digital technologies. The sub-factors are “Regulatory Framework”
- 3. Future Readiness:** this main factor aims to assess the level of country preparedness to exploit digital transformation. The sub-factors are “Adaptive Attitudes”, “Business agility”, and “IT Integration”.

Below, we outline a number of observations regarding Jordan’s standing on the World Digital Competitiveness Ranking.

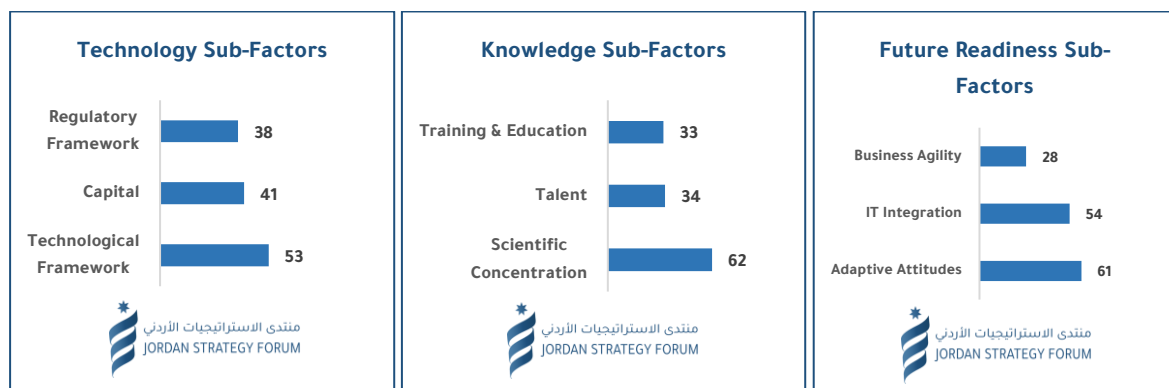
1. While USA tops the world, the UAE comes in at 10th out of 64 economies. As for Jordan, it is unfortunate that the kingdom ranks 49/64 countries.



2. Jordan performed best in the Technology factor, yet, ranked 43/64 countries. As for the Knowledge factor, Jordan ranked 48/64 countries. On the Future Readiness factor, Jordan's ranking leaves a lot to be desired 56/64.



3. Based on the above observations, and in order to enhance Jordan's digital readiness, it is important to highlight the sub-factors where Jordan performs the weakest.
- A. In the technology factor, the weakest performance was in the "Technological Framework" sub-factor, where Jordan ranked 53/64.
 - B. In the knowledge factor, the weakest performance was in "Scientific Concentration", where Jordan ranked 62/64.
 - C. In the Future Readiness factor, the weakest performance was "Adaptive Attitudes", where Jordan ranked 61/64.



3. The E-Government Development Index: Where Does Jordan Stand?

In July 2020, the United Nations through the Department of Economic and Social Affairs (UN DESA) and its Division for Public Institutions and Digital Government (DPIDG), have published the results of the UN E-Government survey through a report entitled "Digital Government in the Decade of Action for Sustainable Development". The report aims to

evaluate the effectiveness of 193 countries in online public service delivery through the E-Government Development Index (EGDI).

The two-period Index is composed of three main indicators:

A. Telecommunications Infrastructure Index (TII): this sub-index is a composite of four indicators

- Estimated internet users per 100 inhabitants
- Number of mobile subscribers per 100 inhabitants
- Active mobile-broadband subscription
- Number of fixed broadband subscriptions per 100 inhabitants

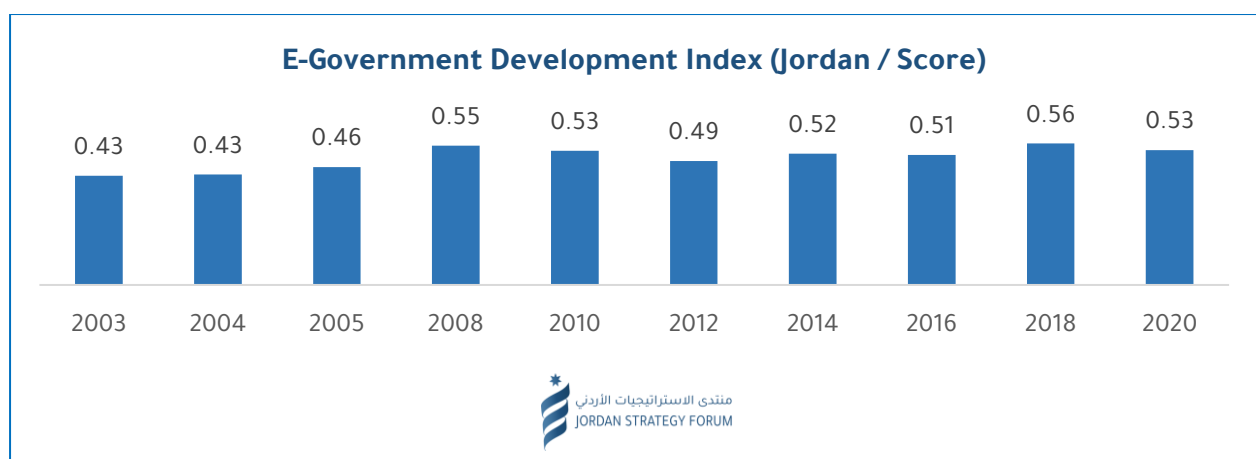
B. Human Capital Index (HCI): this sub-index is a composite of four indicators

- Adult literacy rate
- The combined primary, secondary and tertiary gross enrolment ratio
- Expected years of schooling
- Average years of schooling

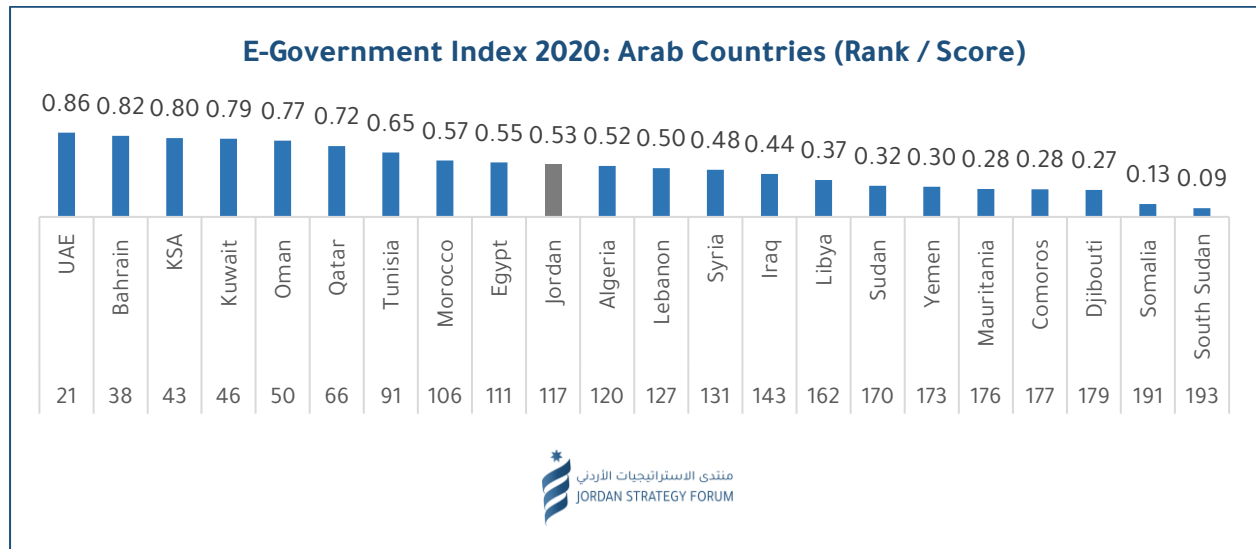
C. Online Service Index (OSI): this index is established through a list of 148 specific questions, where each question requires a binary response and every positive response generates a more in-depth question inside and across patterns of the questionnaire.

Below, we outline a number of observations about Jordan's standing on the E-Government Development index (EGDI). It is also useful to note that the score is measured on a scale from 0 to 1.

1. In 2020, Jordan scored 0.53 with a ranking of 117/193 countries. Moreover, it is encouraging to note that Jordan's score has improved from 0.43 in 2003 to 0.53 in 2020.



2. In 2020, the United Arab Emirates topped the Arab world with a score of 0.86 and a global ranking of 21/193. As for Jordan, the kingdom scored 0.53 with a global ranking of 117/193 and a ranking of 10/22 Arab countries.

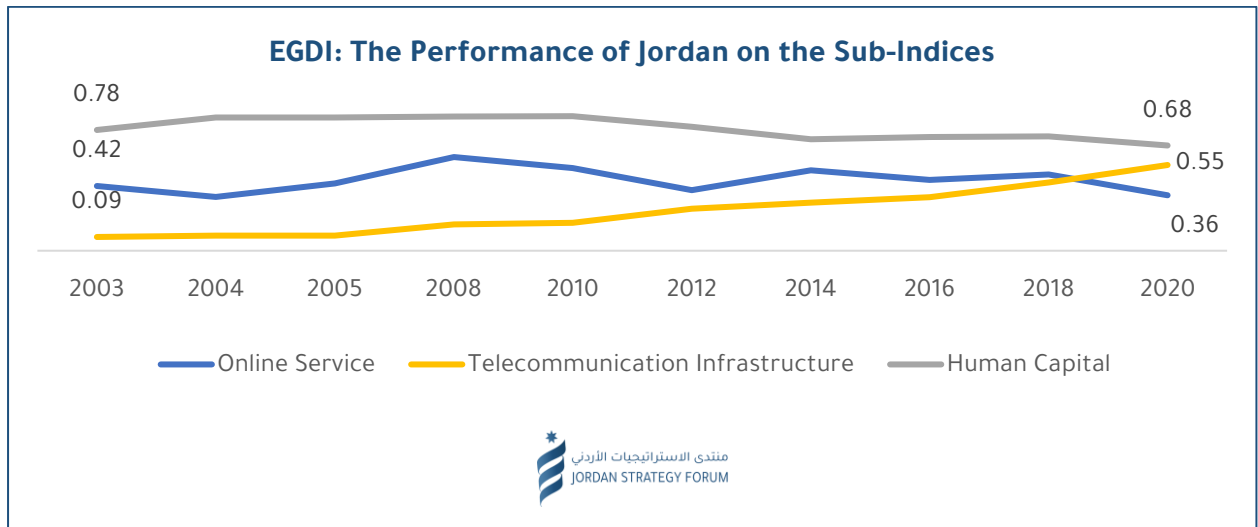


3. For Jordan to enhance its standing on the E-Government Development Index (EDGI), it is of great importance to highlight the performance of the Kingdom on the E-Government Development Sub-Indices.

First, despite that Jordan's performance was the best on the Human Capital Index, the Kingdom's score deteriorated from 0.78 in 2003 to 0.68 in 2020.

Second, on the Online Service Index, Jordan's score decreased from 0.42 in 2003 to 0.36 in 2020, as a result, the indicator is the weakest among all three sub-indicators.

Third, on Telecommunication Infrastructure Index, Jordan's score witnessed a significant increase from 0.09 in 2003 to 0.55 in 2020.



3. ICT Sector: Linkages & Overlaps

Below, we outline the ICT sectors' overlaps and interlinkages with other sectors.

Overlap with other Sectors	ICT Interlinkages with other Sectors
▪ Energy	▪ Agriculture & Food Security
▪ Financial Services	▪ Creative Industries
▪ Trade & Online Services	▪ Education
	▪ Energy
	▪ Financial Services
	▪ Healthcare
	▪ Trade & Online Services
	▪ Transportation & Logistics

4. SWOT Analysis

In terms of the strengths, weaknesses, opportunities, and threats of the ICT sector in Jordan, the work stream members see the followings in the table below.

Strengths	Weaknesses
<ul style="list-style-type: none"> 1. Human Resource Availability. 2. Funding Availability. 3. Tax Incentives & FTAs. 4. ICT Sector Strong Track Record & Brand in MENA. 5. Digital Infrastructure. 	<ul style="list-style-type: none"> 1. Quality & Availability of future in demand ICT Skills. 2. Access to Finance & Loans (Collateral). 3. Legal & Regulatory. 4. Structural (Changes in strategy, incentives, info & dB). 5. Local Market Size.
Opportunities	Threats
<ul style="list-style-type: none"> 1. BPO / ITO regional hub. 2. Education & Certification. 3. Develop Creative Industries. 4. Public Market / IPO. 5. Private Public Partnership & Open API Adoption. 	<ul style="list-style-type: none"> 1. Brain Drain. 2. Energy Costs. 3. Finance (Large scale startups). 4. Government inaction, inconsistency & slow moving. 5. Lack of quality Digital transformation across Public Services.

5. Strategic Objectives:

Strategic Objectives
1. Resilient Digital & Legal Infrastructure.
2. Enabling Business Environment.
3. Abundant & Competent Talent Pool.
4. Positioning Jordan as a tech Hub emphasis on ITO/BPO Services.

6. Initiatives (projects):

Based on the Strategic Objectives, the Work Stream Members of the ICT sector propose the following Initiatives:

Initiative (1): Unified Data Bank
Strategic Objective: Resilient Digital & Legal Infrastructure
<p>Short Description:</p> <p>Improve the collection, validation and publishing of trusted data about Jordan and creating a unified data bank across all sectors</p>
<p>Expected Outcome:</p> <ul style="list-style-type: none"> • Increase access to accurate, up to date and relevant data, including benchmarks, KPIs etc. needed by businesses to grow and make decisions. • Unify fragmented data into a one-stop shop. • Allow for meaningful extrapolations of certain norms relevant to the IT sector (and other verticals) • Increase in FDI and promoting investment as it achieves the following: <ul style="list-style-type: none"> ○ Increase in trusted and normalized data available for businesses. ○ Upsurge efficiency in operations through providing data relevant to businesses working in and through Jordan. ○ Allow for better forecasts, predictability and planning by the private sector. ○ Facilitate the process for startups to get into the market through easily available data. • Increase transparency in the sector and amongst all stakeholders, thus harnessing more cooperation, harmony and reducing corruption. • More accurate feasibility studies. • Enable data-driven government and public sector decision-making. • Improve global KPIs.
Initiative Owner: Prime Ministry

Initiative (2): Public Dashboard	
Strategic Objective:	Resilient Digital & Legal Infrastructure
<p>Short Description:</p> <p>Create a public dashboard that displays all government plans, initiatives, programs and projects for the general public. The dashboard should also show completion date, expected impact, track progress, and show clear, measurable indicators of progress and milestones from credible data sources.</p>	
<p>Expected Outcome:</p> <ul style="list-style-type: none"> • Ensure accountability for national plans, thereby improving public trust in the government. • Guarantee that government plans are intergovernmental. • Increase policy predictability for local and international investors. • Augment credibility and transparency, thereby leading to improvement in public sector efficiency. • Safeguard the continuity of progress in government initiatives. • Instill hope for the youth and create relevance for their aspirations and goals. 	
<p>Initiative Owner: Prime Ministry/PMU that is following up with the vision realization</p>	

Initiative (3): Promote Jordan as a Tech Hub
Strategic Objective: Positioning Jordan as a tech Hub emphasis on ITO/BPO Services
<p>Short Description:</p> <p>The government should continue to work on and intensify efforts to promote Jordan as a tech hub, with BPO/ITO as a priority, given its quick impact service and effect on job creation including building local IPs. Moreover, the government needs to promote the private sector to scale through IT Outsourcing Services. The latter will give incentives to the private sector to start key sourcing initiatives for Jordanian companies in business outsourcing. It will help bring projects through a business development model to Jordanian companies.</p> <p>Through collaboration with all stakeholders, the initiative will result in reducing the unemployment rate among youth and women, including those who live in governorates outside Amman. It will also grow the Jordanian SMEs IT companies through making them more export and ITO ready, and fulfilling the needs of international companies who have an increasing shortage of IT skilled labor in the IT domain.</p>
<p>Expected Outcome:</p> <ul style="list-style-type: none"> • Higher value of IT exports, hence higher contribution to GDP. • More employment. • Growth of Jordanian BPO business. • Empowering Jordanian IT companies by becoming more competitive regionally and internationally. • Creating & Building local IPs.
Initiative Owner: MODEE

Initiative (4): Upskilling & reskilling Jordanian youth & professionals
Strategic Objective: Abundant & Competent Talent Pool
<p>Short Description:</p> <p>Invest in enhancing the quality of labor in the ICT sector, led by the private sector and National Skills Council under a unified umbrella, by working on multiple aspects, including:</p> <ul style="list-style-type: none"> • Upskill talent to equip them with the needed skills that are currently lacking. • Re-skill youth and professionals in light of global changes and new market needs/trends. • Address weaknesses in the education/schooling system by implementing initiatives to fill gaps. • Develop, establish and launch programs that will continue for the long-term as opposed to one-time initiatives. <p>Accordingly, the following labor-related initiatives are proposed:</p> <ul style="list-style-type: none"> • Train and retrain 7,500 people annually through highly qualified boot camps and certifications providers based on global demand and trends to equip them with the needed global skillset and mindset. • Develop and launch a sustainable and integrated Capability Enablement Program with the objective of building talent and expertise specifically in niche/in-demand areas of technology such as Security, Augmented Reality, AI and Data Analytics. • Professional & Vocational Education & Certification initiative; This is intended to move human capital development away from a static university education towards a series of professional degrees (lifelong learning) post high school to create a more flexible and responsive workforce.
<p>Expected Outcome:</p> <ul style="list-style-type: none"> • Create resources that are more employable and more cost efficient to compete on the global markets. • Enhance the reputation of Jordanian talent in the ICT domain regionally and globally. • Produce a stronger, more tech-savvy, well-rounded and experienced workforce. • Enable Jordanian companies to become more sustainable and competitive. • Attract investors and foreign companies to set up in Jordan. • Increase exported services and improve the trade balance. • Narrow the gap between the labor supply and demand for the private sector. • Augment Jordanian capability in niche but demanded areas of Security, Augmented Reality, AI and Data Analytics. • Improve Jordan's readiness for future local, regional and global market needs. • Transform Jordan into a competitive knowledge based economy, especially with national professional education and certification programs.
Initiative Owner: MODEE
Initiative (5): Push for regulatory reform to diversify Jordan's ICT workforce

Strategic Objective: Enabling Business Environment & Positioning Jordan as a Tech Hub emphasis on ITO/BPO Services

Short Description:

Integrated effort from all stakeholders in the ecosystem is required to increase diversity in Jordan's ICT workforce, specifically with regards to nationality. Global best practices and benchmarks dictate that most, if not all, top-performing companies boast a diverse workforce. Jordan needs to create a transparent, flexible and simple environment to allow companies to hire foreigners with specialized skills and knowledge transfer that are currently lacking in Jordan (namely managerial). A simple regulatory reform should be in place, such as hiring 10 Jordanians for every foreigner, no questions asked.

Expected Outcome:

- Stimulate job creation.
- Improve the financial performance of the private sector—McKinsey & Company conducted research that included 180 companies in France, Germany, the UK and US, which found out that companies with more diverse teams were also top financial performers. Additionally, a Gartner study predicts that through 2022, 75% of companies with diverse and inclusive decision-making teams will exceed their financial targets.
- Increase ICT contribution to GDP.
- Create a regional advantage vs. all comparable markets as a BPO and ITO destination for global companies.
- Support upskilling owing to the substantial knowledge spillover to the local workforce.
- Advance innovation within Jordan's ICT sector.
- Provide a better chance for local companies to achieve a regional/global footprint through better decision-making and faster problem solving. In many cases with ICT companies, moving faster than your competition is a key ingredient of survival. A Harvard Business Review found diverse teams are able to solve problems faster than less diversified workers.
- Upsurge employee engagement and lower brain drain. In a Deloitte survey, 83% of millennials reported higher levels of engagement when they believed their company fosters an inclusive culture.
- Put Jordan on the map and position the ICT sector as a more attractive destination for global players vs. all comparable markets.

Initiative Owner: MODEE

Initiative (6): Digitize government services
Strategic Objective: Enabling Business Environment & Resilient Digital & Legal Infrastructure
<p>Short Description:</p> <p>Digitize Government Services end to end with a focus on measuring impact on Citizens, Businesses and Government Employees. This should focus on active usage, KPIs, prioritize the use case needs and user experience incl standardization. Allowing the private sector to compete on delivering government services to the public through enabling integration via Open-API's & Sandboxes across all sectors with re-engineered optimized processes. Every process that is digitized must have minimal human interaction, intervention and judgement.</p>
<p>Expected Outcome:</p> <ul style="list-style-type: none"> • Reduce turnaround time for doing business. • Decrease complexity and increase clarity of procedure requirements. • Create predictability for the need to do business. • Lower cost of doing business. • Create a competitive landscape over providing best services to citizens. • Increase overall investor satisfaction.
Initiative Owner: MODEE

Initiative (7): Adapting swiftly and efficiently to needed regulatory changes for new technologies and disruptive business models.
Strategic Objective: Resilient Digital & Legal Infrastructure
<p>Short Description:</p> <p>There is need for recurrent review of policies that are related to new business models and disruptive technologies in partnership with the private sector. This should be an ongoing initiative, not a one-time program, with the aim of creating a flexible environment that allows for innovation even if certain laws or regulations are not in place including Public Private Dialogue. Thereafter, the government needs to work with the private sector to apply best practices and update the law. (note: not to hinder sandboxes and their objective) De regulate first !</p> <p>One of the first and urgent review is the assessment and adoption of Web 3.0 and Metaverse technologies or services. This includes laying the groundwork, incorporating regulatory, for blockchain, crypto, mining, NFTs, and other related services. Market demand and investment is focused on them in the coming period.</p>
<p>Expected Outcome:</p> <ul style="list-style-type: none"> • More business opportunities for the private sector. • Market leadership globally that improves positioning and reputation. • Improvement in global indices. • Job creation. • Increase in government revenues.
Initiative Owner: Ministry of Trade, Industry and Supply

Initiative (8): Prioritize 5G deployment & sector reset
Strategic Objective: Resilient Digital & Legal Infrastructure & Enabling Business Environment
<p>Short Description:</p> <p>Prioritize the launch of 5G network and related services such as IoT and smart cities / homes. Included and related is also edge and quantum computing labs that will promote the future launch of innovative and future looking services. We need to leapfrog technology and build a regional innovation lab for 5G MENA services.</p>
<p>Expected Outcome:</p> <ul style="list-style-type: none"> • Increase in business and economic opportunities for the private sector & startups. • Growth in government revenues. • Streamline 4th Industrial Revolution technologies in various economic activities. • Remain competitive with the region and global market.
Initiative Owner: MoDEE, TRC

7. General Recommendations:

Despite the fact that the vast majority of Jordanian ICT companies are Micro, Small & Medium Enterprises (MSME's), the sector is economically booming. It is also important to note that Jordan is a leader with a strong and positive brand in ICT products and services across the MENA region and beyond, in addition to the increasing demand on the Jordanian workforce on the regional and global level. However, the need to constantly improve and set a future looking vision and strategy is vital, as the world's nature is becoming more virtual and remote in spite of geographical borders.

To achieve the desired change and to move forward, it is of great importance that we constantly work towards improving ICT related worldwide rankings and benchmark with global top practices & markets, in addition to working towards setting diverse national Public & Private key performance indicators (KPIs) that are updated and held accountable in order to serve the purpose of proper assessments. Moreover, public and private partnerships should be more looked into in the process of setting strategies and the execution of digital transformation and eGovernment services.

8. Annex

ICT Focus Group: Initiative Cards

1) Improve the collection, validation and publishing of trusted data about Jordan and creating a unified data bank across all sectors

Type of Initiative:

Investment Opportunity, Infrastructure Project/PPP, Public Awareness.

Brief Description:

Improve the data collection and reporting process in Jordan;

- Ensure accurate data collection and validation.
- Make sure data is constantly up to date and in real time.
- Centralize the unit responsible for data collection and highlight its significance as a top priority.
- Ensure open access to data by anyone.

Accordingly, create a unified, one-stop-shop public platform that will serve as a reference point for businesses in the sector to have access to relevant data. Such data will be about the sector, including, but not limited to trends (local, regional and global), economic and business opportunities, useful up to date reports to be used for analysis purposes etc.

Stakeholders:

- **Initiative Owner:** Prime Ministry.
- **Enablers:** MODEE, all other ministries, DOS, CBJ, Universities and International Data bodies (Public and Private).

Objectives & Expected Outcomes:

- **Increase access to accurate, up to date and relevant data**, including benchmarks, KPIs etc. needed by businesses to grow and make decisions.
- **Unify fragmented data** into a one-stop shop.
- **Allow for meaningful extrapolations of certain norms relevant to the IT sector** (and other verticals)
- **Increase in FDI and promoting investment** as it achieves the following:
 - Increase in trusted and normalized data available for businesses.

- Upsurge efficiency in operations through providing data relevant to businesses working in and through Jordan.
- Allow for better forecasts, predictability and planning by the private sector.
- Facilitate the process for startups to get into the market through easily available data.
- **Increase transparency in the sector and amongst all stakeholders**, thus harnessing more cooperation, harmony and reducing corruption.
- **More accurate feasibility studies.**
- **Enable data-driven government and public sector decision-making.**
- **Improve global KPIs.**

2) Create a public dashboard for government plans

Type of Initiative:

Regulatory Reform, Restructuring, Public Awareness

Brief Description:

Create a public dashboard that displays all government plans, initiatives, programs and projects for the general public. The dashboard should also show completion date, expected impact, track progress, and show clear, measurable indicators of progress and milestones **from credible data sources.**

Stakeholders:

- **Initiative Owner:** Prime Ministry/PMU that is following up with the vision realization
- **Enablers:** MODEE for technical support, line ministries per sector tackled within the vision

Objectives & Expected Outcomes:

- **Ensure accountability for national plans**, thereby improving public trust in the government.
- **Guarantee that government plans are intergovernmental.**
- **Increase policy predictability** for local and international investors.
- **Augment credibility and transparency**, thereby leading to improvement in public sector efficiency.
- **Safeguard the continuity** of progress in government initiatives.
- **Instill hope for the youth** and create relevance for their aspirations and goals.

3) Promote Jordan as a Tech Hub

Type of Initiative:

Public Awareness & Social Media Strategy, Restructuring, Investment Opportunity

Brief Description:

The government should continue to work on and intensify efforts to promote Jordan as a tech hub, with BPO/ITO as a priority, given its quick impact service and effect on job creation including building local IPs. Moreover, the government needs to promote the private sector to scale through IT Outsourcing Services. The latter will give incentives to the private sector to start key sourcing initiatives for Jordanian companies in business outsourcing. It will help bring projects through a business development model to Jordanian companies.

Through collaboration with all stakeholders, the initiative will result in reducing the unemployment rate among youth and women, including those who live in governorates outside Amman. It will also grow the Jordanian SMEs IT companies through making them more export and ITO ready, and fulfilling the needs of international companies who have an increasing shortage of IT skilled labor in the IT domain.

Stakeholders:

- **Initiative Owner:** MODEE
- **Enablers:** Int@j, private ICT companies, Ministry of Foreign Affairs through its Embassies, Ministry of Investment, Ministry of Industry & Trade, Ministry of Labor & Jordan Expats

Objectives & Expected Outcomes:

- **Higher value of IT exports**, hence higher contribution to GDP.
- **More employment.**
- **Growth of Jordanian BPO business.**
- **Empowering Jordanian IT companies** by becoming more competitive regionally and internationally
- **Creating & Building** local IPs

4) Upskilling & reskilling Jordanian youth & professionals

Type of Initiative:

Investment Opportunity, Restructuring, CSR Project

Brief Description:

Invest in enhancing the quality of labor in the ICT sector, led by the private sector and National Skills Council under a unified umbrella, by working on multiple aspects, including:

- Upskill talent to equip them with the needed skills that are currently lacking.
- Re-skill youth and professionals in light of global changes and new market needs/trends.
- Address weaknesses in the education/schooling system by implementing initiatives to fill gaps.
- Develop, establish and launch programs that will continue for the long-term as opposed to one-time initiatives.

Accordingly, the following labor-related initiatives are proposed:

- **Train and retrain 7,500 people annually through highly qualified boot camps and certifications providers** based on global demand and trends to equip them with the needed global skillset and mindset.
- **Develop and launch a sustainable and integrated Capability Enablement Program** with the objective of building talent and expertise specifically in niche/in-demand areas of technology such as Security, Augmented Reality, AI and Data Analytics.
- **Professional & Vocational Education & Certification initiative;** This is intended to move human capital development away from a static university education towards a series of professional degrees (lifelong learning) post high school to create a more flexible and responsive workforce.

Stakeholders:

Initiative Owner: MODEE

Enablers: Ministry of Labor, DigiSkills, Ministry of Interior, Ministry of Education, Ministry of Higher Education, local vocational training institutes, proactive business associations (Chambers, INTAJ, Associations and others)

Objectives & Expected Outcomes:

- **Create resources that are more employable** and more cost efficient to compete on the global markets.
- **Enhance the reputation of Jordanian talent** in the ICT domain regionally and globally.
- **Produce a stronger, more tech-savvy, well-rounded and experienced workforce.**

- **Enable Jordanian companies to become more sustainable and competitive.**
- **Attract investors** and foreign companies to set up in Jordan.
- **Increase exported services** and improve the trade balance.
- **Narrow the gap between the labor supply and demand** for the private sector.
- **Augment Jordanian capability in niche but demanded areas** of Security, Augmented Reality, AI and Data Analytics.
- **Improve Jordan's readiness** for future local, regional and global market needs.
- **Transform Jordan into a competitive knowledge based economy**, especially with national professional education and certification programs.

5) Push for regulatory reform to diversify Jordan's ICT workforce

Type of Initiative: Regulatory Reform, Restructuring, Investment Opportunity, Public Awareness

Brief Description:

Integrated effort from all stakeholders in the ecosystem is required to increase diversity in Jordan's ICT workforce, specifically with regards to nationality. Global best practices and benchmarks dictate that most, if not all, top-performing companies boast a diverse workforce. Jordan needs to create a transparent, flexible and simple environment to allow companies to hire foreigners with specialized skills and knowledge transfer that are currently lacking in Jordan (namely managerial). A simple regulatory reform should be in place, such as hiring 10 Jordanians for every foreigner, no questions asked.

Stakeholders:

Initiative Owner: MODEE

Enablers: Ministry of Labor, Ministry of Interior, Ministry of Investment

Objectives & Expected Outcomes:

- **Stimulate job creation.**
- **Improve the financial performance of the private sector**—McKinsey & Company conducted research that included 180 companies in France, Germany, the UK and US, which found out that companies with more diverse teams were also top financial performers. Additionally, a Gartner study predicts that through 2022, 75% of companies with diverse and inclusive decision-making teams will exceed their financial targets.
- **Increase ICT contribution** to GDP.
- **Create a regional advantage** vs. all comparable markets as a BPO and ITO destination for global companies.

- **Support upskilling** owing to the substantial knowledge spillover to the local workforce.
- **Advance innovation** within Jordan's ICT sector.
- **Provide a better chance for local companies to achieve a regional/global footprint** through better decision-making and faster problem solving. In many cases with ICT companies, moving faster than your competition is a key ingredient of survival. A Harvard Business Review found diverse teams are able to solve problems faster than less diversified workers.
- **Upsurge employee engagement and lower brain drain.** In a Deloitte survey, 83% of millennials reported higher levels of engagement when they believed their company fosters an inclusive culture.
- **Put Jordan on the map and position the ICT sector as a more attractive destination** for global players vs. all comparable markets.

6) Digitize government services

Type of Initiative: Infrastructure Project/PPP, Investment Opportunity, Restructuring, Regulatory Reform

Brief Description:

Digitize Government Services end to end with a focus on measuring impact on Citizens, Businesses and Government Employees. This should focus on active usage, kpi's, prioritize the use case needs and user experience incl standarization. Allowing the private sector to compete on delivering government services to the public through enabling integration **via Open-API's & Sandboxes** across all sectors with **re-engineered** optimized processes. Every process that is digitized must have minimal human interaction, intervention and judgement.

Stakeholders:

Initiative Owner: MODEE

Enablers: All other ministries, private ICT companies

Objectives & Expected Outcomes:

- **Reduce turnaround time** for doing business.
- **Decrease complexity and increase clarity** of procedure requirements.
- **Create predictability** for the need to do business.
- **Lower cost of doing business.**

- **Create a competitive landscape** over providing best services to citizens.
- **Increase overall investor satisfaction.**

7) Adapting swiftly and efficiently to needed regulatory changes for new technologies and disruptive business models

Type of Initiative:

Regulatory Reform, Restructuring, Public Awareness

Brief Description:

There is need for recurrent review of policies that are related to new business models and disruptive technologies in partnership with the private sector. This should be an ongoing initiative, not a one-time program, with the aim of creating a flexible environment that allows for innovation even if certain laws or regulations are not in place including Public Private Dialogue. Thereafter, the government needs to work with the private sector to apply best practices and update the law (note: not to hinder sandboxes and their objective) De- regulate first!

Stakeholders:

Initiative Owner: Ministry of Trade, Industry and Supply

Enablers: MODEE, Ministry of Justice, Municipalities and GAM, Prime Ministry, LOB, Private Sector Associations (Int@j, JSF etc.)

Objectives & Expected Outcomes:

- **More business opportunities** for the private sector.
- **Market leadership globally** that improves positioning and reputation.
- **Improvement in global indices.**
- **Job creation.**
- **Increase in government revenues.**

8) Prioritize 5G deployment & sector reset

Type of Initiative:

Infrastructure Project

Brief Description:

Prioritize the launch of 5G network and related services such as IoT and smart cities / homes. Included and related is also edge and quantum computing labs that will promote the future launch of innovative and future looking services. We need to leapfrog technology and build a regional innovation lab for 5G MENA services.

Stakeholders:

Initiative Owner: MoDEE, TRC

Enablers: Telcos, Private Sector, Startups

Objectives & Expected Outcomes:

- **Increase in business and economic opportunities** for the private sector & startups.
- **Growth in government revenues.**
- **Streamline 4th Industrial Revolution** technologies in various economic activities.
- **Remain competitive** with the region and global market.



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