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## **DIGITAL GOVERNANCE**

Efforts to develop digital government services are picking up pace

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## **FINANCIAL TECHNOLOGY**

The Saudi Arabian Monetary Authority (SAMA) has become more bullish about fintech

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## **EDUCATION**

Saudi Arabia's education sector has long entertained the concept of e-learning





# THE BUSINESS YEAR: SAUDI ARABIA DIGITAL ECONOMY SPECIAL REPORT

In parallel to the annual Saudi Arabia 2020 edition, The Business Year is publishing its first special report on the digital economy of the Kingdom. Through our exposure to the leading decision makers, we have surveyed the current state of affairs when it comes to implementing technology in day-to-day life in the country.

Saudi Arabia has in recent years committed large-scale investments in digitalizing its economy. In the public domain, this has translated into a shift toward digital governments, improving citizen interactions while also investing in new technologies that serve as enablers for the digital economy, such as the cloud, cybersecurity, and IoT. Many of the megaprojects announced across the Kingdom also have a strong digital component, most notably NEOM, set to become a new, tech-heavy smart city on the shores of the Red Sea.

In this special report, we delve deeper into these developments. Starting with digital governance, we speak with the main stakeholders in the public sector, centered around the Ministry of Communications and IT, outlining the digitalization goals under Vision 2030, and how the administration is taking a lead.

Next, we cover fintech, a key area where de-

velopments move rapidly. Saudi Arabia has similarly advanced quickly in this area, with the Saudi Arabian Monetary Authority (SAMA) pushing for better financial infrastructure and local firms developing new payment models.

After that, we have chapters on cloud technology and cybersecurity, with input from both global IT giants with expertise in the Kingdom and local firms that are driving technology forward on the ground. Following this, we look into financing, venture capital, and entrepreneurship, with an analysis of the start-up ecosystem, including mentorship, as well as access to finance and talent. Finally, we delve deeper into education, focusing on the approach taken by various universities when it comes to preparing students for jobs of the future, and how they are incorporating technology in their own curricula and teaching methods.

With this report, we aim to provide a snapshot of the main developments impacting the business environment in the Kingdom today.

## TBY SPECIAL REPORT

This report on *Saudi Arabia: Digital Economy* comes in a new series of online publications, focusing on a certain aspect or industry in one of our 35 global markets. ✖

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## INTERVIEW

A BIG *boost*

Abdullah Al-Swaha  
MINISTER OF COMMUNICATIONS  
AND INFORMATION TECHNOLOGY

One of the fastest-growing opportunities for digital in commerce and trade, Saudi Arabia is growing by double digits, rapidly transforming into the largest ICT market in MENA by a mile with USD12 billion. The Kingdom's Ministry of Communications and Information Technology is taking steps to ensure Saudi Arabia continues to take advantage of its leadership in the digital economy to supercharge all sectors of the economy and leapfrog into the future.

Around 95% of smartphones today are made by chipsets made in partnership with Saudi Arabia. Some 40% of the innovative material in these smartphones are made in Saudi Arabia, by ARM and SABIC. ARM is the chipset manufacturer owned by SoftBank and Vision Fund of Saudi Arabia. SABIC is the second-largest global petrochemical company that makes the innovative material that goes into smartphones. Saudi Arabia is transforming at the speed of light, leveraging its factor-based economy and its leadership as the 80th-largest economy to leapfrog into the future powered by digital, powered by you, our global and regional partners. This started with the announcement of Vision 2030, the most audacious, once-in-a-lifetime journey of transforming a nation that is the heart of the Arab and the Muslim world and an investment powerhouse.

Already USD100 billion has been committed to the Vision Fund, making it the largest tech fund available on the global. The ambition is to create a vibrant and thriving economy and an ambitious nation. These ambitions are underpinned by a national digital agenda, because if we are looking for a vibrant society to empower women and fulfill lives, it is really a digital society. How we could redefine engagement and empowerment in healthcare, education, and smart cities for the prosperity of a nation, a region, and the globe? Secondly, it is about how a digital economy can supercharge the existing economy and leapfrog it into the future. 10% of the global trade today is digital, and Saudi is one of the fastest-growing opportunities for digital in commerce and trade. Last but not least is a digital government—how we have moved from red tape to red carpet.

Regarding e-commerce, the Kingdom is moving at a rapid pace, and we are one of the top-10 fastest-growing nations in e-commerce, growing at 35% and recently crossing the USD7.5-billion market opportunity. We are projected to cross the

USD10-billion mark by 2020.

All these are underpinned by a National Digital Agenda that we are doubling down on the foundation powered by you: global, regional, and local players. You are our national champions because we have a great deal to celebrate. In 2018, we grew to become the 12th-largest global backbone for the internet economy. In a USD24-billion market, where everywhere else is stagnant or declining by single digits, the Kingdom is growing by double digits, fast tracking into an ICT market that is the largest by a someway in MENA with USD12 billion. And, finally, we are supercharging the next economy with opportunities in AI, data, big data, and 5G that are close to USD10 billion.

We are accelerating rapidly. Over the last 13 months, not only have our national digital champions, the local operators, outperformed the local stock market by a USD18-billion leapfrog, but we have outperformed the region and the global MSCI Global Index. We are proud to announce that we launched the largest MENA commercial launch in 2019 with an allocation of 400MHz of spectrum in the 3.5-GHz band combined with the existing 2.3 and 2.6GHz, making it a combined 590MHz addressable band for our partners. In 1Q2019, we celebrated with you, our national champions, with 1,000 sites up and running in 5G. This is only the beginning, because we project this will ignite and accelerate the move into the new economy with a USD19-billion contribution to GDP in Smart Hajj, smart cities, healthcare, and industries.

This is the end of my speech, but the beginning of a new journey in partnership with you because we live in a time when it is no longer the survival of the fittest, but the survival of those who can best reach out and build genuine partnerships. And if there is something special about us, it is that once we partner, we partner for life. ✖

Extracted from speech delivered at  
MWC Barcelona in February 2019

## BIO

Abdullah Al-Swaha was appointed Minister of Communications and Information Technology in 2017, bringing more than 15 years of experience in IT, entrepreneurship, and executive and digital consulting. He has held several positions in the public and private sectors. In the public sector, he was the Director-General of the Digital Transformation Office in charge of expediting the realization of Saudi Arabia's Vision 2030 through a digital infrastructure that speeds up the achievement of Vision 2030's objectives. In the private sector, he has served as the CEO of Cisco Saudi Arabia.

# DIGITAL ECONOMY FACT SHEET

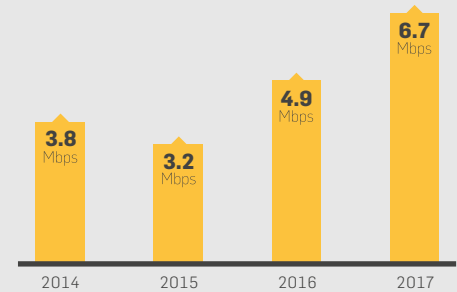
## KEY FIGURES

SOURCE: CITC



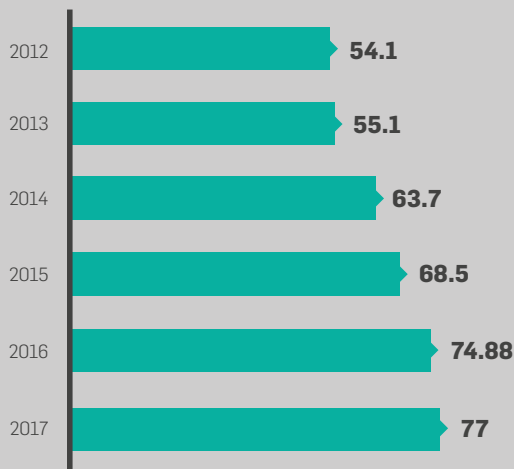
## INTERNET SPEED

SOURCE: TRADING ECONOMICS



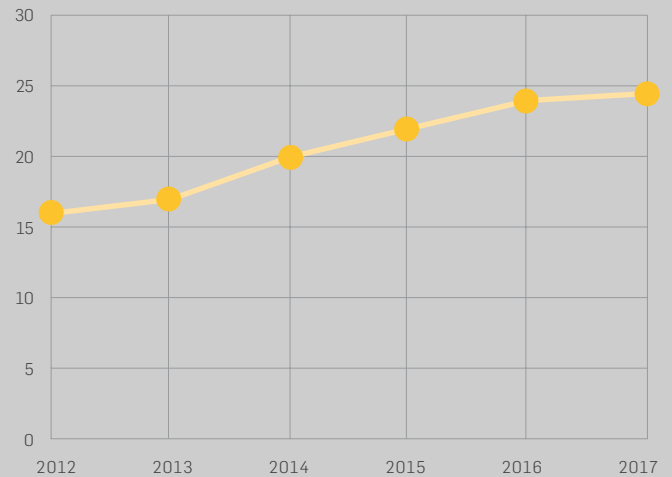
## INTERNET PENETRATION (%)

SOURCE: CITC



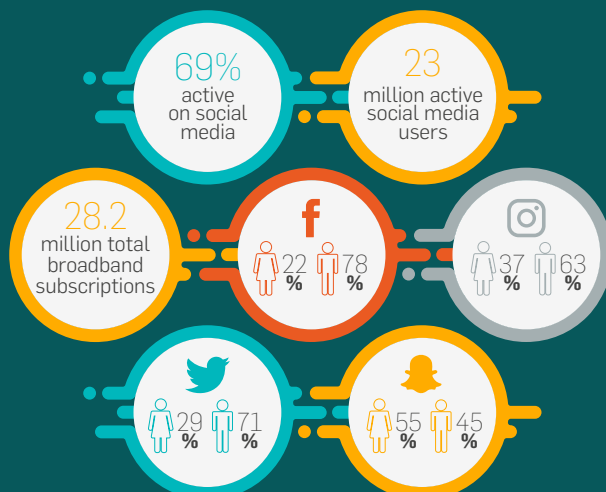
## SAUDI INTERNET USERS (MLN)

SOURCE: CITC



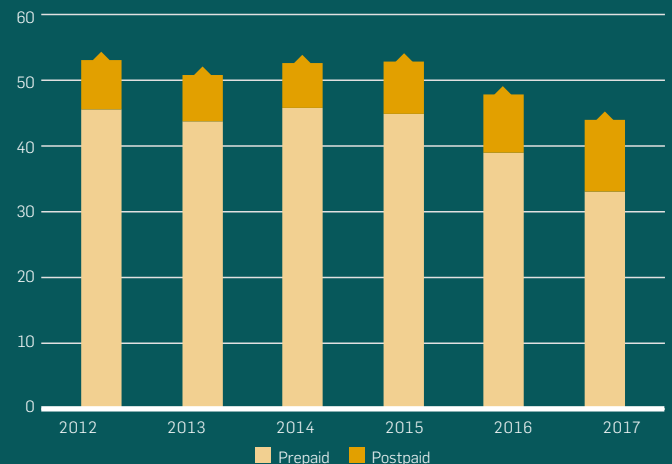
## SOCIAL MEDIA

SOURCE: CITC



## PREPAID AND POST-PAID MOBILE SUBSCRIPTIONS (MLN)

SOURCE: CITC



## ADVANTAGES

- **Sovereign wealth fund can be deployed to stimulate investment**
- Large, youthful, and educated population of 33 million
- **Cheap source of local energy in oil**
- Reliable disposable income of local consumers
- **Widespread adoption of streaming services**
- Geographic location between major European and Asian markets

## CHALLENGES

- **Rules governing expression could complicate local development, adoption of apps**
- Parts of population unfamiliar with entrepreneurship, wage labor
- **New taxes and reduced subsidies dent spending power**

## INVESTMENT:



**USD100**  
billion in 2030 Vision Fund

## DIGITAL INFRASTRUCTURE

New 5G spectrum  
auctioned



4G coverage near  
100%



Plans for telecom companies  
to share cell towers



Increasing rural internet  
speeds to 10Mbps by 2020

## E-COMMERCE



- Among top-10 countries for e-commerce
- 32% YoY e-commerce growth rate in 2018
- USD21 billion trading volume
- USD1,066 per capita spent on online purchases (global average USD700)
- New e-commerce law passed July 2019 to regulate online transactions to protect consumers and retailers

## E-HEALTH



- Delivering more services through apps
- Combating non-communicable diseases by raising awareness online
- 1.4 million virtual consultations in 2018 via My Health app
- Reducing wait times and human error

## FINTECH



- Fintech overseen by SAMA
- Aims to increase financial inclusion, limit cash transactions, and streamline app-delivered services and commerce
- Saudi Telecom Company (STC) has launched fintech service to facilitate remittances and payments



Our mission is to provide safe & reliable **services** by utilizing & sourcing the latest **technology** in the field of Air Navigation...

- Automatic Dependent Surveillance – Broadcast (ADS-B)

Surveillance technology in which aircrafts determine their positions via satellite & continuously broadcast it to ground stations without the need of interrogation signals.

- Initial Flight Plan Processing System (IFPS)

Filed flight plans are submitted to a central processing unit that oversees and updates against a centralized airspace.

- Aeronautical Fixed Telecommunication Network (AFTN)

The AFTN system provides exchange/switching of AFTN messages and flight data information to all airports and adjacent Area Control Centers ACC in KSA.

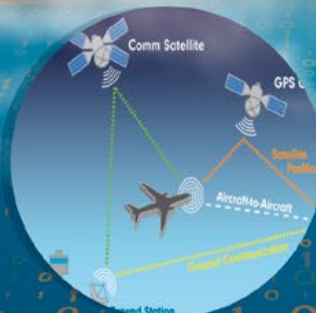
- Air Traffic Services Messages Handling Systems (AMHS)

Providing basic & extended services for facilitating ground-ground data communications (e.g. Flight Plan, MET, NOTAMS etc.) including smooth transition to ATN.

- Aeronautical Information Management Systems / Services (AIM)

The core function of AIM is to ensure the flow of aeronautical information/data necessary for safety, regularity, economy & efficiency.

- Briefing
- NOTAM Office
- Electronic AIP
- Aeronautical Charting
- Procedure Design
- Electronic Terrain & Obstacle Database Management



## 01

# Digital Governance

## A DIGITAL FUTURE

**S**ome of the most visible trends in 2019 include the emphasis on digitalization, the increased attention on business-supporting technologies, and the mission to improve how government services are delivered with the support of technology.

That also includes strong efforts to build a digital government. With the launch of GovX by Yesser in April 2019, the government aims to take the global lead in the race for digital governance. The entity aims to coordinate all efforts under the Ministry of Communications and IT to strive for better interactions between the government and its citizens. Already, it is possible to get both a trade license and a passport within 24 hours.

Another taskforce is the National Digital Transformation Unit (NDTU), developing industry-specific roadmaps outlining how this transitioning can take place. Yesser and NDTU work alongside each other, both reporting to the National Committee for Digital Transformation. One of their main projects for the coming year is to utilize the Government Service Bus (GSB) for government entities to make their data available for other government entities, while continuing to work on unifying portals, eliminating overlap where possible including, but not limited to, concerning visas, licensing, education and em-

ployment administration.

Yesser, in turn, takes responsibility for the actual implementation of e-government services, building on global best practices and maintaining coordination with global providers of technology. Amongst such providers, there are two notable consultancy firms that have established varieties of digital labs where new ideas can be tested in a real-life environment, including new solutions to improve government services.

Investments in AI, big data, 5G, and the cloud are set to reach USD10 billion in the coming year to boost the digital economy. Regarding digital governance, one of the key investments as part of this avenue is the launch of a public cloud to support all government entities to store and safeguard their data.

The government has also launched sector-specific entities to better coordinate the digital transition in their respective industries. SAMA launched Saudi Payments to develop a level playing field for the financial industry. The Saudi Authority for Intellectual Property aims for smoother and internationally aligned IP registrations. NIDLP is a driver to transform the Kingdom into an industrial powerhouse. It is mandated to do so while connecting these sectors through the technologies of Industry 4.0. ✖



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