



IDC Directions 2019

Multiplied Innovation: Scaling a Technology Revolution
in Saudi Arabia

Riyadh | February 05, 2019 | The Ritz Carlton



IDC Directions 2019

Multiplied Innovation: Scaling a Technology Revolution
in Saudi Arabia

KEY ICT Predictions for 2019



IDC Directions 2019

Multiplied Innovation: Scaling A Technology Revolution in Saudi Arabia

IDC Prediction

ICT spending in Saudi Arabia will show a modest recovery in 2019 totaling \$34.5B (+1.0%)



Slight ICT Spending Growth in 2019, Transformative Growth in Key Areas

DRIVERS

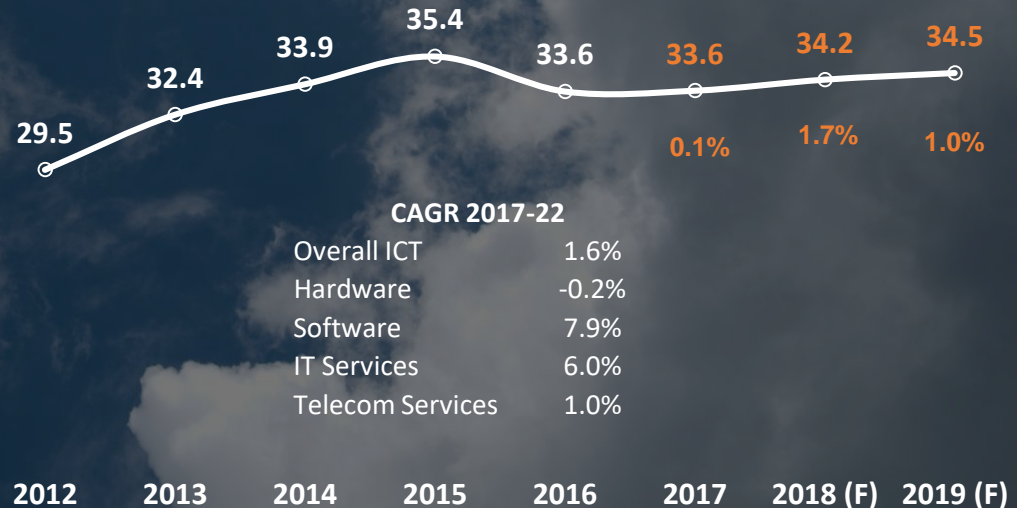
- Expansionary budget
- Reprioritized NTP goals – NTP 2.0
- Products to Services (True DX)
- Govt driven citizen experience
- Emerging new tech use cases

(Cloud, Security, Analytics, Innovation Accelerators)

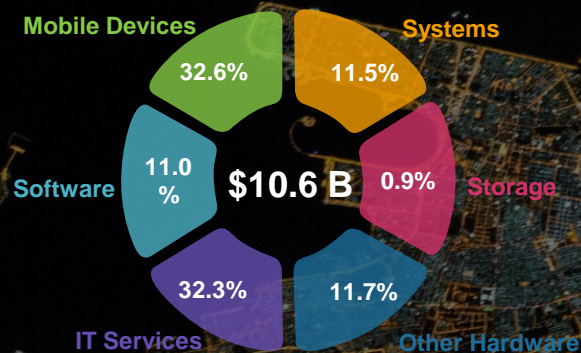
INHIBITORS

- Volatile oil prices
- Tax and levies
- ICT Budgetary Constraints
- Labor market shortcomings
- SME maturity

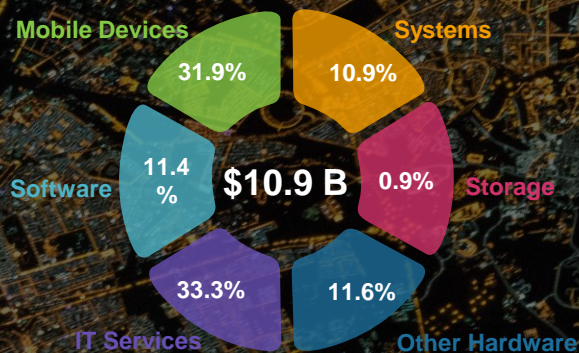
Saudi ICT Market 2012-2019 (US\$ Bn)



Significant Slowdown in Mobile Shipments; Software & Services Continuing to Drive Major Growth

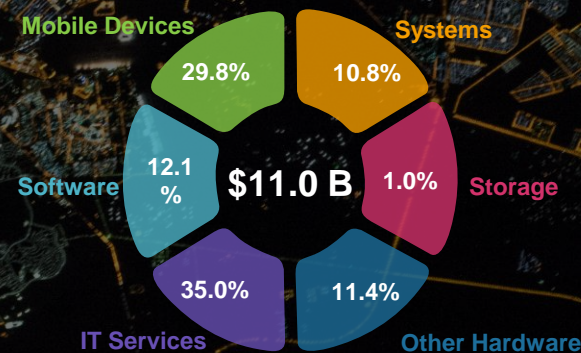


2017



2018F

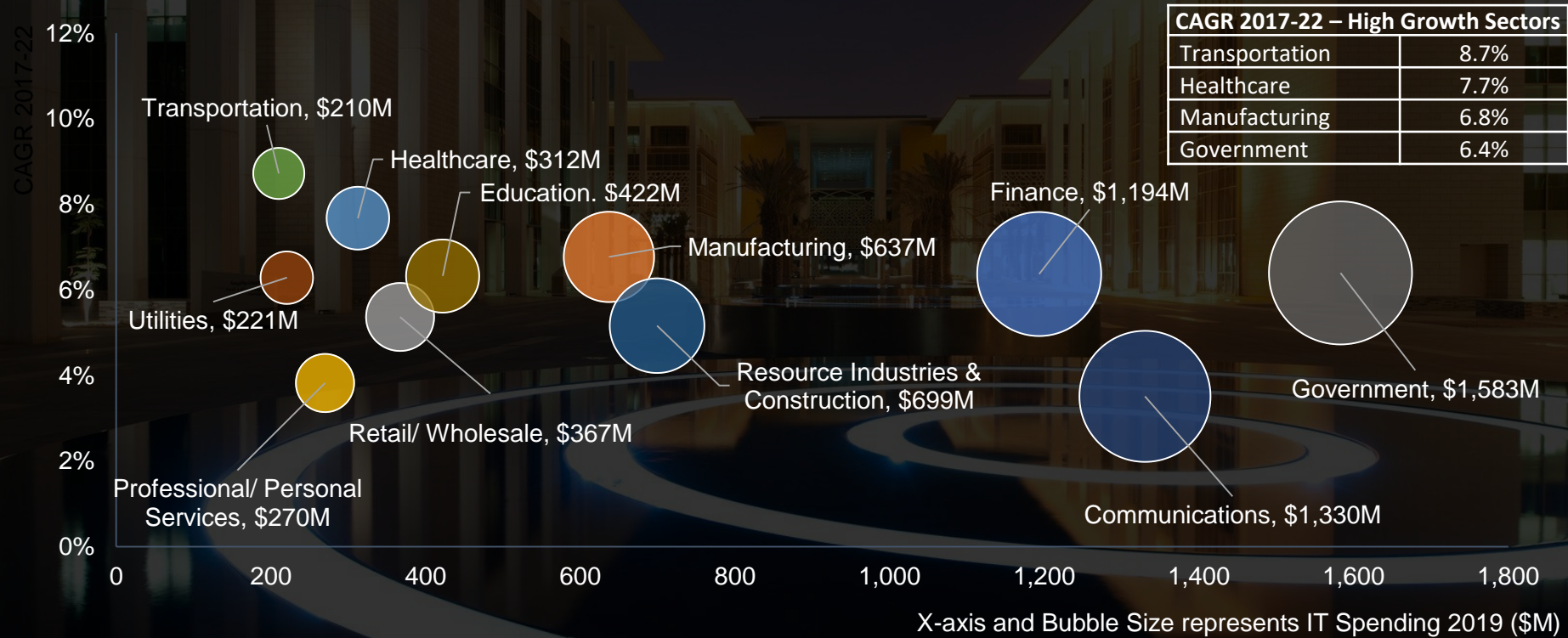
Incl. Mobile Devices **2.8%**
Excl. Mobile Devices **3.9%**



2019F

1.2%
4.4%

Saudi Arabia IT Spending Outlook: Key Industries





IDC Directions 2019

Multiplied Innovation: Scaling A Technology Revolution in Saudi Arabia

IDC Prediction

Saudi Arabia will exhibit technology market growth that is typical of a transforming economy.



Increased Efforts to Identify
Challenges

New and Revised Initiatives &
Targets

Development of Implementation
and Consolidation Plans

Streamlined Public Sector Business
Processes

Continuous Improvement Through
Digital Economy

VISION رؤية
2030

Promotion of
Transparency
Through
Digitalization

Infrastructure

Giga Projects

- NEOM Bay
- Qiddiyah Entertainment City
- Waad Al Shamaal City - Northern Promise
- King Salman Energy City
- Integrated Logistics Zone (Riyadh) – under GACA (nationwide plans)

NTP 2.0

New Goals

- Scale back: Pragmatic approach
- Workforce inclusion for women. (24% by 2020, instead of 28%)
- Focus: Upskilling of human capital
- Continued social reforms
 - Reduced corruption
 - Retail sector contribution to GDP
 - Specially-abled workforce

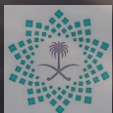
Dx

Modernization

- Government continues to lead DX.
- Technology-led energy hub
- National industrial development program
- Logistics industry development
- Boosting local content
- Renewable energy, Exports & Mining
- Military industries
- Government procurement and competition system
- FDI licensing automation

Supporting the NTP 2020 and Vision 2030

IDC is playing a key role in tracking the technology impact and progress



Saudi Arabia's Vision 2030 – A Technology led Transformation

2016



Envisioning an ICT led approach to the National Transformation Program for the Kingdom of Saudi Arabia

2017



A Digital Government Vision for the Kingdom of Saudi Arabia

2018



IDC Directions 2019

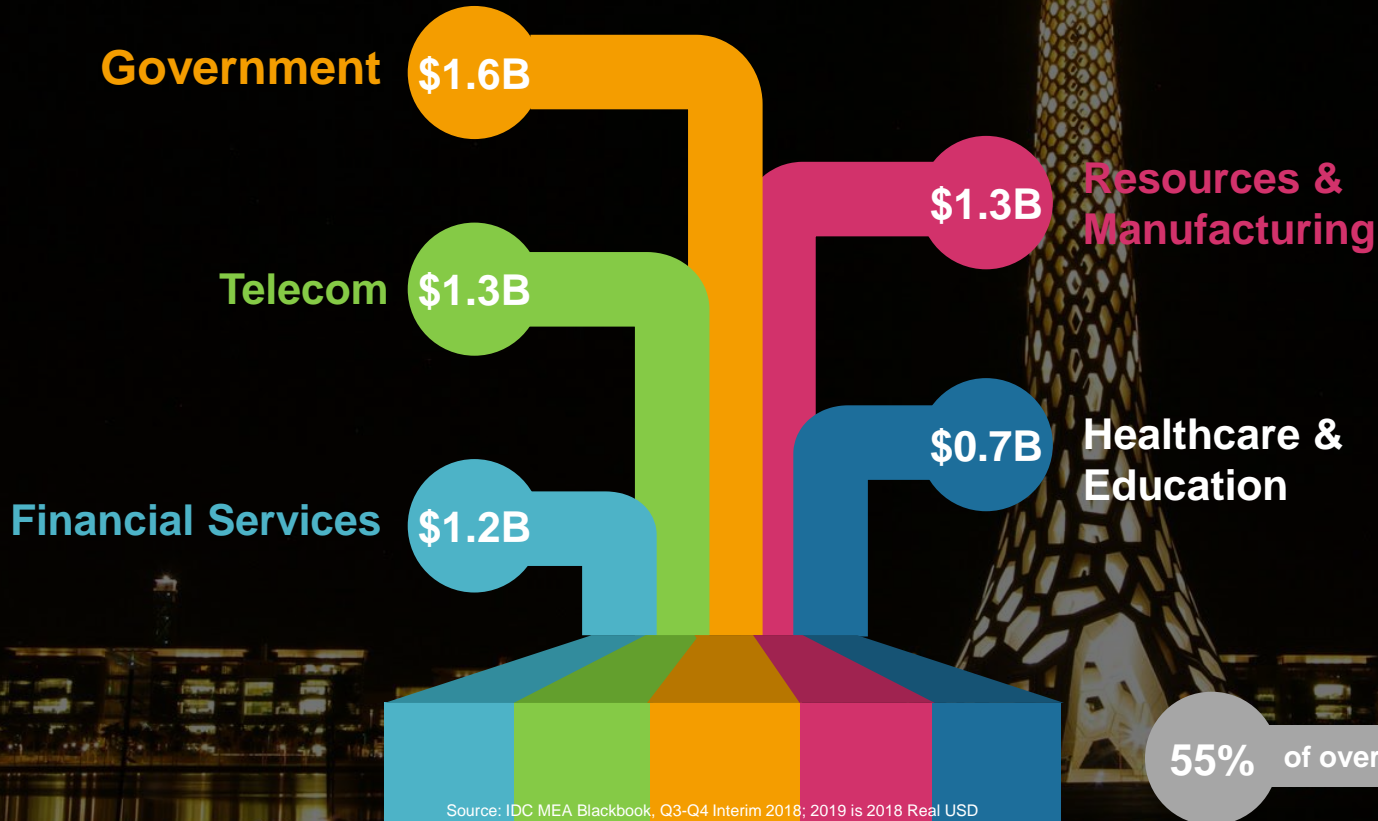
Multiplied Innovation: Scaling A Technology Revolution in Saudi Arabia

IDC Prediction

Private sector organizations will gear up to keep pace with Dx initiatives driven by the government



Key Industries Undergoing Transformation



Key Industries Undergoing Transformation



GOVERNMENT

\$1.6 Bn



HEALTHCARE &
EDUCATION

\$0.7 Bn

Leading-edge citizen experiences

Yesser taking the lead (Expanding Abshir capabilities)

Accountability and performance measurement

Local content strategy

Cost center > Revenue center (Tourism, tax, levies)

Regulatory effectiveness (FDI, trade, maritime, cloud)

Privatization & capacity building

Insurance platform revamp

Unified health records

Omni patient experience

Curricula revamp to meet demand

Self-paced digital learning platforms

NCeL, SDL, scientific R&D

SAUDI GOVERNMENT CONGRESS

Delivering Effective Citizen Experience Through DX

Riyadh 18th Dec 2019



Pillars of Transformation



TELECOM
\$1.3 Bn



FINANCIAL SERVICES
\$1.2 Bn



RESOURCE & MANUFACTURING
\$1.3 Bn

- Customer Experience Transformation**
- Omni-channel outreach
- Digital portfolios (intensifying competition)**
- 5G Rollout
- Software Defined Everything (SDx)**
- Drones & robotics

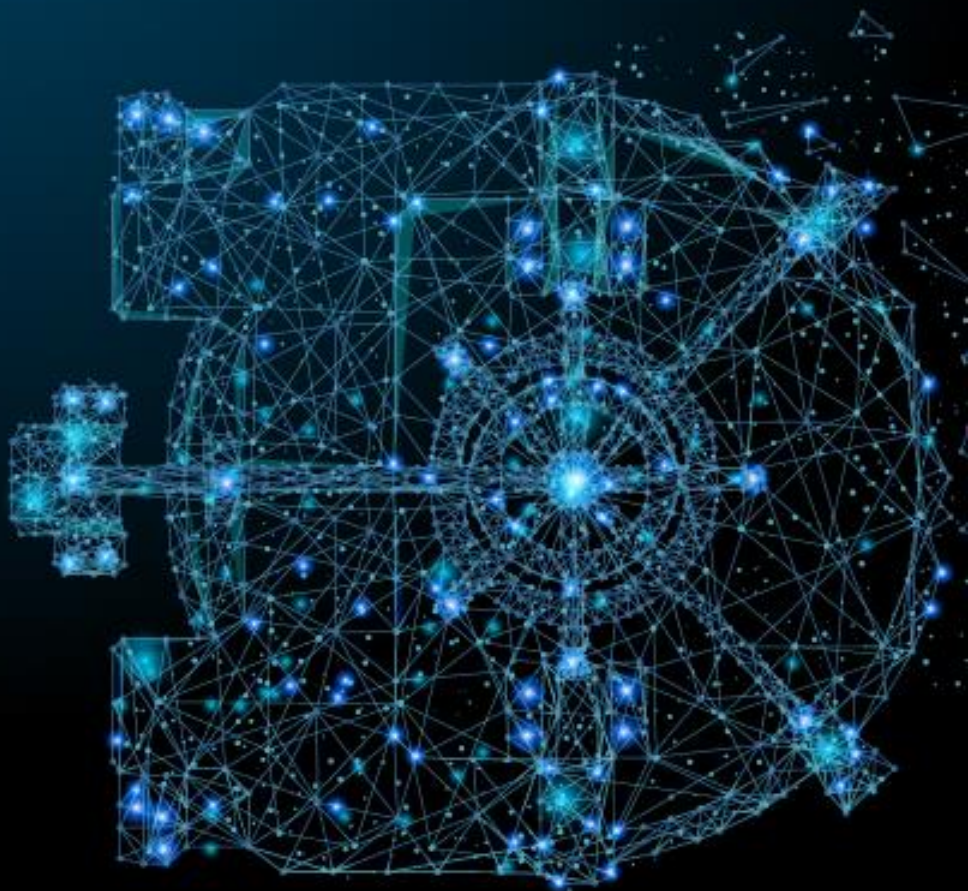
- Mergers and consolidation**
- Next-gen banking experience (AI, analytics, etc.)
- Data driven transformation**
- Regulatory compliance vs. innovation
- Fintech and agent banking**
- Blockchain and DLT uptake

- Predictive maintenance & Asset mgmt.**
- Technology-led energy hub
- National industrial development program**
- Logistics for industry development
- Renewable energy and mining in limelight**
- Ship and aircraft building sites

Banking and Finance Congress Roadshow

Accelerating Digital Thriving
Amidst Digital Disruption

Saudi Arabia, Riyadh | 17th Jan 2019





IDC Directions 2019

Multiplied Innovation: Scaling A Technology Revolution in Saudi Arabia

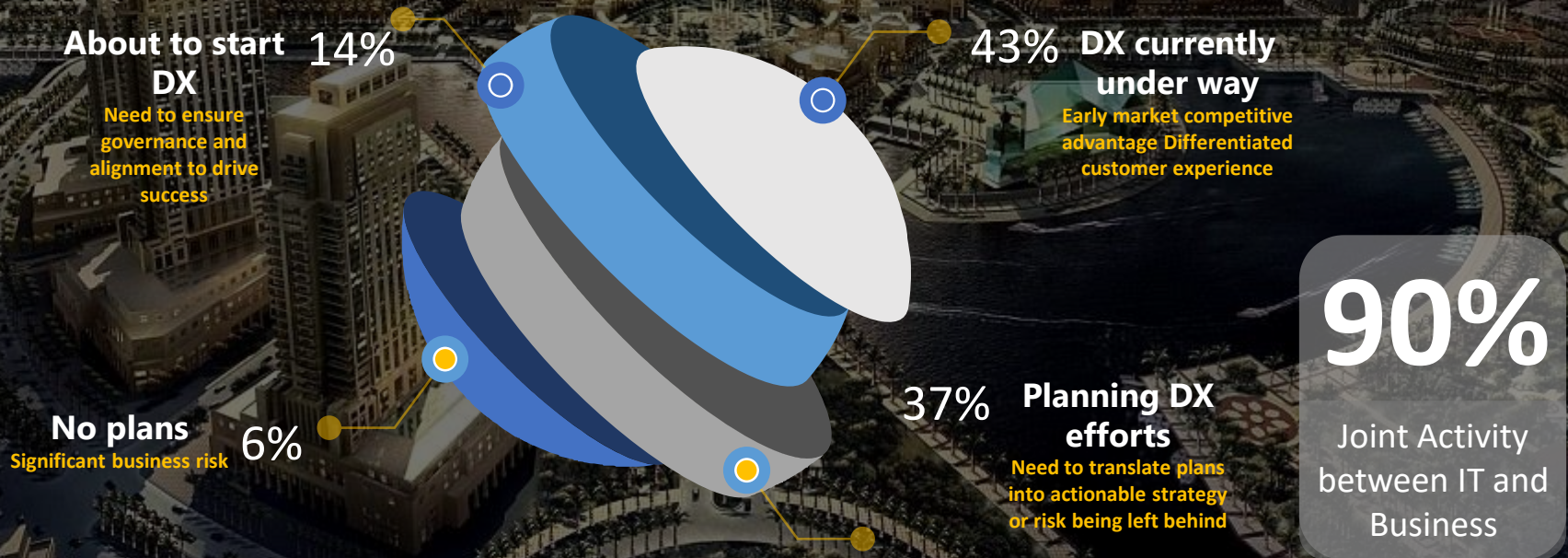
IDC Prediction

Saudi Arabia's digital transformation drive will be increasingly complemented by innovation accelerator use cases such as AI, IoT, Blockchain, and Robotics.



Digital Transformation is Underway in the Kingdom

Current DX Adoption Trends & Implications



Source: IDC KSA CIO Summit Results, 2018

Innovation Accelerators - Creating a New Wave of IT Disruption in the Kingdom



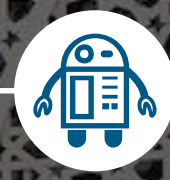
INTERNET OF THINGS
Smart City projects



COGNITIVE SYSTEMS
AlRaedah Finance



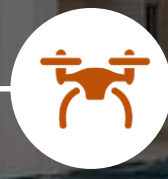
AR/VR
VR Lounge



ROBOTICS
Smart Pharmacy
Autonomous Underwater Vehicles



BLOCKCHAIN
Common Digital Currency Called 'Aber'



DRONES
Surveillance
Monitoring pilgrims walking up Mount Arafat



3D PRINTING
3D Printed Homes

Saudi Arabia's National Transformation Program

National Digitization is at the heart of the “Saudi Arabia’s Vision 2030”
– AI use-cases are Emerging



1

Hajj – Blended IoT & AI

- Smart Fire Alarm System (Ministry of Interior and Ministry of Haj).
- IoT paired with AI to generate data and intelligence for emergency response services before an incident

2

Riyadh Traffic - Big Data & AI

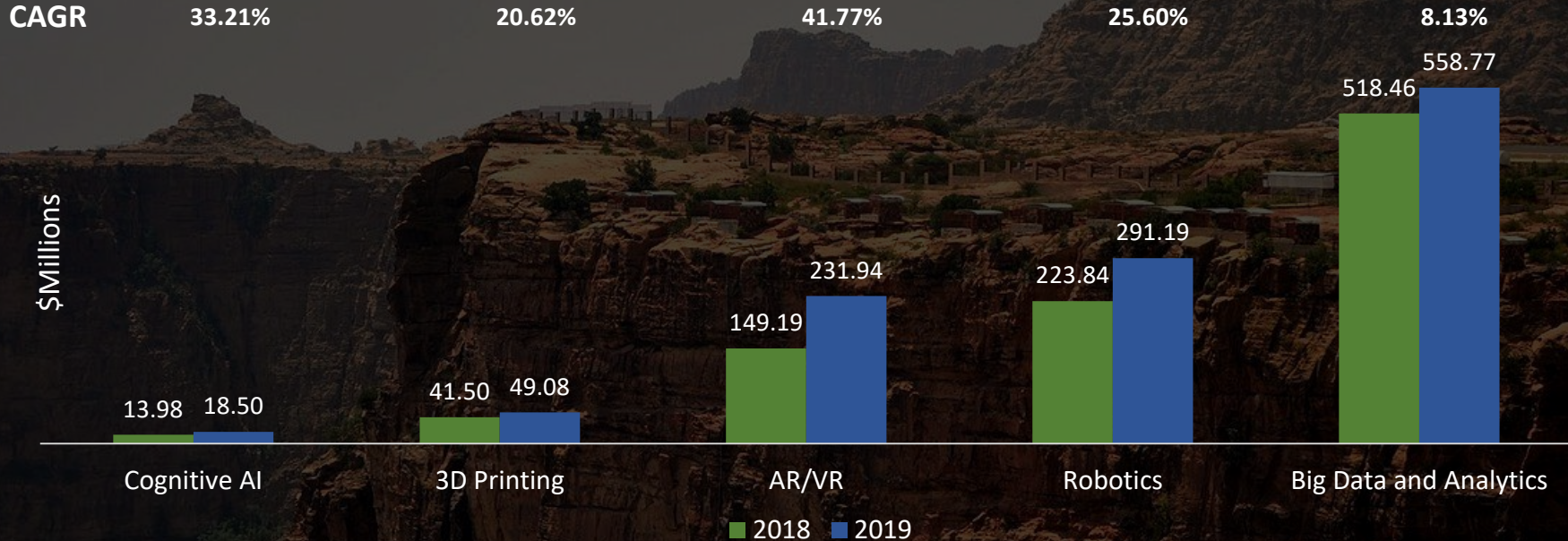
- Controlling the flow of traffic and manage diversions.
- Simulating and predicting what's going to happen in the future and how to optimize.

3

Preventing SARS

- Assessing and tracking the movement of people who got affected to analyze how the disease is spreading and in which region.
- Making healthcare affordable

Digital Transformation (DX) IT spending in META will surpass \$25B in 2019 and will be a key driver for ICT spending





IDC CIO Summit 2019

Saudi Arabia

Strategies for an Era of Multiplied
Innovation & Automation

9th Edition

Saudi Arabia – Jeddah | September 18-19, 2019





IDC IT Forum Roadshow

Automation, Innovation and Intelligence: Strategies for New Digital Economy

Riyadh 18th Nov 2019

Jeddah 21st Nov 2019





IDC Directions 2019

Multiplied Innovation: Scaling A Technology Revolution in Saudi Arabia

IDC Prediction

The need to showcase swift RoI in Smart City initiatives will further drive the adoption of "Off the shelf" solutions



01 **Sound Footing**
Backed by almost USD500 billion, Neom is expected to incorporate innovation and technology with sustainability and diversity.

02 **Innovation Hub**
Neom will innovate in Nano technology, 3D Printing, Sensors, IoT Devices, Electrical and Self Driving Vehicles, Robotics and Renewable Energy.

03 **NEOM Bay**
First phase of the NEOM Bay with a functioning airport will be ready by 2020

05 **Red Sea Project**
Development on 14 luxury hotels will begin under the supervision of TRSDC

Key Smart Cities Predictions 2019



NB-IoT will become mainstream to support the growing needs of the most visited cities in the Kingdom



Smart Parking, lighting, signage and cleaning systems will lead the way to score quick wins and improve sustainable living



Manufacturing, Healthcare and Public Safety will be the early benefactors of 5G deployments in the Kingdom



AI-based analysis will become the standard for generating actionable, in-depth insights out of vast amounts of information.



Smart Public Transit will become a reality with reliance on signal control systems, access control, and smart surveillance



End-Point Security concerns will force the public sector to develop smart security regulations and frameworks

IDC Smart City Middle East Awards

Nominations Now Open!



Become a Sponsor!





IDC Directions 2019

Multiplied Innovation: Scaling A Technology Revolution in Saudi Arabia

IDC Prediction

IoT spending across all segments and industries in the Kingdom will surpass \$1.4 B in 2019.



Spending across the IoT Technology Value Chain will Grow



Source: IDC Semi-Annual IoT Spending Guide, Nov. 2018

Key IoT Predictions for 2019



2019 will see the emergence of IoT VNOs, introducing additional use cases and ramping up the competition



Regulators will recognize the threats from IoT devices and will explore regulations around security



Artificial Intelligence will take IoT from reporting to providing predictive and preventive actions in key verticals



Manufacturing sector will start to use Machine Learning & RPA over their connected devices to prevent downtime



As the amount of connected devices grows, demand for data processing will move from the core to the edge



LPWAN and 5G deployments will add traction to Smart Utilities and Asset Tracking use cases



IDC Directions 2019

Multiplied Innovation: Scaling A Technology Revolution in Saudi Arabia

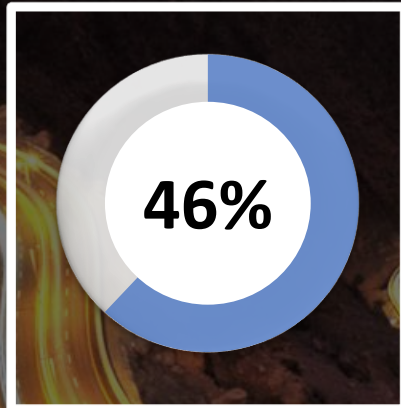
IDC Prediction

Proliferation of the 3rd platform and innovation accelerators will change the Kingdom's posture towards securing high-profile assets.



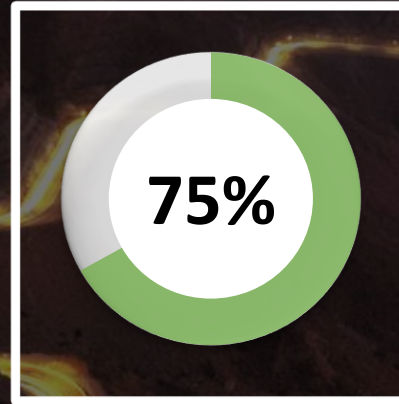
IT security will remain a major area of focus. Exponential data growth and kingdom-wide digital transformation initiatives will be key drivers.

IMPLEMENTATION ROADMAP



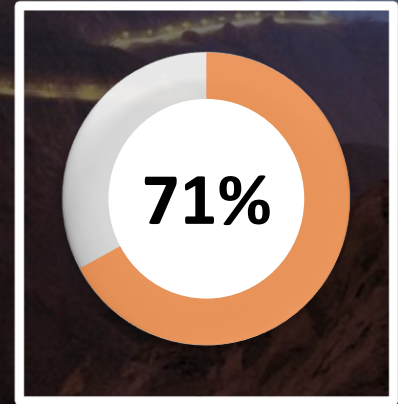
Will implement advanced security solutions in the next 12-24 months

INVESTMENT PRIORITIES



Think investments in cyber security and privacy technologies are extremely important

MAINTAINING SECURITY



Maintaining security is the biggest technology-related challenge for Saudi CIO's

Key Security Predictions for 2019



New and Emerging Opportunities within Managed Security Services (MSS).



Development of SOC capabilities to intensify



Security to become a national priority



With increase in the number of cyber attacks role of Governmental agencies like NCSC will become more critical



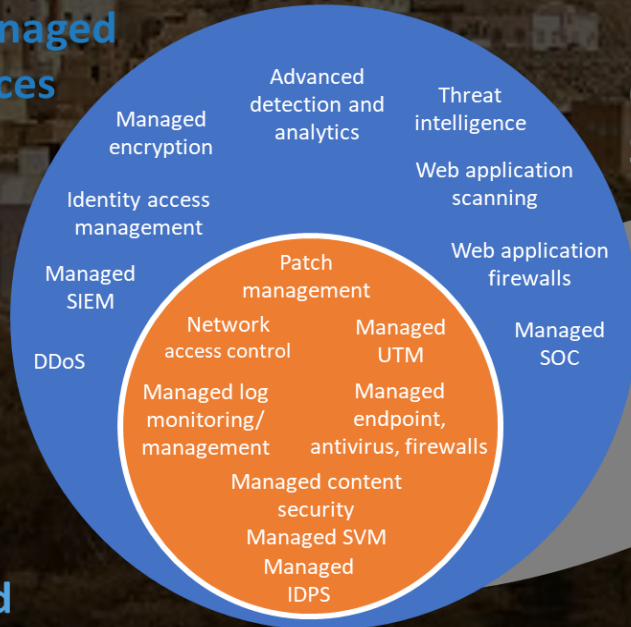
Non traditional players entering into security market mainly in cybersecurity domain



Telcos to aggressively focus on delivering security services remotely

Amid the evolving cyber threat landscape, security vendors and services providers will proactively align themselves with customer's business priorities.

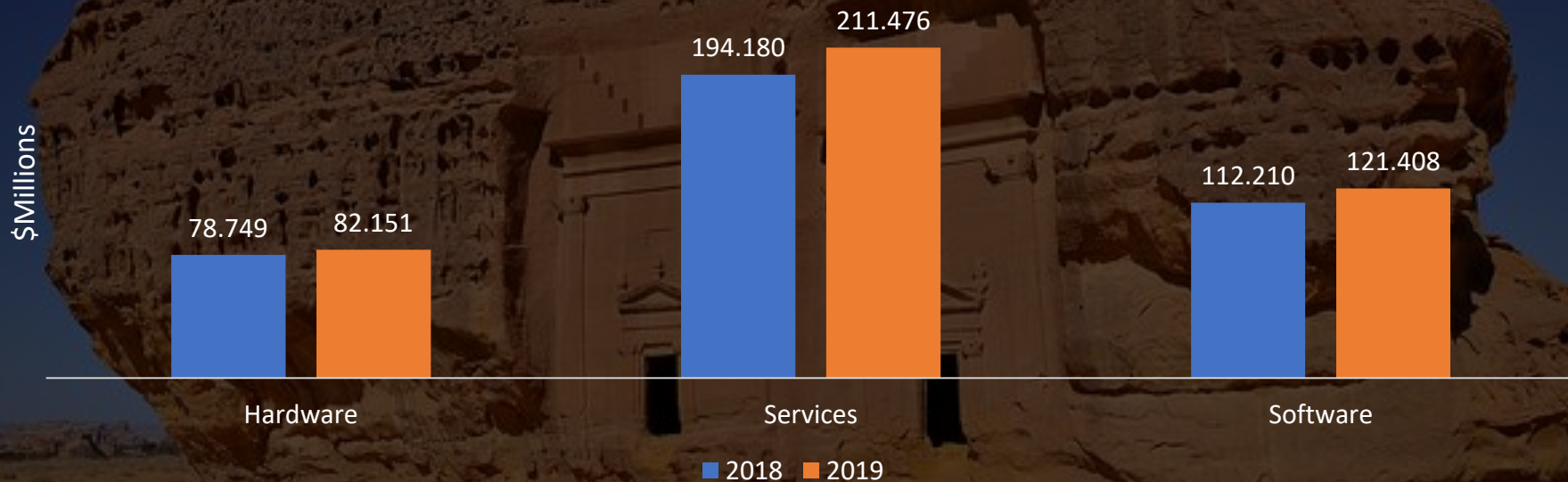
Advanced Managed Security Services



Complementary Security Services

Core Managed Security Services

Overall security spending would reach \$415 M in 2019, expanding at CAGR of 7.9% till 2022





IDC Security Roadshow 2019

BUSINESS SECURITY: RISK & RESILIENCE

Turkey . Bahrain . Kuwait . Muscat . Doha . UAE . **Saudi Arabia** . Egypt . Jordan . South Africa . Mauritius
Exclusive CISO Roundtables: **Riyadh**.

Riyadh 15th April
Jeddah 17th April



IDC Directions 2019

Multiplied Innovation: Scaling A Technology Revolution in Saudi Arabia

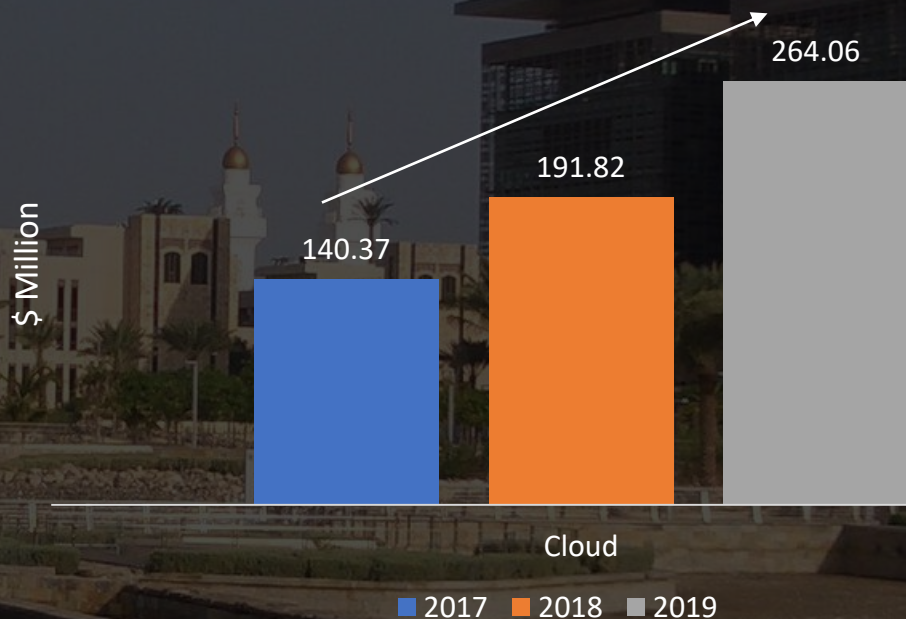
IDC Prediction

Increased uptake of cloud in the Kingdom will garner high interest in data locality under the current cloud specific regulations.



The Public Cloud Market in the Kingdom will exceed \$264 million in 2019

More than 50% of SaaS market is comprised of below workloads



Enterprise Performance Management Applications



Human Capital Management Applications



Financial Applications



Email Applications



Procurement Applications

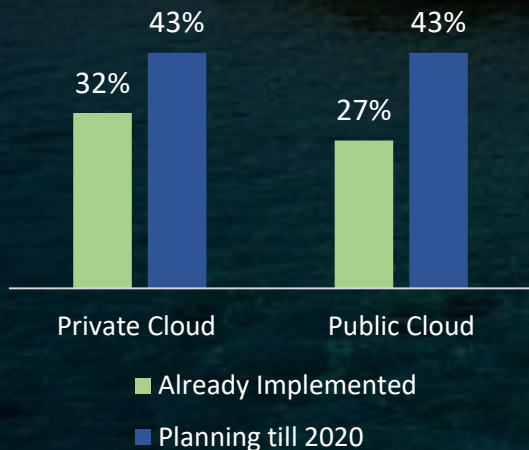


Inventory Management Applications

Spending on cloud will grow at a CAGR of 32.63% from 2018-2022

Key Cloud Predictions for 2019

Cloud Implementation Roadmap



Regulations related to data locality and entry of international players would be a key necessity



Competition in cloud market to intensify with the entry of International players



Emergence of Multi cloud - Customers will have a mix of private and public clouds deployments.



Industry specific solutions - Enterprises in 2019 will look for solutions that are closely aligned with sectorial needs

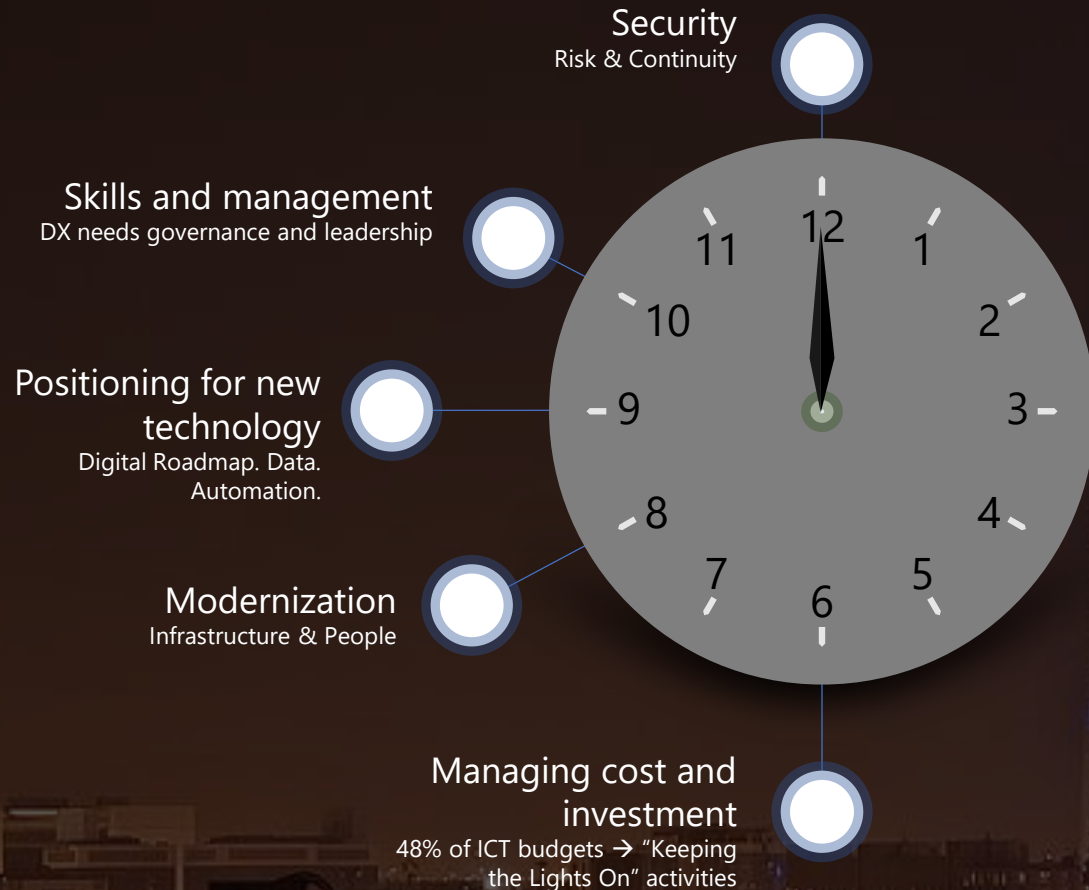


Increase in the acceptance and uptake of Cloud within Government sector



When it comes to cloud offerings, Telcos will look at an ecosystem approach and expand partner base.

Are you even playing the right game?



"Technology spending momentum will rapidly shift from traditional to transformative solutions whilst "doing more with less" will continue to prevail"



IDC Directions 2019

Multiplied Innovation: Scaling a Technology Revolution
in Saudi Arabia

Thank You