

# Country review: Saudi Arabia's digital transformation and collaborative regulation



**Country review:  
Saudi Arabia's digital  
transformation and  
collaborative regulation**



## Acknowledgments

This case study is part of the series of reports on national approaches to collaborative regulation. This initiative has been carried out in the framework of the ITU work stream on collaborative regulation with the financial support of the Republic of Korea.

The case study was prepared by the ITU Regulatory and Market Environment Division (RME) of the ITU Telecommunication Development Bureau (BDT). This report was authored by Ms Janet Hernandez, President, and Ms Kari Ballot-Lena, Director, Digital Policy and Regulatory, Telecommunications Management Group, Inc. (TMG), in their capacity of ITU experts.

## Disclaimer

*The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of ITU concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.*

*The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by ITU in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.*

*All reasonable precautions have been taken by ITU to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader.*

*The opinions, findings and conclusions expressed in this publication do not necessarily reflect the views of ITU or its membership.*

## ISBN

978-92-61-35601-9 (Electronic version)

978-92-61-35611-8 (EPUB version)

978-92-61-35621-7 (Mobi version)



**Please consider the environment before printing this report.**

© ITU 2022

Some rights reserved. This work is licensed to the public through a Creative Commons Attribution-Non-Commercial-Share Alike 3.0 IGO license (CC BY-NC-SA 3.0 IGO).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited. In any use of this work, there should be no suggestion that ITU endorse any specific organization, products or services. The unauthorized use of the ITU names or logos is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the International Telecommunication Union (ITU). ITU is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition". For more information, please visit <https://creativecommons.org/licenses/by-nc-sa/3.0/igo/>

# Foreword



I take great pleasure in introducing this series of Collaborative Regulation Country Case Studies. They provide a high-value, authoritative analysis of the regulatory landscape and offer a step-by-step pathway to our members as they progress towards their G5 destination.

The case studies reflect the journeys undertaken by selected countries from different regions as they analyse their regulatory and institutional frameworks and advance towards more collaborative governance. Each captures a unique, diverse experience of policy that enables decision-makers to explore both the challenges and opportunities that collaborative regulation offers in our journey towards inclusive digital transformation. Each case study generates discussion – and invites a better understanding of the role and impact of collaborative governance and on new tools for regulating digital markets.

Our case study approach is highly collaborative, thorough, tightly structured and inclusive, through an extensive fact-finding questionnaire and one-on-one interviews with key national stakeholders. They elicit views on the future facing G5 regulation and on drivers for regulatory evolution.

The case study lays out the country's regulatory landscape and points both to existing best practice and to areas for future progress. In addition, a high-level policy brief for ICT policy-makers provides a clear view of the value and benefits of collaborative regulation together with its challenges and solutions.

The library of collaborative regulation case studies, launched at the Global Symposium for Regulators 2021 (GSR-21), will expand to include additional country experiences. We are integrating insights from this process into a global project on the transition to collaborative regulation, which will be launched at the upcoming WTDC.

These case studies sit alongside the G5 Benchmark – the gold standard tool that fast-tracks countries along the path of collaborative, cross-sectoral regulation. The 2021 updated G5 Benchmark provides an actionable and precise country readout on progress towards G5 collaborative regulation.

The case studies are an important element in a major global effort by ITU to measure the impact and the many benefits of G5 collaborative regulation. For more than twenty years now, we – ITU and our partners in the global regulatory community – have made enormous progress in analysing, mapping and understanding the changing role that regulation plays in society and in economies. This two-decade-long investment is increasingly bearing fruit – and is now offering a clear-eyed view of the path ahead for all countries, no matter where they are, in their journey towards G5 regulation. These country case studies are an important element in this larger, ongoing body of work and mark a step forward on our journey to achieving the Sustainable Development Goals (SDGs) and digital transformation.

I hope that the Collaborative Regulation Country Case Studies together with our regulatory metrics and tools will prove invaluable to many different types of readers, but especially to ICT regulators and policy-makers in all regions.

A handwritten signature in black ink, consisting of a large, stylized 'D' followed by 'B' and 'M' in a cursive script.

Doreen Bogdan-Martin  
Director, ITU Telecommunication Development Bureau

# Table of contents

Acknowledgments .....	ii
Foreword .....	iii
List of Figures and Tables .....	vii
<b>1 Introduction.....</b>	<b>1</b>
<b>2 Institutional set-up in the ICT sector and across economic sectors .....</b>	<b>3</b>
2.1 State of ICT markets .....	3
2.1.1 Communications and Information Technology Commission.....	4
2.1.2 General Commission for Audiovisual Media.....	5
2.1.3 Other sectoral authorities involved in the digital economy .....	5
<b>3 Key ICT sector policies .....</b>	<b>7</b>
3.1 ICT Sector Strategy 2019-2023 .....	7
3.2 CITC Strategy 2023 .....	7
3.3 CITC Spectrum Outlook for Commercial and Innovative Use 2021-2023.....	8
<b>4 Key cross-sectoral policies.....</b>	<b>9</b>
4.1 General Authority for Competition: Collaborative regulation is key to a pro-competition framework.....	9
4.2 Saudi Arabia Monetary Authority: Fintech and digital transformation policies .....	10
4.3 Water and Electricity Regulatory Authority: Reducing tariffs for cloud computing.....	10
4.4 Digital Governance Authority: Thematic, holistic approach to national policies .....	10
<b>5 Collaborative practices across institutions .....</b>	<b>12</b>
5.1 National Regulatory Committee.....	12
5.2 National Committee for Digital Transformation and the National Digital Transformation Unit .....	13
<b>6 Regulatory tools to promote the digital economy and transformation .....</b>	<b>14</b>
6.1 Agile regulatory tools .....	14
6.1.1 Inclusive, standardized consultation practices.....	14
6.1.2 Self-regulatory and co-regulatory approaches .....	15

6.1.3	Regulatory sandboxes and trial licences .....	16
6.2	Incentive-based regulatory tools.....	16
6.3	Innovation-based regulatory tools.....	17
<b>7</b>	<b>Level of regulatory maturity and policy implementation.....</b>	<b>19</b>
7.1	From regulatory silos to cross-sectoral regulatory collaboration .....	19
7.2	From ICT to digital regulation .....	20
<b>8</b>	<b>Conclusion.....</b>	<b>22</b>

## List of Figures and Tables

### List of figures

Figure 1: Generations of ICT regulation - conceptual framework.....	1
Figure 2. Mobile and fixed broadband penetration rates in Saudi Arabia (2015-2020).....	3
Figure 3. Authorities currently in the National Regulatory Committee.....	12

### List of tables

Table 1: Sample of other sectoral authorities involved in the digital economy .....	6
Table 2: CITC examples of incentive-based regulatory tools.....	17
Table 3: CITC examples of innovation-based regulatory tools.....	17



# 1 Introduction

Saudi Arabia has made significant strides over the last few years to modernize its information and communications technology (ICT) sector. In line with national policy, the Communications and Information Technology Commission (CITC) has focused on increasing competition in the market and improving regulatory flexibility, transparency, and collaboration.

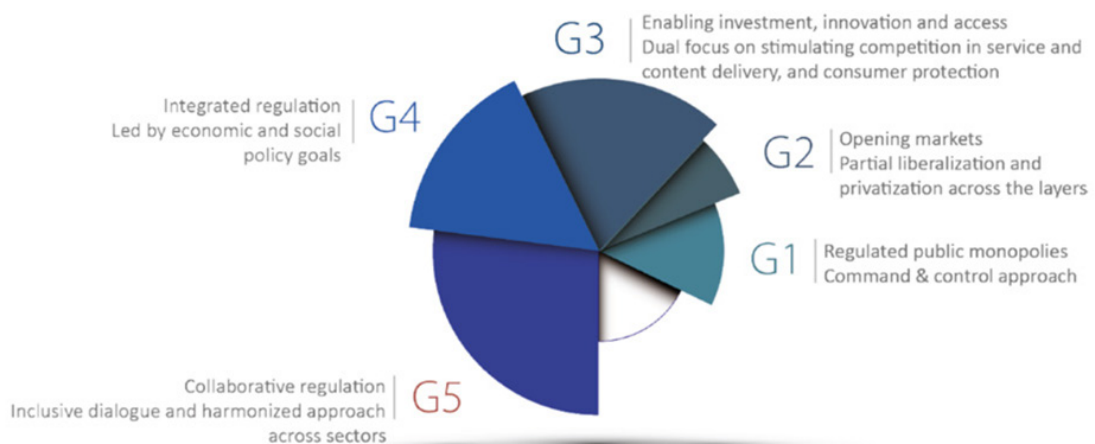
In 2019, the International Telecommunication Union (ITU) identified Saudi Arabia as one of the Arab States region leaders in terms of the “generations of regulation” model.<sup>1</sup>

According to the ITU Global ICT Regulatory Outlook 2020, Saudi Arabia was identified as a generation 4 (G4) country.<sup>2</sup> Under the generations of regulation model, a G4 country has successfully integrated ICT regulation with a separate regulatory authority holding enforcement powers, operating under a clear mandate, overseeing a fully competitive market, protecting consumers, and advancing investment for social and economic goals.<sup>3</sup>

One year later, ITU recognized Saudi Arabia’s continued advancements in terms of regulatory collaboration and digital transformation, leading to the country achieving advanced G5 status in the ITU 2021 G5 Benchmark.<sup>4</sup> The 2021 Benchmark ranks Saudi Arabia among the leaders in the Arab States region.

Globally, countries are moving toward G5 regulation, which entails a collaborative approach to regulation. The aim is to harmonize frameworks across sectors (see Figure 1) by engaging public and private sector stakeholders. This includes the ICT regulator collaborating with other sectoral authorities to coordinate on overlapping digital economy issues, as well as working closely with industry and civil society to be more inclusive as new policies and regulations are developed. Also crucial to G5 collaborative regulation is establishing more agile governmental organization to improve efficiency, effectiveness, and the speed of decision making. This involves establishing clearer links between policy decisions, implementation, and performance monitoring, taking an evidence-based approach to decision-making processes.

**Figure 1: Generations of ICT regulation – conceptual framework**



Source: ITU

Saudi Arabia’s advancements under the generations of regulation model are part of a broader national policy, Vision 2030. First announced in 2016, Vision 2030 is a high-level policy

agenda for socio-economic transformation in Saudi Arabia, including to make the country a global investment powerhouse through diversified revenues and leveraging its location into a global hub connecting three continents.<sup>5</sup> Under this agenda, Saudi Arabia seeks to maximize investment capabilities through the digital economy, privatization of state-owned assets, and attracting large international companies and emerging technologies. A key component is expanding digital infrastructure, especially high-speed broadband, as well as strengthening the governance of digital transformation through a national council.

Collaboration and the streamlining of administrations' systems are crucial elements of Vision 2030. The policy seeks to improve regulations, establish an effective partnership with telecommunications operators, and support local investment in the ICT sector. Increasing administrative transparency and accountability across all sectors and engaging citizens and the private sector through outreach are also important elements of Vision 2030. Additionally, Vision 2030 calls for streamlining administrative systems by eliminating supreme councils and establishing the Council of Political and Security Affairs and the Council of Economic and Development Affairs.

Thus, Vision 2030 serves as the foundation for progress within all sectoral authorities and is the main driver for change as regulatory authorities, including the CITC, adopt more agile and transparent practices to improve decision-making processes and outcomes. As Saudi Arabia adopts digital strategies and policies under Vision 2030, implementation is crucial. As reflected in the ITU Global Symposium for Regulators 2021 (GSR-21) Best Practice Guidelines, digital transformation strategies and policies for the digital economy need "concrete implementation mechanisms and targets."<sup>6</sup> Thus, tracking progress as new policies are implemented will be a necessary component to help ensure that these targets are met and, if not, then to readjust implementation, financing, or governance as needed to reach the Vision 2030 goals.

This case study reviews Saudi Arabia's progress in terms of digital transformation and collaborative regulation based on various sources. These include responses to the ITU G5 questionnaire, virtual and written interviews with regulators, industry groups, and independent research. Virtual and written interviews were conducted with the Communications and Information Technology Commission (CITC), Digital Government Authority (DGA), General Authority for Competition (GAC), Saudi Arabia Monetary Authority (SAMA), and the Water and Electricity Regulatory Authority (WERA), as well as the SAMENA Telecom Council, which represented industry interests. The topics addressed below include:

- institutional setup in the ICT sector and across economic sectors;
- main policies for the ICT sector;
- cross-sector policies for the digital economy and digital transformation;
- collaborative practices across institutions;
- regulatory tools to promote the digital economy and transformation; and
- level of regulatory maturity and policy implementation.

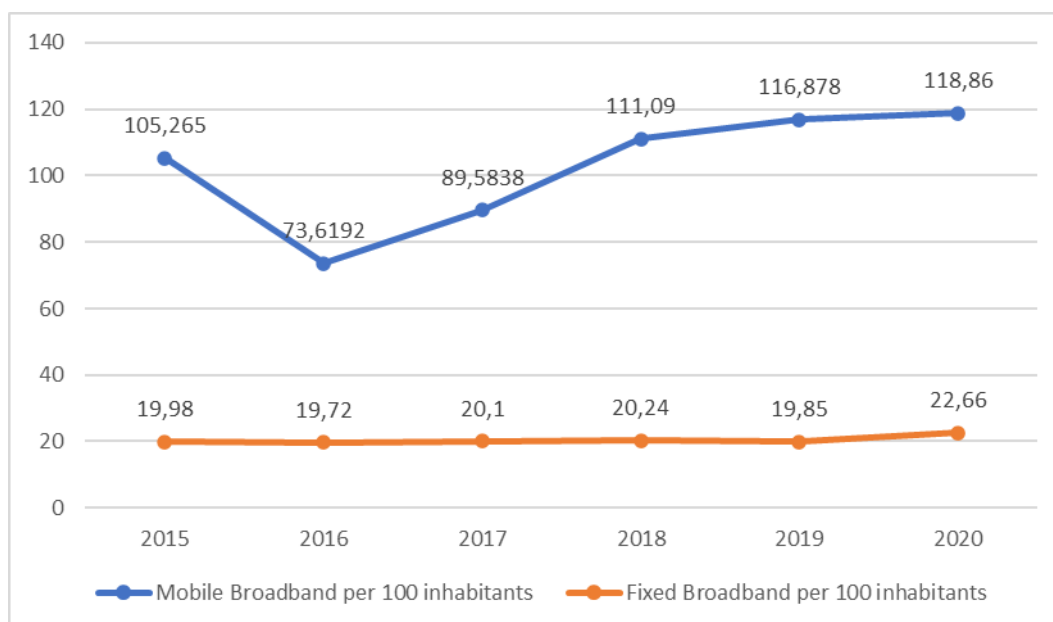
## 2 Institutional set-up in the ICT sector and across economic sectors

Saudi Arabia has a well-developed institutional framework with established regulatory authorities covering the ICT sector and across economic sectors. This section highlights the current state of play in Saudi Arabia's ICT and related markets, it also identifies and describes the CITC and other sectoral authorities involved in the digital economy.

### 2.1 State of ICT markets

Saudi Arabia has high levels of broadband penetration with over 99 per cent of households having Internet access in 2020. As shown in Figure 2, there were 22.66 fixed and 118.86 mobile broadband subscriptions per 100 inhabitants as of 2020.<sup>7</sup> Although mobile broadband penetration steadily climbed to exceed 100 per cent, fixed-broadband levels remained relatively constant between 2015 and 2020. Broadband services are crucial to digital transformation and access should continue to expand to all persons in Saudi Arabia. A key recommendation in the GSR-21 Best Practice Guidelines<sup>8</sup> is for governments to design and implement demand creation for broadband services and digital literacy programmes for all.

**Figure 2. Mobile and fixed broadband penetration rates in Saudi Arabia (2015-2020)**



Source: ITU ICT Eye and CITC

Both fixed line and mobile broadband markets in Saudi Arabia are competitive; the intensity of competition in the mobile broadband market is higher and expected to further increase with the entrance of two additional mobile virtual network operators (MVNOs), that were awarded licences in 2021. The mobile network operators currently include the three joint-stock companies Saudi Telecom Company (STC)- majority owned by Saudi Public Investment Fund (PIF)-, Mobily, and Zain KSA, which hold facilities-based unified individual licences authorizing fixed line and mobile services, along with two other licensees authorized to operate fixed-line networks only.

The Internet services market is fully competitive and the CITC has licensed more than 60 Internet service providers (ISPs) as of August 2021.<sup>9</sup> ISPs fall under the Class B licence, which includes more than 100 licensees across a range of services, such as broadband satellite services and very small aperture terminal (VSAT) services, among others. A total of six Class A licences have been awarded, including four MVNO licensees.<sup>10</sup>

During the COVID-19 pandemic, the CITC worked closely with licensees and instituted various measures to adapt to increased demands. For example, the CITC rapidly responded to the pandemic by collaborating with telecommunications operators to meet the surge in demand for online access and data, as well as enhancing network configurations and connectivity.<sup>11</sup> This played a critical role in enabling remote work and education, business continuity, delivery apps, and e-government services.

Further, the World Bank identified various measures that the government adopted to improve access to digital technologies and services during the pandemic, including:<sup>12</sup>

- additional spectrum to operators to avoid congestion from increased bandwidth needs as citizens worked from home;
- free Internet services to university professors; and
- free SIM cards to students to enable access to online learning platforms.

The World Bank also found that Saudi Arabia secured continued access to e-government services "thanks to its continuous investment in modern digital infrastructure and digital government platforms over the past two decades."<sup>13</sup>

### 2.1.1 Communications and Information Technology Commission

Established in 2001 as the Saudi Communications Commission, the CITC was renamed in 2003 to recognize the important role of the information technology (IT) sector.<sup>14</sup> CITC objectives include encouraging fair competition in the telecommunication sector, providing advanced telecommunication services at affordable prices for consumers, and promoting an effective use of spectrum.<sup>15</sup> CITC has issued regulatory frameworks related to various digital issues, including cloud computing and the Internet of Things (IoT).<sup>16</sup> The cloud computing regulatory framework is based on the best international practice, which includes the rights and obligations of the service providers, individual customers, government entities and enterprises while the IoT document details the government approach to regulating all IoT services and use cases.

In 2019, CITC took responsibility for regulating the postal sector, due to the sector ties to e-commerce.<sup>17</sup>

The CITC identifies as a separate ICT regulator that is autonomous in decision-making.<sup>18</sup> This means that the CITC is independent in terms of finance, structure, and decision-making from the operators and the sector ministry.<sup>19</sup> This designation also means that the CITC decisions

should be made on an impartial basis to increase efficiency and serve as a neutral broker in the market.<sup>20</sup> It is worth noting, nevertheless, that there is government and private sector influence within the CITC decision making structure and processes given that the CITC board of directors includes members from different government entities and the private sector that oversees the CITC administration, as well as to develop and implement its general policies. The Chairman of CITC board of directors is the Minister of Communications and IT.<sup>21</sup> The decisions of the board are taken by a majority vote and the decision-making process provides space for discussion and consensus building while facilitating coordination across government.

### **2.1.2 General Commission for Audiovisual Media**

Established in 2012, the GCAM is responsible for monitoring and licensing audiovisual content. GCAM further seeks to create an investment environment that fosters economic activity in the audio-visual media field, as a contributor to the Vision 2030 plan.<sup>22</sup> GCAM is also working to build digital content skills and entrepreneurship. For example, GCAM recently partnered with Google to offer digital training to Saudi citizens, including courses on digital marketing, content creation skills to attract audiences online, and enabling digital creators to improve their advertising campaigns.<sup>23</sup> The first phase launched in December 2020 with the goal of expanding to 5 000 trainees by the end of 2021.

### **2.1.3 Other sectoral authorities involved in the digital economy**

Numerous other sectoral authorities are involved in Saudi Arabia's digital economy. Table 1 summarizes seven regulators in Saudi Arabia. Notably, many of these authorities have been created within the last five years, including the GAC, DGA, Saudi Data and Artificial Intelligence Authority (SDAIA), and the National Cybersecurity Authority (NCA). This further demonstrates the country's commitment to modernizing the institutional governance frameworks to keep pace with digital transformation. The creation of new agencies, however, should be balanced with their efficiency. Ensuring that authorities are fit-for-purpose and fulfilling their roles will be essential as Saudi Arabia embraces digital transformation. In order to avoid unnecessary duplication between regulatory authorities, national coordination committees such as National Committee for Digital Transformation (NCDT) and National Regulatory Committee (NRC) have been established to allow authorities to collaborate and work on their mandates. These are further addressed in Sections 5 and 7.1. in view of enhancing collaboration across agencies.

Table 1: Sample of other sectoral authorities involved in the digital economy

Authority (Year created)	Overview of authority	Examples of role in the digital economy
<b>General Authority for Competition (GAC) (2017)</b>	Issues/implements competition rules and enhances cooperation with other authorities. <sup>24</sup>	Recently issued implementing competition regulations for electronic platforms and online applications under the new competition law. <sup>25</sup>
<b>Consumer Protection Association (CPA) (2008)</b>	Handles consumer complaints and consumer protection among Saudi authorities. <sup>26</sup>	"Consumer Consultant" programme helps consumers protect digital data; <sup>27</sup> conducts trainings for consumers in e-commerce. <sup>28</sup>
<b>Saudi Arabia Monetary Authority (SAMA) (1952)</b>	Handles government banking, printing currency, managing monetary policy, promoting financial growth. <sup>29</sup>	Created a regulatory sandbox, attracting local and international fintech companies. <sup>30</sup> Launched cybersecurity training for financial sector in May 2021. <sup>31</sup>
<b>Digital Government Authority (DGA) (2021)</b>	Handles digital government matters, including digital policies and proposing regulations. <sup>32</sup>	Coordinates with other authorities to regulate digital government and build trust in e-government services. <sup>33</sup>
<b>Water &amp; Electricity Regulatory Authority (WERA) (2001)</b>	Regulates the electricity, water desalination, and district cooling industries. <sup>34</sup>	Smart Metering and Smart Grids Strategy proposes technology solutions, policies, and roadmap to transform the sector.
<b>Saudi Data and Artificial Intelligence Authority (SDAIA) (2019)</b>	Oversees data/AI; houses National Data Management Office, National Information Center, National Center for AI. <sup>35</sup>	Core mandate is the national data/AI agenda under Vision 2030, such as government cloud services and data centers, digital identity system, and national platforms.
<b>National Cybersecurity Authority (NCA) (2017)</b>	Implements cybersecurity laws/ strategies, <sup>36</sup> including National Cybersecurity Strategy. <sup>37</sup>	Issues frameworks for social media accounts, cloud computing, and critical systems, as well as cybersecurity guidelines for e-commerce. <sup>38</sup>

## 3 Key ICT sector policies

The Ministry of Communications and IT (MCIT) and the CITC focus increasingly on policies and strategies that better position Saudi Arabia as a digital economy leader by promoting investment and innovation in digital technologies. As described below, these policies include the MCIT ICT Strategy 2023, the CITC Strategy 2023, and the CITC spectrum strategy, which are each intended to enable Vision 2030 goals.

### 3.1 ICT Sector Strategy 2019-2023

The Saudi Arabia ICT Sector Strategy 2019-2023 (ICT Strategy) was launched in August 2019 as an ambitious action plan to achieve multiple objectives.<sup>39</sup>

#### Objectives of the ICT Sector Strategy 2019-2023

The ICT Strategy includes objectives to:<sup>40</sup>

- attract leading international companies in emerging technologies;
- increase the share of local content in the IT sector;
- improve the technical skills of the relevant local workforce;
- enhance technical and digital knowledge;
- drive technical innovation by promoting R&D in the start-up ecosystem;
- enable the development of mega projects; and
- support coordination among relevant ICT entities in the public and private sectors.

The ICT Strategy concrete targets include creating 25 000 quality ICT jobs; increasing the size of the IT and emerging technologies market by 50 per cent; expanding women's participation by 50 per cent; and raising the sector contribution to the economy by SAR 50 billion (USD 11 billion). The ICT Strategy identifies 24 strategic initiatives ranked according to ease of implementation and impact potential, which helps to provide a clear roadmap to help define and achieve these objectives.

Since adopting the ICT Strategy, the MCIT has launched various initiatives. For example, in May 2021, the MCIT initiated the Riyadh Techstars Accelerator to provide support programmes and invest in local digital start-ups and entrepreneurship.<sup>41</sup> The programme began with 10 start-ups with projects receiving funding of SAR 450 000 (USD 120 000).

### 3.2 CITC Strategy 2023

The CITC developed its own strategy - CITC Strategy 2023 - to complement the ICT Sector Strategy 2019-2023 and align with Vision 2030 goals. The strategy emphasizes the CITC transition from an ICT/telecommunication regulator to a digital regulator.<sup>42</sup> In October 2020, the CITC formally rebranded as a digital regulator, in line with its goals to become a G5 regulator.<sup>43</sup> The CITC Strategy 2023 identified four themes: protect consumers; promote investment and competition; enable digitalization; and achieve regulatory excellence and

enhance organizational excellence.<sup>44</sup> To achieve these goals, the CITC is implementing policies to promote cybersecurity and adopt emerging technologies, as well as seeking to adopt a collaborative and agile regulatory framework that enhances organizational effectiveness and regulatory compliance.

### **3.3 CITC Spectrum Outlook for Commercial and Innovative Use 2021-2023**

The CITC Spectrum Outlook for Commercial and Innovative Use 2021-2023 (Spectrum Outlook) highlights regulator progress toward adopting decision-making processes that are open, inclusive, and transparent while promoting flexible-use policies.<sup>45</sup> In July 2020, the CITC conducted an initial consultation on Spectrum for IMT-2020 and Beyond: Fostering Commercial and Innovative Use of Radio in the Kingdom of Saudi Arabia. Using the stakeholder inputs from the consultation, the CITC launched a follow-up consultation in January 2021.<sup>46</sup>

The second consultation proposed specific spectrum policies and was open to all stakeholders for one month. Among the proposals were innovative spectrum rules, including flexible access, shared spectrum, and light licensing approaches. The CITC published the final Three-Year Outlook for Commercial and Innovative Use of the Spectrum in Saudi Arabia on March 30, 2021.<sup>47</sup> Industry groups worldwide welcomed the Spectrum Outlook. For example, the GSMA noted the "progress Saudi Arabia has made and how well the country is doing compared with the world."<sup>48</sup>



## 4 Key cross-sectoral policies

In line with the GSR-21 Best Practice Guidelines, regulatory governance structures should be adapted to new digital mandates, which is particularly important for sectoral authorities that are not necessarily at the forefront of digital regulatory matters.<sup>49</sup> Guided by Vision 2030, Saudi Arabia is actively working to build this capacity in sectoral authorities through policies and strategies to address emerging issues and promote innovation in digital technologies. This section identifies some digital-specific policies and practices adopted by the GAC, SAMA, DGA, and WERA, based on interviews conducted for this case study.

### 4.1 General Authority for Competition: Collaborative regulation is key to a pro-competition framework

The GAC recognizes that its pro-competition framework, strategies, and policies are necessary to realize the “significant and positive correlation of the connectivity of digital services and increased volume of collaboration across sectors.”<sup>50</sup> It focuses on gaining consensus in its regulation and policy by collaborating with peer regulators and stakeholders. Although organized as a separate, independent authority, the GAC functions as “part of a network of partner regulators.” To achieve regulatory collaboration, the GAC identifies three key actions that authorities should take.

1. Scope of collaboration. Regulators should identify their goals and interests to solve shared challenges.
2. Determine responsibilities. Roles and lines of responsibility should be defined so that each regulator understands what value they bring, what to expect, and what to achieve together.
3. Design a framework approach. The initial collaboration framework should be designed to align actions with expectations for each authority, including a methodology that can be used to create, monitor, and evaluate collaboration processes.

For example, in implementing the National Competition Policy (NCP), the GAC emphasized the need for regulatory reform to ease market entry and guarantee equal business opportunities, especially during the current period of privatization of state-owned businesses.<sup>51</sup> Importantly, the GAC is considering competition policies as joint projects with other authorities and stakeholders in order to clarify, align, support, and facilitate effective collaboration. This includes closely coordinating with the MCIT, CITC, DGA, and the NCA. The GAC also holds public consultations regularly to gather stakeholder inputs on various competition issues and considers consultation an essential tool to identify the likely consequences of new regulations.<sup>52</sup> Ultimately, the GAC views itself as a “solution seeker” to protect markets and adopt rules that “optimally allocate economic resources and protect consumers.”<sup>53</sup>

## 4.2 Saudi Arabia Monetary Authority: Fintech and digital transformation policies

As Saudi Arabia's Central Bank, SAMA plays an important role in the country's digital transformation and implementation of Vision 2030. It implemented a regulatory sandbox in which fintech companies were invited to launch financial services products and services using different concepts and business models that previously did not have a route to market.<sup>54</sup> SAMA accepted 32 companies into the regulatory sandbox with 12 companies successfully graduating, including one that obtained over USD 1 billion valuation within 18 months of launching. highlights one of SAMA successes in STC-PAY.

### STC-PAY: SAMA regulatory fintech sandbox success

In February 2020, STC-PAY officially graduated from a SAMA regulatory fintech sandbox to be considered an e-wallet services provider.<sup>55</sup> In June 2021, SAMA and the Minister of Finance converted STC-PAY into a locally licensed digital bank (STC bank), with a capitalization of SAR 2.5 billion.<sup>56</sup>

SAMA is also fast-tracking other major initiatives to further accelerate digital transformation.<sup>57</sup> These include a National Fintech Strategy with the goal of launching more than 500 fintechs by 2030; an open banking framework to develop rules and governance for an open banking ecosystem in Saudi Arabia; a digital signature framework to allow legal contracts to be signed without wet signatures; and an expansion of data privacy and digital identity rules to be harmonized across government and the private sector. As of September 2021, the National Fintech Strategy is in the final stage of approval.

## 4.3 Water and Electricity Regulatory Authority: Reducing tariffs for cloud computing

WERA has launched and implemented various digital policies in the energy sector, in close collaboration with other sectoral authorities.<sup>58</sup> For example, to foster the development of cloud services in Saudi Arabia, WERA and the Saudi Arabia Government recently reduced the electricity tariff for cloud computing operators based in the country to SAR 0.18 (USD 0.048) per kilowatt/hour.<sup>59</sup> The rate for other commercial users is between SAR 0.20 and SAR 0.30 per kilowatt/hour<sup>60</sup>. Cloud computing operators licensed by the CITC, as well as new companies expected to deliver electricity to them, benefit from the reduced tariff. WERA noted that this will contribute to developing advanced technologies across all sectors while mobilizing the integrative role of the electricity sector and its partners in the ICT sector.

## 4.4 Digital Governance Authority: Thematic, holistic approach to national policies

Because the DGA was newly established in March 2021, the authority has not yet implemented major policies.<sup>61</sup> The DGA is tasked with preparing the national e-government strategy, overseeing digital government platforms and websites, establishing technical standards, and regulating the government cloud.

The DGA noted that many policies and institutions supporting data transformation are already in place, including the [Digital Economy Policy](#) and the [National Committee for Digital Transformation](#) (NCDT).<sup>62</sup> The DGA, while still in the design phase, aims to fill any policy gaps. According to the DGA, the main challenge for digital transformation has been the relatively high fragmentation of the public sector. To overcome this challenge, the DGA will track policies and regulations thematically (and not only by sector). Thematic tracking is intended to offer a more holistic vision of digital policies, particularly for cross-cutting new technologies, such as AI and blockchain, and global crisis management, such as the ongoing COVID-19 pandemic.

## 5 Collaborative practices across institutions

As the above examples show, Saudi Arabia has developed an array of policy and institutional mechanisms that cut across sectors and rely on effective collaboration among the various ministries and regulators. In some cases, public sector institutions have implemented collaborations for specific initiatives. For example, WERA noted that implementing the Smart Meter project with the Saudi Electricity Company (SEC) involved collaboration with WERA, the Ministry of Energy, MCIT, CITC, and the Local Content and Government Procurement Authority (LCGPA), among others.<sup>63</sup> Together, they achieved the target of installing 10 million smart meters by the end of March 2021.

In addition to using ad-hoc style collaborations to meet specific targets, ongoing collaboration mechanisms help to unlock digital transformation under the G5 model. The GSR-21 Best Practice Guidelines emphasized the need to engage in “whole-of-government collaboration and coordination and the national and local level to leverage synergies and the pooling of funds and address social and economic priorities.”<sup>64</sup> Saudi Arabia has established the National Regulatory Committee (NRC) and the NCDT to better facilitate inter-governmental collaboration, according to international best practices. Because these governance structures are still relatively new, their added value and effectiveness may take time to materialize. Increased transparency regarding meetings and outcomes would help to provide accountability and track progress.

### 5.1 National Regulatory Committee

NRC is a formal, joint committee that allows the CITC and other regulators to collaborate.<sup>65</sup> Currently, it contains eight core members, namely the CITC, Capital Markets Authority (CMA), GAC, GCAM, Public Transport Authority (PTA), SAMA, SDAIA, and WERA. According to the CITC, further participants are expected as the NRC matures, and more regulators and stakeholders are engaged. A plan in 2024 includes “engaging academia and the private sector to enrich the committee with new perspectives [and] identify forward-looking emerging projects.”<sup>66</sup>

Figure 3. Authorities currently in the National Regulatory Committee



Source: CITC

NRC was established by the NCDT and is intended to “ensure the highest level of coordination, enhance cooperation between regulators, and harmonize the regulation of common digital topics between entities.”<sup>67</sup> Its work includes “conducting studies to evaluate best practices, submitting proposals and recommendations, and launching knowledge-sharing initiatives between entities” in order to strengthen the digital regulatory environment among the various

sectors. This includes addressing cross-sectoral topics, such as blockchain, smart cities, and digital platforms, as well as proactively anticipate emerging issues that may involve additional public and private sector entities, as needed.<sup>68</sup>

NRC was established to accelerate the adoption of digital policies and regulation and to promote innovation, job creation, and investor confidence. Given the importance of the mandate entrusted to NRC, transparent and timely updates with regards to the concrete targets and the work of the Committee would allow national stakeholders and the public to appreciate progress made and reinforce their accountability.

## **5.2 National Committee for Digital Transformation and the National Digital Transformation Unit**

The NCDT was created in July 2017 by royal decree and is an 11-member ministerial committee that includes ministers from the MCIT, health, finance, commerce, human resources and social development, education, interior, industry and mineral resources, as well as the heads of the SDAIA, NCA, National Digital Transformation Unit (NDU), and the Local Content and Government Procurement Authority.<sup>69</sup>

NCDT has a mandate to formulate policies and strategies related to digital transformation, as well as develop plans and programmes necessary to implement them while ensuring that the various ministries and their agencies coordinate on relevant initiatives. NCDT engages in four main tasks regarding approval, proposal, endorsement, and supervision.

NDU was established in 2017 by royal decree as an independent agency. It acts as the NCDT executive arm, and is focused on helping to achieve the Vision 2030 objectives.<sup>70</sup> NDU plays three key roles. The first is as the leader and accelerator of digital transformation, including through cooperation with DGA (Saudi Arabia e-government programme) and SDAIA. Second, it serves as a governmental centre of excellence for digital transformation by giving recommendations and remarks on national affairs and strategies pertaining to digital transformation, including to review strategies of Vision 2030 realization programmes following requests made by the Council of Economic and Development Affairs. The third role is as NCDT secretariat, which includes managing subcommittees and task forces, including following-up on the NCDT decisions and recommendations and ensuring they are implemented. NDU also conducts studies, and reports findings and recommendations to the NCDT.

## 6 Regulatory tools to promote the digital economy and transformation

The GSR-19 Best Practice Guidelines highlighted seven core design principles for collaborative regulation, focusing on the need for a holistic, cross-sectoral approach to regulation that includes consultation with all stakeholders and results in evidence-based, outcome-based, incentive-based, and flexible rules.<sup>71</sup>

In addition to developing cross-sectoral, collaborative relationships at the ministry and regulator levels, Saudi Arabia, and CITC in particular, is adopting various regulatory tools to promote the digital economy and digital transformation, pursuant to Vision 2030 and in line with GSR-19 best practices. These evolving frameworks represent a shift from "command and control" style regimes to more inclusive, flexible, and forward-looking regulation that promotes agile and incentive- and innovation-based regulation. Notably, some of these regulatory tools/regulations are already achieving its goals, while others might need more time to identify how successful they are. Tracking implementation to identify whether new frameworks are effective will be a key role for the government moving forward.

### 6.1 Agile regulatory tools

The ITU/World Bank Digital Regulation Platform notes that an "important tool in moving to G5 frameworks is to cultivate agile regulation."<sup>72</sup> Agile regulation means that policy-makers and regulators develop flexible, principles-based sectoral legislation and regulation that is capable of responding to rapidly changing technologies, services, and markets, thereby making such regulation more adaptable and future-proof. Saudi Arabia has begun adopting agile regulatory tools through more inclusive consultation practices, self- and co-regulatory approaches, and regulatory sandboxes.

#### 6.1.1 Inclusive, standardized consultation practices

In addition to collaboration among cross-sectoral government ministries and regulators, collaboration between the public and private sector is crucial to achieving an agile framework. Policy-makers and regulators should coordinate with the private sector to leverage industry players' knowledge and expertise. Open and transparent public consultations, with a reasonable period for stakeholders to comment (i.e., at least 30 days), are an important tool to increase public-private sector coordination and evidence-based decisions. Ideally, consultation procedures are clearly defined under a relevant law or regulation and include measures requiring the regulator to make evidence-based decisions, such as through the use of regulatory impact assessments (RIAs).

CITC reports that a formal RIA requirement is in place, under the Bylaw of the Telecommunications Act (Bylaw) and CITC guidelines. The Bylaw does require the CITC to conduct a consultation prior to specific types of decisions, such as prior to amending, renewing, suspending, or revoking an individual licence (Section 12.9) or class licence (Section 15.13). However, it does not specify

the consultation procedures and instead affords the CITC leeway to determine the process. Further, the CITC has developed its own guidelines on issuing regulations; however, to help track the implementation status for RIAs by all stakeholders, it would be important to make the guidelines on issuing regulations as well as the RIAs conducted available online.

The CITC began holding public consultations 15 years ago and maintains a consultation page on its website, noting that regulators should ensure “before making any decision on regulations or policies, to consult with all stakeholders.”<sup>73</sup> Since 2020, the CITC has opened nine consultations, six of which were issued in 2021 alone. Most – but not all – recent consultations are open for at least 28 days, such as the consultations on the Spectrum Auction 2021, the Updated Technical Specifications, and the Spectrum Outlook. Overall, the CITC consultations welcome a wide range of stakeholders, both domestic and foreign.<sup>74</sup>

The CITC July 2020 Spectrum Outlook consultation received comments from 65 organizations, spanning 20 different countries. Although the CITC did not publish the comments individually, the consultation document summarizes the responses received.<sup>75</sup>

### 6.1.2 Self-regulatory and co-regulatory approaches

Adopting self-regulatory or co-regulatory approaches is a useful tool to enabling an agile regulatory framework as these models generally rely on a principles-based approach to regulation, as well as deeply engage industry stakeholders in the regulatory process. Such approaches represent an important opportunity for collaboration between regulators and the private sector.

#### Overview of self-regulation and co-regulation benefits

“Self-regulatory and industry/regulator collaboration are other mechanisms to provide flexible frameworks that help avoid burdensome regulation that could risk stifling innovation. Self-regulatory and coregulatory approaches can be implemented with legislation that establishes proper boundaries and obligations, with the regulator maintaining reserve powers. In line with this, regulators can engage in more light-handed regulation, encouraging voluntary compliance with industry policies or market-driven standards to minimize or avoid the need for more stringent regulatory intervention.”<sup>76</sup>

Self- and co-regulatory approaches have been adopted in Saudi Arabia, including codes of conduct relating to data privacy and protection and cybersecurity. The General Principles for Personal Data Protection in the Telecommunications, IT, and Postal Sectors (General Principles) identifies the “principles and legal foundations that enable service providers to invest and innovate in services and applications that provide value to users by utilizing the personal data.”<sup>77</sup> The General Principles apply to all service providers and are mandatory but offer providers some leeway in terms of how they choose to implement the rules. For example, service providers develop and implement their own privacy programmes for customer data, which are then subject to CITC approval. Similarly, the CITC cybersecurity regulatory framework imposes obligations on service providers but offers them some flexibility in how to comply with the requirements, including a self-assessment form to measure compliance with the cybersecurity obligations.<sup>78</sup>

### 6.1.3 Regulatory sandboxes and trial licences

Inspired by the fintech sector, ICT regulators are increasingly introducing regulatory sandboxes and streamlined trial licences to "promote the deployment of emerging technologies and encourage market players, including from outside traditional telecommunication operators, to test and develop services."<sup>79</sup> Sandbox licensees may not be subject to the full ICT regulatory regime and may receive more regulatory guidance than standard licensees, particularly non-telecommunications entities. Sandboxes offer flexibility for trialling new technologies and may prove useful during times of crisis to test solutions that ensure connectivity and are among the recommendations in the GSR-21 Best Practice Guidelines, which called for "broadening legal frameworks for experimental regimes for digital innovation using regulatory sandboxing to multiple sectors, such as medicine, transport, agriculture, finance, commerce, and government services and oversight."<sup>80</sup>

In October 2020, the CITC announced the launch of a regulatory sandbox for delivery applications in the postal and e-commerce sectors, which is intended to reduce time to market and deliver prices by encouraging healthy market competition.<sup>81</sup> Projects are assessed on their service quality, business models, legality, and customer service while the CITC provides guidance on potential financing opportunities.

Within the telecommunications market, CITC issued trial 5G licences in 2018 authorizing licensees to use the 3.6-3.8 GHz bands for mobile public telecommunication services on an experimental basis.<sup>82</sup> This led to commercial 5G launches in 2019 and the region's highest 5G adoption rates as of early 2021.<sup>83</sup> More 5G spectrum will be auctioned as CITC is currently consulting on releasing multiple key bands for a wide range of digital services on a light-licensing basis.<sup>84</sup>

## 6.2 Incentive-based regulatory tools

The ITU Global ICT Regulatory Outlook 2020 identified several high-level policy design principles – including incentive-based tools – that lay the foundation for collaborative regulation and redefine regulatory approaches under the G5 model.<sup>85</sup> Incentive-based tools can be market-based by promoting investment and regulatory-based by improving market outcomes through reduced or more streamlined regulation, as highlighted in the GSR-19 Best Practice Guidelines.<sup>86</sup>

Saudi Arabia began adopting incentive-based regulatory tools over the last few years, including through reduced regulatory fees, extended licence terms, and support for expanded broadband coverage. The CITC identified the following examples in the ITU G5 Benchmark questionnaire (see Table 2).



**Table 2: CITC examples of incentive-based regulatory tools**

Incentive-based tool	Description
<b>Reduced regulatory fees for cloud services</b>	As noted in Section 4.3, the Saudi Arabia Government reduced the electricity tariff for cloud computing operators, including for operators licensed by the CITC. <sup>87</sup> To facilitate the process, the CITC created a cloud computing portal and guidance to operators to participate in the programme. <sup>88</sup>
<b>Extended licence terms</b>	In 2016, the Saudi Arabia Government extended the licence terms an additional 15 years for two service providers, ending in 2047. <sup>89</sup> The duration was extended with the transition to a unified licence enabling service providers to offer all telecommunications services, including fixed-line services.
<b>Support to expand broadband coverage</b>	As part of Vision 2030, Saudi Arabia announced an agreement with service providers in 2017 to expand the deployment of broadband networks and services with fiber-optic technology to homes and vital government facilities. <sup>90</sup> The target was to increase the number of homes in high-density urban areas from 44 per cent to 80 per cent by 2020 and in urban areas from 12 per cent to 55 per cent by 2020.
<b>Open access broadband initiative</b>	In 2020, the CITC launched an open access agreement with all six telecommunication companies, guaranteeing the provision of broadband services through any subscriber-selected provider, regardless of infrastructure ownership. <sup>91</sup> The initiative intends to use existing infrastructure, encourage competition, attract investment, and increase broadband subscriptions by improving service quality and consumer choice.

### 6.3 Innovation-based regulatory tools

Innovation-based regulation is among the high-level policy design principles for G5 identified in the ITU Global ICT Regulatory Outlook 2020.<sup>92</sup> Saudi Arabia identified various holistic innovation policies for the technology and digital sector in the G5 Benchmark questionnaire, as highlighted in Table 3.

**Table 3: CITC examples of innovation-based regulatory tools**

Innovation-based tool	Description
<b>Flexible-use spectrum rules</b>	As previously mentioned, the Spectrum Outlook promotes flexible spectrum use. <sup>93</sup> These include a spectrum trading and secondary market framework, which is currently open to public consultation. <sup>94</sup> The CITC is also adopting a flexible, market-oriented spectrum management regime that includes lightly licensed spectrum in which spectrum is not exclusively assigned but users must register, as well as licence-exempt and innovative dynamic spectrum access approaches. To facilitate light-licensing, the CITC will create a database for certain bands that can automate network planning and provide easily accessible insights into spectrum usage. Another example of flexible-use spectrum rules is the launch of Wi-Fi 6e in April 2021, making Saudi Arabia the first country in the Africa, Arab States, and Europe regions to make full use of the 6 GHz band available for Wi-Fi use. <sup>95</sup>

Table 3: CITC examples of innovation-based regulatory tools (continued)

Innovation-based tool	Description
<b>Innovation is core to the ICT Strategy 2019-2023</b>	The ICT Sector Strategy 2019-2023 identifies innovation as one of the CITC four core values, along with collaboration, enablement, and transparency. <sup>96</sup> As previously noted, this includes promoting research and development in the country's start-up ecosystem and engaging the public and private sectors in collaboration.
<b>Partnership with the ITU to promote digital innovation</b>	An example of Saudi Arabia's international collaboration is the 2019 agreement signed between the CITC and the ITU Development Bureau (ITU-D) to strengthen cooperation and partnership on ICT issues. The agreement "aims to reinforce cooperation in supporting ICT regulators around the world, especially in developing countries," as Saudi Arabia shares its expertise with all ITU Member States. <sup>97</sup>

## 7 Level of regulatory maturity and policy implementation

As a G5 country under the ITU generations of regulation model, Saudi Arabia is classified as a mature market in terms of ICT regulation, as well as policies to promote the digital economy.<sup>98</sup> ITU noted that Saudi Arabia exhibited a “relatively high score in the two Pillars that have any impact on the development of the digital economy” that is “significantly close to what was observed in advanced economies of North America and Europe.”<sup>99</sup>

Under the Vision 2030 goals, Saudi Arabia has quickly embraced more collaborative approaches to regulation to harmonize policies and regulations across sectors, as well as obtain buy-in from private sector stakeholders. The CITC recent policies, strategies, consultations, and frameworks also further agile regulation to promote investment and innovation in the ICT and other sectors.

### 7.1 From regulatory silos to cross-sectoral regulatory collaboration

Regulatory collaboration is now a core value built into the fundamental regulatory frameworks, strategies, and policies across all sectors and recognized as essential for Saudi Arabia's digital transformation. At the regulatory authority level, NRC and other committees are working on harmonization of policies and regulations. At the ministerial level, NCDT is continuing to collaborate at the highest levels of government to achieve digital transformation, including to become one of the world's top 20 digitally innovative nations.

Cross-sectoral collaboration remains a top priority, according to interviews conducted with regulatory authorities and private industry. The following highlights these key perspectives along with implementation outcomes:

- **CITC** noted that when ICTs were more limited in terms of impact and applications, ICT regulators typically worked in silos.<sup>100</sup> With increased digitalization, all sectors rely on ICT services and applications, which requires a more open approach. NRC emerged as a means to “improve [the] digital regulatory ecosystem by participation of cross-sector regulators with the involvement of the private sector.” CITC, as a key member of NRC, has started several collaborative initiatives, including for emerging technology regulations (e.g., connected cars), the policy of integrating geographic data systems among different sectoral regulators, cloud computing, and human capacity building.<sup>101</sup>
- **DGA** recognized that sectoral coordination is dominant and encouraged adoption of a more thematic approach that extends beyond traditional sectors.<sup>102</sup> For digital transformation of the government, DGA identified the main challenge as “relatively high fragmentation of the public sector, despite critical efforts by the government and real on-the-ground gains in the last few years.” DGA supports strengthening the collaboration efforts of NCDT to track policy implementation.
- **GAC** emphasized the importance of self-regulatory and co-regulatory models when approaching competition regulation, which rely on collaboration between the regulator and private sector players. To achieve agile regulation leading to digital transformation, GAC views regulators as guiding and supporting innovation, new business models, and new licensing models across sectors. For example, GAC identified an important role as supporting digital platforms through “online content moderation, online protection, and awareness [in] navigating the challenges enabled by the digital transformation.”<sup>103</sup>
- **SAMA** noted that Vision 2030 has been translated into a “whole of government” approach that is crucial to digital transformation.<sup>104</sup> One example of SAMA-led regulatory

collaboration involved working with multiple other government entities to outline requirements for digital identification and verification services to be used on a government-wide basis. This cross-sectoral collaboration created a standardized approach for citizens and residents using a unique national identity number. The information is managed by the National Information Centre at SDAIA, which provides the necessary standardization.

- **WERA** identified the Smart Metering project as an ambitious initiative that relied on collaboration among at least eight different ministries, regulators, and companies.<sup>105</sup> Together, the collaboration succeeded, reaching its target to install 10 million smart meters by the end of 2021. WERA is also focusing on improving private sector engagement and stakeholder buy-in, noting that the Istetla platform gains feedback from the public and private sectors on governmental policies, regulations, and other documents. Istetla is a unified electronic platform run by the National Competitiveness Center.
- **SAMENA** identified cross-sector and multistakeholder collaboration as the most important pillar to achieve agile regulation in the digital environment.<sup>106</sup> Not only does collaboration among regulators promote more effective regulation in terms of coordinating on policy needs, but also builds inter-agency relationships to support private sector players that often must interact with multiple regulators, such as the ICT, finance, consumer protection, and other authorities. To minimize administrative burdens on industry players, SAMENA recommended identifying the CITC as the central digital regulator to streamline regulatory processes for ICT and digital companies. SAMENA also emphasized the need for further international collaboration to develop a harmonized regional approach that minimizes regulatory fragmentation among countries.

## 7.2 From ICT to digital regulation

Saudi Arabia has clearly laid the groundwork for digital transformation, investing in digital technologies, encouraging participation from public and private sector stakeholders, aligning policies across sectors, and engaging in capacity-building at all levels of government. Among the entities interviewed for this report, all ranked Saudi Arabia between an 8 and 10 (on a scale of 0 to 10) in readiness for the digital transformation in terms of the policy/regulatory frameworks and institutional governance. This high level of readiness is supported by Saudi Arabia's robust digital infrastructure, clear policies and strategies for digital transformation, coordination among policy-makers and regulators and, most importantly, the overarching Vision 2030.

As Saudi Arabia continues to make progress toward the Vision 2030 goals and move forward with G5 regulation, the following recommendations are offered for consideration:

- In line with GSR-21 Best Practice Guidelines, ensure that the level of implementation of policies are tracked and adjusted, as needed, to align with policy goals and objectives. This includes adopting "clear, ambitious but executable regulatory roadmaps" and ensuring that implementation is "coordinated across government agencies and with private sector stakeholders."<sup>107</sup>
- Pursuant to Vision 2030 goals and GSR-21 Best Practice Guidelines, track whether opportunities in the digital transformation are available to all, as well as to encourage participation in leadership roles.
- In line with ITU definitions of a separate regulator autonomous in its decision-making and enforcement powers, provide more separation between CITC and the ministry and private sector entities that CITC regulates. Adopt measures to improve facilities-based competition to support the move towards more competition in fixed broadband markets in view of enhancing digital market and consumer outcomes.
- Provide publicly timely, comprehensive, and measurable information about the communication channels collaboration among regulators, such as publishing meeting schedules and outcomes from the work of NRC and other collaborative efforts among regulatory authorities, in order to provide accountability and track progress. This is in

line with the GSR-21 Best Practice Guidelines, which call for governments to “[b]uild accountability, focus[ing] on outcome in the design and implementation of collaborative regulation practices by integrating regular and transparent stakeholder engagement and building new regulatory partnerships.”<sup>108</sup>

- Ensure that new agencies and authorities are necessary to help implement digital transformation goals and are not introducing unnecessary complexities or duplication in digital governance.
- Adopt self-regulatory or co-regulatory frameworks for the ICT and digital sectors that are industry-led, such as codes of practice or conduct, in line with GSR-21 Best Practice Guidelines to “[c]ommit to the adoption of multi-modal regulatory frameworks that enable the development of emerging technologies and business models,” including a range of co-regulatory and self-regulatory models.<sup>109</sup> For example, these may include voluntary codes of practice for online content or other emerging digital platform issues.
- Adopt clear guidelines for consultation procedures, including requirements for evidence-based decision making and RIAs. As referenced in the GSR-19 Best Practice Guidelines, this includes introducing RIAs “as a regular practice before major regulatory decisions are made, as well as throughout the lifecycle of regulation.”<sup>110</sup>
- Publish all comments to consultations online (with an opportunity to redact confidential information) to improve transparency and allow stakeholders to understand and respond to various positions. The basis of regulatory decisions should “include the expectations, ideas and expertise of all market stakeholders, market players, academia, civil society, consumer associations, data scientists, end-users, and relevant government agencies from different sectors.”<sup>111</sup>
- In addition to crafting harmonized policies on a national level, build on regional harmonization to minimize regulatory fragmentation across countries. The GSR-19 Best Practices Guidelines recommend defining regulatory rules on cross-border issues to help “ensure consistency, predictability, and fluidity of digital markets [that] will catalyze the deployment of region-wide and global digital infrastructure.”<sup>112</sup>

## 8 Conclusion

Saudi Arabia has developed a robust and comprehensive set of policies and strategies to realize the full potential of digital transformation. Particularly over the last few years under the Vision 2030 agenda, digital transformation has become – and remains – a top priority as Saudi Arabia realizes these ambitious goals. Ministers, regulators, industry players, and other stakeholders across all sectors are increasingly collaborating to develop agile, effective regulation that promotes investment and innovation.

The success and ongoing development of collaborative, agile regulation is demonstrated through the CITC being identified as a G5 regulator in 2021, reaching this milestone two years ahead of the goal outlined in the CITC Strategy 2023. This progress is expected to continue as collaborative mechanisms among regulators, such as NRC, and with the private sector grow. Monitoring this progress to ensure targets are reached or to readjust targets as necessary will be a key factor in future transformation.

## Endnotes

- <sup>1</sup> ITU, Global ICT Regulatory Outlook 2020, [https://www.itu.int/dms\\_pub/itu-d/opb/pref/D-PREF-BB.REG\\_OUT01-2020-PDF-E.pdf](https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-BB.REG_OUT01-2020-PDF-E.pdf).
- <sup>2</sup> ITU, Global ICT Regulatory Outlook 2020, [https://www.itu.int/dms\\_pub/itu-d/opb/pref/D-PREF-BB.REG\\_OUT01-2020-PDF-E.pdf](https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-BB.REG_OUT01-2020-PDF-E.pdf).
- <sup>3</sup> ITU, Policy & Regulatory Frameworks, <https://www.itu.int/en/ITU-D/Regulatory-Market/Pages/Policy-&-Regulatory-Frameworks.aspx>; ITU, Global ICT Regulatory Outlook 2018, [https://www.itu.int/dms\\_pub/itu-d/opb/pref/D-PREF-BB.REG\\_OUT01-2018-PDF-E.pdf](https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-BB.REG_OUT01-2018-PDF-E.pdf).
- <sup>4</sup> ITU, The Benchmark of Fifth Generation Collaborative Regulation: Expert Report to the Review Board (June 21, 2021).
- <sup>5</sup> Saudi Vision 2030, [https://www.vision2030.gov.sa/media/rc0b5oy1/saudi\\_vision203.pdf](https://www.vision2030.gov.sa/media/rc0b5oy1/saudi_vision203.pdf).
- <sup>6</sup> ITU GSR-21, Best Practices Guidelines: Regulatory uplift for financing digital infrastructure, access and use, p.3 (June 2021), [https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21\\_Best-Practice-Guidelines\\_FINAL\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21_Best-Practice-Guidelines_FINAL_E.pdf).
- <sup>7</sup> ITU, ICT-Eye, based on 2019 data (accessed June 9, 2021), <https://www.itu.int/net4/itu-d/icteye#/query>.
- <sup>8</sup> ITU GSR-21, Best Practices Guidelines: Regulatory uplift for financing digital infrastructure, access and use, p. 5 (June 2021), [https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21\\_Best-Practice-Guidelines\\_FINAL\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21_Best-Practice-Guidelines_FINAL_E.pdf).
- <sup>9</sup> CITC, Valid registrations/licenses, <https://portalservices.citc.gov.sa/E-Services/License/ApprovedLicenses.aspx?lang=english>.
- <sup>10</sup> CITC, Valid registrations/licenses, <https://portalservices.citc.gov.sa/E-Services/License/ApprovedLicenses.aspx?lang=english>.
- <sup>11</sup> ITU, Tracing one ICT regulator's journey to 5th-generation regulation (January 8, 2021), <https://www.itu.int/en/myitu/News/2021/01/08/08/27/CITC-journey-to-5th-generation-regulation>.
- <sup>12</sup> World Bank, Digital transformation in the time of COVID-19: The case of MENA (July 29, 2020), <https://blogs.worldbank.org/arabvoices/digital-transformation-time-covid-19-case-mena>.
- <sup>13</sup> World Bank, Digital transformation in the time of COVID-19: The case of MENA (July 29, 2020).
- <sup>14</sup> CITC, Background (accessed June 9, 2021), <https://www.citc.gov.sa/en/AboutUs/Pages/History.aspx>.
- <sup>15</sup> CITC, CITC Roles and Responsibilities (accessed June 9, 2021), <https://www.citc.gov.sa/en/AboutUs/AreasOfwork/Pages/default.aspx>.
- <sup>16</sup> CITC, Telecom Regulatory Documents (accessed June 9, 2021), <https://www.citc.gov.sa/en/RulesandSystems/RegulatoryDocuments/Pages/default.aspx>.
- <sup>17</sup> CITC, Background (accessed June 9, 2021), <https://www.citc.gov.sa/en/AboutUs/Pages/History.aspx>.

- <sup>18</sup> ITU, ICT-Eye (accessed June 9, 2021), <https://www.itu.int/net4/itu-d/icteye#/query>.
- <sup>19</sup> ITU, ICT Regulatory Tracker.
- <sup>20</sup> ITU, ICT Regulatory Tracker.
- <sup>21</sup> The Ministry of Communications and IT (MCIT), Ministry of Commerce, the Ministry of Finance, the Presidency of State Security. See Council of Ministers , Communication and Information Technology Commission Ordinance, resolution No. 133 (July 21, 2003) [https://www.citc.gov.sa/en/RulesandSystems/CITCSystem/Documents/LA\\_002\\_E\\_CITC%20Ordinance.pdf](https://www.citc.gov.sa/en/RulesandSystems/CITCSystem/Documents/LA_002_E_CITC%20Ordinance.pdf); CITC, Board of Directors (accessed June 9, 2021), <https://www.citc.gov.sa/en/AboutUs/Pages/BoardofDirectors.aspx>.
- <sup>22</sup> GCAM, About the Commission (accessed June 9, 2021), <https://www.gcam.gov.sa/pages/1>.
- <sup>23</sup> GCAM, Media Institutions Empowerment Program in cooperation with Google (January 21, 2021), <https://www.gcam.gov.sa/news/2>.
- <sup>24</sup> Council of Ministers, Authority Statute, resolution No. 55 (October 11, 2017), <https://gac.gov.sa/AuthorityStatute>.
- <sup>25</sup> General Authority for Competition, Implementing Regulations, resolution No. 337, Article 3.1.d (September 24, 2019), <https://beta.gac.gov.sa/APIGateway/api/Attachment/ShowAttachment/17526720-efbb-4b9e-96df-a845a8fd1233>.
- <sup>26</sup> Organization of the Consumer Protection Association, resolution No. 120, article 5 (December 16, 2014), <https://cpa.org.sa/mandate>.
- <sup>27</sup> CPA, Digital Data Protection (March 22, 2017), <https://cpa.org.sa/consumer-advisor/20>.
- <sup>28</sup> CPA, Making Digital Marketplace Fairer": Consumer Protection Association Lecture In Al Yamamah University (March 19, 2019), <https://cpa.org.sa/single-news/64>.
- <sup>29</sup> SAMA, Saudi Central Bank Functions (accessed June 9, 2021), <https://www.sama.gov.sa/en-US/About/Pages/SAMAFunction.aspx>.
- <sup>30</sup> SAMA, Regulatory Sandbox, <https://www.sama.gov.sa/en-US/-SandBox/Pages/default.aspx>.
- <sup>31</sup> SAMA, With 21 trainees participating in the program SAMA launches the training phase of the cybersecurity program (SECURE) in its third edition (May 31, 2021), <https://www.sama.gov.sa/en-US/News/Pages/news-668.aspx>.
- <sup>32</sup> Unified National Platform, Digital Government Authority, [https://www.my.gov.sa/wps/portal/snp/agencies/agencyDetails/AC319/!ut/p/z0/04\\_Sj9CPykssy0xPLMnMz0vMAfljo8zivQIsTAwdDQz9LQwNzQwCnS0tXPwMvYwNDAz0g1Pz9L30o\\_ArAppiVOTr7JuuH1WQWJKhm5mXlq8f4ehsbGipX5DtHg4AU6x2JA!!/](https://www.my.gov.sa/wps/portal/snp/agencies/agencyDetails/AC319/!ut/p/z0/04_Sj9CPykssy0xPLMnMz0vMAfljo8zivQIsTAwdDQz9LQwNzQwCnS0tXPwMvYwNDAz0g1Pz9L30o_ArAppiVOTr7JuuH1WQWJKhm5mXlq8f4ehsbGipX5DtHg4AU6x2JA!!/).
- <sup>33</sup> Unified National Platform, Digital Transformation, <https://www.my.gov.sa/wps/portal/snp/aboutksa/digitaltransformation>.
- <sup>34</sup> WERA, About Us, <https://www.ecra.gov.sa/en-us/AboutECRA/Pages/Mission.aspx>.
- <sup>35</sup> See SDAIA, <https://sdaia.gov.sa>. Also see OECD, STIP Compass – Saudi Data and Artificial Intelligence Authority (November 2, 2020), <https://stip.oecd.org/stip/policy-initiatives/2019%2Fdata%2FpolicyInitiatives%2F26016>.
- <sup>36</sup> NCA, About NCA, <https://nca.gov.sa/en/pages/about.html>.



- <sup>37</sup> NCA, Controls and Guidelines (accessed June 9, 2021), <https://nca.gov.sa/en/pages/legislation.html>; NCA, National Cybersecurity Strategy (December 2020), [https://nca.gov.sa/files/national\\_cybersecurity\\_strategy-en.pdf](https://nca.gov.sa/files/national_cybersecurity_strategy-en.pdf).
- <sup>38</sup> NCA, Controls and Guidelines (accessed June 9, 2021), <https://nca.gov.sa/en/pages/legislation.html>
- <sup>39</sup> MCIT, Saudi Arabia ICT Sector Strategy 2023 Summary, [https://www.mcit.gov.sa/sites/default/files/ict\\_strategy\\_summary.pdf](https://www.mcit.gov.sa/sites/default/files/ict_strategy_summary.pdf).
- <sup>40</sup> MCIT, MCIT Strategy (August 26, 2019), <https://www.mcit.gov.sa/en/page/175492>.
- <sup>41</sup> MCIT, Riyadh Techstars Begins Registering Technology Startups for First Time in Saudi Arabia (May 19, 2021), <https://www.mcit.gov.sa/en/media-center/news/628441>.
- <sup>42</sup> CITC, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>43</sup> CITC, CITC launches strategy to enter a new era of digital regulation (October 18, 2020), <https://www.citc.gov.sa/en/mediacenter/pressreleases/Pages/20201018.aspx>.
- <sup>44</sup> CITC, CITC Strategy 2023 (2019), [https://www.citc.gov.sa/ar/aboutus/Documents/CITC\\_Strategy\\_2023\\_Arabic\\_English.pdf](https://www.citc.gov.sa/ar/aboutus/Documents/CITC_Strategy_2023_Arabic_English.pdf).
- <sup>45</sup> CITC, Spectrum Outlook for Commercial and Innovative Use 2021- 2023 (March 30, 2021), <https://www.citc.gov.sa/en/mediacenter/pressreleases/PublishingImages/Pages/2021033001/Spectrum%20Outlook%20for%20Commercial%20and%20Innovative%20Use%202021-2023.pdf>.
- <sup>46</sup> CITC, CITC publishes public consultation on its draft "Radio Spectrum Outlook for Commercial and Innovative Use 2021-2023" (January 28, 2021), <https://www.citc.gov.sa/en/new/publicConsultation/Pages/144201.aspx>.
- <sup>47</sup> CITC, Spectrum Outlook for Commercial and Innovative Use 2021- 2023 (March 30, 2021), <https://www.citc.gov.sa/en/mediacenter/pressreleases/PublishingImages/Pages/2021033001/Spectrum%20Outlook%20for%20Commercial%20and%20Innovative%20Use%202021-2023.pdf>.
- <sup>48</sup> GSMA, Saudi 5G Is Fast, and New Spectrum Allocations Should Make it Faster (April 19, 2021), <https://www.gsma.com/membership/resources/saudi-5g-is-fast-and-new-spectrum-allocations-should-make-it-faster/>.
- <sup>49</sup> ITU GSR-21, Best Practices Guidelines: Regulatory uplift for financing digital infrastructure, access and use, p. 8 (June 2021), [https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21\\_Best-Practice-Guidelines\\_FINAL\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21_Best-Practice-Guidelines_FINAL_E.pdf).
- <sup>50</sup> GAC, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>51</sup> GAC, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>52</sup> GAC, Public Consultations, <https://gac.gov.sa/PublicOpinions>.
- <sup>53</sup> GAC, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>54</sup> SAMA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>55</sup> STC-PAY is the first licensed fintech in the Kingdom (February 20, 2020), <https://www.alriyadh.com/1802294>.

- <sup>56</sup> SAMA, MINISTER OF FINANCE AND SAMA GOVERNOR THANK THE LEADERSHIP FOR THE CABINET'S APPROVAL TO LICENSE TWO LOCAL DIGITAL BANKS (June 22, 2021), <https://www.sama.gov.sa/en-us/news/pages/news-676.aspx>.
- <sup>57</sup> SAMA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>58</sup> WERA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>59</sup> WERA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021). Also see, Telecom Review, Saudi Arabia to slash power cost for cloud operators (March 15, 2021), <https://www.telecomreview.com/index.php/articles/cloud-and-enterprise-business/4715-saudi-arabia-to-slash-power-cost-for-cloud-operators>.
- <sup>60</sup> WERA, Tariff Consumption, <https://www.ecra.gov.sa/en-us/ECRARegulations/ElectricityTariff/Pages/Tariffconsumption.aspx>.
- <sup>61</sup> DGA, (October 2021), <https://dga.gov.sa/en/>
- <sup>62</sup> DGA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>63</sup> WERA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>64</sup> ITU GSR-21, Best Practices Guidelines: Regulatory uplift for financing digital infrastructure, access and use, p. 3 (June 2021), [https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21\\_Best-Practice-Guidelines\\_FINAL\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21_Best-Practice-Guidelines_FINAL_E.pdf).
- <sup>65</sup> Saudi Arabia, Collaborative Regulation Metrics: G5 Benchmark Reference Frame (March 2021).
- <sup>66</sup> CITC, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>67</sup> CITC, The National Regulatory Committee holds its second meeting (August 4, 2021), <https://www.citc.gov.sa/ar/mediacenter/pressreleases/Pages/2021040803.aspx>.
- <sup>68</sup> ITU, Tracing one ICT regulator's journey to 5th-generation regulation (January 8, 2021), <https://www.itu.int/en/myitu/News/2021/01/08/08/27/CITC-journey-to-5th-generation-regulation>.
- <sup>69</sup> NDU, About the National Digital Transformation, <https://ndu.gov.sa/en/about>.
- <sup>70</sup> NDU, About the National Digital Transformation, <https://ndu.gov.sa/en/about>.
- <sup>71</sup> ITU, GSR-19 Best Practices Guidelines (July 2019), [https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/GSR19BestPracticeGuidelines\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/GSR19BestPracticeGuidelines_E.pdf).
- <sup>72</sup> ITU/World Bank, Digital Regulation Platform: Regulatory governance and independence (December 15, 2020), <https://digitalregulation.org/regulatory-governance-and-independence/>.
- <sup>73</sup> CITC, Public Consultations, <https://www.citc.gov.sa/en/new/publicConsultation/Pages/default.aspx>.
- <sup>74</sup> CITC, CITC publishes public consultation on its draft "Radio Spectrum Outlook for Commercial and Innovative Use 2021-2023" (January 28, 2021), <https://www.citc.gov.sa/en/new/publicConsultation/Pages/144201.aspx>.

- 75 CITC, Spectrum for IMT-2020 and Beyond: Fostering Commercial and Innovative Use of Radio Spectrum: CITC response to the public consultation (January 28, 2021), <https://www.citc.gov.sa/ar/new/publicConsultation/Documents/Fostering%20Commercial%20and%20Innovative%20use%20of%20Radio%20Spectrum.pdf>.
- 76 ITU/World Bank, Digital Regulation Platform: Collaborative approaches to policy implementation for digital transformation (September 1, 2020), <https://digitalregulation.org/collaborative-approaches-to-policy-implementation-for-digital-transformation/>.
- 77 CITC, General Principles for Personal Data Protection in the Telecommunications, IT, and Postal Sectors, [https://www.citc.gov.sa/en/RulesandSystems/privacy/Documents/Data\\_Privacy\\_Principles\\_For\\_ICT\\_en.pdf](https://www.citc.gov.sa/en/RulesandSystems/privacy/Documents/Data_Privacy_Principles_For_ICT_en.pdf).
- 78 CITC, Cybersecurity Regulations in Information and Communications Technology and Postal Sector, <https://www.citc.gov.sa/en/RulesandSystems/CyberSecurity/Pages/default.aspx>.
- 79 ITU/World Bank, Digital Regulation Platform: Innovative approaches to sector regulation (August 24, 2020), <https://digitalregulation.org/innovative-approaches-to-sector-regulation/>.
- 80 ITU GSR-21, Best Practices Guidelines: Regulatory uplift for financing digital infrastructure, access and use, p. 6 (June 2021), [https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21\\_Best-Practice-Guidelines\\_FINAL\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21_Best-Practice-Guidelines_FINAL_E.pdf).
- 81 CITC, CITC launches regulatory sandbox for delivery applications (October 4, 2020), <https://www.citc.gov.sa/en/mediacenter/pressreleases/Pages/20200410.aspx>.
- 82 CITC, The Communications Commission announces the issuance of temporary licenses to conduct 5G technology trials in the Kingdom (May 2, 2018), <https://www.citc.gov.sa/ar/mediacenter/pressreleases/Pages/2018050201.aspx>.
- 83 GSMA, Saudi 5G Is Fast, and New Spectrum Allocations Should Make it Faster (April 19, 2021), <https://www.gsma.com/membership/resources/saudi-5g-is-fast-and-new-spectrum-allocations-should-make-it-faster/>.
- 84 CITC, Public Consultation on Spectrum Auction 2021 (May 30, 2021), <https://www.citc.gov.sa/en/new/publicConsultation/Pages/144205.aspx>.
- 85 ITU, Global ICT Regulatory Outlook 2020, [https://www.itu.int/dms\\_pub/itu-d/opb/pref/D-PREF-BB.REG\\_OUT01-2020-PDF-E.pdf](https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-BB.REG_OUT01-2020-PDF-E.pdf).
- 86 ITU, GSR-19 Best Practices Guidelines (July 2019), [https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/GSR19BestPracticeGuidelines\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/GSR19BestPracticeGuidelines_E.pdf).
- 87 WERA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021). Also see, Arab News, Saudi Arabia reduces power tariff to boost cloud computing (March 15, 2021), <https://www.arabnews.com/node/1825521/saudi-arabia>.
- 88 CITC, Electric Consumption Tariff for Cloud Computing Activity, <https://www.citc.gov.sa/en/services/licensing/Pages/electricity-consumption-tariff-requirements.aspx>.
- 89 CITC, Annual Report 2016, [https://www.citc.gov.sa/en/mediacenter/annualreport/Documents/PR\\_REP\\_012Eng.pdf](https://www.citc.gov.sa/en/mediacenter/annualreport/Documents/PR_REP_012Eng.pdf).
- 90 MCIT, The Ministry Of Communications And Information Technology Signs An Agreement To Implement The Broadband Initiative With The Saudi Telecom Company, <https://www.mcit.gov.sa/ar/media-center/news/92714>.

- <sup>91</sup> CITC, Broadband Services in Saudi Arabia Set to Receive Significant Boost from New Open Access Initiative (February 2020), <https://www.citc.gov.sa/en/mediacenter/pressreleases/Pages/2020022301.aspx>.
- <sup>92</sup> ITU, Global ICT Regulatory Outlook 2020, [https://www.itu.int/dms\\_pub/itu-d/opb/pref/D-PREF-BB.REG\\_OUT01-2020-PDF-E.pdf](https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-BB.REG_OUT01-2020-PDF-E.pdf).
- <sup>93</sup> CITC, Spectrum Outlook for Commercial and Innovative Use 2021- 2023 (March 30, 2021), <https://www.citc.gov.sa/en/mediacenter/pressreleases/PublishingImages/Pages/2021033001/Spectrum%20Outlook%20for%20Commercial%20and%20Innovative%20Use%202021-2023.pdf>.
- <sup>94</sup> CITC, CITC Publishes Public Consultation on Spectrum Trading and Secondary Market (June 23, 2021), <https://www.citc.gov.sa/en/mediacenter/pressreleases/Pages/2021062302.aspx>.
- <sup>95</sup> CITC, Saudi Arabia launches first WiFi 6e network in Europe, Africa and Middle East region (April 1, 2021), <https://www.citc.gov.sa/en/mediacenter/pressreleases/Pages/2021040101.aspx>.
- <sup>96</sup> MCIT, Saudi Arabia ICT Sector Strategy 2023, [https://www.citc.gov.sa/ar/aboutus/Documents/CITC\\_Strategy\\_2023\\_Arabic\\_English.pdf](https://www.citc.gov.sa/ar/aboutus/Documents/CITC_Strategy_2023_Arabic_English.pdf).
- <sup>97</sup> CITC, To support regulatory innovation, Kingdom Of Saudi Arabia Partners with ITU on Information and Communications Technology (January 17, 2019), <https://www.citc.gov.sa/en/mediacenter/pressreleases/Pages/2019011701.aspx>.
- <sup>98</sup> ITU, The Benchmark of Fifth Generation Collaborative Regulation: Expert Report to the Review Board (June 21, 2021).
- <sup>99</sup> ITU, The Benchmark of Fifth Generation Collaborative Regulation: Expert Report to the Review Board, p. 37 (June 21, 2021).
- <sup>100</sup> CITC, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>101</sup> CITC, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>102</sup> DGA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>103</sup> GAC, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>104</sup> SAMA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>105</sup> WERA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>106</sup> SAMENA, Responses to Collaborative Regulation Case Studies Interview Questions (June 2021).
- <sup>107</sup> ITU GSR-21, Best Practices Guidelines: Regulatory uplift for financing digital infrastructure, access and use, p. 8 (June 2021), [https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21\\_Best-Practice-Guidelines\\_FINAL\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21_Best-Practice-Guidelines_FINAL_E.pdf).
- <sup>108</sup> ITU GSR-21, Best Practices Guidelines: Regulatory uplift for financing digital infrastructure, access and use, p. 8 (June 2021), [https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21\\_Best-Practice-Guidelines\\_FINAL\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21_Best-Practice-Guidelines_FINAL_E.pdf).

- <sup>109</sup> ITU GSR-21, Best Practices Guidelines: Regulatory uplift for financing digital infrastructure, access and use, p. 5 (June 2021), [https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21\\_Best-Practice-Guidelines\\_FINAL\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/BPG%20Adopted/GSR-21_Best-Practice-Guidelines_FINAL_E.pdf).
- <sup>110</sup> ITU, GSR-19 Best Practices Guidelines, p. 6 (July 2019), [https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/GSR19BestPracticeGuidelines\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/GSR19BestPracticeGuidelines_E.pdf).
- <sup>111</sup> ITU, GSR-19 Best Practices Guidelines, p. 7 (July 2019), [https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/GSR19BestPracticeGuidelines\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/GSR19BestPracticeGuidelines_E.pdf).
- <sup>112</sup> ITU, GSR-19 Best Practices Guidelines, p. 3 (July 2019), [https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/GSR19BestPracticeGuidelines\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2019/Documents/GSR19BestPracticeGuidelines_E.pdf).

**Office of the Director**  
**International Telecommunication Union (ITU)**  
**Telecommunication Development Bureau (BDT)**  
Place des Nations  
CH-1211 Geneva 20  
Switzerland

Email: [bdtdirector@itu.int](mailto:bdtdirector@itu.int)  
Tel.: +41 22 730 5035/5435  
Fax: +41 22 730 5484

#### Digital Networks and Society (DNS)

Email: [bdt-dns@itu.int](mailto:bdt-dns@itu.int)  
Tel.: +41 22 730 5421  
Fax: +41 22 730 5484

### Africa

#### Ethiopia

**International Telecommunication Union (ITU) Regional Office**  
Gambia Road  
Leghar Ethio Telecom Bldg. 3<sup>rd</sup> floor  
P.O. Box 60 005  
Addis Ababa  
Ethiopia

Email: [itu-ro-africa@itu.int](mailto:itu-ro-africa@itu.int)  
Tel.: +251 11 551 4977  
Tel.: +251 11 551 4855  
Tel.: +251 11 551 8328  
Fax: +251 11 551 7299

### Americas

#### Brazil

**União Internacional de Telecomunicações (UIT)**  
**Escritório Regional**  
SAUS Quadra 6 Ed. Luis Eduardo  
Magalhães,  
Bloco "E", 10<sup>o</sup> andar, Ala Sul  
(Anatel)  
CEP 70070-940 Brasília - DF  
Brazil

Email: [itubrasilia@itu.int](mailto:itubrasilia@itu.int)  
Tel.: +55 61 2312 2730-1  
Tel.: +55 61 2312 2733-5  
Fax: +55 61 2312 2738

### Arab States

#### Egypt

**International Telecommunication Union (ITU) Regional Office**  
Smart Village, Building B 147,  
3<sup>rd</sup> floor  
Km 28 Cairo  
Alexandria Desert Road  
Giza Governorate  
Cairo  
Egypt

Email: [itu-ro-arabstates@itu.int](mailto:itu-ro-arabstates@itu.int)  
Tel.: +202 3537 1777  
Fax: +202 3537 1888

### Europe

#### Switzerland

**International Telecommunication Union (ITU) Office for Europe**  
Place des Nations  
CH-1211 Geneva 20  
Switzerland

Email: [euregion@itu.int](mailto:euregion@itu.int)  
Tel.: +41 22 730 5467  
Fax: +41 22 730 5484

#### Office of Deputy Director and Regional Presence Field Operations Coordination Department (DDR)

Place des Nations  
CH-1211 Geneva 20  
Switzerland

Email: [bdtdeputydir@itu.int](mailto:bdtdeputydir@itu.int)  
Tel.: +41 22 730 5131  
Fax: +41 22 730 5484

#### Partnerships for Digital Development Department (PDD)

Email: [bdt-pdd@itu.int](mailto:bdt-pdd@itu.int)  
Tel.: +41 22 730 5447  
Fax: +41 22 730 5484

#### Senegal

**Union internationale des télécommunications (UIT)**  
**Bureau de zone**  
8, Route des Almadies  
Immeuble Rokhaya, 3<sup>e</sup> étage  
Boîte postale 29471  
Dakar - Yoff  
Senegal

Email: [itu-dakar@itu.int](mailto:itu-dakar@itu.int)  
Tel.: +221 33 859 7010  
Tel.: +221 33 859 7021  
Fax: +221 33 868 6386

#### Chile

**Unión Internacional de Telecomunicaciones (UIT)**  
**Oficina de Representación de Área**  
Merced 753, Piso 4  
Santiago de Chile  
Chile

Email: [itusantiago@itu.int](mailto:itusantiago@itu.int)  
Tel.: +56 2 632 6134/6147  
Fax: +56 2 632 6154

#### Indonesia

**International Telecommunication Union (ITU) Area Office**  
Sapta Pesona Building  
13<sup>th</sup> floor  
Jl. Merdan Merdeka Barat No. 17  
Jakarta 10110  
Indonesia

Email: [itu-ro-asiapacific@itu.int](mailto:itu-ro-asiapacific@itu.int)  
Tel.: +62 21 381 3572  
Tel.: +62 21 380 2322/2324  
Fax: +62 21 389 5521

#### Zimbabwe

**International Telecommunication Union (ITU) Area Office**  
TelOne Centre for Learning  
Corner Samora Machel and  
Hampton Road  
P.O. Box BE 792  
Belvedere Harare  
Zimbabwe

Email: [itu-harare@itu.int](mailto:itu-harare@itu.int)  
Tel.: +263 4 77 5939  
Tel.: +263 4 77 5941  
Fax: +263 4 77 1257

#### Honduras

**Unión Internacional de Telecomunicaciones (UIT)**  
**Oficina de Representación de Área**  
Colonia Altos de Miramontes  
Calle principal, Edificio No. 1583  
Frente a Santos y Cía  
Apartado Postal 976  
Tegucigalpa  
Honduras

Email: [itutegucigalpa@itu.int](mailto:itutegucigalpa@itu.int)  
Tel.: +504 2235 5470  
Fax: +504 2235 5471

### CIS

#### Russian Federation

**International Telecommunication Union (ITU) Regional Office**  
4, Building 1  
Sergiy Radonezhsky Str.  
Moscow 105120  
Russian Federation

Email: [itumoscow@itu.int](mailto:itumoscow@itu.int)  
Tel.: +7 495 926 6070

#### Digital Knowledge Hub Department (DKH)

Email: [bdt-dkh@itu.int](mailto:bdt-dkh@itu.int)  
Tel.: +41 22 730 5900  
Fax: +41 22 730 5484

#### Cameroon

**Union internationale des télécommunications (UIT)**  
**Bureau de zone**  
Immeuble CAMPOST, 3<sup>e</sup> étage  
Boulevard du 20 mai  
Boîte postale 11017  
Yaoundé  
Cameroon

Email: [itu-yaounde@itu.int](mailto:itu-yaounde@itu.int)  
Tel.: +237 22 22 9292  
Tel.: +237 22 22 9291  
Fax: +237 22 22 9297

#### Barbados

**International Telecommunication Union (ITU) Area Office**  
United Nations House  
Marine Gardens  
Hastings, Christ Church  
P.O. Box 1047  
Bridgetown  
Barbados

Email: [itubridgetown@itu.int](mailto:itubridgetown@itu.int)  
Tel.: +1 246 431 0343  
Fax: +1 246 437 7403

### Asia-Pacific

#### Thailand

**International Telecommunication Union (ITU) Regional Office**  
4<sup>th</sup> floor NBTC Region 1 Building  
101 Chaengwattana Road  
Laksi,  
Bangkok 10210,  
Thailand

*Mailing address:*  
P.O. Box 178, Laksi Post Office  
Laksi, Bangkok 10210, Thailand

Email: [itu-ro-asiapacific@itu.int](mailto:itu-ro-asiapacific@itu.int)  
Tel.: +66 2 574 9326 – 8  
+66 2 575 0055

International Telecommunication Union  
Telecommunication Development Bureau  
Place des Nations  
CH-1211 Geneva 20  
Switzerland

ISBN: 978-92-61-35601-9



Published in Switzerland  
Geneva, 2022

Photo credits: Shutterstock