



# The Kenya Model of Open Internet Governance

The Open Internet as cornerstone of digitalisation



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## Abbreviations list

AfIGF	African Internet Governance Forum	ITU-R	International Telecommunication Union Radiocommunication sector
AFRINIC	African Network Information Centre	ITU-T	International Telecommunication Union Telecommunication standardization sector
AFTLD	Africa Top Level Organization	IXPs	Internet Exchange Points
CA	Communications Authority	KENET	Kenya Education Network
ccNSO	Country Code Names Supporting Organisation	KEPSA	Kenya Private Sector Alliance
ccTLD	Country Code Top Level Domain	KeSIG	Kenyan School of Internet Governance
CEO	Chief Executive Officer	KICTANet	Kenya ICT Action Network
COFEK	Consumers Federation of Kenya	KIGF	Kenyan IGF
DFI	Declaration for the Future of The Internet	KIXP	Kenya Internet Exchange Point
DNS	Domain Name System	KIXP	Kenya Internet Exchange Point
EAIGF	East African Internet Governance Forum	MAG	Multistakeholder Advisory Group
EAIGF	East African Internet Governance Forum	MoICTYA	Ministry of ICT, Innovation and Youth Affairs
EU	European Union	NCS	National Communications Secretariat
FOC	Freedom Online Coalition	NDMP	Network Data Management Protocol
GAC	Government Advisory Committee	NOFBI	National Optic Fibre Network Backhaul Initiative
GDC	Global Digital Compact	NRI	National and Regional Initiative
GDP	Gross domestic product	NRIs	National, Regional and Youth IGF Initiatives
GGE	Group of Government Experts	OEWG	Open-Ended Working Group
ICANN	Internet Corporation for Assigned Names and Numbers	RIR	Regional Internet Registry
ICT	Information and communication technology	RIRs	Regional Internet Registries
ICTA	Information and Communication Technology Authority	SIGs	Schools of Internet Governance
IETF	Internet Engineering Task Force	UN	United Nations
IGF	Internet Governance Forum	UNESCO	United Nations Educational, Scientific and Cultural Organization
IMRS	ICANN Managed Root Server	WCIT	World Conference on International Telecommunications
ISPs	Internet Service Provider	WSIS	World Summit on the Information Society
ITES	IT-enabled services		
ITU	International Telecommunication Union		
ITU-D	International Telecommunication Union Development sector		



# Executive Summary

Open Internet connectivity is recognised as a promotor of human centric development. Digital technologies and the Open Internet are two distinct concepts that, if they are blended into a consistent policy approach, create a digitization process that maximises the opportunities for social and economic growth.

Key to the success of the Open Internet is its decentralised architecture built on open standards and protocols, underpinned by a multistakeholder internet governance model that involves government and non-government actors in open consensus-driven internet policy dialogues. At the application level, closest to the internet user, democratically developed principles, regulations, and policies can be put in place regionally or nationally, to ensure fundamental rights and locally driven development.

The realisation of the Open Internet's potential for locally driven growth requires a holistic approach, separate but intrinsic to the investment in technology and connectivity, that is focused on the deployment of Open Internet digital infrastructure, the development of enabling policy and regulatory environments for Open Internet, investment in Open Internet skills and competences, the creation of an Open Internet economy, and participation in Open Internet governance.

Kenya, a significantly digitised country, shows at the same time a strong commitment to the Open Internet and is frequently named as a leader on the African continent. Examples of the country's dedication to Open Internet development can be pointed at for each of the five dimensions, Open Internet infrastructure, enabling policy and regulation, Open Internet skills and development, and Open Internet economy, and Open Internet governance.

This report elaborates on the Open Internet governance dimension and explores Kenya's experiences as a model to practically develop multistakeholder Open Internet governance.

Internet governance is 'the development and application by governments, the private sector, and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the internet.'<sup>1</sup> Multistakeholder participation is a horizontal principle that fuels three complimentary dimensions of Open Internet governance:

- Setting the agenda and establishing effective policy dialogues in open multistakeholder institutions at the global, regional, or national levels, including in the United Nation's Internet Governance Forum (*IGF*) and its National, Re-

<sup>1</sup> Definition of internet governance developed by the Working Group on Internet Governance ([WGIG](#)) in 2003 and endorsed by the World Summit on the Information Society (WSIS), November 2005.

gional and Youth IGF Initiatives (*NRIs*).

- Developing and implementing new internet standards as an open process based on technical merit and need, with the Internet Engineering Task Force (*IETF*) as the central institution.
- Managing the Internet Technical Infrastructure that creates the global, robust, and interoperable internet via open policy processes at the Internet Corporation for Assigned Names and Numbers (*ICANN*) for the Domain Name System (*DNS*) and at the Regional Internet Registries (*RIRs*) for the IP infrastructure (IP address allocation).

Kenya's Open Internet governance model encompasses successful strategies in the three dimensions:

- Agenda Setting and Policy dialogue: The Kenyan IGF (KIGF), Kenyan School of Internet Governance (KeSIG), and Kenyan Youth IGF play a crucial role as forums to discuss internet policy issues, but also as capacity building environments on Open Internet policy issues and global processes. The Kenyan government and stakeholders are active supporters of regional dialogues, such as the East African Internet Governance Forum (EAIGF) and have a visible participation in the global IGF. In addition, stakeholder consultation in national Information and communication technology (ICT) policy development is common practice in Kenya. Moreover, Kenya positioned itself as an internationally recognized Open Internet leader by signing The Declaration for the Future of The Internet (DFI) and participating in its multistakeholder development, by subscribing the African Declaration on internet governance, and by being an active member of the Freedom Online Coalition (FOC), among others. Kenya was also one of the first African countries to adopt the United Nations Educational, Scientific and Cultural Organization (UNESCO) ROAM-X indicators to assess a country's internet openness.
- Internet standards development and implementation: Kenya promotes and encourages the development and use of open standards,

and, for example, is rolling out the ambitious Kenyan IPv4 to IPv6 Migration Strategy. Moreover, members of the Kenyan technical community participate actively to meetings of the IETF despite the challenges that prevent a more consistent participation from the Global South in general.

- Multistakeholder management and coordination of the internet technical infrastructure: The Kenyan government is an active member of the ICANN Government Advisory Committee (GAC) and Kenyan stakeholders participate in different ICANN structures – most prominently, Kenya has recently worked with ICANN to deploy a new ICANN Managed Root Server (IMRS) cluster in Nairobi, enabling a faster and safer internet access across the African continent – and in the policy development of the Regional Internet Registry (RIR) for the African Network Information Centre (AFRINIC). At the national level, KENIC, the manager of the .ke ccTLD, was established in line with the outcome of a broad-based stakeholder consultation and continues to be a successful model for other ccTLDs.

The primordial recognition of the internet as a global resource for development, and the willingness of all Kenyan stakeholders to set aside their differences in order to set clear objectives in the three internet governance dimensions, are cited as fundamental reason behind the success of the Kenya model. While Kenya's embrace of Open Internet governance precedes the implementation of the 2010 Constitution, the legal framework protecting fundamental rights and the principle of public participation in public policy making are essential. Well-designed institutions of internet policy, such as the Ministry of Information and Communications established in 2002, and an environment of active and organised stakeholders (for example KICTANet and Skunkworks) are other cornerstones of Kenya's Open Internet governance model.

# 1.

## The Open Internet as Cornerstone of Digitalisation

While digitisation is an unstoppable process, the Open Internet, which maximises the opportunities provided by digital development, is not and should not be taken for granted.<sup>2</sup>

**Digital technologies** and the **Open Internet** are two distinct concepts that are often mixed up and confused. Ensuring that the two go intrinsically together in the digitisation processes of countries and regions is an important policy and investment choice, which has an impact on all key drivers for social and economic growth. Communities that embrace Open Internet digitisation are better placed to reap the full benefits of digital development.

The key to the success of the Open Internet is its **decentralised architecture** built on open standards and protocols<sup>3</sup> and underpinned by

**multistakeholder internet governance**. The multistakeholder model involves both government and non-governmental actors in dialogues at the global, regional, and national level, and goes beyond the management of the technical and logical infrastructure.<sup>4</sup> At the application level **democratically developed principles, regulations, and policies** ensure respect for fundamental rights and empower a locally driven development.<sup>5</sup>

The realisation of the Open Internet requires a holistic approach from policy makers and stakeholders that goes further than investing in technology and connectivity. To take the necessary next steps, actions and investments must focus on five areas: the deployment of Open Internet digital infrastructure<sup>6</sup>; the development of enabling policy and regulatory environments

2 The report 'The Open Internet as cornerstone for digitalisation' demonstrates that the internet's unpredicted spectacular growth and its ability to promote human centric development is underpinned by the current Open Internet model. Digital connectivity technologies as such, while essential, are largely agnostic of what type of internet they support. If the internet further develops into more closed networks, this risks to lead to a cascade of negative consequences tempering the internet's growth and missing opportunities to drive innovation, investment, socio-political, economic, and cultural development around the world. Degezelle, W., et al. (2022). "The Open Internet as cornerstone for digitalisation. The Global Gateway Partnership Opportunities between the European Union and Africa." Stantec.

3 The internet is constructed as one global network of individual networks that exchange data and information, without a centralised authority. Transfer of data between networks, and as such the exchange of information over the internet is possible because of the use of commonly agreed standards and protocols. Ibid p. 20-30.

4 The Open Internet's multistakeholder governance model, its venues, processes, and actors are described in detail in the report. Ibid p. 31-34.

5 Examples of internet-related policy, regulation, and e-government initiatives in Africa and Europa are compiled in the report. Ibid p. 57-65.

6 Ibid p. 38-57.

for Open Internet<sup>7</sup>; investment in Open Internet skills and competences<sup>8</sup>; support for the creation of an Open Internet economy<sup>9</sup>; and participation in Open Internet governance<sup>10</sup>. These five pillars form clusters of investment priorities and partnership opportunities to be refined and scoped in response to national, regional,

and subnational contexts, local demand, and already existing initiatives. A dialogue with local stakeholders on priorities will contribute to a more effective cooperation to create growth and socio-economic development driven by the Open Internet.

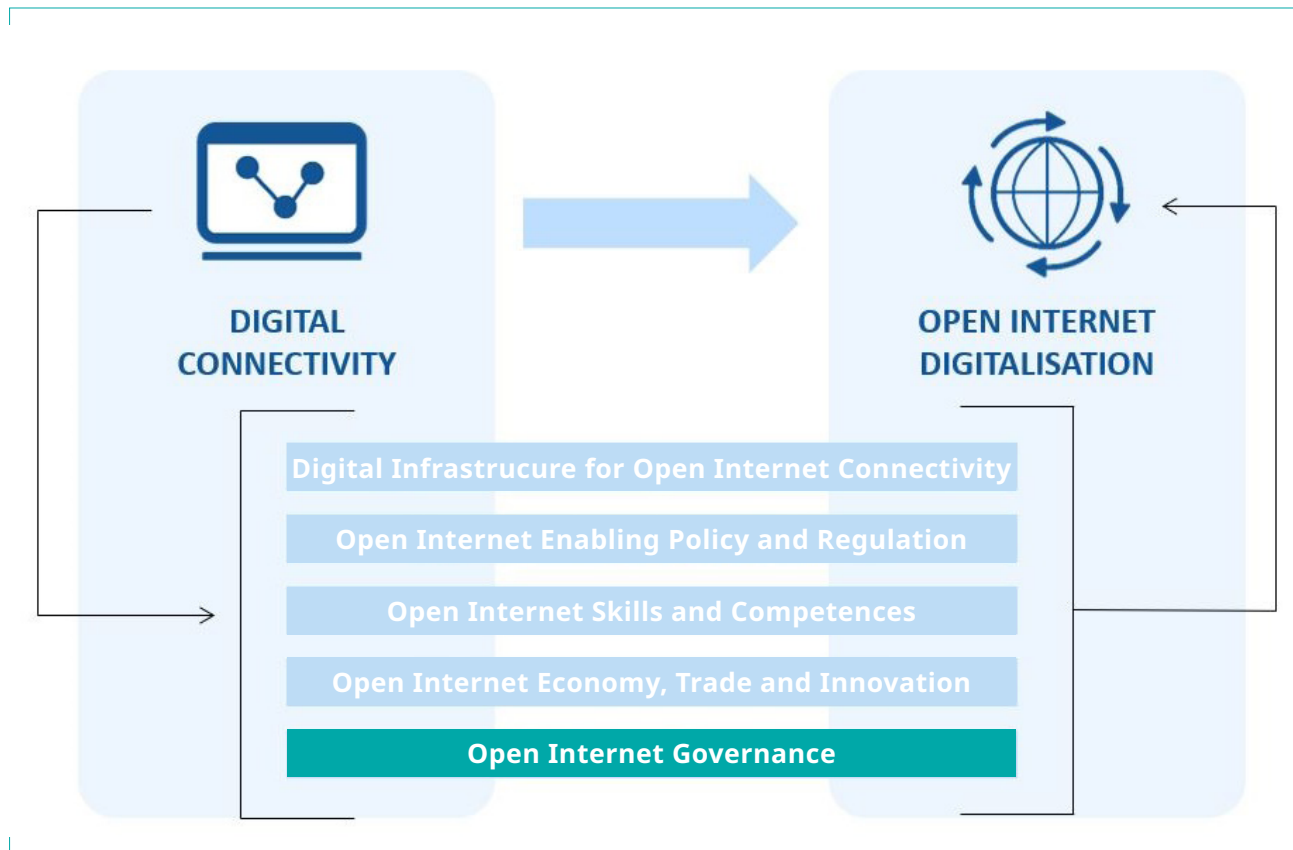


Figure: From Digital Connectivity to Open Internet Digitalisation

7 Ibid p. 57-68.

8 Ibid p. 68-74.

9 Ibid p. 74-82.

10 Ibid p. 82-87.

## 2.

# Open Internet Governance

## 2.1 INTERNET GOVERNANCE AND THE MULTI-STAKEHOLDER MODEL

The unprecedented expansion of the internet and increasing commercial use since the mid-1990s called for a global coordination of the internet infrastructure (and its unique identifiers – domain names and IP numbers) to assure continued growth, robustness, and interoperability across the internet. On the other hand, the rising number of users, new applications, and innovative ways in which the internet became part of people’s daily lives created new policy challenges and questions that needed to be addressed. The commonly agreed definition of internet governance addresses both needs when it states that **‘internet governance is the development and application by governments, the private sector, and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the internet’**.<sup>11</sup> This definition also reflects the multistakeholder approach that

has underpinned internet governance since its inception and has been recognised to be an important factor that allowed the internet’s rapid growth and global expansion.<sup>12</sup> The multistakeholder governance model – which in a way reflects the basic architectural principles of the internet, a distributed system of autonomous but interoperable networks – has critically helped the internet to continuously evolve and adapt.<sup>13</sup>

Today’s internet governance is multistakeholder-led, bottom-up, voluntary, decentralised and consensus based.<sup>14</sup> The multistakeholder model reserves space for a wider array of voices to feed into agenda setting and decision-making processes than multilateral or collaborative models.<sup>15</sup> However, there are structural challenges that prevent different actors from having an equal impact. Some point at the financial and political resources that are needed to influence

11 Definition of internet governance developed by the Working Group on Internet Governance ([WGIG](#)) in 2003 and endorsed by the World Summit on the Information Society (WSIS), November 2005. ITU. (2005, 18 November). WSIS-05/TUNIS/DOC/6(Rev.1)-E. “Tunis Agenda for the Information Society”. World Summit on the Information Society (WSIS). p.6.

12 Calandro, E., Gillwald, A., Zingales, N. (2014). ‘Mapping Multistakeholderism in Internet Governance: Implications for Africa.’ Evidence for ICT Policy Action Discussion Paper, Research ICT Africa. p. 39.

13 RIPE NCC, in Degezelle, W., et al. (2022). p 35.

14 Calandro, E., Gillwald, A., Zingales, N. (2014). p. 39.

15 Férdeline, A. (2022). “Influencing the internet: Democratizing the Politics that Shape Internet Governance.” National Democratic Institute. p. 19-20.



these negotiations, which give an advantage, for example, to multinational companies to leverage their knowledge<sup>16</sup>; others point at the importance of being present and reasons for the lack of participation<sup>17</sup> of groups such as small businesses, civil society, journalists, academics, citizens, or the online users' community.

Despite their growing presence in internet governance fora, Global South countries face their own particular challenges to effectively participate in global internet governance. The constraints vary from financial resources to remoteness, but they also have to do with the perception that there is no tangible value for the Global South of having influence on deliberations within multistakeholder institutions such as the IGF or ICANN.<sup>18</sup> When it comes to highly technical matters, the lack of specialised expertise that is needed to follow and be involved in discussions, for example at the IETF, also plays an important role.<sup>19</sup> The efficacy of the internet governance model does not fully apply where the traditional actors in internet governance – technical community, civil society, governments, academia and the industry – either do not exist, have limited resources or capabilities or have a smaller role in forums compared to the influence exerted by developed countries.<sup>20</sup> A significant number of developing countries lack independent civil society networks or specialised technical capacity and expertise at the government level that would allow them to fully engage in internet governance discussions.<sup>21</sup> The lack of regional internet policy coordination is also believed to limit the ability to move forward an African agenda at the global level.<sup>22</sup>

Working towards an equal and effective participation and diversity across stakeholder groups and continents is essential for the credibility and legitimacy of the internet's multistakeholder governance model. Instead of taking up the challenges to create a more diverse and balanced participation, some advocates self-appoint to promote, on behalf of a highly diverse Global South, a more classical intergovernmental approach, in which governments have the predominant, if not exclusive, right to policymaking, as is the case with traditional decision making in the United Nations.<sup>23</sup> These proposals, which ultimately seek to create a more centralised control over networks and content, are forcefully opposed by a great number of countries, and they would come at the expense of interoperability, adding complexity to the internet's core architecture.<sup>24</sup> Beyond the technical impacts of such proposals, creating a governance schism would have a direct effect on the potential fragmentation of the internet, delay digital transitions by fragmenting investments, and impact globally the economic and social development of the Global South. It is believed that in the simplicity, openness and decentralised nature of the core internet infrastructure lays the reason for its rapid growth and development.<sup>25</sup> Closed internet governance models that risk interfering with the internet's underlying logical infrastructure may jeopardize its evolution.<sup>26</sup> Moreover, these proposals do not solve any of the core structural issues facing developing countries, as a whole, to participate in an effective way and autonomously in internet governance.

While the Kenya model described in this report

16 Teevan, C., Tadesse, L. (2022). "Digital geopolitics in Africa: Moving from strategy to action." ECDMP. p.6.

17 Férdeline, A. (2022). p. 19-20.

18 Teevan, C., Tadesse, L. (2022). p.6.

19 Degezelle, W., et al. (2022). p. 72.

20 Calandro, E., Gillwald, A., Zingales, N. (2014). p. 39.

21 Khan, A., Pohle, J., et al. (2015). "Shared Responsibility: Towards More Inclusive Internet Governance." Robert Bosh Stiftung. p.20.

22 African Union. (2022). "Raising the African Participation in the Global Internet Governance" African Union.

23 Khan, A., Pohle, J., et al. (2015). p.8.

24 RIPE NCC (2022). "The multistakeholder approach underpins the internet's rapid growth and success". Text contribution to Degezelle, W., et al. (2022). p. 34.

25 As argued in detail in: Kende, M., Kvalbein, A., Allford, J., Abecassis, D. (2021). "Study on the Internet's Technical Success Factors". Analysys Mason.

26 Internet Society. (2016, 26 April). "Internet Governance – Why the Multistakeholder Approach Works."

provides a good example of how a Global South country can effectively work to overcome existing participation barriers, there is much work than can be done to improve the inclusivity of internet governance. The preparations for the Global Digital Compact (GDC) announced by

the United Nations (UN) Secretary General<sup>27</sup> in 2021 and currently foreseen for 2024 and the WSIS+20 Review are an opportunity for governments and other stakeholders to reinforce this angle on the internet multistakeholder model.<sup>28</sup>

## 2.2 BUILDING BLOCKS OF OPEN INTERNET GOVERNANCE

The multistakeholder model is not a single process managing the internet. It is a set of tools and practices that have in common that individuals and organisations from different realms participate alongside each other to share ideas and develop solutions. The internet society compares the multistakeholder approach with bamboo: ‘it is nimble, adaptable, and stronger than it may first appear’.<sup>29</sup> **Stakeholder participation is at the centre of Open Internet governance.** It is a fundamental, horizontal principle that fuels three complementary dimensions of internet governance: *Agenda Setting and Policy Dialogue*, *Internet Standards Development*, and the *Coordination of the Internet’s Technical Infrastructure*. Each of these building blocks are opportunities to get involved in the governance of the internet, but equally, they require stakeholder participation to come to sound and future proof solutions that ensure that the internet continues to evolve and meet citizen’s needs.

### OPEN INTERNET GOVERNANCE MODEL

*Multistakeholder Stakeholder participation*



**AGENDA SETTING AND POLICY DIALOGUE.**

Global @IGF  
National & regional IGF  
& Youth Initiatives



**INTERNET STANDARDS DEVELOPMENT.**

IETF community



**COORDINATION OF THE INTERNET’S TECHNICAL INFRASTRUCTURE.**

ICANN  
Regional Internet  
Registries

#### a. Agenda Setting and Policy Dialogue.

The development and application, in a multistakeholder setting, of principles, norms, rules decision-making procedures, and programmes that shape the evolution and use of the internet<sup>30</sup> goes beyond the management of the underlying technical and logic infrastructure. To address global internet policy questions UN Member States at the World Summit on the Information Society (WSIS) asked (Tunis Agenda, Art 72.)<sup>31</sup> the UN Secretary-General to convene a meeting for multistakeholder policy dialogue, which came to be called the IGF. The IGF, since 2016, is the only global forum that brings together the various stakeholder groups as equals in discussions on policy issues relating to the internet. Despite its lack of binding power, IGF discussions

27 United Nations. (2021). “Our Common Agenda, Report by the Secretary-General”. Par. 93.

28 Association for Progressive Communication. (2023). “Input to the Global Digital Compact”.

29 Internet Society. (2016). p.1.

30 Internet Governance definition. ITU. (2005). p.6.

31 ITU. (2005). Art 72.

inform and inspire those with policy-making power, policy makers in both the public and private sectors.<sup>32</sup> As such, the IGF plays an important agenda setting role and facilitates a common understanding of how to maximise internet opportunities and address risks and challenges that arise.<sup>33</sup> Via its Multistakeholder Advisory Group (MAG)<sup>34</sup>, Open Consultations, Stocktaking, and public call for workshops<sup>35</sup> the programme and agenda for the annual meeting is set bottom-up. The IGF approach to internet governance took root and became a model for multistakeholder internet policy dialogue at local, sub-regional, or national level. A growing number of National and NRIs<sup>36</sup>, Youth IGF initiatives<sup>37</sup>, and Schools of Internet Governance (SIGs)<sup>38</sup> provide platforms for policy dialogue and collaboration among stakeholders.

**b. Internet Standards Development.** The internet works because networks connect and deliver communication to each other in a commonly agreed way. The Open Internet has a decentralised architecture<sup>39</sup> and the core technical standards and protocols (Internet Protocols) create the compatibility and interoperability.<sup>40</sup> Internet technical standards are notable for the open processes by which

they are developed, their establishment based on technical merit,<sup>41</sup> their global availability to implement, and their deployment on a voluntary basis. The IETF is the premiere technical standards organisation responsible for the core standards used for the global internet.<sup>42</sup> With participation open to any interested individual, the IETF community includes thousands of network designers, operators, vendors, and researchers.<sup>43</sup>

**c. Coordination of the Internet's Technical Infrastructure.** The internet number resources (IP addresses and Autonomous System Numbers)<sup>44</sup> and DNS<sup>45</sup> form the backbone of the internet's addressing system, the crucial technical infrastructure that creates a global, robust, and interoperable internet. The coordination of the internet's technical infrastructure is in hands of five RIRs<sup>46</sup> that manage the registration and distribution the internet number resources and the ICANN<sup>47</sup> to manage the Domain Name System. These organisations developed bottom-up multistakeholder processes to craft and agree on policies that suit stakeholders' specific needs and circumstances, while maintaining the coordination that is fundamental to a global, interoperable Open Internet.<sup>48</sup> The

32 Degezelle, W., et al. (2022). p. 34.

33 <https://www.intgovforum.org/en/about>

34 <https://www.intgovforum.org/en/content/about-mag>

35 <https://www.intgovforum.org/en/content/igf-2023-workshops>

36 <https://www.intgovforum.org/en/content/national-and-regional-igf-initiatives>

37 <https://www.intgovforum.org/en/content/youth-initiatives>

38 [https://www.igschools.net/mw-sig/wiki/Main\\_Page](https://www.igschools.net/mw-sig/wiki/Main_Page)

39 The Open Internet is a decentralised 'network of networks' where local networks do not depend on external decisions to be allowed to connect to the internet, and individual networks remain in charge of their internal organisation. Degezelle, W., et al. (2022). p. 21.

40 See: "The Open Internet Architecture"; Ibid p. 22-23.

41 'The IETF has an unofficial motto, "We believe in rough consensus and running code", which means that the implementation experience provides critical feedback to the standardisation process. This particular aspect is promoted via "hackathon" events, which are coding boot camps organised at every IETF meeting and where participants get together to implement an existing or proposed Internet standard.' Phokeer, A. (2022, 12 June). "Mapping African Digital Infrastructures (Part 3): Understanding the Motivations and Challenges of African Contributions to the Internet Standards Development." Research Africa.

42 There's a specialisation among Standard Developing Organisations (SDOs) for digital technologies and aspects of these technologies. Technical standards for the Internet are developed by the IETF.

43 "Internet Standards Development at the Internet Engineering Task Force." IETF text contribution in Degezelle, W., et al. (2022). p. 24-25.

44 An IP address identifies a device on the Internet or local network, an AS number identifies a network or group of networks that connect to the Internet. Each device is connected to an AS.

45 The DNS maps domain names to numeric (IPv4) and alphanumeric (IPv6) IP addresses.

46 Five Regional Internet Registries coordinate the distribution of the IP addresses and AS numbers together with IANA: AFRINIC, APNIC, ARIN, LACNIC and RIPE NCC.

47 Technically, ICANN coordinates the IANA functions: <https://www.icann.org/resources/pages/welcome-2012-02-25-en>

48 "The Regional Internet Registries." RIPE NCC text contribution to Degezelle, W., et al. (2022). p. 32.

assumption at the time of their creation, and it still largely prevails, was that a traditional intergovernmental governance model would be too slow to keep up with a rapid evolving technology.<sup>49</sup>

The governance of the Open Internet is not centralised in a single process or organisation, different organisations and forums play their own role with bottom-up multistakeholder participation as a central principle. Navigating these organisations and ecosystems is not easy. It requires technical expertise, capacity building and funding, identification of interests and objectives and coordination within and among stakeholder groups. African participants to the IETF, for example, identified three main challenges complicating their involvement: 1) technical barriers – participants need to be well informed to be able to follow the highly technical discussions; 2) the importance of hallway talk in the dynamics around a protocol standardisation process of which remote participants, amongst them those who participate remotely due to lack of financial support, are excluded; 3) the language barrier, which complicates the interaction with first-language English speakers on the very specialised subjects.<sup>50</sup> Stakeholder involvement from the Global North has historically driven the multistakeholder model while the participation of the Global South has been more limited.<sup>51, 52</sup> Some African countries have shown, with success, consistent engagement in internet governance, for example Kenya, Senegal, and Rwanda. The next section takes a closer look at the Kenyan model as a successful example that might help other countries create a roadmap (and policy reform lines) towards a greater and more effective Open Internet governance involvement.

49 Kornfeld, D., Fisher, W. (2001). "Domain Names". The Berkman Center for Internet & Society. Harvard Law School.

50 Phokeer, A. (2022).

51 Teevan, C., Tadesse, L. (2022). p.6.

52 African contributions to the IETF are negligible (0.26% of RFCs, as of 4 January 2022), with the least number of documents (drafts and RFCs) as well as the least number of authors coming from African countries. - Phokeer, A. (2022).



# 3.

## The Kenya Model of Open Internet Governance

### 3.1 KENYA'S DIGITAL CONNECTIVITY AND THE OPEN INTERNET

#### 3.1.1 Kenya embraces a digitalisation process aiming at an Open Internet

Kenya is a digital leader on the African continent. In the previous decade Kenya laid the groundwork for a bold agenda where its digital economy is the foundation for creating an empowered society and continues efforts to transform its digital economy, narrow the digital divide and deepen digital adoption.<sup>53</sup> Building on its good connectivity, successful mobile money service, and a wide range of electronic services available to the public, Kenya has taken the next step to envisage digital transformation for the next ten years.<sup>54</sup> Kenya's tech ecosystem, nicknamed Silicon Savannah, has been at the vanguard of Africa's tech revolution and start-ups expand beyond Kenya's borders.<sup>55</sup> As demonstrated over the next paragraphs, Kenya has embraced a holistic strategy that goes beyond digitisation, and creates a digital transformation based on the Open Internet.

#### *Deployment of Open Internet Infrastructure*

Significant investments in critical backbone internet infrastructure and investments in last-mile connectivity over the past decade, including the rollout of the National Optic Fibre Network Backhaul Initiative (NOFBI)<sup>56</sup> made of Kenya, with six submarine cable connections and 9000 km backbone, metro and last-mile connectivity one of the most connected countries on the East Coast of Africa.<sup>57</sup> The laudable internet and mobile connectivity rates in the country provided the necessary access that allowed innovative digital and in particular mobile applications to revolutionise people's lives.<sup>58</sup> However, focusing on digital connectivity alone, ignores the crucial role of the Open Internet Infrastructure – in particular Internet Exchange Points (IXPs) and their accompanying infrastructure – in the establishment of strong and sustainable internet ecosystems.<sup>59</sup> To date a range of members are peering at the Kenya Internet Exchange

53 Koyama, N., Totapally, S., et al. (2021). "Kenya's Digital Economy: A People's Perspective Report." Dalberg.

54 Lani, M., Rits, K., et al. (2022). "Kenya Digital Readiness. A journey towards human-centred digitalisation." e-Governance Academy.

55 Adegoke, Y. (2023, 4 April). "How Kenya's startups go pan-African." Semafor Africa.

Kenyatta University, Maitri Capita, KIRDI, Megacap, and one million Startups. (2023, 23 March). "Understanding the Kenyan Startup Ecosystem – A Report on the Survey Findings of Startups and Startup Ecosystem Stakeholders in Kenya."

56 <https://vision2030.go.ke/project/national-optic-fibre-network-backhaul-initiative-nofbi/>

57 Republic of Kenya, ICT Authority. (2022, 23 July). "Kenya's Optic Fibre Spurs Socio-Economic Growth."

58 Mwenda, R. (2020, 14 July). "A contemporary interface: Intersecting law and technology in Kenya." World Bank Blogs.

59 Kende, M. (2020). "Anchoring the African Internet Ecosystem: Lessons from Kenya and Nigeria's Internet Exchange Point Growth." Internet Society.

Point (KIXP)<sup>60,61</sup> including Internet Service Provider (ISPs), government networks, education networks, the ccTLD Operator<sup>62</sup>, Internet Backbone Gateway Operators, mobile operators and Value Add Services Providers.<sup>63</sup> Carrier-neutral data centres are connected in Kenya Internet Exchange Point (KIXP)'s locations in Nairobi and Mombasa. Local partners cooperate with ICANN to host a DNS Root Server cluster in Nairobi which contributes to a stronger and more stable local and regional DNS infrastructure.<sup>64</sup>

### 3.1.2 Open Internet enabling policy and regulatory environment

Kenya has always approached the internet as a key resource, and, for example – unlike other African countries – never resorted to internet shutdowns even during times of political unrest and protests.<sup>65</sup> The government believe in digital technology is reflected in Kenya's most important development programme – Kenya Vision 2030<sup>66</sup> – that aims to transform Kenya into a thriving middle-income country by 2030. ICT is identified as a key enabler in the achievement of economic pillars and a critical factor in driving the economic, social, and political development. The Kenya Digital Master Plan 2022-2032<sup>67</sup> which hinges on five key areas – digital infrastructure; digital government, services, products, and data management; digital skills; digital enterprises, innovation, and businesses; and policy, legal, and regulatory questions – is of key importance to achieve Kenya Vision 2030.<sup>68</sup>

The Ministry of ICT, Innovation and Youth Affairs (MoICTYA) is responsible for the Kenya Digital Master Plan with other ministries drafting policies for their specific domains in line with the national strategy. The 47 counties are expected to draft roadmaps that align with the Kenya Digital Master Plan while having the freedom to develop their own local plans. While MoICTYA is responsible for IT policy formulation and issuing of respective guidance, it is the Information and Communication Technology Authority (ICTA) that coordinates the implementation of the Kenyan Digital Master Plan. In fact, ICTA also has the right to initiate and review the Network Data Management Protocol (NDMP).<sup>69</sup>

Crucial legislation, including Data Protection, Access to Public Information, ICT Interoperability framework, Digital Identity and Digital Signature, and Cybersecurity laws, are in place.<sup>70</sup> Kenya has taken deliberate steps to ensure that the country operates within the confines of international standards and human rights obligations to protect the right to privacy and other digital rights that were threatened online before. The country continues to improve its legal, policy and institutional framework. For instance, the National Communications Secretariat, the policy advisory arm of the Ministry, announced in April 2021, that the Ministry of ICT, Innovation and Youth Affairs had launched a public consultation on draft data protection regulations.<sup>71</sup>

60 <https://portal.kixp.or.ke/customer/details>

61 The KIXP provides an opportunity for Kenyan Internet service providers to peer (exchange traffic) at a national level. Prior to an IXP, all inter-ISP traffic, both domestic and foreign bound must be exchanged through exchanges outside the country. ISPs therefore send all outbound traffic through their international links most commonly satellite and occasionally submarine fiber. International links entail both upstream and downstream packet traffic, the costs of which must be borne by either the sending or the receiving ISP. With the presence of an IXP, domestic traffic is peered at the exchange point, freeing the international links from congestion, enhancing faster speeds of data, and reducing costs and delays.

62 <http://www.kenic.or.ke/>

63 KIXP Background. [https://www.tespok.co.ke/?page\\_id=11651](https://www.tespok.co.ke/?page_id=11651)

64 ICANN. (2022, 15 November). "ICANN Investment in Africa Enables Safer, Faster Internet Access Across the Continent."

65 Interviews with Kenyan stakeholders, March - April 2023.

66 <https://vision2030.go.ke>

67 Republic of Kenya, Ministry of ICT, Innovation and Youth Affairs. (2021). "The Kenya National Digital Master Plan 2022-2032."

68 US Government, International Trade Administration (ITA). (2022, 19 August). "Kenya. Country Commercial Guide." International Trade Administration.

69 Lani, M., Rits, K., et al. (2022). p.15.

70 Ibid p.25-29.

71 Nabenyo, E. (2022). "Londa. Kenya Digital Rights and Inclusion 2021 Report." Paradigm Initiative. p. 4.

### 3.1.3 Open Internet skills and competences

Digital literacy and ICT skills are prioritized highly in Kenya's strategic documents aimed at enhancing its socio-economic competitiveness. The Digital Economy Blueprint – a vehicle for helping the country to achieve its Vision 2030 – highlights digital skills as one of the main pillars to bring Kenyan economy to a new level. The Digital Master Plan reiterates the significance of ICT skills from the standpoint of digital economy and social inclusion. ICT skills in excess are seen as an opportunity for Kenya to provide human capital to other countries, strengthening its own digital economy. National programmes and initiatives have as objective to scale up formal ICT education to increase the competitiveness of Kenyan ICT professionals and the computer literacy of the whole population, while other strategies target specific groups or skill sets.<sup>72</sup> Kenya's Ajira<sup>73</sup> digital project, for example, focussed on digital literacy to alleviate unemployment challenges.<sup>74</sup>

### 3.1.4 Creation of an Open Internet economy

One of the Kenya Digital Master Plan 2022-2032 objectives is to position Kenya as a 'globally competitive digital economy' by creating a 'globally attractive legal, regulatory, and policy ecosystem that provides adequate support to start-ups'. The Plan further envisions Kenya as 'a leader in emerging technology adoption, localisation, and utilisation of development'. Similarly, Kenya's Digital Economy Blueprint<sup>75</sup> sees in the digital economy a leapfrogging opportunity for economic development and to become 'a regional

and global innovation leader driving a strong sustainable economy and a better society'. The Blueprint also acknowledges the importance of integrating Kenya's digital economy into Africa's single market to create economies of scale and enable local and regional growth.<sup>76</sup>

Kenya indeed has emerged as the digital hub for the East Africa region, with an increasingly vibrant and innovative ICT sector. The story of digital innovations in Kenya is a story of local inventions such as M-Pesa, Ushahidi and the iHub that have triggered digital participation and given Kenya a reputation for developing digital solutions.<sup>77</sup> The phenomenal success of M-PESA offers an example of how the government could orchestrate a partnership among Central Bank, Telecom providers, and other stakeholders to deliver remarkable results.<sup>78</sup> Kenya has one of the most dynamic start-up ecosystems in Africa, with Nairobi and Mombasa ranked among the most dynamic cities in Africa.<sup>79</sup> A recent report titled "Understanding the Kenyan Startup Ecosystem"<sup>80</sup> digs into the numbers behind the rise of the 'Silicon Savannah', Kenya's tech ecosystem. It notes the important role of fintech startups, which accounted for 30% of all funding between 2019 to June 2022, followed by Agri/food tech, energy, and retails startups. While around half of all Kenyan startups only operate at home, the report also found that Nigeria, Uganda, and South Africa are the preferred countries for expansion beyond Kenya's borders.<sup>81</sup> The Kenyan start-up MESH, the country's first online community for young entrepreneurs in the informal economy, has over 150,000 members.<sup>82</sup>

72 Lani, M., Rits, K., et al. (2022). p.36-41.

73 <https://ajiradigital.go.ke>

74 Waswa, S., Mursalzada, V., et al. (2021, 17 December). "Going Digital is no longer an option: Addressing barriers to digital inclusion in Africa." World Bank Blogs.

75 Republic of Kenya. (2019). "Digital Economy Blueprint."

76 Teleanu, S., Kurbalija, J., et al. (2022). "Stronger digital voices from Africa: Building African digital foreign policy and diplomacy." DiploFoundation. p. 179-182.

77 Nitsche, L. (2019, 17 January). "Finding digital solutions to local problems, Kenya's innovation scene is no one-hit wonder." DW Akademie.

78 Farooq, K., et al. (2023). "Mobile Government. How-to Note." World Bank, GovTech Global Partnership. p. 25-26.

79 Oluwole, V. (2022, 4 August). "Startup ecosystem of the week: Kenya." Business Insider Africa.

80 Kenyatta University, Maitri Capita, et al. (2023).

81 Africa.com. (2023, 7 April). "One in Five Kenyan Founders Graduated from a University in Africa."

82 Africa.com. (2023, 26 June). "Kenyan Start-Up Grows to Reach 150,000 Young Entrepreneurs Following Funding from Mastercard's Strive Community Program."

### 3.1.5 Commitment to Open Internet governance

Kenya's National Broadband Strategy<sup>83</sup> subscribed to the promotion of the development and use of Open Internet standards and encourages adherence to globally accepted standards in innovation and the design of devices or software.<sup>84</sup> The Kenya Digital Master Plan promotes key guiding principles in line with an Open Internet philosophy:

- **Partnership:** Conscious/deliberate efforts to engage and collaborate with the private sector, academic institutions, governments, and local and international partners in implementing the National Digital Master Plan.
- **Equity and non-discrimination:** Equitable and non-discriminatory availability of and access to ICTs.
- **Technology neutrality:** Use of common, interoperable standards and protocols must be encouraged.
- **Environmental Protection and conservation:** adherence to environmental agreements in which Kenya is a signatory.

- **Good governance:** adherence to the highest standards of good governance, sound policies and ethical behaviour.<sup>85</sup>

Kenya has been committed to several international indicators that uphold internet openness and the country has voluntarily decided to adopt them. In 2020, Kenya carried out a national assessment – being the first country in Africa and the second globally after Brazil,<sup>86</sup> using the UNESCO ROAM-X indicators<sup>87</sup>, the UNESCO framework of Internet Universality ROAM-X Indicators, using a global, open, inclusive, and multistakeholder process that tapped the world's wisdom.<sup>88</sup> In 2022, the Network Readiness Index<sup>89</sup>, ranked Kenya the 3rd in Africa, outperforming most countries in terms of digital literacy, technology, and governance. The country regularly performs above the African average in terms of access, content, future technologies, trust, regulation, inclusion, economy, quality of life, and digital opportunities for individuals, businesses, and governments.

## 3.2 THE KENYA MODEL OF INTERNET GOVERNANCE

Kenya's commitment to the Open Internet and pledge to the internet governance model is proof a conviction that the country can play a role and influence internet policy dialogues, bringing in the perspective of a country from the Global South. The National Cybersecurity Strategy<sup>90</sup>, for example, outlines the government's commitment to work with other partners and highlights Kenya's commitment to participate in the deve-

lopment and implementation of international laws, agreements, treaties, policies, norms, and standards on cybersecurity.<sup>91</sup> The willingness of stakeholders, including the government, to set aside their differences and discuss internet governance topics has been a historic driver for the multistakeholder model.<sup>92</sup>

83 Republic of Kenya. (2019). "National Broadband Strategy 2018-2023."

84 Teleanu, S., Kurbalija, J., et al. (2022). p. 179-182.

85 Republic of Kenya, Ministry of ICT, Innovation and Youth Affairs. (2021). P. 37.

86 KICTANET. (2020). "What We Do. UNESCO internet universality indicators."

87 UNESCO, KICTANET. (2020). "Assessing internet development in Kenya: using UNESCO's Internet Universality ROAM-X indicators."

88 UNESCO. (2023, 20 March). "Kenya's Internet Universality ROAM-X Indicators assessment validated at a national multi-stakeholder meeting". UNESCO.

89 Dutta S., Lanvin B. (2022). "The Network Readiness Index 2022." Portulans Institute.




The Network Readiness Index (NRI) is one of the leading global indices on the application and impact of information and communication technology (ICT) in economies around the world.

90 Republic of Kenya, National Computer and Cybercrimes Coordination Committee Secretariat. (2022). "National Cybersecurity Strategy."

91 Teleanu, S., Kurbalija, J., et al. (2022). p. 179-182.

92 Interviews with Kenyan stakeholders, March - April 2023.



OPEN INTERNET GOVERNANCE MODEL <i>Multistakeholder Stakeholder participation</i>		
	<b>AGENDA SETTING AND POLICY DIALOGUE.</b>	KIGF KeSIG Kenya Youth IGF Multistakeholder involvement in policy Kenyan involvement in global IG discussions
	<b>INTERNET STANDARDS DEVELOPMENT.</b>	Kenyan technical community involvement in IETF
	<b>COORDINATION OF THE INTERNET'S TECHNICAL INFRASTRUCTURE.</b>	Kenyan participation in policy development at ICANN and AFRINIC .ke management by KENIC

### 3.2.1 Agenda setting and Policy Dialogue.

#### 3.2.1.1 Kenya's multistakeholder model

The Kenyan government, civil society, the private sector, academia, technical communities, and media have embraced the multistakeholder model in internet governance. Stakeholders were able to set aside their differences to discuss, on equal footing, internet policy issues in an open and transparent way.<sup>93</sup>

Since 2018 the **KIGF**<sup>94</sup> brings together various stakeholder groups to dialogue on ICT and internet policy. KIGF was the first-ever national IGF organised in Africa. It has been held every year since its inception and 'is hailed as one of the continent's success stories for multistakeholder engagement'.<sup>95</sup> KIGF is convened by the Kenya ICT Action Network (KICTANet) with the support of industry stakeholders and partners<sup>96</sup> and is recognised as a National and Regional Initiative (NRI) by the global IGF secretariat.<sup>97</sup> The KIGF adopted the global practice of having a MAG to prepare the programme, logistics and schedule, and which is tasked with improving the IGF process 'through community consultations, outreach and stakeholder engagement'.<sup>98</sup> The MAG is diverse in nature and representative of different stakeholder groups and the topics for KIGF discussions are sourced from a variety of platforms.<sup>99</sup> While MAG members volunteer and serve in their personal capacity, they are expected to have established linkages with their respective stakeholder groups. MAG membership is rotated to enhance diversity and bring in new viewpoints.<sup>100</sup>

A **Kenya Youth IGF**<sup>101</sup> has been organised since 2017. The Youth IGF happens as a separate one-day event for students drawn from various schools and institutions who contribute on different internet governance issues affecting the youth. Participants of the Youth IGF join the main Kenya IGF where they are provided with a slot in the programme to share the highlights of their discussions.<sup>102</sup>

93 Interviews with Kenyan stakeholders, March - April 2023.

94 <https://kigf.or.ke>

95 UNESCO, KICTANET. (2020). p. 15.

96 Sponsors and partners of the 2023 KIGF week and Kenyan School of Internet Governance are listed at <https://kigf.or.ke/sponsors/>

97 <https://www.intgovforum.org/en/content/african-regional-group>

98 Kenya IGF. "Terms of Reference of Kenya IGF MAG".

99 UNESCO, KICTANET. (2020). p. 119.

100 Kenya IGF. "Terms of Reference of Kenya IGF MAG".

101 <https://kigf.or.ke/category/youth-igf/>

102 UNESCO, KICTANET. (2020). p. 120.

**KeSIG**<sup>103</sup>, organised since 2016, targets Kenyans from all sectors – government, academia, the tech community, and civil society who are new to internet governance issues. KeSIG is an introductory course covering technical, economic, legal, and contemporary social issues brought about by the internet and how they affect Kenyan decision-making. It aims to build a critical mass of individuals advocating for internet rights and freedoms by equipping the participants with the skills needed to participate meaningfully in local, regional, and global policy discourse.

**Multistakeholder involvement in Internet and ICT policy making** is a powerful and useful model for public consultation. The KIGF demonstrated the potential of the multistakeholder approach, the ‘stakeholder groups are getting more organised and are capable of advancing convincing policy positions.’<sup>104</sup> This encourages the government to take a similar approach to internet policy making in Kenya. ‘A case in point is the ICT policy review of 2016 where different stakeholders were tasked with managing the finalisation of different sections of the review.’<sup>105</sup> In March 2023, a National Coalition on Freedom of Expression and Content Moderation launched ‘to bridge the gap between local stakeholders and social media companies and to improve content moderation practices.’ The coalition, supported by UNESCO’s European Union (EU)-funded social media 4 Peace<sup>106</sup> project, is ‘a multistakeholder collaboration between academics, national regulators, media actors, peace-building organisations and civil society.’<sup>107 108</sup>

### 3.2.1.2 Kenya’s involvement in regional and global internet policy dialogues

Kenya’s national internet governance approach forms a sound basis for Kenya’s participation in regional and global dialogues. ‘Events such as the KIGF play a crucial role in increasing regional participation at the Global IGF.’<sup>109</sup> The KIGF ‘feeds into the regional and global internet governance Fora through a chain of reporting and representation to ensure a bottom-up internet policy development process and a strong link between global internet policies and the national one.’<sup>110</sup> Moreover, the awareness raising and capacity building through KIGF, the Youth IGF, and KeSIG, better enable stakeholders to actively participate in other forums and public policy development dialogues locally and internationally. As a result, the Kenyan multistakeholder community has been well represented and active in the main regional, pan-African, and global internet governance meetings. For example, over time, Kenya has delivered several members of the global IGF MAG appointed by the UN Secretary General, has a strong representation at the African and global Youth IGF.

Kenya’s commitment to the regional and global multistakeholder dialogue is not only evident from the participation of Kenyans in those forums but is also shown via the country’s active support for these events. Kenya played a leading role in the establishment of the **East African Internet Governance Forum (EAIGF)**<sup>111</sup> that brings together stakeholders from Burundi, Kenya, Rwanda, Tanzania, and Uganda, and hosted, in 2008, the first EAIGF meeting under the theme ‘thinking globally acting locally.’<sup>112</sup> Kenya, hosted EAIGF again in 2012, the **African**

103 <https://kigf.or.ke/front-page-features/kesig/>

104 UNESCO, KICTANET. (2020). p. 120.

105 Githaiga, G., Kapiyo, V. (2017). “Kenya. Pioneering Internet Governance in Africa” in Global Information Society Watch (GISWatch)in APC (2017), “National and Regional Internet Governance Initiatives.”. p. 158-160.

106 <https://articles.unesco.org/en/articles/social-media-4-peace>

107 Article 19. (2023, 17 March). “Kenya: Launch of Coalition on freedom of expression and content moderation.”2023.

108 UNESCO. (2023, 13 March). “Launch of the Kenya National Coalition on Freedom of Expression and Content Moderation.”

109 UNESCO, KICTANET. (2020). p. 119.

110 <https://kigf.or.ke/about-kenya-igf/>

111 <https://eaigf.africa>

112 <https://kigf.or.ke/about-kenya-igf/>

**Internet Governance Forum (AfIGF)**<sup>113</sup> in 2013, and the **global IGF** in Nairobi in 2011<sup>114</sup>.

The Kenyan government is a vocal supporter of the Open Internet governance and the multistakeholder model. In 2019, Kenya was one of the first African countries that adopted the UNESCO Internet Universality Indicators (**UNESCO ROAM-X indicators**)<sup>115</sup> designed to help countries assess the Open Internet environment at national level and conducts the voluntary assessments. Kenya is one of the founding members of the **Freedom Online Coalition**<sup>116</sup>, a group of 34 governments committed to work together to support internet freedom and protect fundamental human rights – free expression, association, assembly, and privacy online – worldwide. Kenya chaired and hosted the Coalition’s second Freedom Online Conference in Nairobi (2012). In 2017, Kenya together with other African countries committed in the **African Declaration on Internet Governance**<sup>117</sup> to working to develop ‘an accessible and affordable internet, safe and reliable, so that internet remains a stable, resilient and trustworthy space, bearing a message of peace and promoting the peaceful use of internet’. In 2022, Kenya was one of the early signatories of **The Declaration for the Future of the Internet**<sup>118</sup> which sets out a positive vision for the internet and digital technologies and reaffirms and recommits its partners to a single global internet – one that is truly open and fosters competition, privacy, and respect for human rights.

In parallel with the multistakeholder approach the Kenya government is active in multilateral dialogues on issues relating to internet governance. Kenya is a member of the **International Telecommunication Union (ITU)** where it is active in the ITU-Radiocommunication sector (ITU-R), the ITU-Telecommunication standardization sector (ITU-T), and the ITU-Development sector (ITU-D) and participates in the ITU Plenipotentiary meeting. While Kenya’s delegation typically exists of representatives of the Ministry of ICT, the Communications Authority (CA), and a few members of the National Assembly, sometimes they are complemented with other stakeholders<sup>119</sup>. By exception, a multistakeholder delegation represented Kenya at the World Conference on International Telecommunications (WCIT) in 2012. The Kenyan regulator also send a delegation to the WSIS meetings, though there has been no consistency in attendance.<sup>120</sup> At **UN’s** level Kenya is an active participant in discussions at the Open-Ended Working Group (OEWG) where it called for a more central role of the UN in coordinating cyber capacity building<sup>121</sup> and previously was member of the Group of Government Experts (GGE) discussions from 2004. The government of Kenya believes that it ‘should not relent in its efforts to place itself at the very top of the global league on international standards to ensure the long-term sustainability of the various services on offer. Public-Private sector partnerships should be explored in depth.’<sup>122</sup>

113 <https://igf.africa>

114 <https://www.intgovforum.org/en/archived/igf-2011>

115 UNESCO. “ROAM-X Indicators”. <https://en.unesco.org/internet-universality-indicators/roamx-indicators>

116 <https://freedomonlinecoalition.com>

117 African Union. (2017, 13 February). “African Declaration on Internet Governance”.

118 European Union. 2022. “Declaration for the Future of the Internet.” 28 April 2022.

119 For example, Safaricom, Ariel Networks and Silensec Africa Limited participate in one or more sectors, while the African Advanced Level Telecommunication Institute from Nairobi is listed in the universal research category. [https://www.itu.int/online/mm/scripts/gense19?\\_ctryid=1000100574](https://www.itu.int/online/mm/scripts/gense19?_ctryid=1000100574)

120 UNESCO, KICTANET. (2020). p. 122.

121 Teleanu, S., Kurbalija, J., et al. (2022). p. 179-182.

122 Republic of Kenya, Ministry of ICT, Innovation and Youth Affairs. (2021). “The Kenya National Digital Master Plan 2022-2032.” p. 48.

### 3.2.2 Internet Standards Development and Implementation

Kenya promotes the development and use of Open Internet standards and encourages adherence to globally accepted standards in innovation and the design of devices and software. This intention is amongst other enshrined in the National Broadband Strategy<sup>123</sup>. A 2019 survey registered strong support in Kenya for the idea that global internet standards are needed to address internet policy challenges such as privacy and safety online<sup>124</sup>. In 2022, the Communication Authority announced an ambitious IPv4 to IPv6 Migration Strategy<sup>125</sup> that outlines regulatory interventions, awareness raising, and technical training initiatives to realise a rapid adoption of IPv6. As part of the plan, effective July 2023, only IPv6 capable devices can get approved for use in Kenya.<sup>126</sup>

A few members of the Kenyan Internet technical community regularly take part in the meetings of the **IETF**, but more efforts are needed to increase participation.<sup>127</sup> In May 2017, a 2-day Hackathon was organised in Nairobi 'to gather able engineers from Africa to work on challenges based on IETF work' and to show them how the work of IETF is based on consensus and running code as core tenets. The Kenya Education Network (KENET)<sup>128</sup> helped to identify participants from Kenya's tech community.<sup>129</sup> The appointment of a first African<sup>130</sup> – South Africa born and residing in Kenya – to a senior

management position at the IETF in 2022 was seen as an important step. Africa's participation in the development and creation of the standards that build the internet brings in the unique experience from African networks, with their own challenges and opportunities 'arising from vast distances and rugged terrain between cities, varying levels of internet infrastructure development and an ever-changing policy and regulatory environment.'<sup>131</sup>

### 3.2.3 Multistakeholder coordination of the Internet's technical infrastructure

Kenya participates in **ICANN** and is a member of the GAC<sup>132</sup> that is set up under the ICANN Bylaws to advise the ICANN Board on DNS public policy. Currently four people are listed as representative and advisers for Kenya on the GAC website, three from the Communication Authority<sup>133</sup> and one expert from the Ministry of Information, Communications, Technology, Innovation and Youth Affairs' National Communication Secretariat. Kenya has been an active GAC member and contributed substantially to various policy documents and processes over the years. Other Kenyan stakeholders are represented in different ICANN Constituencies, Working Groups, and fora that contribute to ICANN policy making.<sup>134</sup>

The successful bid to host the 37<sup>th</sup> International ICANN Meeting<sup>135</sup> in Nairobi in 2010 is evidence of Kenya's commitment to the ICANN multi-

123 Teleanu, S., Kurbalija, J., et al. (2022). p. 179-182.

124 Radu, S. (2019, 23 May). "The World Says It Needs Global Internet Standards." US News. <https://www.usnews.com/news/best-countries/articles/2019-05-23/the-world-says-it-needs-global-internet-standards>

125 Republic of Kenya, Communications Authority of Kenya. 2022. "IPv4 to IPv6 Migration Strategy."

126 Washington, M. (2023, 14 February). "Govt Issues Guidelines for All Phones, Laptops in New Internet Changes." HKTDC Research. (2023, 14 March). "KENYA: Sale of All Electronic Devices not IPv6 Compatible Banned from July."

127 Interviews with Kenyan stakeholders, March - April 2023

128 <https://www.kenet.or.ke>

129 Hailu, B. (2017, 28 May). "2017 Hackathon @AIS. Report: Consensus and Code." Internet Society.

130 IETF Datatracker. Andrew Alston. <https://datatracker.ietf.org/person/andrew-ietf@liquid.tech>

131 Roberts, B. (2022, 22 February). "At the cusp of change, the Internet Engineering Task Force (IETF) adds an African voice to the Institution." Liquid Intelligent Technologies.

132 <https://gac.icann.org>

133 <https://www.ca.go.ke>

134 UNESCO, KICTANET. (2020). p. 124.

135 <https://archive.icann.org/en/meetings/nairobi2010/>



takeholder model. In 2016, ICANN opened an African engagement office in Nairobi to support its stakeholder engagement and capacity building in Africa<sup>136</sup> and in 2017 the GAC with the support of the CA and the Government of Kenya organised its first capacity building workshop on “Harnessing the Potential of the Africa GAC Members for better Participation in ICANN.”<sup>137</sup> ICANN’s decision to install an IMRS cluster in Kenya is another sign of the country’s commitment to the multistakeholder coordination of the internet’s technical infrastructure. At the announcement in 2022, ICANN’s President and Chief Executive Officer (CEO) highlighted that extending the IMRS infrastructure in Africa, which is key to stimulate internet access and strengthen the internet stability on the continent, ‘could only be achieved with the participation of the local community’ and expressed gratitude ‘to the Ministry of ICT, Innovation and Youth Affairs in Kenya for their support in establishing the IMRS cluster in their country, and for their commitment to advancing the internet in the continent.’<sup>138</sup>

The **KENIC**<sup>139</sup> is the manager and administrator of Kenya’s Country Code Top Level Domain (ccTLD), .ke. KENIC was established in 2003 as a non-profit organisation after a broad-based consultation of the local internet community and with full support of the government. KENIC’s mandate is to ‘manage .KE domains on behalf of all Kenyans and work every day to build a trusted internet for Kenyans.’ KENIC is member of the Country Code Names Supporting Organisation

(ccNSO<sup>140</sup>) within the ICANN structure, and of the Africa Top Level Organization (AfTLD)<sup>141</sup>, the association of ccTLD managers in the African region.

Kenyan stakeholders participate in the activities and open policy development process<sup>142</sup> of the **AFRINIC**<sup>143</sup>, the Regional Internet Registry (RIR) responsible for the distribution and management of internet number resources (IP addresses and AS numbers) for Africa and the Indian Ocean region. In 2017, AFRINIC held its 26<sup>th</sup> meeting in Nairobi, alongside the 2017 Africa Internet Summit hosted by the Kenya’s Ministry of Information Communications and technology.<sup>144</sup>

### 3.2.4 Success Factors of the Kenyan Model for Open Internet Governance

#### 3.2.4.1 A legal framework protective of fundamental rights and participatory democracy

The **Constitution of Kenya**<sup>145</sup> ‘has adopted the concept of *multistakeholderism* in its **principle of public participation** under its Article 10.’<sup>146</sup> The Constitution further stipulates that any person or group can approach any public office to petition on a matter that affects them<sup>147</sup> and that public policy decisions, including policy and law making process must seek and take into consideration the input of those who may be affected by the policy or law<sup>148, 149</sup>. The participation of citizens in government decision making is fundamental to the functio-

136 ICANN. (2016, 24 May). “Kenya to Host ICANN’s African Regional Engagement Office.”

Costerton, S., Dandjinou, S.P. (2016, 26 May). “ICANN Launches African Engagement Office in Nairobi.” ICANN.

137 ICANN. (2017, 13 January). “ICANN Holds the First Capacity Building Workshop for African GAC Members.”

138 ICANN. (2022, 28 February). “Press Release: ICANN-Managed Root Server Clusters to Strengthen Africa’s Internet Infrastructure.” ICANN.

139 <https://kenic.or.ke>

140 <https://ccnso.icann.org/en>

141 <https://www.aftld.org>

142 <https://afrinic.net/policy>

143 <https://afrinic.net>

144 <https://2017.internetsummit.africa/afrinic-26>

145 Republic of Kenya. (2010). “Constitution of Kenya, 2010.”

146 UNESCO, KICTANET. (2020). p. 14.

147 Constitution of Kenya, Art 37.

148 Constitution of Kenya, Art 118.

149 UNESCO, KICTANET. (2020). p. 72.

ning of the democratic system envisaged by the Constitution and is further captured, amongst other 'in Article 118 of the Constitution which mandates Parliament to facilitate public participation. The citizen involvement in policy making and implementation strengthens and deepens good governance, promotes transparency, and fosters accountability.<sup>150</sup> The **Kenya Open Data Initiative** that was launched in 2011 to make public Government research and data accessible for free to the public in easy reusable formats, answers to the constitutional right to government information and is key for effective public participation.<sup>151</sup>

Even before implementing the 2010 Constitution, Kenya embraced the principle of Open (Internet) governance. The establishment of the Ministry of Information and Communications in 2003 was a direct outcome of the active engagement from various stakeholders, such as KICTANet and Skunkworks<sup>152</sup>. 'The 2010 Constitution solidified the role of a multistakeholder approach in policy development, budget allocation, and parliamentary processes. This inclusive approach may be challenging, but it ensures that everyone's perspectives and concerns are considered.' The open governance approach is broadly applied and, for example, allowed civil society to request details and transparency when the government was discussing the construction of undersea cable and terrestrial fibre optics.<sup>153</sup>

'Kenya has a comprehensive policy, legal and institutional **framework for human rights** which adopts international human rights standards for among others: freedom of expression, access to information, freedom do association, the right to participate in the conduct of public affairs, right

to privacy, and social and cultural rights.'<sup>154</sup> 'The Constitution helps to uphold the multistakeholder model. The explicit acknowledgement of public participation and the progressive rights framework give stakeholders the power to organise, engage and influence decision making.'<sup>155</sup>

#### *3.2.4.2 Acknowledgement of the Open Internet as a key resource*

Kenya has acknowledged the internet as a key resource and, instead of trying to intervene and limit via measures such as shutdowns, it has safeguarded internet openness, amongst other by allowing competition between players and service providers.<sup>156</sup> The Kenyan Government has enacted laws and policies that enable internet access, promote digital literacy and protect digital rights, while pursuing an ambitious program to expand internet infrastructure and connectivity, particularly in rural areas, to boost digital inclusion and economic growth.<sup>157</sup>

#### *3.2.4.3 Well-designed national institutions of Internet policy*

Kenya has a well-designed framework for internet policymaking with clear division of roles and responsibilities. The Constitutional principles of open, transparent, and participatory policy making are also applicable to public institutions. The clear design, division of responsibilities, and transparency facilitate the multistakeholder model as they allow stakeholders to maintain overview of who does what and when and where to go.

Key Internet Policy making bodies include:

- The National Communications Secretariat (NCS),
- The Ministry of ICT,
- The Communications Authority,
- the Parliament.

150 The Clerk of the National Assembly. (2017). "Public Participation in the Legislative Process. Factsheet No. 27." The National Assembly of Kenya. p. 1-2.

151 Interviews with Kenyan Stakeholders.

152 A listserv for techies (mailman-prod.my.co.ke/cgi-bin/mailman/listinfo/skunkworks) - <https://twitter.com/skunkworkske>

153 Interviews with Kenyan Stakeholders.

154 UNESCO, KICTANET. (2020). p. 14, 41-62.

155 Interviews with Kenyan stakeholders, March - April 2023

156 Interviews with Kenyan stakeholders, March - April 2023

157 Interviews with Kenyan stakeholders, March - April 2023

‘Where internet policy is concerned, the **NCS**<sup>158</sup> in the Ministry of ICT, and the **CA**<sup>159</sup> spearhead policy making processes. The NCS formulates policy papers, session papers and laws on ICT, while CA is responsible for facilitating the development of the information and communications sectors mostly through formulation of legislation.’ Both organisations usually call for public participation<sup>160</sup> - even though there is still room for improvement<sup>161</sup>. Other institutions charged with internet policy development are the **National Assembly and the Senate ICT Committees**. These Parliamentary Committees organise public engagement<sup>162</sup> through public hearings and, or the opportunity to comment<sup>163</sup> on draft bills. Stakeholder groups representing business, government, civil society, and academia, typically participate in these ICT policy consultations. For example, the KICTANet, Kenya Private Sector Alliance (KEPSA), as well as the regulator of the CA have been active contributors.<sup>164</sup>

#### *3.2.4.4 Active Internet Stakeholder Community and Government Willingness*

The public participation concept entrenched in the national values and principles<sup>165</sup> provides an opportunity for industry associations, consumer organisations and civil society actors to engage with ICT policy makers and the rights framework guarantees that stakeholders can organise and act. Kenya’s civil society has become known as ‘one of Africa’s bravest and most vocal’, although vigilance is required to avoid hurdles that risk to impact its role.<sup>166</sup> Organisations that regu-

larly engage with ICT policy makers include the KEPSA, the Consumers Federation of Kenya (COFEK), and the KICTANet.<sup>167</sup>

However, one of the key factors behind the success of Kenya’s multistakeholder internet governance approach is the **willingness of the stakeholders to work together**. People and organisations from government, private sector, academia, civil society, and media were able to put aside their differences to discuss internet governance topics openly and on equal footing. This led to the creation of a local internet governance ecosystem.<sup>168</sup> The **Government’s support** has been a key driver in upholding such an internet governance model, not only in terms of goodwill, but also in availing resources, investing in the internet governance process, raising awareness about internet governance, and in supporting and actively participating in the Kenyan IGFs.<sup>169</sup> The Kenya IGF and KeSIG are funded by government’s Communication Authority together with a list of national and international **sponsors and partners**, including private sector, civil society and government and intergovernmental organisations.<sup>170</sup>

#### *3.2.4.5 Capacity Building*

The Kenyan Government and stakeholder have invested in building the capacity of citizens and institutions to participate effectively in internet governance. This investment has included training programs, workshops, and conferences aimed at enhancing digital skills, awareness,

158 The National Communications Secretariat. <https://ncs.go.ke/index.php/about-us>

159 Communications Authority of Kenya. <https://ca.go.ke/>

160 A good example is the engagement of different industry stakeholders in the ICT policy review of 2016.

161 For example, with regard to the timeframes for input or the reflection of stakeholder input in the outcome documents.

162 The Data Protection Bill 2019 is an example where the National Assembly and Senate called for public participation. Public participation engagements were set to be carried out across different parts of Kenya.

163 For example, the Kenya Information and Communication (Amendment) Bill 2019 was posted on the National Assembly website and stakeholders were urged to send in a memorandum.

164 UNESCO, KICTANET. (2020). P. 115-117.

165 See above, Constitution Article 10.

166 For example, new legislative and administrative hurdles, or public campaigns that tarnish the reputation of civil society organisations. Kapiyo, V. (2017). “Legal and Regulatory Frameworks Affecting Civil Society Organisations’ Online and Offline Activities in Kenya.” CIPESA. p. 3, p. 20.

167 UNESCO, KICTANET. (2020). p. 72.

168 Interviews with Kenyan stakeholders, March - April 2023

169 Interviews with Kenyan stakeholders, March - April 2023

170 <https://kigf.or.ke/sponsors/>

and stakeholder engagement.<sup>171</sup> Through KIGF actors from diverse areas gained experience on how to engage with other stakeholders in public policy development processes through a multi-stakeholder approach. The KIGF has created a multistakeholder process that is balanced and inclusive: government representatives from several ministries and sectors have participated in high-level panel discussions, private sector has been represented by the biggest telco firms, as well as by small and medium-sized businesses, civil society, and young people.

#### 3.2.4.6 Collaboration and financial resources

The Kenyan Government and stakeholders have forged partnerships with regional and international organisations to promote best practice sharing in internet governance. These partnerships have facilitated amongst other knowledge sharing, policy harmonization, and technical cooperation.<sup>172</sup> The government

together with national and international sponsors and partners from the private sector, civil society, international initiatives, and intergovernmental organisations provided funding for multistakeholder meetings, trainings, and programmes.

#### 3.2.4.7 Robust Digital Diplomacy Skills and Education

Awareness and understanding of the stakes involved with the critical issues addressed in global debates regarding internet governance and a good understanding of their potential and challenges from the standpoint of the own country are crucial for a country's impactful digital diplomacy. The other, non-government, stakeholders share the same challenges regarding the level of awareness and capacity to engage.<sup>173</sup> Initiatives such as KIGF, the Youth IGF, and KeSIG, play an important role in this awareness raising and capacity building.

## 3.3 RESULTS OF THE KENYA MODEL OF INTERNET GOVERNANCE

### 3.3.1 An Open Internet Governance model driving digital development.

'Kenya is among the most vibrant digital economies on the African continent. This has been achieved due to a combination of factors, including an energetic private sector, smart regulation, and a comprehensive engagement with international actors.'<sup>174</sup> 'The internet ecosystem in Kenya is a result of its internet governance model.' The multistakeholder model has allowed stakeholders to participate and hold conversations in a non-competitive open and free space, where each role and responsibilities can be identified: 'the government provides the enabling environment, business provide the infrastruc-

ture, civil society provides people's engagement and provides content, and the technical community ensures the system is working.'<sup>175</sup>

While difficult to prove causality, one should not underestimate the influence of multistakeholder discussions. The multistakeholder dialogue has had concrete impact on the development of the Kenyan internet. The high cost of internet connectivity, for example, has always been a major issue in the discourse of different stakeholders in the local internet governance meetings, with efforts to reduce the cost as a direct outcome.<sup>176</sup> As a result, the country is now viewed as a regional leader in terms of broadband connectivity, general ICT infrastructure, value-added services,

171 Interviews with Kenyan stakeholders, March - April 2023

172 Interviews with Kenyan stakeholders, March - April 2023

173 Chango, M. (2019). "Analysing the Landscape of Multistakeholder Internet Governance and Policy Process in Africa." Policy and Regulatory Initiative for Digital Africa (PRIDA). p. 26-30.

174 Teleanu, S., Kurbalija, J., et al. (2022). p. 179-182.

175 Interviews with Kenyan stakeholders, March - April 2023

176 Interviews with Kenyan stakeholders, March - April 2023

mobile money, and mobile banking services. The country's ICT sector was set to account for up to 8% of the country's Gross domestic product (GDP) through IT-enabled services (ITES) and create more than a quarter of a million jobs by the end of 2021.

The Open Internet approach provides flexibility that allows people to use the internet to grow and develop and try out new things.<sup>177</sup> A multitude of providers are active in Kenya, possible thanks to the openness of the internet, which in turn is beneficial to the gross of the industry.<sup>178</sup> An entrepreneurial and innovative spirit and supportive business environment have spawned a wide range of digitally enabled start-ups and investments by leading multinational tech companies, burnishing the country's reputation as the "Silicon Savannah", and driving service-led growth. This led the digital economy to be a driving economic growth, propelled by widespread mobile telephony, rising internet usage and uptake of e-commerce and digital services. 'As a result of the collaborative efforts of stakeholders, Kenya achieved significant milestones. It built a robust digital infrastructure, initiated the Kenya Open Data Initiative, fully liberalised the telecommunications sector, facilitated the launch of Mpesa without extensive regulatory constraints, supported KENET, university students, and nurtured the startup ecosystem and launched a nationwide digital literacy program.'<sup>179</sup>

### 3.3.2 Growing Voice in the Global Internet Governance debate

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The level of literacy of internet governance policy issues is very high in Kenya, thanks to the active role of KIGF and KeSIG. Since its creation KeSIG has trained more than 300 professionals from the legal community – those who are deve-

loping policies and legislation – and civil society – those who are defending civil rights.<sup>180</sup> This, of course, is crucial for the maturing the internal multistakeholder dialogue, but also creates a sound basis for Kenya's involvement in the regional, pan-African, and global internet governance debate. ICANN's 2022 decision to have root server clusters deployed in Kenya should be seen as a recognition of Kenya's role in global digital developments.<sup>181</sup>

177 Interviews with Kenyan stakeholders, March - April 2023

178 Interviews with Kenyan stakeholders, March - April 2023

179 Interviews with Kenyan stakeholders

180 Interviews with Kenyan stakeholders, March - April 2023

181 Teleanu, S., Kurbalija, J., et al. (2022). p. 179-182. \_



# 4.

## Conclusion: Is the Kenya Model of Internet Governance Applicable to Other Countries?

Kenya has an outstanding internet governance model that provides an array of lessons learned and good practices to other countries, specifically African countries. Kenya's political, social, economic, geographic, and historic contexts affect Kenya's internet governance model. Kenya's reality is will always be different than the reality of another country. Nevertheless, Kenya is good practice example. Stakeholders in other countries can learn and copy from Kenya's model of internet governance, on the condition that practices and priorities are refined and scoped in response to the own context, national demand, existing initiatives, and cooperation partnerships.

By dissecting the Open Internet multistakeholder governance model in three complementary dimensions of internet governance: *Agenda Setting and Policy Dialogue*, *Internet Standards Development*, and *the Coordination of the Internet's Technical Infrastructure*, showcasing how Kenyan stakeholders successfully organise their involvement in the three dimensions, and diving deeper to identify underlying factors that contribute to the success of the Kenyan model, this Roadmap provides a menu of options and action point to build and improve multistakeholder governance models elsewhere.

Throughout the research, interviews, and contacts with stakeholders in preparation for this report and in the context of the overarching project it is part of, one key element submerged as crucial to establish, evolve, and mature Open Internet governance: *the willingness of all stakeholders to set aside differences and discuss internet policy issues together*. How this is organised, who the representatives of the different stakeholders' groups are, what the key issues on the agenda will be different depending on local context and need.

# 5.

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