

Additional guidance: an appraisal of completed Digital Economy Toolkits

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Purpose:

The purpose of this document is to provide additional guidance based on an appraisal - highlighting strengths but also some weaknesses - of the completed Toolkits (for South Africa, Mongolia and Ethiopia). After providing some general guidance, the document considers Assessments that have been completed following the four analytical pillars suggested in the main Toolkit document: Infrastructure, People, Finance and Policy & Regulations. It then turns to some general advice about the Strategy Primer document and finally makes some brief comments about policy or programme recommendations under each of the four pillars.

General comments:

- The guidance in the Digital Toolkit is quite broad and there is a long list of suggested focus areas (henceforth 'items') to consider under each pillar. We would like teams to, at least, consider all the items since they could all be relevant to the development of the digital economy. However, we realise that it may be more useful for teams to **focus more on certain items which are of particular relevance** to the country in question, while giving less or occasionally no attention to other items. It is important that such decisions to focus on some items at the expense of others should be based on the relevance (or lack thereof) of the items for the country in question and not on the availability of expertise in the team. In cases where teams lack expertise in certain matters that may be important, we suggest they try to reach out to experts who can advise them (they could also communicate any difficulties related to this to the Digital Pathways Team).

- The four pillars discussed in the Digital Toolkit guidance provide a suggested structure which we have found to work well. **It is fine to reorder sections** as teams see fit - although we still think it would be a good idea for teams to make sure they cover all the main aspects of the suggested pillars.

ASSESSMENTS:

General comments:

- It is important to **link all analysis to the digital economy** as much as possible. For example, an in-depth discussion of educational outcomes is only really useful if it discusses the implications of this picture for the digital economy.
- If data are available, it can be very useful to **break down analyses by demographic groups and geographical areas** (e.g. urban vs. rural areas). This is because the average picture for the country will hide significant heterogeneity. This is especially relevant for the Infrastructure and People pillars but could also be relevant for the other sections.
- It can be very useful to **benchmark - particularly against countries from the same region/other regions of similar levels of development**. Useful sources of comparable country information include the World Bank's World Development Indicators, Enterprise Surveys and Doing Business Surveys as well as the WEF Global Competitiveness Index, but there are many others. In addition to comparing levels of infrastructure access and skills between countries, teams could also consider comparing skills or policies across countries (under the People or Regulation & Policy pillars).
- Comprehensive coverage of all the items listed in the Digital Economy Toolkit, while being very useful, may not make for a very readable or concise document. Teams could

consider **adding an appendix** to the assessment (as the South Africa team did). Then in the main assessment document, they could focus and expand on particular areas that were identified as important.

Pillars:

Infrastructure:

- It is very useful to provide a **statistical breakdown of access to the internet, electricity and mobile phones by demographic group** - i.e. income group, race, gender - **and geography**. The SA Toolkit provided a decent breakdown of internet access by demographic group though there could have been more discussion of the reasons behind the disparities that were discussed (and if the data were available it would have been helpful to have had a similar breakdown for mobile phone access and electricity).
- Going beyond discussing access to the internet, electricity and mobile phones, it can also be helpful to **discuss network coverage and quality and the affordability of data and devices**. The SA Toolkit included such a discussion, which also went into the reasons behind reduced coverage and access (related to market structure, incentives to serve different groups, competition policy) and what the government is currently doing to tackle low access and the lack of affordability (e.g free wifi hotspots). There was also a helpful discussion on the quality of smartphones that people are able to afford (see SA Toolkit Appendix pg 1-14).
- It is very useful to **benchmark a country's performance when it comes to access and usage** against comparable countries. This was done in the case of the Ethiopian Toolkit which benchmarked, for example, access to electricity over time (broken down by urban vs. rural population) and proportion of population with mobile phone subscriptions in Ethiopia against other comparable countries in Africa.

- It is useful to **discuss the provision of ‘soft infrastructure’** in addition to hard infrastructure. The Ethiopian Toolkit included a useful discussion of mobile money, digital ID systems and e-governance (see Ethiopia Toolkit Empirical Background slides 15-58). This discussion was largely absent in the other Toolkits.
- We leave it **up to teams to decide to what extent they wish to discuss the reasons behind low access to or usage of the internet or mobile phones in this section** or to leave this for later sections. Some repetition does not matter.

People:

- It can be very useful to include a **comprehensive evaluation of educational gaps at all levels related to the digital economy**. The SA Toolkit was good in this regard though there could have been more analysis explaining the implications of educational gaps for the digital economy. The discussion of private sector contributions to education (e.g. on-the-job training) was helpful, as was the discussion of (the lack of) retention and attraction of critical skills in South Africa (see SA Toolkit Appendix pg 14-27).
- An **in-depth analysis of challenges to digital literacy** can be especially helpful. The Ethiopian Toolkit was strong in its incisive analysis of challenges to digital literacy in Ethiopia (including low general literacy, lack of STEM graduates from university and low quality of vocational training) and also in its discussions of government expenditure and programmes to improve educational outcomes, gender differences in educational attainment, availability of digital skills for businesses, etc. (see Ethiopia Toolkit Empirical Background slides 72-89).
- Of course if there has been any **study of digital literacy (or of a related topic)** in the country under study, it can be very useful to include a discussion of this. In the Mongolian Toolkit, there was brief mention of a study on digital literacy in the country (see Mongolia Toolkit pg 21-29).

Finance:

- It can be helpful to include a **comprehensive analysis of finance** available to all types of tech-enabled firms. The SA Toolkit was strong in discussing finance available to start-ups as well as established firms. It also grouped this together with a broader discussion of non-financial investment support (all of which was placed under the heading 'Innovative Business' rather than 'Finance') (see SA Toolkit Appendix pg 45-57). In an earlier section 'Government Support', other aspects of finance were discussed (e.g. government incentives for business) (see SA Toolkit Appendix pg 32-38). The SA Toolkit also discussed the affordability of digital products in an earlier section (see SA Toolkit Appendix pg 8-10).
- It can also be useful to include **an analysis of financial inclusion at the individual level or the subregional level**. The *Mongolian Toolkit* discussed general financial inclusion for different demographic groups (though this discussion could have been more directly related to the digital economy) (see Mongolia Toolkit pg 31-33). However, there was no discussion of the affordability of digital products, financing available to established firms or any relevant government programmes. The Ethiopian Toolkit included a sub-regional analysis of access to finance (see Ethiopian Toolkit Empirical Background slides 59-71). Of course these data may not be available for all countries.
- Again it can be helpful to include a **benchmarking analysis**. The Ethiopian Toolkit also followed a useful benchmarking approach for this section. Firms' access to credit and start-up funding were benchmarked against those in other countries (see Ethiopian Toolkit Empirical Background slides 59-71).

Policy & Regulation:

- Based on feedback received, it seems some teams have struggled with this section. While it can be challenging to gather information on policies and regulations impacting on the digital economy and to analyse them, this exercise is critical. Sometimes detailed information on policies and regulations may not be available in the public realm - in

such cases, **teams will have to consult with relevant government officials**. If necessary, teams should try to reach out to law experts and economists who have a deep understanding of relevant policies and regulations.

- It is important to **tie an analysis of policies and regulations to the digital economy**. The SA Toolkit included an in-depth discussion of policies and regulations as these were relevant to the digital economy including: IP policy; data and cyber-security regulations; tax policies related to digital business; sector-specific regulation (related to e-hailing, tourism accommodation & financial tech); labour regulation (especially related to the ‘gig economy’); and competition policy (though this could have been more directly linked to the digital economy) (see SA Toolkit Appendix pg 27-44). The Ethiopian Toolkit was also strong in its appraisal of regulations and policies related to digital technology and its discussion of constraints facing regulators (see Ethiopia Toolkit Empirical Background slide 90-115). The Mongolian Toolkit also included a similar discussion but this was slightly more superficial. It covered ICT regulations as well as regulations related to competition law, intellectual property, consumer protection and tax law and explained how each of these areas related to the digital economy (see Mongolian Toolkit pg 35-40).
- It can be useful to **compare policies and regulations in one country with those in other comparable countries**. The Ethiopian Toolkit provided a useful comparison of tariffs and intellectual property protections in Ethiopia with those in other countries. The section also included a box focused on successful telecommunications reform in Nigeria, a comparator country (see Ethiopian Toolkit Empirical Background slide 90-115).

STRATEGY PRIMERS:

General comments:

- Past Strategy Primers have generally started with a section highlighting some of the main digital economy goals that the team has decided the country in question should pursue (and the rationale behind them) before discussing in depth what the country needs to do in terms of the four pillars - the latter section directly relating back to the analysis done in the earlier Assessment. This structure seems to work well but **teams are welcome to reorder sections to suit their purposes**. Of course, if the structure described above is followed, it can be useful to start with an introduction highlighting some of the main findings of the Assessment exercise (as most of the completed Toolkits do).
- It is important that teams **tailor the strategies they propose around policies and programmes** (usually from government, but they could also be from NGOs or the private sector) **already in place** in a country and to **discuss country-specific challenges and constraints**. It is not very helpful to just talk about what strategies would work well in the abstract, or in an ideal world. It would also be good to **mention specific government departments (or private sector organisations/NGOs) that could be the custodian of actions**. For example, in the introduction of the Ethiopia Toolkit it is made clear that an explicit goal is to 'coordinate initiatives underway so the most pragmatic and strategic pathways are explored to unlock significant growth and maximize impact' (see Ethiopia Strategy Primer pg 15). As such, under each priority programme - for example, unleashing value in agriculture - laid out in this document, there is a section on the current status of the sector in question as well as an appraisal of existing policies impacting on or programmes in this sector. This exercise to contextualise recommendations is also carried out in a later section of the Ethiopia Strategy Primer where it discusses proposed action under the four pillars.

- **Prioritising/sequencing proposed actions** is important. In the SA Toolkit, suggested strategies were placed into different categories: quick wins, medium-term priorities, long-term investments - in a summary section at the end of sections (summary sections can also help the reader keep track of the policy recommendations). This is also done for suggested actions under each of the pillars. The Ethiopian Toolkit also sequenced suggested programmes according to whether they should be carried out in the short, medium or long term.
- It is possible that in some countries there are **other national technology programmes/strategies that have been implemented or are being planned in parallel**. In that case, it may make sense to narrow the focus of suggested strategies in a Strategy Primer. In the case of the SA Toolkit, for example, a decision was made to focus on broad strategies related to supporting income-generating work in the digital economy. However, this was underpinned by a more holistic discussion of constraints that needed to be overcome and actions that needed to be taken across the economy.
- It can be useful to **compare strategies recommended to those undertaken in other similar countries** discussing the learnings from these other settings.
- **It may be that digital strategies do not fit neatly under different pillars**. For example, in the SA Toolkit, there is focus on unlocking demand for low-skilled labour through digital platforms - as one of the important pathways to digital development. This could fit under Infrastructure or People but the recommendations are broader -relating to Policy & Regulation.
- There is a large variation in the length of the Strategy Primer documents - from Mongolia's at 30 pages to Ethiopia's at 150 pages. Partly this will be determined by the available funding. Generally it would be good for Strategy Primers to **be at least 50 pages** - written concisely.

- Teams can **get inspiration from Pathways for Prosperity reports, especially the Digital Roadmap** - which suggests focus areas include agriculture, tourism, etc. - but teams should also feel free to come up with their own priority 'pathways' to a thriving digital economy.
- In putting forward strategies, it can be useful to **consider implementation risks** and what can be done to avoid those risks. The Ethiopian Toolkit considered risks and risk mitigation steps related to each of the main projects it put forward.

Pillars:

Infrastructure:

- This section should **not just focus on how countries can improve overall infrastructure access but access for all demographic groups and all sub-regions across a country**. Thus policy ideas should be put forward which look to tackle digital divides. Furthermore, the analysis should go beyond just discussing access to the internet and mobile phones/laptops but **should also consider usage** - i.e. to what extent are people able to benefit substantively from infrastructure access. The Mongolian Toolkit was relatively superficial on infrastructure - it talked about improving internet connectivity, moving towards e-government and bridging the digital divide but not in any detail (see Mongolian Strategy Primer pg 5-6). The Ethiopian Toolkit was much more comprehensive in its analysis of infrastructure policies and programmes underway and its assessment of strategies to overcome gaps in infrastructure access and usage, and to improve the reliability of services (see Ethiopian Strategy Primer pg 47-53).

People:

- Policies should **consider how to support digital education and skills development at many different levels**. The Mongolian Toolkit contained many good ideas (even though they were not contextualised or discussed in any real depth) about how to support

digital education and skills development in the country - changing school curriculums, providing teacher training, developing online training programmes, setting up a skills development fund - and also indirectly through, for example, improving the quality of English teaching and setting up a human capital information system. It also went into some detail about the particular actions that various ministries/departments should be taking (see Mongolian Strategy Primer pg 1-3). The SA Toolkit offered very specific advice on how to improve human capital in the country related to the digital economy. It discussed improving the efficiency of the work visa process; addressing the departure of skilled talent from the country; mainstreaming work readiness and on-the-job training; and creating an agile accreditation system (see SA Strategy Primer pg 42-45).

Finance:

- Is important to **consider a broad range of financing strategies**. The Mongolian Toolkit was quite light in its discussion of financing of the digital economy. There was no Finance section as such, but there was some discussion of finance for start-ups in the 'Creating an Ecosystem for Start-ups Section'. The other Toolkits went into much more detail here. The Ethiopian Toolkit discussed regulatory constraints - including high collateral requirements, restrictions on foreign ownership and restrictions on the writing off of investment losses - that disincentivise investment and starve start-ups of funding. It then provided a long list of well thought out strategies under the following headings: encouraging local investors to invest in the ICT sector; facilitating more international investment; the potential for public-private engagement and start-up incubation (see Ethiopian Strategy Primer pg 69-74).

Policy & Regulation:

- It is important to **analyse existing policies and regulations and to consider constraints to changing these or adopting new ones**. The SA Toolkit discussed relevant existing policies and regulations - especially around affirmative action codes - and their impacts. This Strategy Primer also discussed broad constraints faced by the country in pursuing a digital strategy - e.g. the fact that South Africa is geographically distant from developed

markets - and what can be done about this - e.g. off-shore market development (see SA Strategy Primer pg 46-50). Still, for each recommended action, there could have been some more discussion of constraints and opportunities.

- It can be useful to **discuss policies and regulations adopted in other countries** and what can be learned from these examples. The SA Toolkit discussed how India provided rapid approval for work visas and deals to improve the pace at which global digital companies relocated; discusses how India set up a cross-cutting digital team in government and the constraints in terms of there being no clear home for such a team (see SA Strategy Primer pg 46-50).