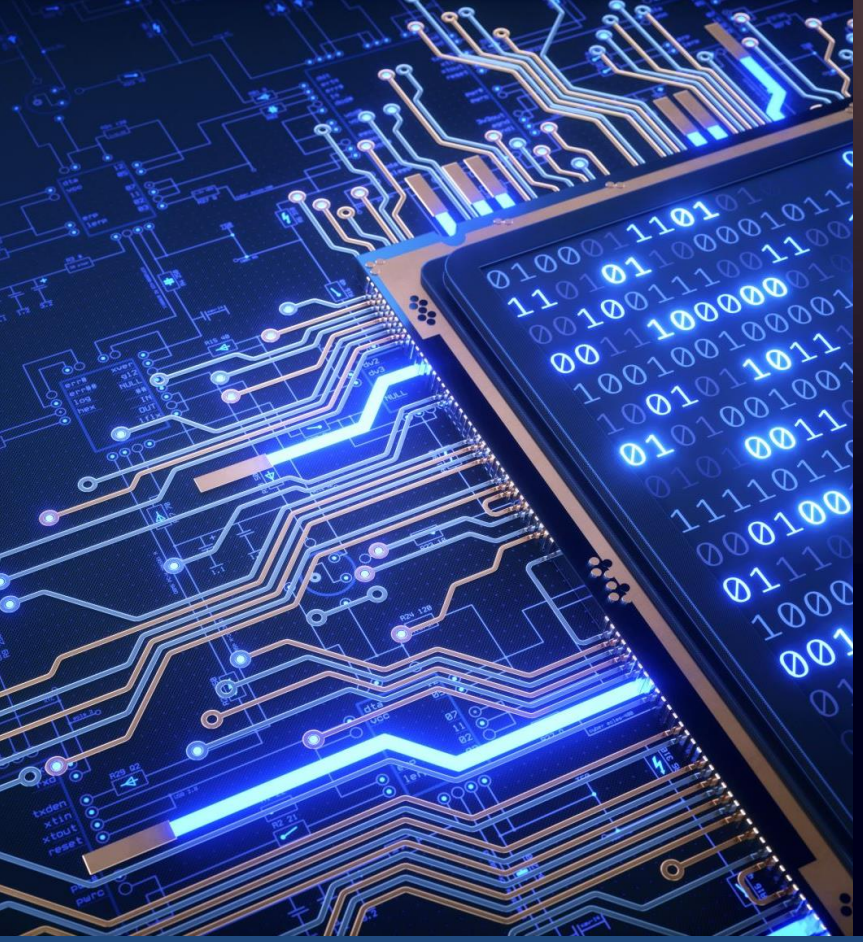
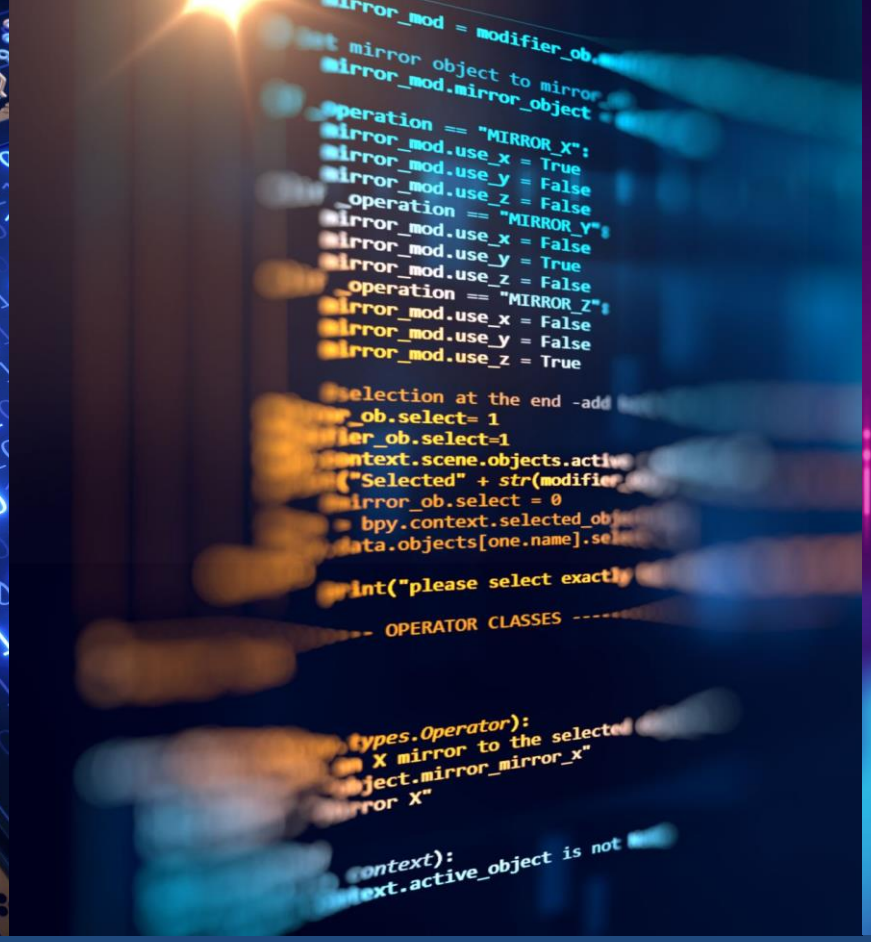






Assessment of Digital Infrastructure Divide

The Commonwealth Connectivity Agenda

Outline

- Rationale for Study of Digital Infrastructure and Digital Divide in the Commonwealth.
- Role of Infrastructure for Sustainable and Economic Development
- Synergy between different Infrastructure Layers.
- Assessment of Digital Infrastructure Divide on:

(i) Quality and Access

(ii) Digital Divide: Affordability

(iii)Digital Divide: Gender

- Reflection and Policy Assessment





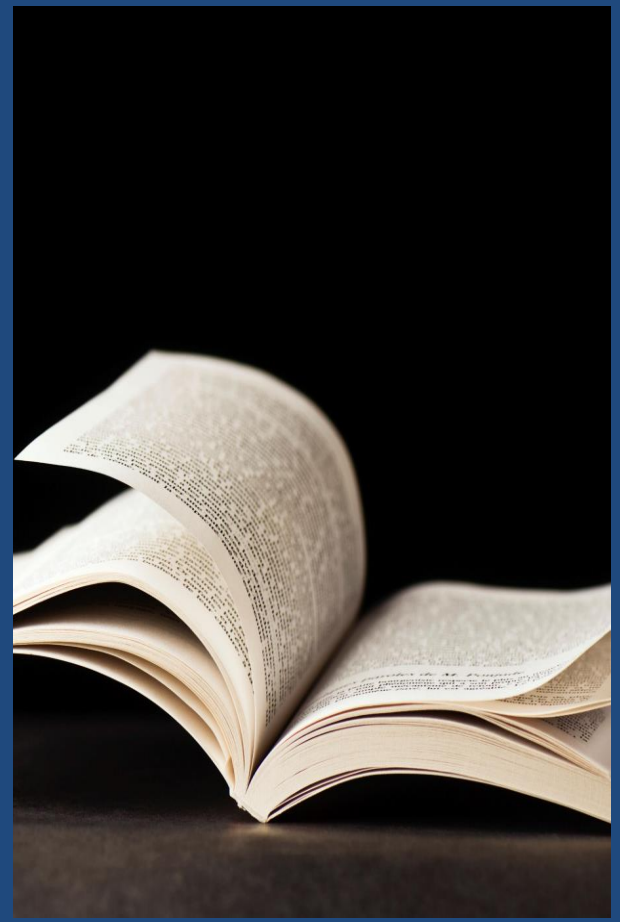
Rationale



Rationale

- In 2018, at the Commonwealth Heads of Government Meeting (CHOGM), the Heads endorsed the Commonwealth Connectivity Agenda (CCA) for Trade and Investment. In order to operationalise the CCA mandate, since 2019, the Physical Connectivity cluster, led by The Gambia, has focused work on the areas focusing on digital infrastructure and digital divide.
- The members have also developed the "Principles on Sustainable Investment in Digital Infrastructure" which is focused on six core principles which include:

1. Investment in Digital Infrastructure to achieve sustainable growth and development for Commonwealth countries;
2. Investment in Digital Infrastructure should enhance economic and social inclusion.
3. Fostering Intra-Commonwealth Collaboration for Digital Infrastructure Development
4. Capacity Building Investment in Digital Infrastructure
5. Investment in Digital infrastructure to promote intra-Commonwealth trade and investment
6. Investment in Digital infrastructure should encourage smart societies and network.



- Furthermore, the cluster has worked with The Gambia and member countries of the Commonwealth and has developed case studies and evidence- based research for consensus building too.

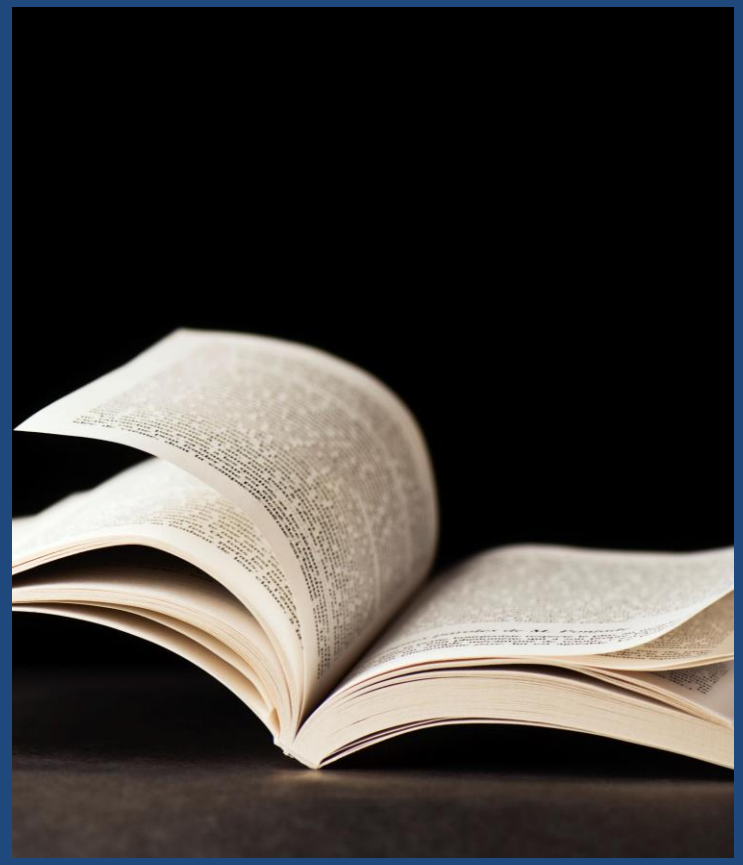
Reference:

For further reference and reading on various other clusters: https://www.chogm2018.org.uk/sites/default/files/DeclarationontheCommonwealthConnectivityAgendaforTradeandInvestment%20pdf.pdf

Principle 1: Investment in Digital Infrastructure to achieve sustainable growth and development for commonwealth countries.

- Investment in Digital Infrastructure **should take into account the economic, environmental and social development** impact of the infrastructure in **creating economic activities and also ensuring that such infrastructure is financed by sound public, private and/or Public-Private Partnerships (PPPs).**

- The positive impact from digital infrastructure must be capitalised in **terms of job creation, transfer of shared technology** on mutually agreed terms and to strengthen resilient-based approaches for disaster risk reduction

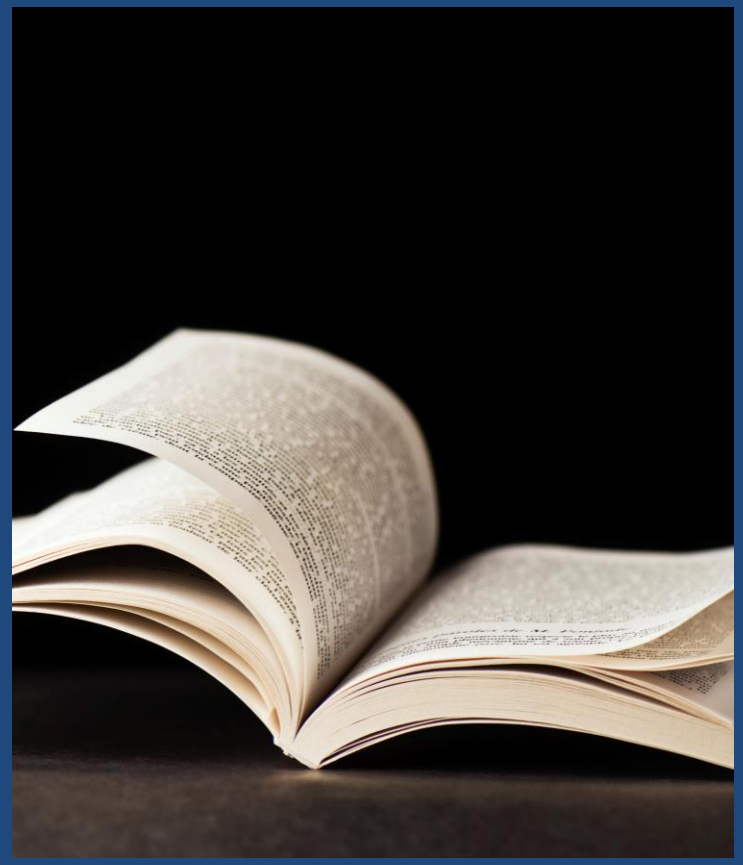


Principle 2: Investment in Digital Infrastructure should enhance economic and social inclusion.

Investment in digital infrastructure should ensure connectivity to regions that are most isolated including underserved. In particular, digital infrastructure should enhance connectivity for small medium enterprises (SMEs) and Micro, Small and Medium enterprises (MSMEs).

Universal access for sustainable digital investment infrastructure should be made available to the extent possible through Sustainable Financing. Hence investment in Digital Infrastructure solutions should be tailored to the needs of the various groups.

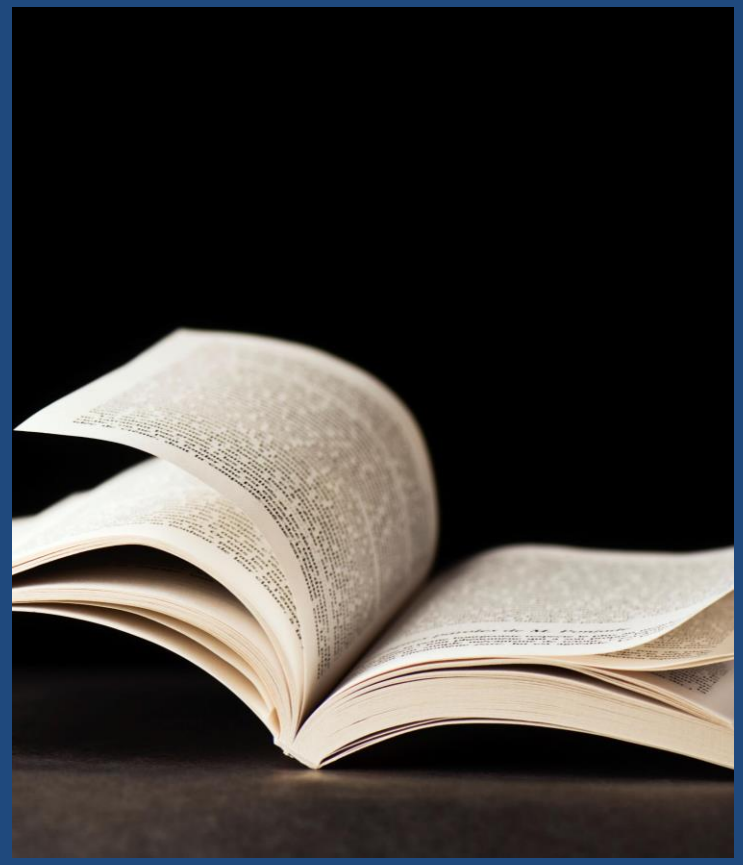
Investment in digital infrastructure should be inclusive, enable economic participation and social inclusion for all. The provision of open access to infrastructure services should be secured on a non-discriminatory manner for society.



Principle 3:Fostering Intra-Commonwealth Collaboration for Digital Infrastructure Development

To ensure sustainable development in digital infrastructure across Commonwealth, Members are encouraged to collaborate in knowledge transfer, technology and innovation, capacity building and joint-projects.

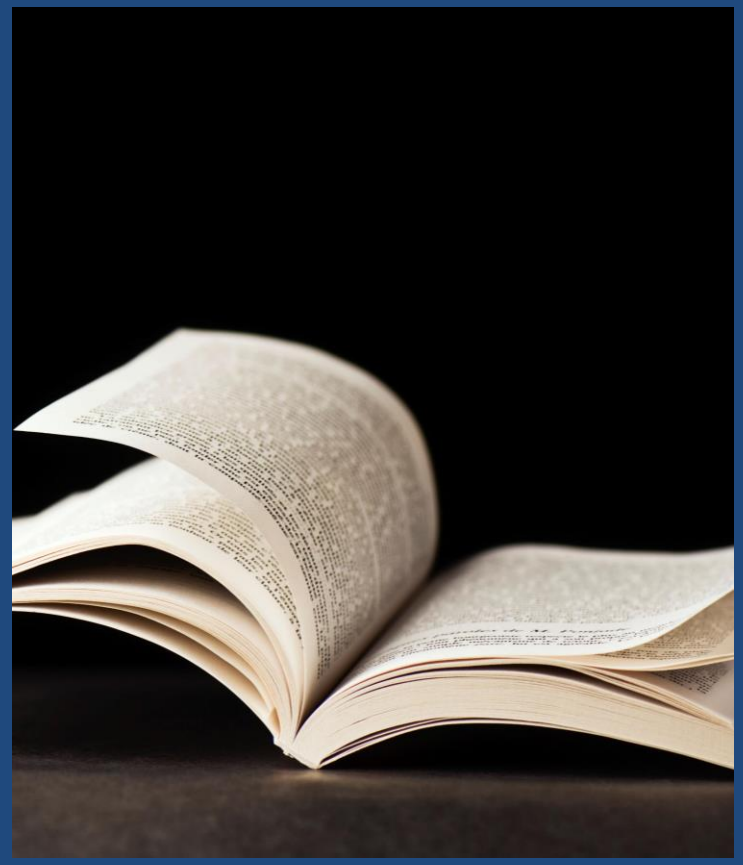
The Investment in Digital Infrastructure should also ensure shared learnings, ownership and responsibilities by commonwealth member countries in the long term to achieve the 2030 SDG agenda for sustainable development.



Principle 4: Capacity Building Investment in Digital Infrastructure

Cross-cutting investment in human resources in the form of raising awareness, and capacity building in digital skills training must be in tandem with the investment in the hard infrastructure.

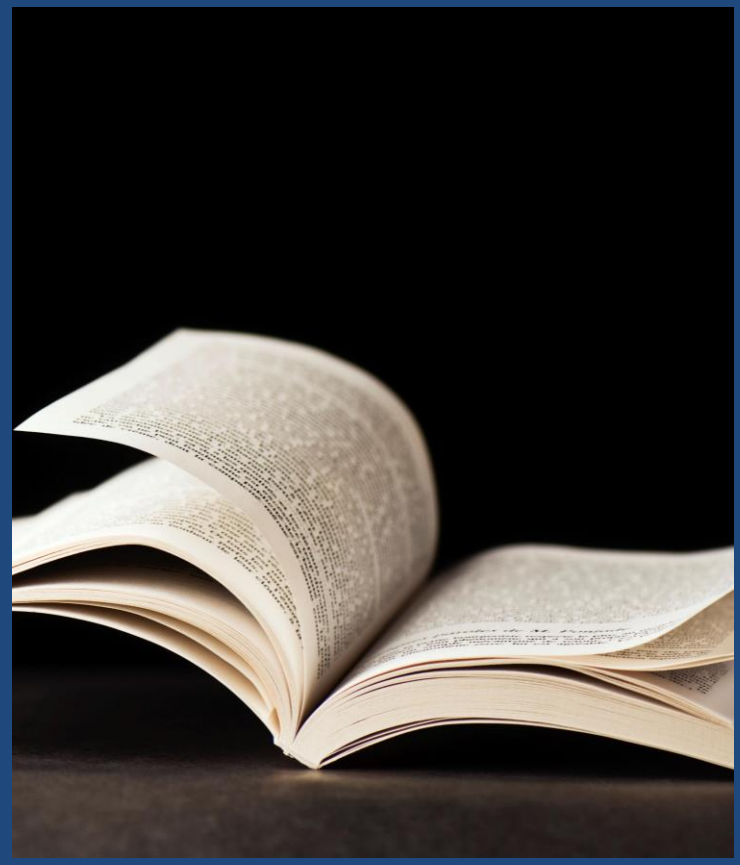
Knowledge, skills and its application are important enablers to the successful use and maintenance of the digital infrastructure in the long term.



Principle 5:Investment in Digital Infrastructure to promote Intra-Commonwealth trade facilitation and economic efficiency.

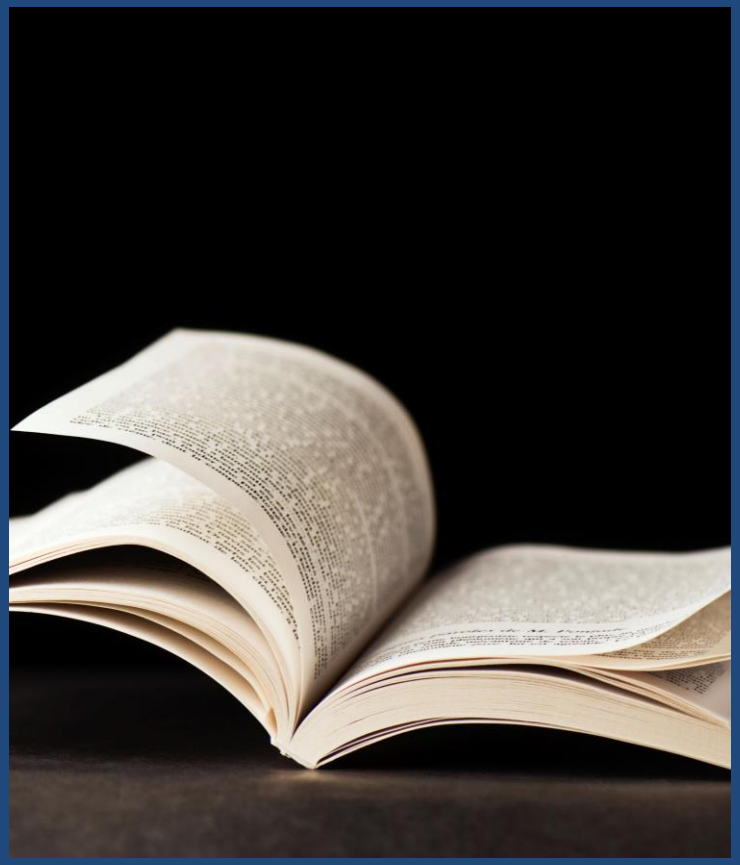
Investment in digital infrastructure should enhance sustainable trade and economic efficiency of the commonwealth member countries).

The intra-commonwealth economic efficiency should further be enhanced through regulatory cooperation, harmonization of procedures and the modernization of border and customs.



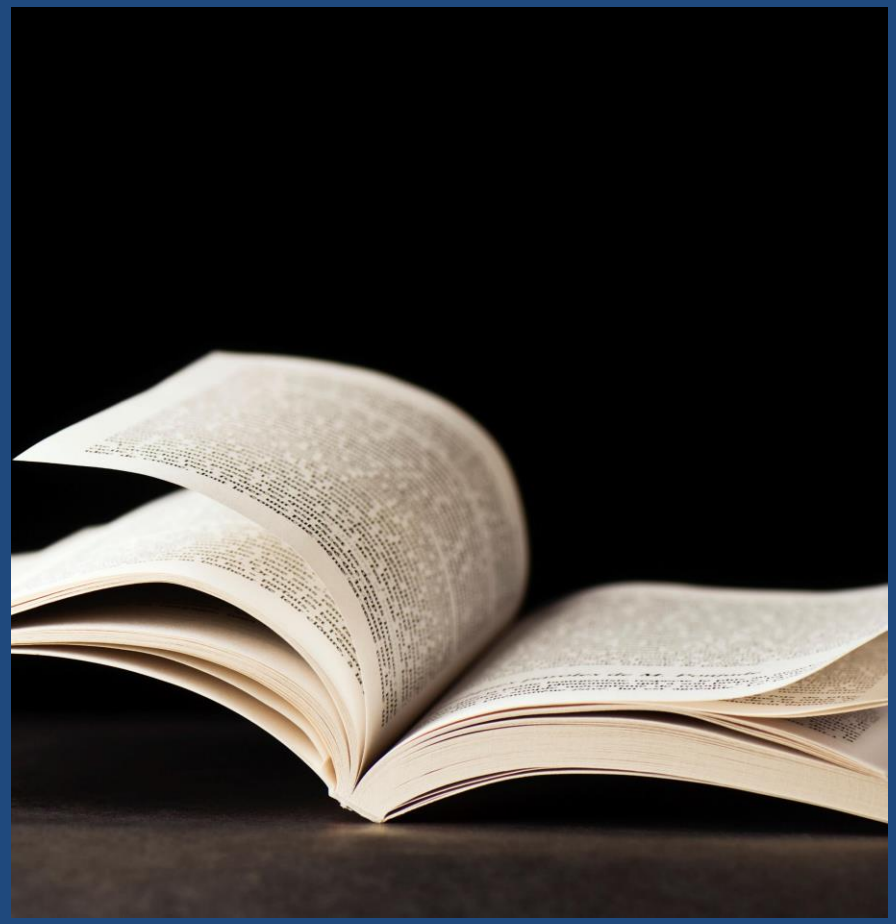
Principle 6: Investment in Digital Infrastructure should encourage Smart Societies and Network.

Investment in Digital Infrastructure should encourage and upgrade existing infrastructure with provision of smart technologies to respond to current and future demands.



Role of Infrastructure

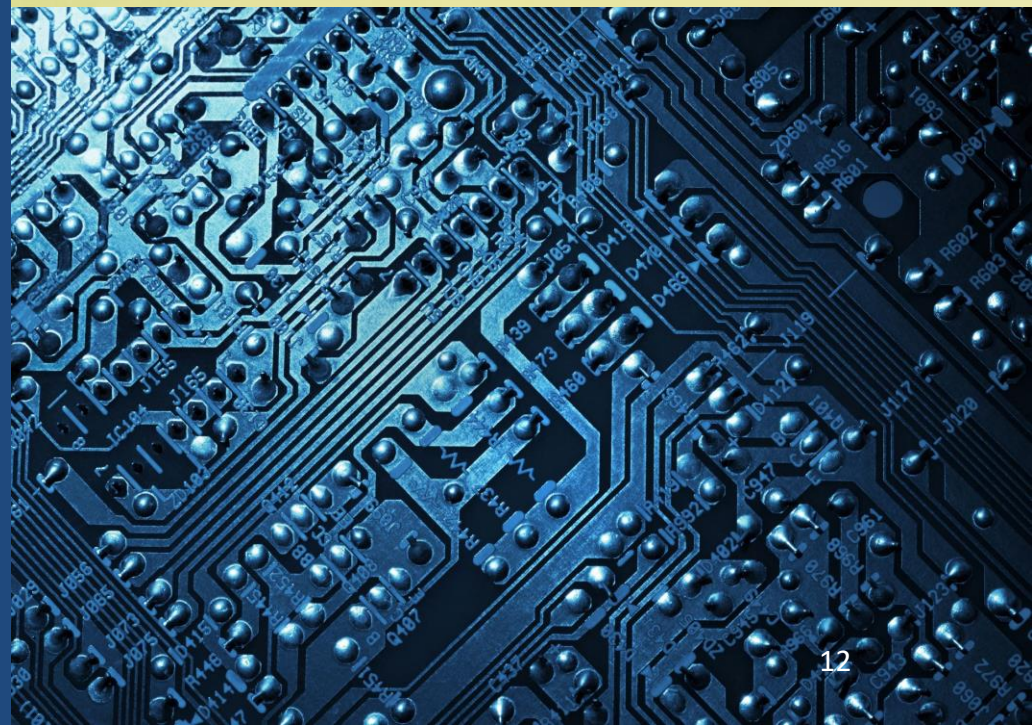
- Fact 1: Infrastructure is key enabler to economic development, trade and investment. The productive use of infrastructure can reduce global infrastructure bill by 40 percent.
- Fact 2: Major digital divide exists in relation to quality, access and affordability of infrastructure. For instances for developing Asia Pacific , US 22.6 trillion of infrastructure investment will be needed from 2016-2030.
- Fact 3: Demand for infrastructure is likely to be on the rise due to rise in population, urbanization, health and safety concerns, international trade and rise in digital technology. COVID-19 pandemic has clearly evidenced the rising demand for digital infrastructure both “Hard and soft infrastructure”.
- Fact 4: COVID-19 Survey on Economic Response also highlighted infrastructure as the key enabler for recovery.



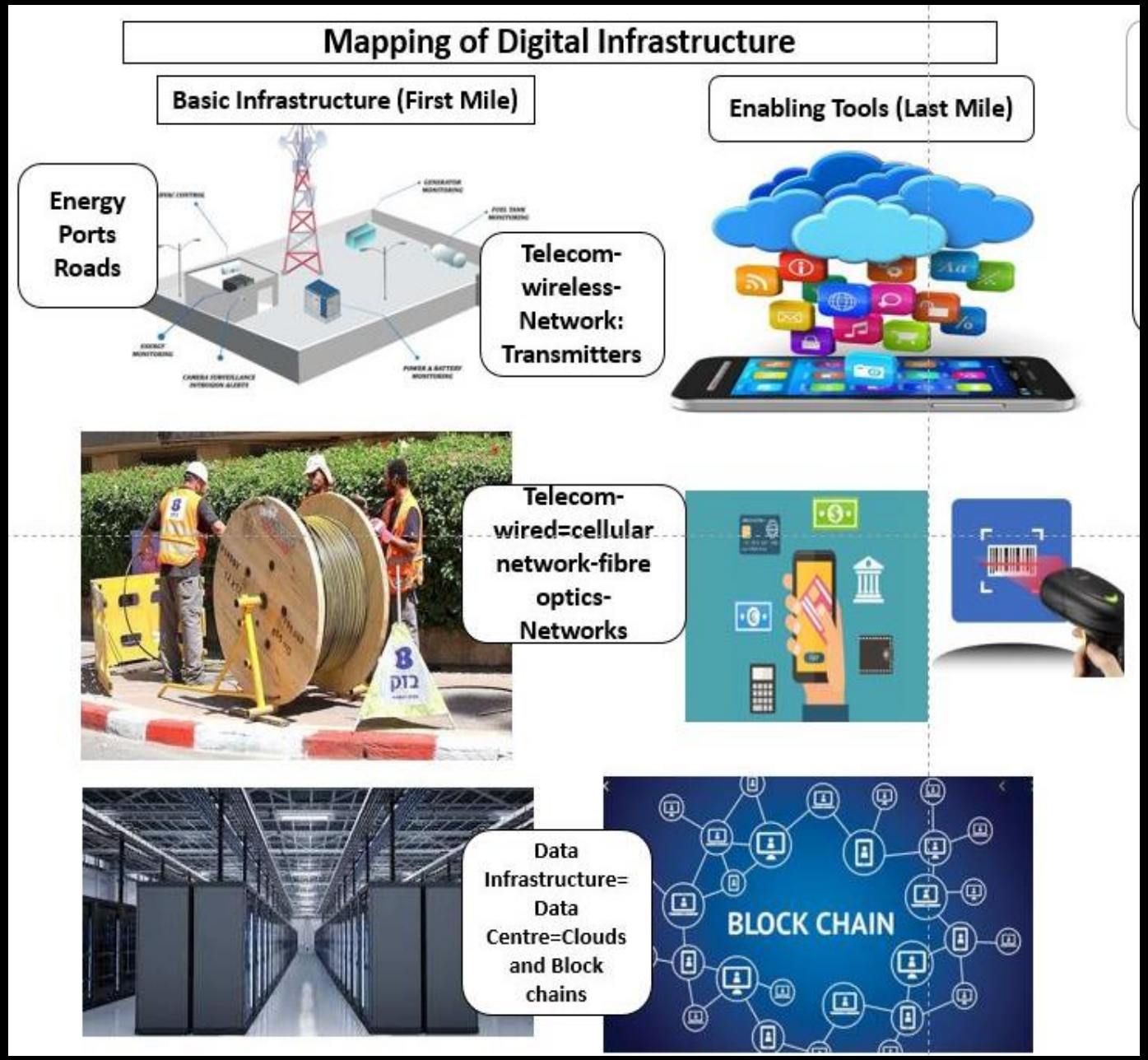
Infrastructure & Sustainable Economic Development

- Capital investment: in GDP funded by government and the private sector. Soft infrastructure investment is a part of investment in education and training.
- For businesses: infrastructure enables businesses to generate productive capacity and reduce the transaction costs.
- Workforce: Investment in soft infrastructure improves productivity of workers too
- Supply Chains: Infrastructure investment also has direct effect on production processes and improves supply chain resilience.
- Infrastructure and Trade Facilitation: Evidence of African countries can improve GVCs by improving infrastructure.
- Infrastructure influences foreign direct investment. Country with quality infrastructure is likely to increase FDI.
- Literature evidence from Malaysia shows this, Cameroon. Pacific a study on telecommunications infrastructure and economic growth revealed that growth in telecom sector has positive influence on output per worker.





Synergy: Infrastructure Layers



Examples of Digital Infrastructure

- Basic Infrastructure: Energy, Roads, Water
- Data Center
- Cloud Service
- Infrastructure as Service, Platform as Service and Software as Service
- Block Chains
- Apps
- Last mile user connection
- Soft Infrastructure Skills: Education and Training

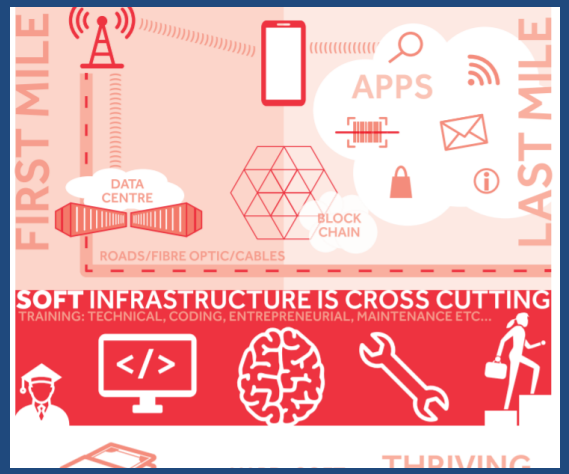


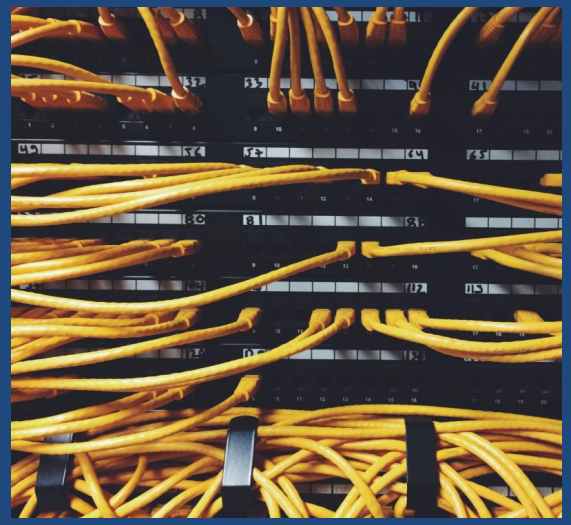






Examples of Synergy between First and Last Mile Digital Infrastructure









- Prior to any transition, economies need to ensure that it has the basic infrastructure in place for example energy and road infrastructure. These will link to the very initial first mile needs for the digital infrastructure.
- For example, in order to connect to the last mile users, using block chain technology, the underlying infrastructure required would depend on where the parties decide to store data. If the parties decide to use cloud then, it has to further decide on whether it would like to use private clouds or public clouds. If for example information is sensitive in nature, and parties decide to have data localization and store data privately, the investment into data center would be required.
- In this instance, one has to ensure it has the required capital to do invest. Data centers would require investments in networks and servers, the platform as a services, investment in operating systems and software.
- In addition to this the investment in related infrastructure such as roads and electricity will be required. Furthermore, soft skills such as training and capacity building will also be integral across sectors.

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Discussion Question

Participants will be invited to share their country experiences on the COVID-19 pandemic and impact on hard and soft digital infrastructure



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Section 2: Digital Infrastructure Gap in the Commonwealth



Information on Data for Assessment

The data has been sourced from various databases based on the indicators and recently available data ranging from 2018-2019. Sources include GSMA, World Bank and other relevant database.

For further information on the data: refer to Annex 2 of the Paper on “An Assessment of Digital Infrastructure Divide in the Commonwealth” on Moodle resource page for the course.

Access & Quality of Digital Infrastructure

The access and quality of digital infrastructure is assessed based on

- Network Coverage
- Network Performance
- Other Enabling basic infrastructure
- Spectrum Allocation





Measure of Indicators

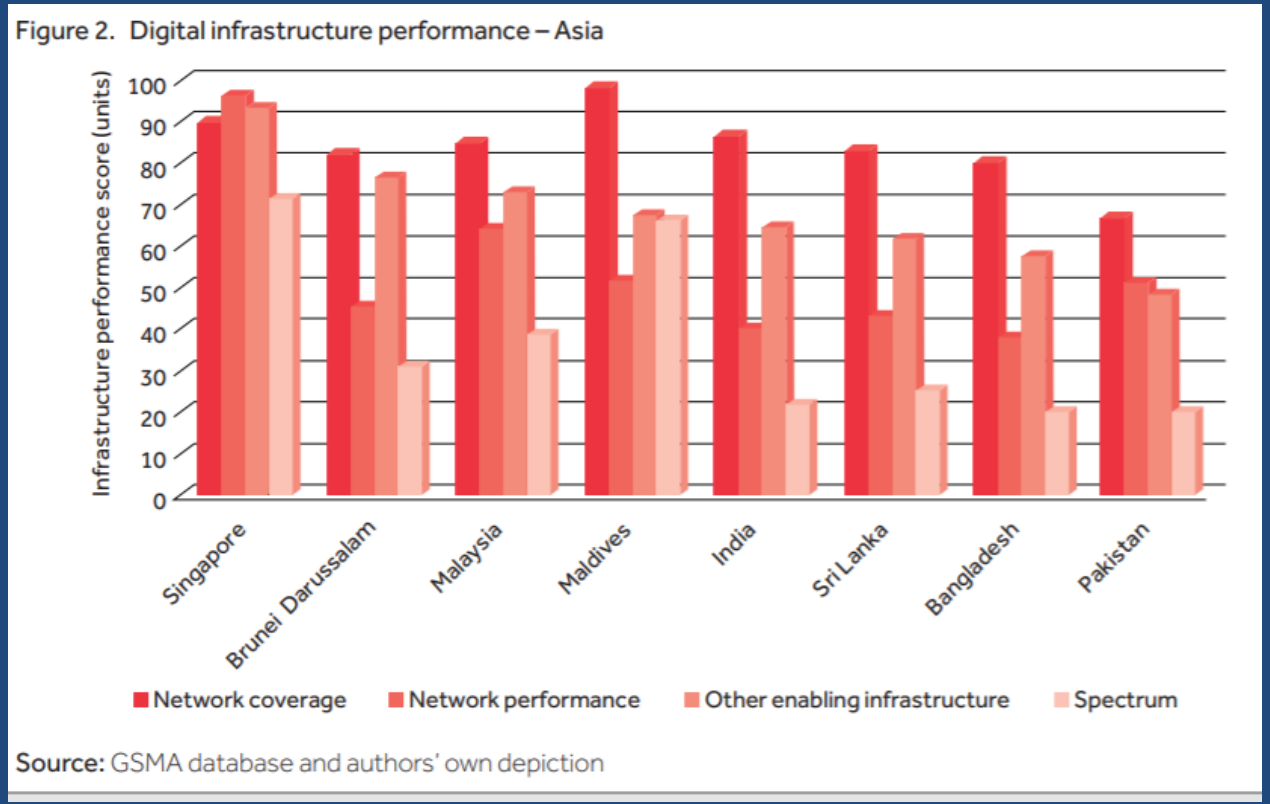
- Network Coverage: measures the strength of the network coverage.
- Network Performance: reflects the speed of the internet
- Other Enabling Infrastructure: percentage of population that have access to basic infrastructure.
- Spectrum allocation: this is important as it measures the different range and important for cellular companies in transmitting data





Asia Context

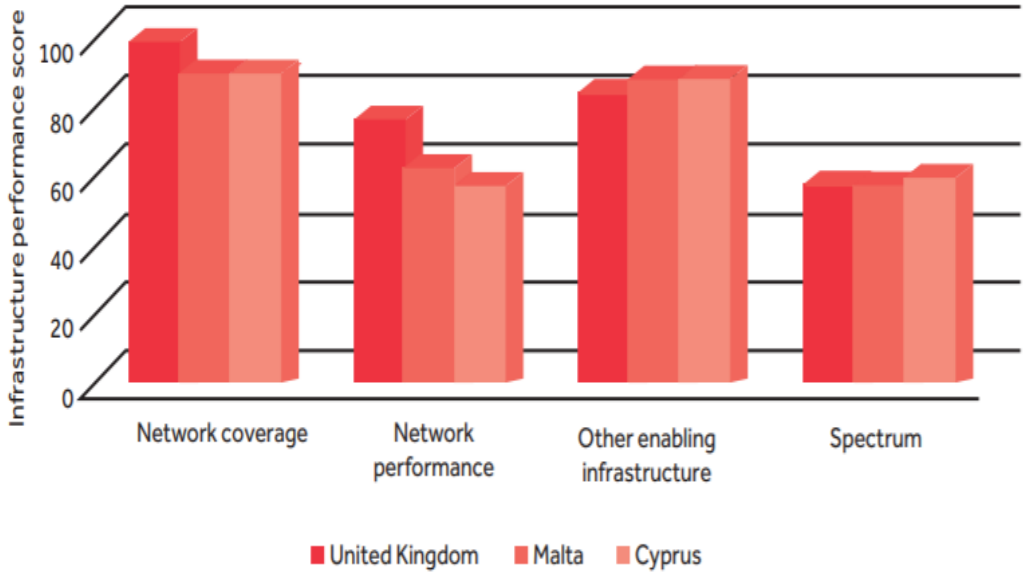
- Network Coverage: coverage is high with score of 80. Pakistan has the lowest coverage.
- Network Performance: the performance of the network varies. Singapore outperformed (score of 96). Malaysia has score of 63. The rest have scores between 38 to 52.
- Other Enabling Infrastructure: Singapore has score of 93. others lag behind with score of 43 to 73.
- **Spectrum allocation: improvement is needed in this area for Asia. Singapore has score of 72. The rest such as Pakistan, India and Bangladesh have lowest scores of 20-22.**



Europe Context

- Network Coverage: the performance across the Europe on broad network coverage between 89-98.
- **Network Performance: UK scoring 76, Malta 61 and Cyprus 58.**
- Other Enabling Infrastructure: Cyprus and Malta scored 87 and UK scored 83.
- **Spectrum allocation: The region lags behind countries such as Singapore. Cyprus has score of 58, UK 57 and Malta 56.**

Figure 3. Digital infrastructure performance – Europe

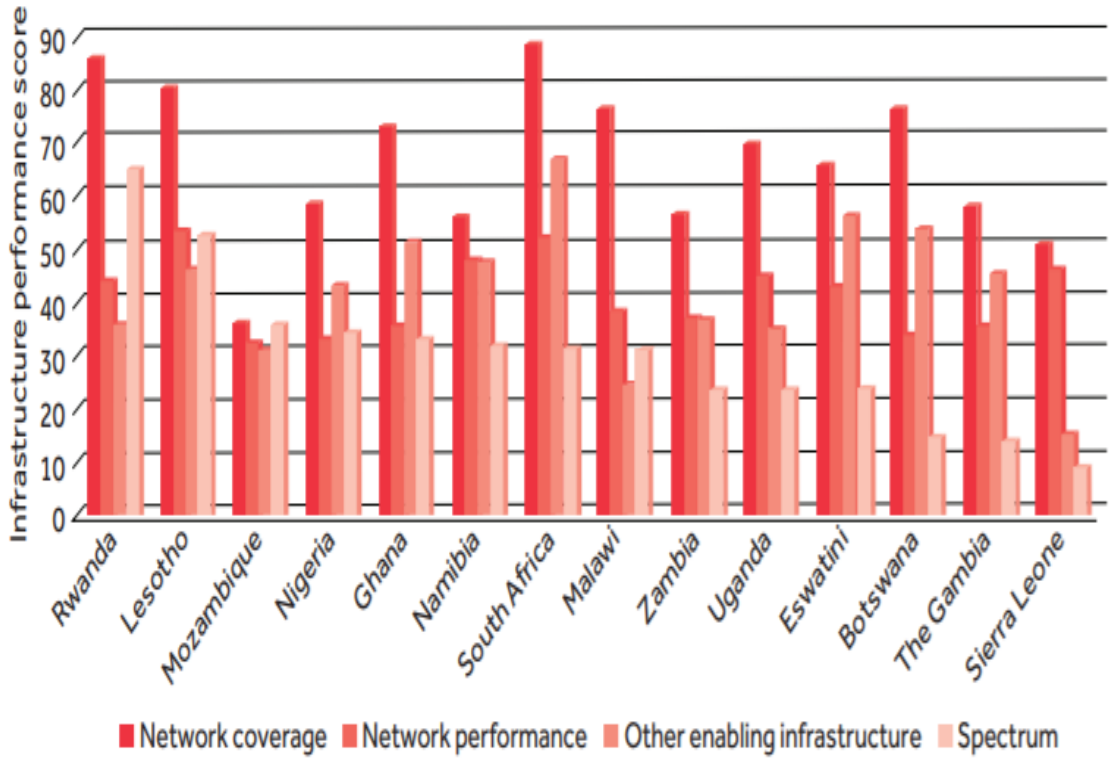


Source: GSMA database and authors' own depiction

Africa Context

- Network Coverage: South Africa, Lesotho and Rwanda have coverage score of 80.
- **Network Performance: Lesotho has the highest score of 53, South Africa is at 52 and Namibia scored 47.**
- **Other Enabling Infrastructure: South Africa has score of 61. Mozambique (score of 30), Malawi(score of 24) and Sierra Leone (score of 15) had lowest scores.**
- **Spectrum allocation: Rwanda scored 65 and Lesotho scored 53. The Gambia and Sierra Leone scoring 14, 13 and 8 respectively.**

Figure 4. Digital infrastructure performance – Africa

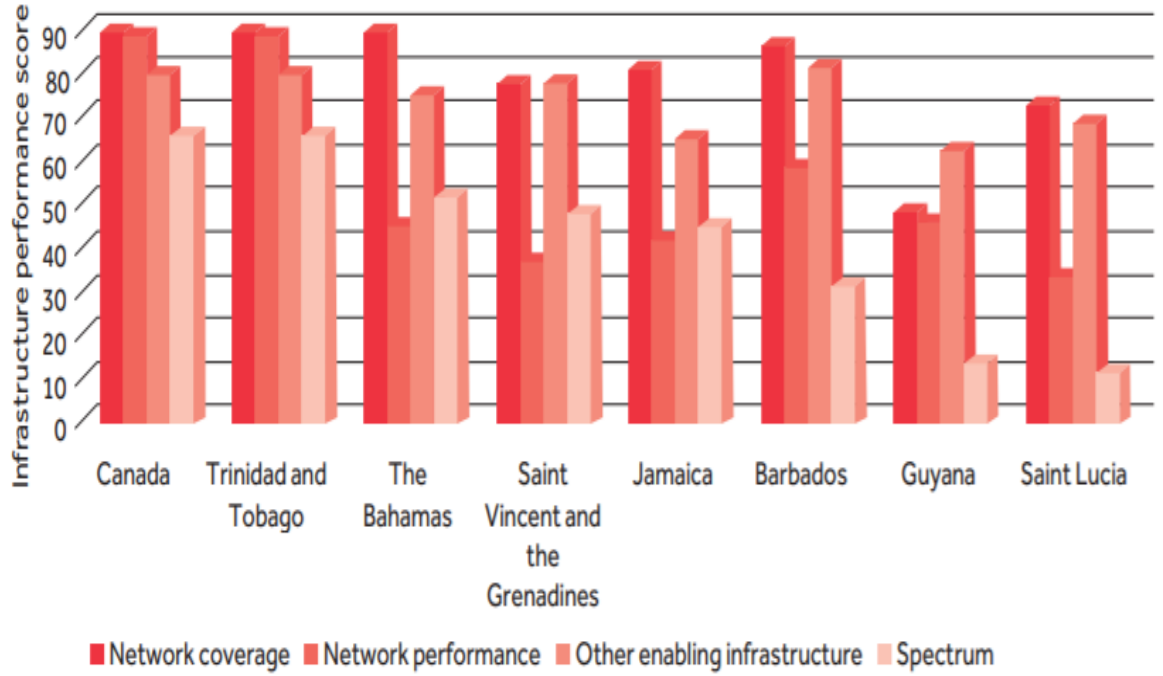


Source: GSMA database and authors own depiction

Caribbean and Americas Context

- **Network Coverage:** Canada and Bahamas have score of 89. The rest performed closer with Jamaica at 80. Guyana however had lowest network performance at 47.
- **Network Performance: the performance needs improvements. With exception of Canada with score of 88, the rest of the region has scored below 58 with Saint Lucia scoring 33.**
- **Other Enabling Infrastructure: The region needs to improve in this area too. The performance is mixed with Barbados (81), Canada (79) and Saint Vincent (77).**
- **Spectrum allocation: improvement is needed. Canada has highest score of 65, followed by Trinidad and Tobago and Bahamas at 51. Saint Lucia is at the lowest end with score of 11.**

Figure 5. Digital infrastructure performance – Caribbean and Americas

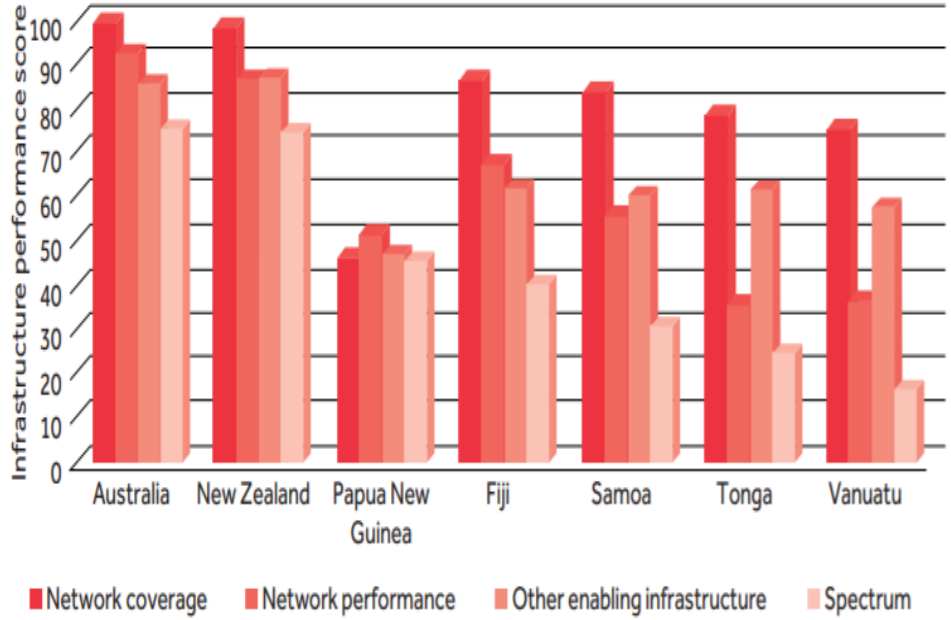


Source: GSMA database and authors own depiction

Pacific Context

- Network Coverage: Most of the countries are performing relatively better. Australia and New Zealand have score of 99. Fiji and Samoa are at 87 and 84. Papua New Guinea has the lowest score at 47.
- **Network Performance: the performance of countries are mixed. With Australia and New Zealand have scores of 92 and 87. Tonga and Vanuatu on the other hand have lowest speed. Vanuatu has a score of 37 and Tonga at 36.**
- **Other Enabling Infrastructure: The performance is mixed. With Australia and New Zealand have scored of 87 and 86. On the other hand Papua New Guinea scoring 47.**
- **Spectrum allocation: improvement is needed. Australia and New Zealand have scored of 75. The rest of the Pacific countries have lower scores with Samoa, Tonga and Vanuatu have scores of 31, 24 and 16.**

Figure 6. Digital infrastructure performance – Pacific



Source: GSMA database and authors own depiction

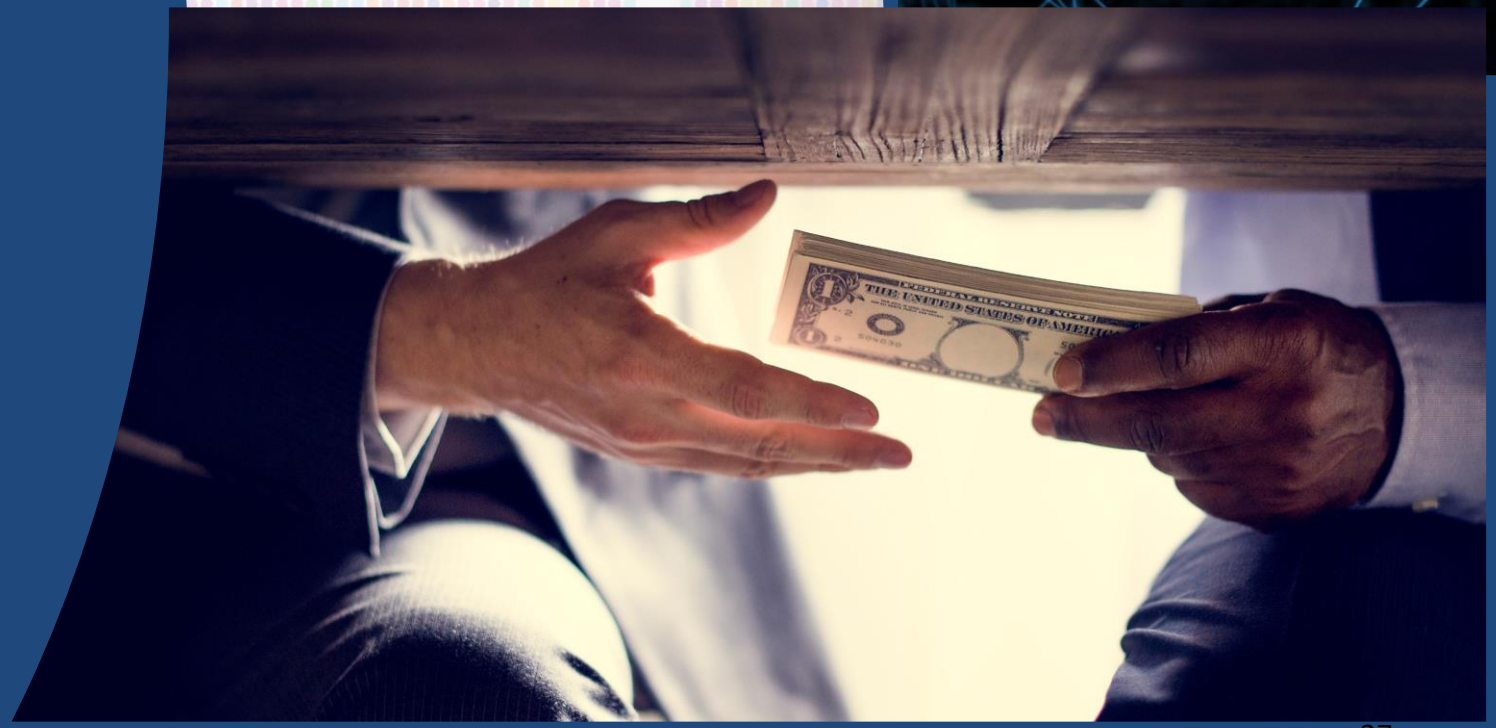
Section 3: Digital Infrastructure Divide in relation to Affordability

Affordability of Digital Infrastructure

The affordability of digital infrastructure divide is based on:

- Mobile Tariffs
- Handset prices
- Taxation
- Inequality





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Measure of Indicators

- Mobile Tariffs: measured at the cost of data in terms of the percentage of monthly GDP per capita.
- Handset prices: measures the cost of the cheapest available internet-enabled devices, as percentage of GDP per capita.
- Taxation: measured by tax as a percentage of total cost of mobile ownership and sector specific tax, as percentage of total cost of mobile technology.
- Inequality: measured by the inequality in income.

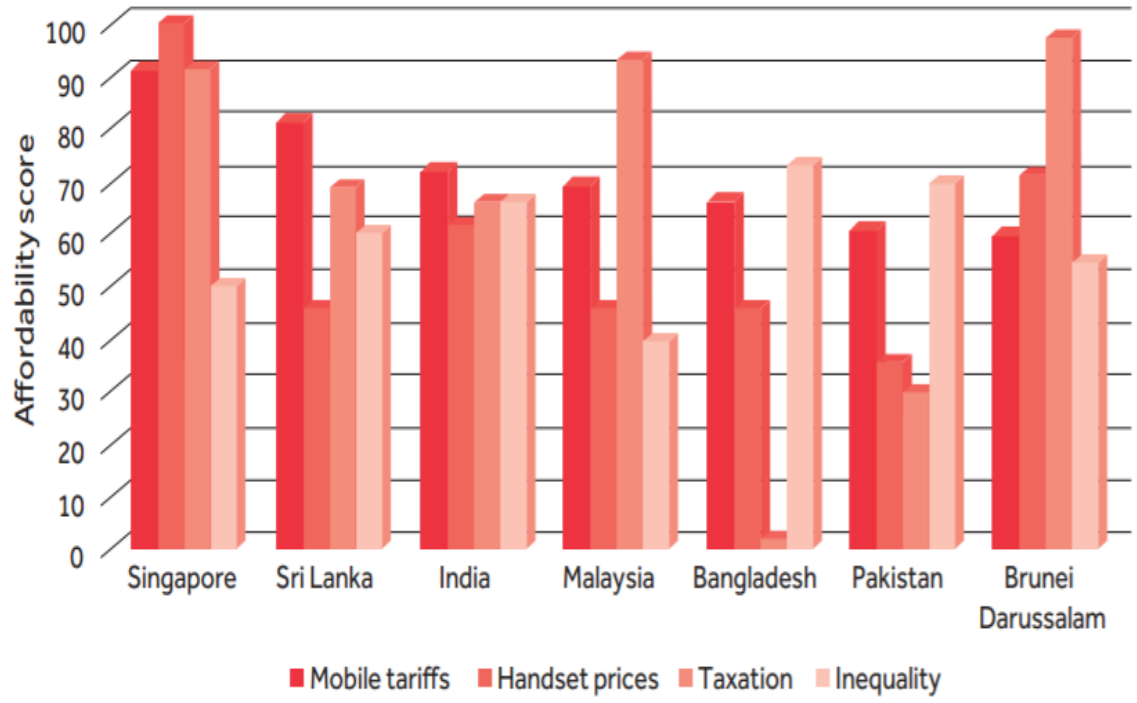




Asia Context

- Mobile Tariffs: Singapore ranks the highest with score of 91. The rest have reasonable cost with Brunei Darussalam at 60.
- **Handset prices:** Singapore 100. Brunei Darussalam at 71 and India at 62. Pakistan scored 35.
- **Taxation:** Brunei Darussalam, Malaysia and Singapore scored highest. Pakistan and Bangladesh being the lowest.
- **Income inequality: Bangladesh, Pakistan and India had scored of 73.70 and 66. Singapore and Malaysia had more equality with scores of 50-39.**

Figure 7. Affordability of digital infrastructure – Asia

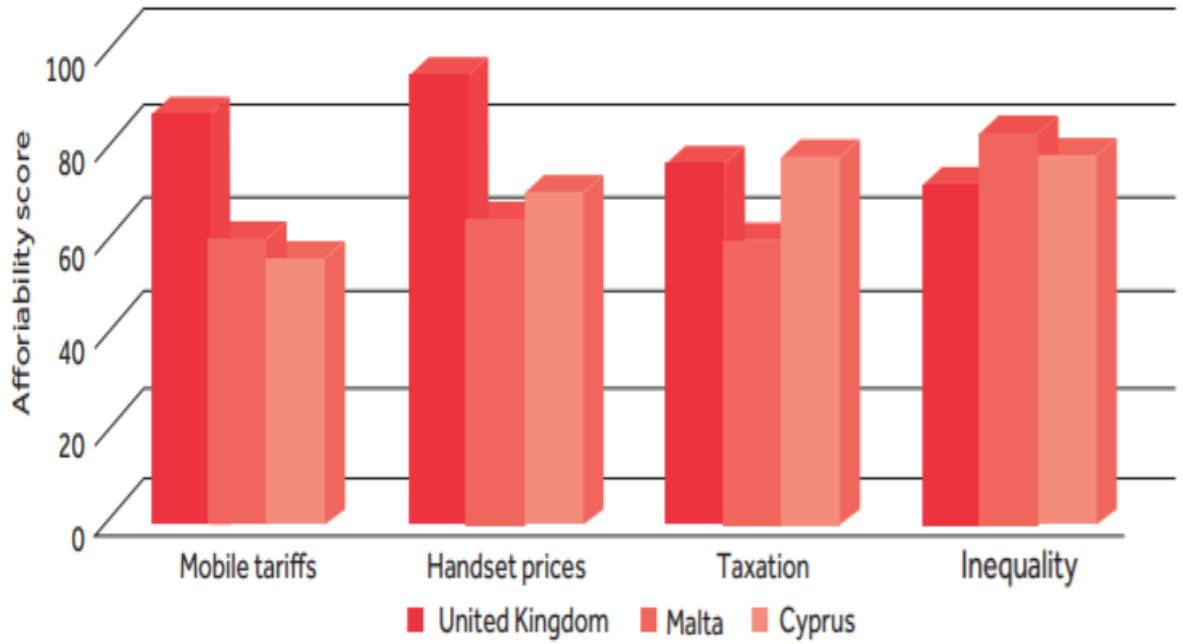


Source: GSMA database and authors' own depiction

Europe Context

- Mobile Tariffs: UK scored 85, Malta scored 59 and Cyprus scored 54
- **Handset prices:** UK scored 94 followed by Cyprus and Malta.
- **Taxation:** Malta scored 76, UK 75 and Cyprus 59.
- **Income inequality:** Malta scored 81, Cyprus 77 and UK 70.

Figure 8. Affordability of digital infrastructure – Europe

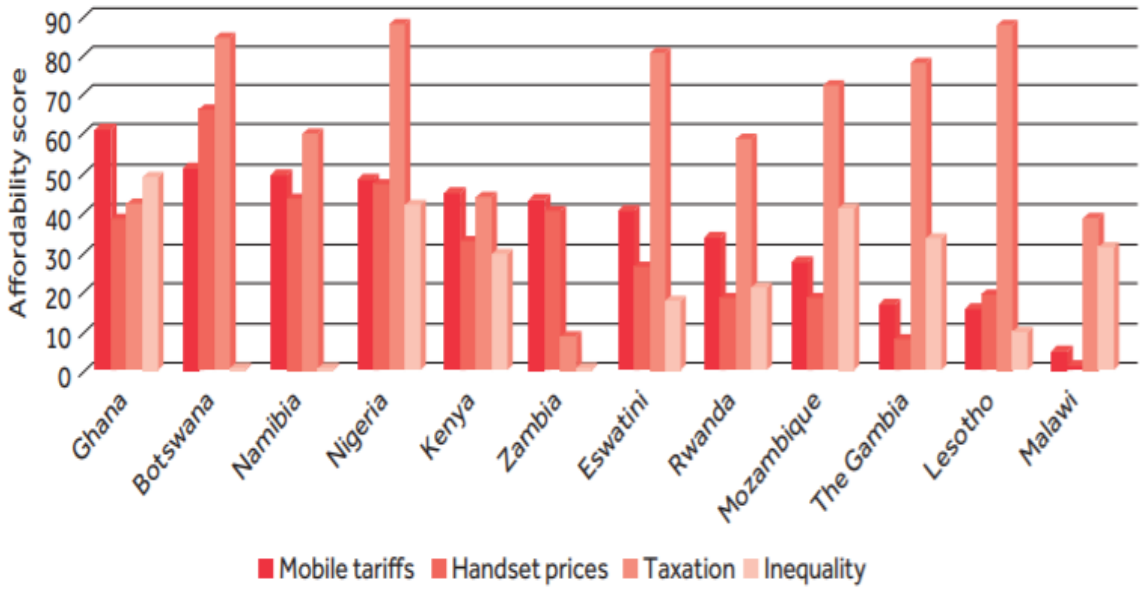


Source: GSMA database and authors own depiction

Africa Context

- **Mobile Tariffs:** Ghana, Botswana and Namibia have the highest scores of 61, 52 and 50. The Gambia and Malawi at the least affordable for mobile data.
- **Handset prices:** Botswana, Nigeria and Namibia have scores of 18, 8 and 1 respectively.
- **Taxation:** Nigeria scored 88, Lesotho 87 and Botswana 85. Ghana, Malawi and Zambia with scored 42, 39 and 9.
- **Income inequality:** Ghana, Nigeria and Mozambique scored 49 and 42 respectively.

Figure 9. Affordability of digital infrastructure – Africa

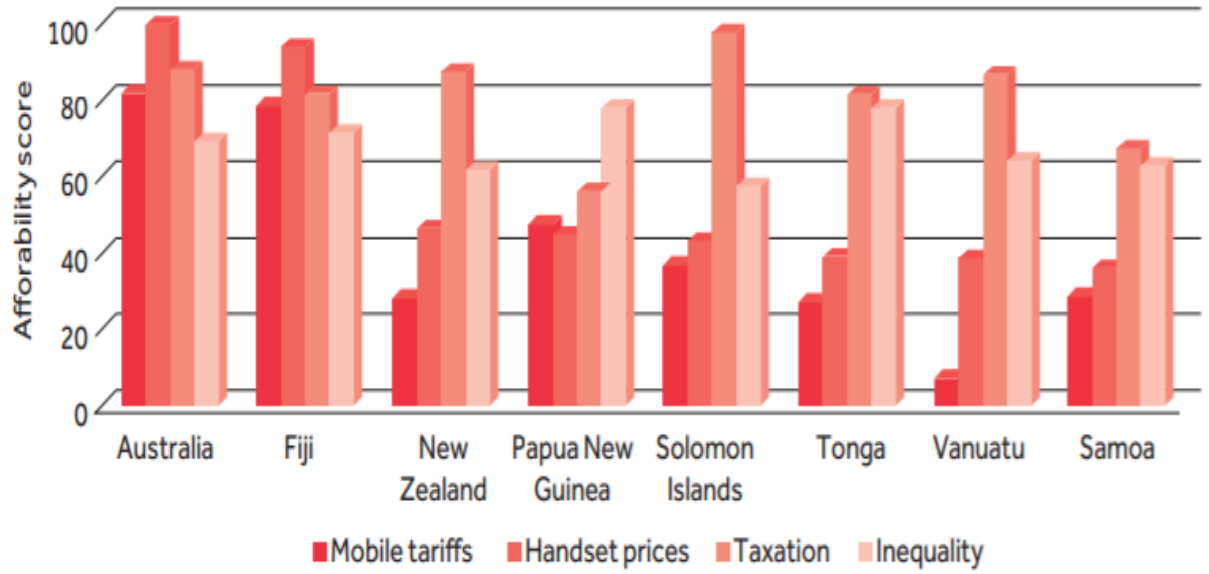


Source: GSMA database and authors own depiction

Pacific Context

- **Mobile Tariffs:** Australia scored 83, Fiji 78 and New Zealand 47. Samoa scored 7.
- **Handset prices:** Australia scored 100 and Fiji scored 94. The rest of the countries had scores between 36-46.
- **Taxation:** Solomon Islands has score of 97. Australia and New Zealand scored 88 and Vanuatu scored 87.
- **Income inequality:** Tonga and Papua New Guinea has scores of 78. Fiji scored 72 and Australia had 69.

Figure 11. Affordability of digital infrastructure – Pacific

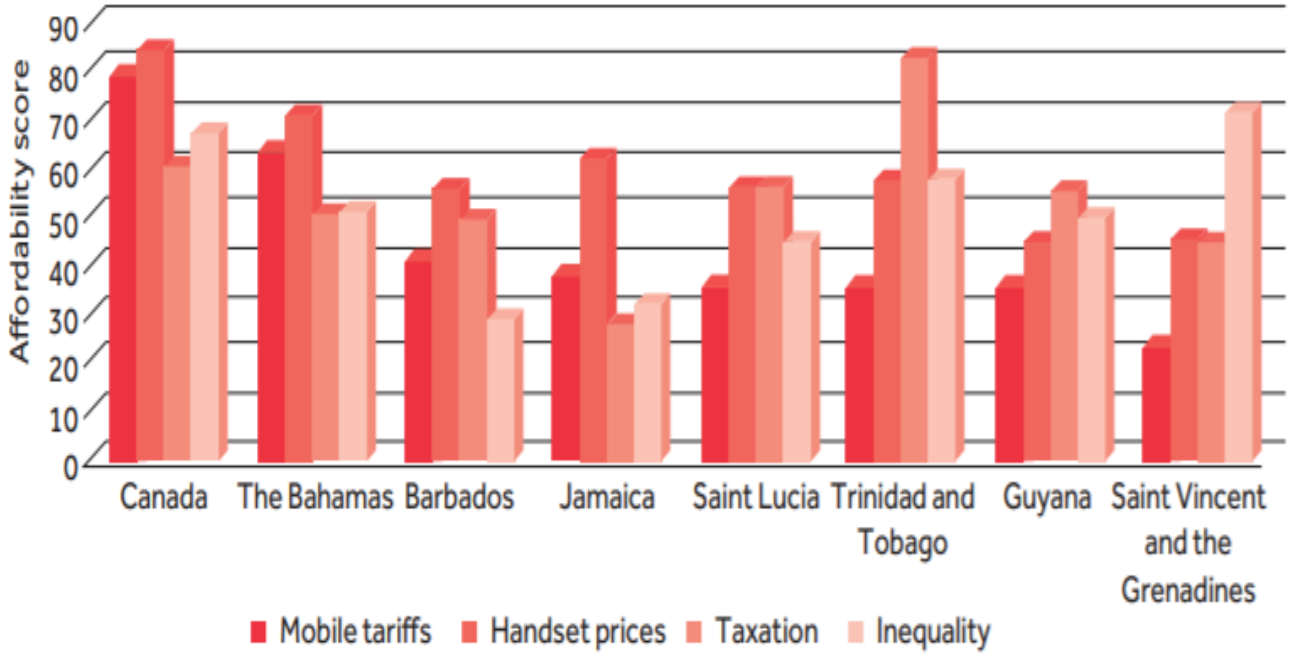


Source: GSMA database and authors own depiction

Caribbean & Americas context

- **Mobile Tariffs:** Canada scored 79, The Bahamas at 64 and Barbados at 41.
- **Handset prices:** Canada, Bahamas and Jamaica had the highest scores of 81, 71 and 64 respectively. Saint Vincent scored 45.
- **Taxation:** Trinidad and Tobago, Canada and Saint Lucia have scores of 83, 60 and 56 respectively. Jamaica has the lowest score of 28.
- **Income inequality:** Saint Vincent, Canada and Trinidad & Tobago had scores of 71, 67 and 58 respectively. Barbados scored 29.

Figure 10. Affordability of digital infrastructure – Caribbean and Americas



Source: GSMA database and authors own depiction

Discussion Question

Participants will be invited to share their country experiences in relation to Access, Quality and Affordability.



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Section 4: Digital Infrastructure Divide in relation to soft infrastructure

Soft Infrastructure

The analysis is based on:

- Online security
- Literacy level
- Access to top ranked apps
- Apps developed per person
- Social media penetration



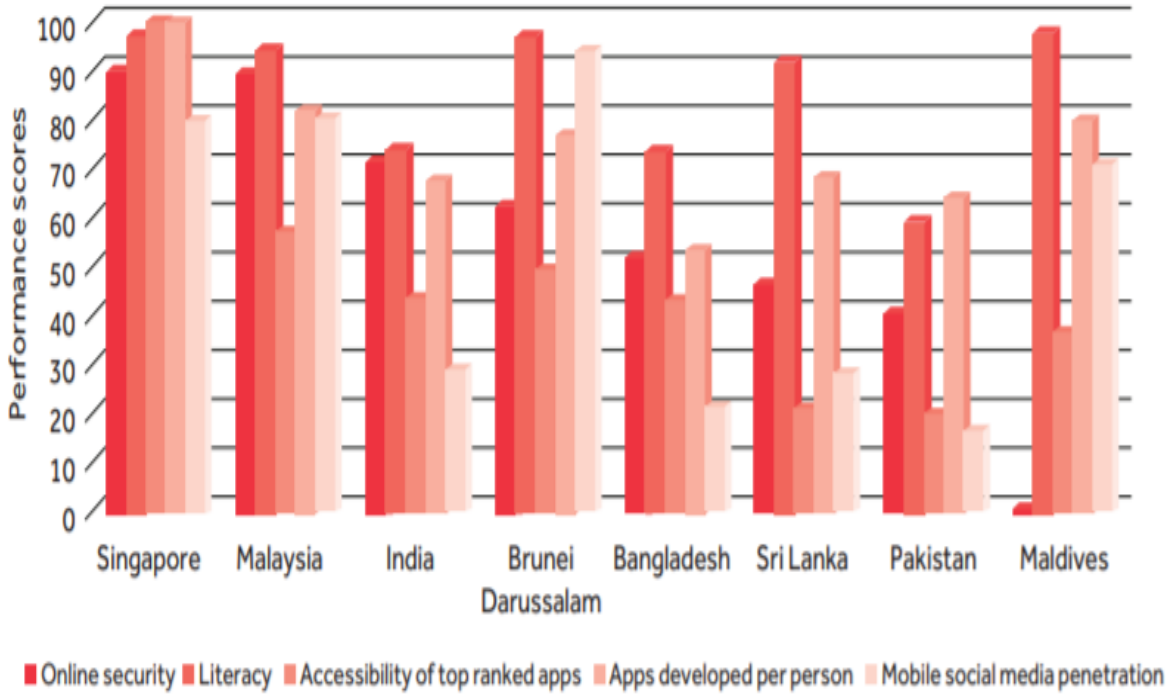




Asia Context

- **Online Security**: Singapore scored the highest at 90, Sri Lanka, Maldives and Pakistan scored lowest.
- **Literacy score:** Maldives scored 98, Singapore and Brunei Darussalam 97 and Malaysia at 95. India, Bangladesh and Pakistan scored 74 and 59 respectively.
- **Accessibility to Top ranked apps:** Singapore has score of 100.Sri Lanka and Pakistan scored lowest at 21 and 20.
- **Apps developed per person**: Singapore, Malaysia and Maldives had the highest scores. Pakistan and Bangladesh scored the lowest 64 and 53 respectively.
- Mobile social media penetration: Brunei Darussalam, Malaysia and Singapore scored the highest at 94,81 and 80 respectively. Bangladesh scored 22 with Pakistan 17.

Figure 12. Performance of software and application infrastructure – Asia

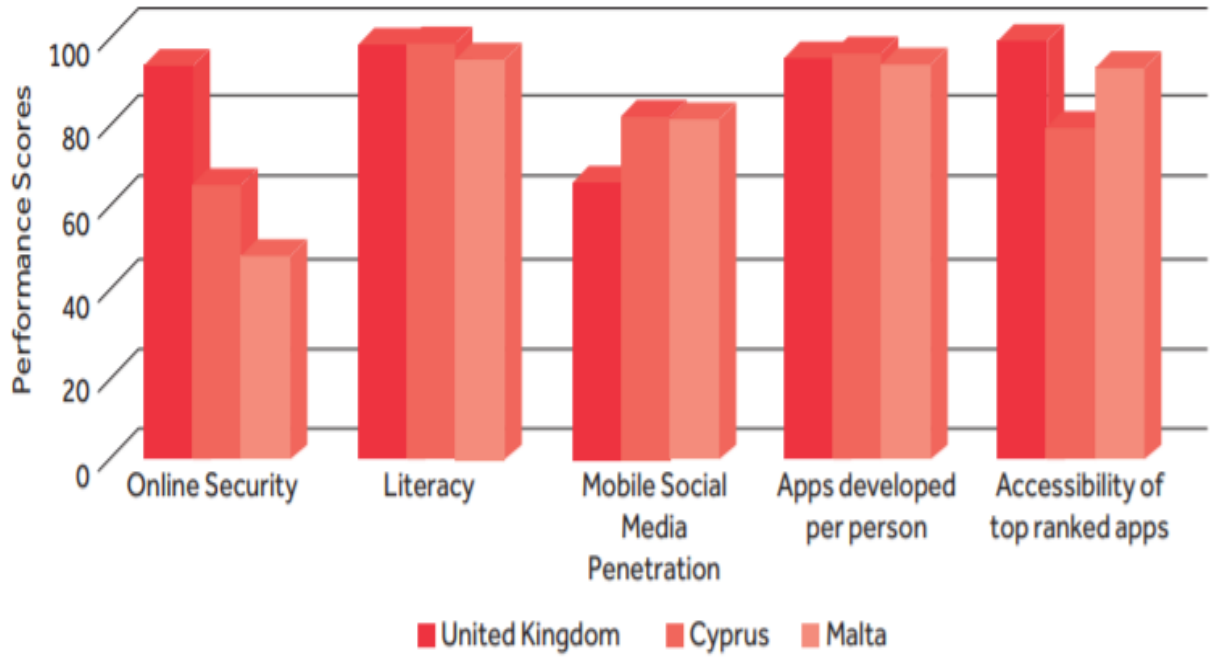


Source: GSMA database and authors own depiction

Europe Context

- **Online security:** UK had the highest score at 93.
- **Literacy:** UK and Cyprus both had scores of 99 and Malta had score of 95.
- **Accessibility to Top ranked apps:** UK scored 100, Malta was at 93 and Cyprus at 79.
- **Apps developed per person:** Cyprus scored 97, followed by UK and Malta at 96 and 94 respectively.
- **Mobile Social Media Penetration:** Cyprus is at 82, Malta at 80 and UK at 66.

Figure 13. Performance of software and application infrastructure – Europe

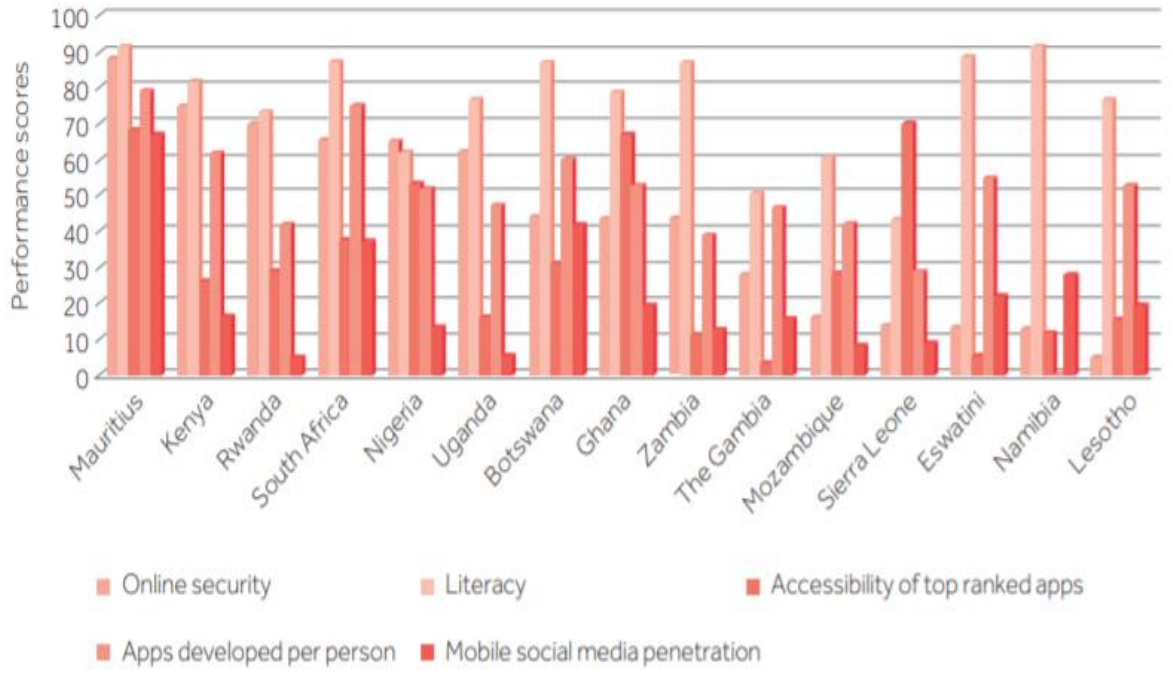


Source: GSMA database and authors own depiction

Africa Context

- **Online Security:** Mauritius scored 88, followed by Kenya at 75 and Rwanda at 70. Eswatini, Namibia and Lesotho scored lowest at 13 each and 5.
- **Literacy:** Namibia, Mauritius and Eswatini scored 92, 91 and 88. Mozambique, The Gambia and Sierra Leone scored 61, 51 and 43.
- **Access to top ranked apps:** Sierra Leone, Mauritius and Ghana scored 70, 68 and 67 respectively. Zambia, Eswatini and The Gambia scored lowest at 11, 5 and 3.
- **Apps developed per person:** Mauritius ranked highest at 79, South Africa scored 75 and Kenya 62. Zambia and Sierra Leone scored lowest at 39 and 29.
- **Mobile Social Media penetration:** Mauritius scored highest at 67. Botswana was at 42 and South Africa at 37.

Figure 14. Performance of software and application infrastructure – Africa

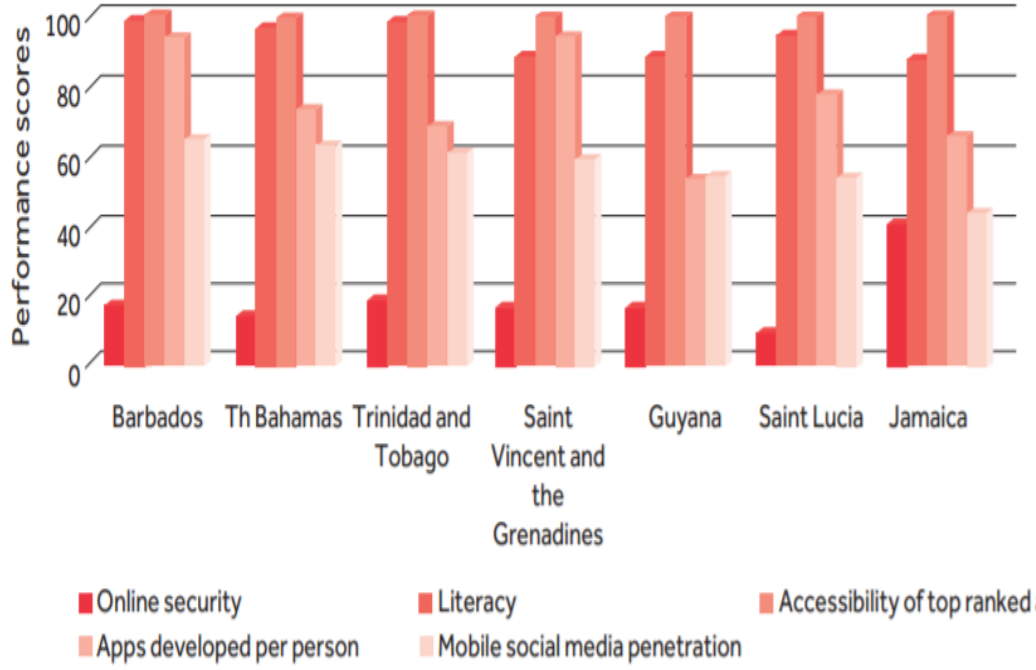


Source: GSMA database and authors own depiction.

Caribbean & Americas context

- **Online Security**: Jamaica scored 41, Trinidad and Tobago scored 19 while Barbados and Saint Vincent & the Grenadines scored 17.
- **Literacy:** Barbados scored 100, Trinidad and Tobago (99), Jamaica, Saint Vincent and the Grenadines scored 88 and Guyana had 86.
- **Access to top ranked apps:** the region performed well with score of 100.
- **Apps developed per person:** Saint Vincent and the Grenadines score 95, Barbados 95 and Saint Lucia 77. Trinidad and Tobago has score of 69, Jamaica 66 and Guyana 53.
- **Mobile social media penetration:** Barbados had score of 65, Bahamas had score of 64, Trinidad and Tobago scored 61, Guyana and Saint Lucia at 54 and Jamaica scored 44.

Figure 15. Performance of software and application infrastructure – Caribbean

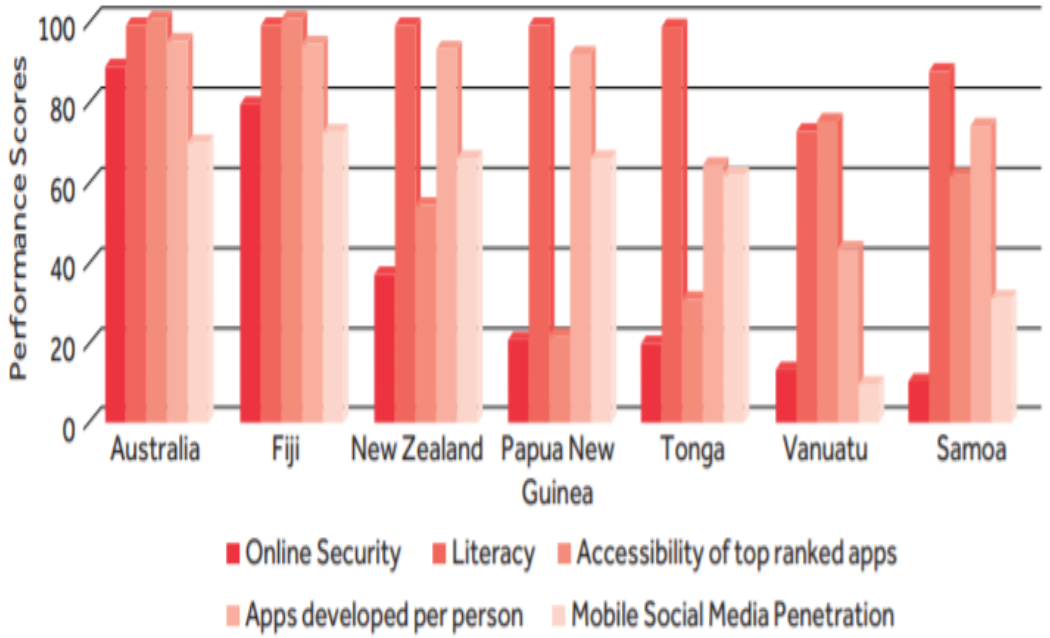


Source: GSMA database and authors own depiction

Pacific Context

- **Online Security:** Australia scored 89 and Fiji scored 79. NZ scored 37, PNG (21), Tonga (19), Vanuatu (13) and Samoa (10).
- **Literacy:** The Pacific has high performance with all scoring 100 with exception to Samoa (88) and Vanuatu (72).
- **Accessibility to Top Ranked Apps:** Australia and Fiji scored 100, Vanuatu and Samoa scored 76 and 61.
- **Apps developed per person:** Australia scored 95, Fiji is at 94, New Zealand 93, PNG at 92. Samoa, Tonga and Vanuatu scored 74, 64 and 43.
- **Mobile social media penetration**: Fiji, Australia and New Zealand had score of 72, 70 and 66. PNG, Tonga and Samoa had scores of 64, 62, 31 and Vanuatu scored 8.

Figure 16. Performance of software and application infrastructure – Pacific



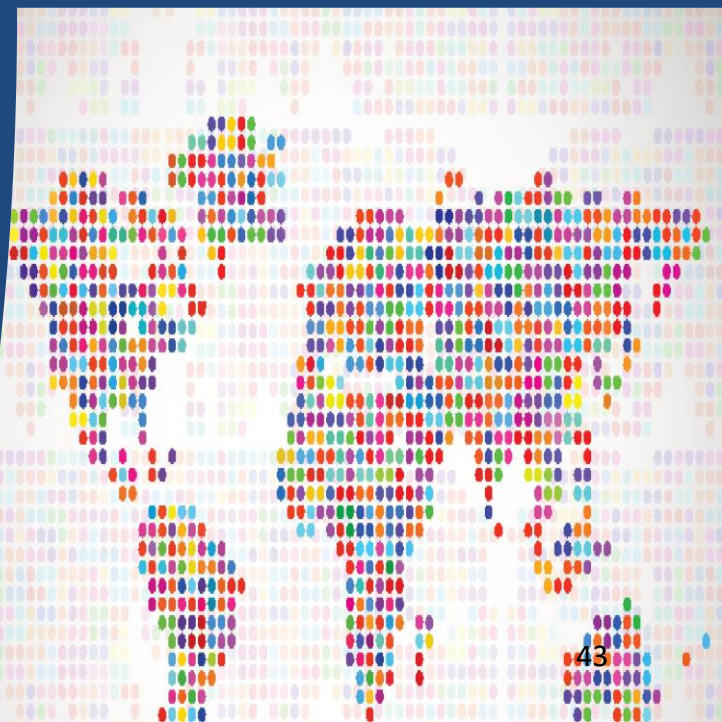
Source: GSMA database and authors own depiction

Section 5:
Gender Digital Divide

Digital Gender Divide

- The following factors affect Gender digital divide:
- Gender parity in schooling
- Gender parity in income
- Gender parity in bank account ownership
- Gender gap in social media use
- Gender gap in mobile ownership

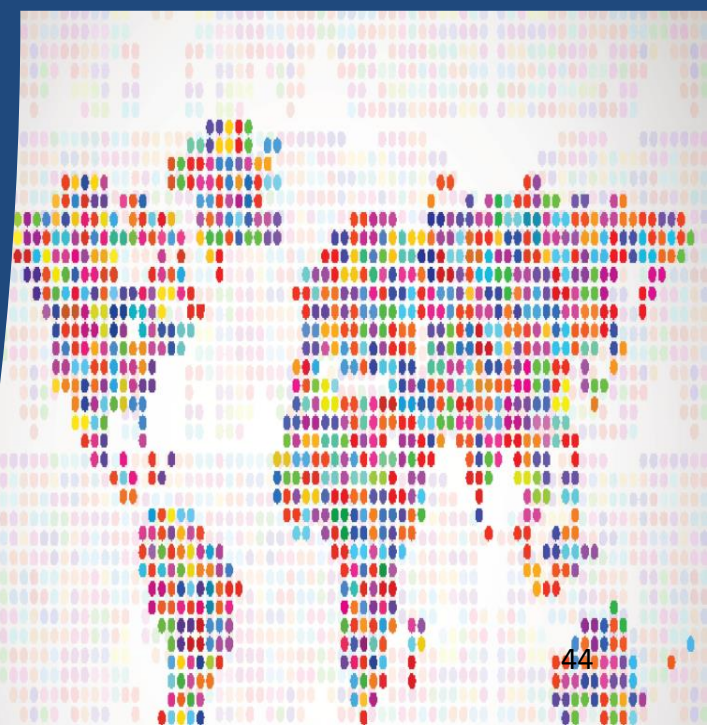




Measure of Indicators

- Gender parity in Schooling: measured by the mean year of male versus females schooling.
- Gender parity in income: measured by GNI per capita of females to males.
- Gender parity in bank account ownership: measured by gender parity in having a bank account.
- Gender gap in social media use: measured by gender ratio for social media usage.
- Gender gap in mobile ownership: measured by gender ratio for mobile device ownership and usage.

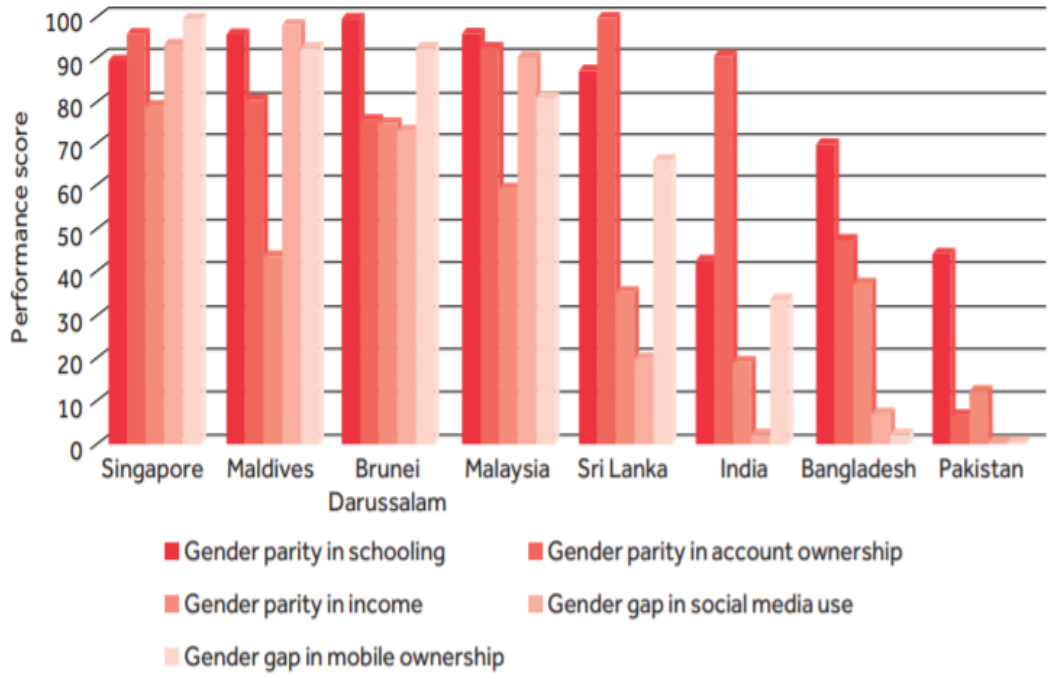




Asia Context

- **Gender Parity in Schooling:** Brunei Darussalam had a score of 100. India, Pakistan and Bangladesh scored 43, 44 and 77.
- **Account ownership:** Maldives, India, Malaysia, Singapore and Sri Lanka had scored between 81-99. Pakistan scored the lowest at 7.
- **Income:** Singapore scored above 80. Brunei Darussalam scored 75, Malaysia scored 60, Maldives scored 44, Bangladesh scored 38, Sri Lanka scored 36 and Pakistan scored 13.
- **Gender gap in social media**: Malaysia, Singapore and Maldives scored between 90-98. Pakistan, India, Bangladesh and Sri lanka has scored below 20.
- **Mobile device ownership:** Singapore, Maldives and Brunei Darussalam have scores above 90. Pakistan, Bangladesh and India scored below 34.

Figure 17. Gender digital divide – Asia

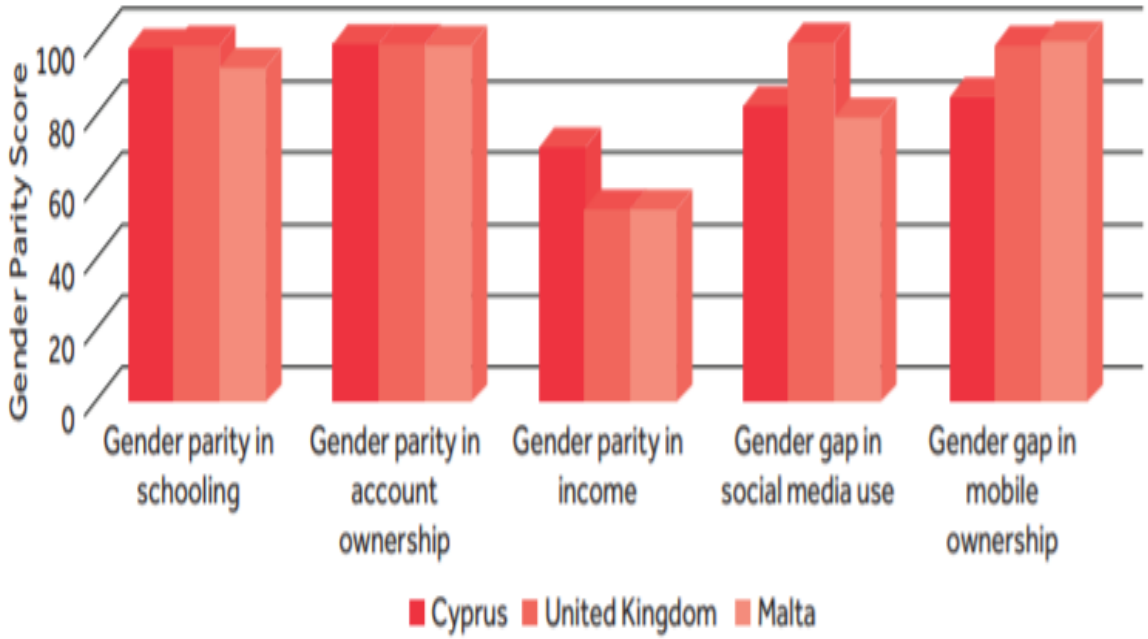


Source: GSMA database and authors own depiction

Europe Context

- **Gender Parity in Schooling:** UK, Cyprus and Malta have scores above 93.
- **Account ownership:** The scores are range from 99-100.
- **Income:** Cyprus has scored of 70 while UK and Malta score 53.
- **Gender gap in social media**: Cyprus, UK and Malta have scores above 80.
- **Mobile device ownership:** UK and Malta have scores of 100 with Cyprus at 83.

Figure 18. Gender digital divide – Europe

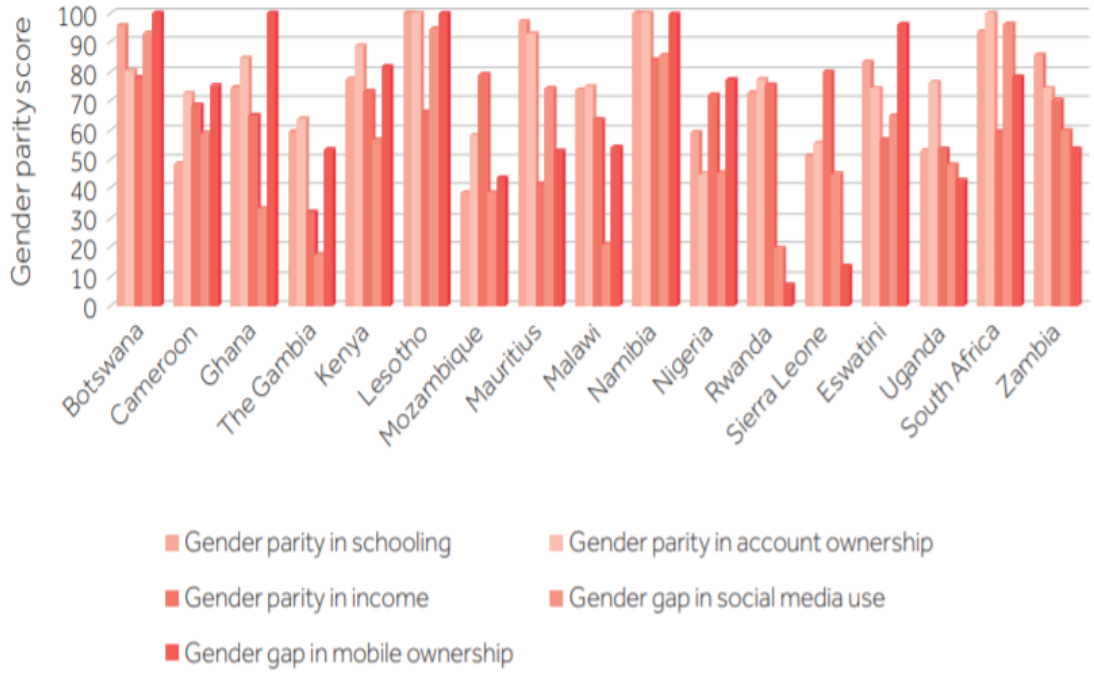


Source: GSMA database and authors own depiction

Africa Context

- **Gender Parity in Schooling:** South Africa, Botswana, Mauritius, Namibia and Lesotho were better performers with scores of 90. Mozambique and Cameroon had lowest scores of 39 and 48 respectively.
- **Account ownership:** Lesotho, Namibia, South Africa, Mauritius, Kenya, Ghana and Botswana have scored above 80.
- **Income:** Zambia, Nigeria, Kenya, Rwanda, Botswana, Mozambique, Sierra Leone and Namibia had scores between 70-84.
- **Gender gap in social media**: Countries such as The Gambia, Rwanda, Malawi, Ghana, Mozambique, Sierra Leone, Nigeria and Uganda score at the lower range from 17-48.
- **Mobile device ownership:** Kenya, Eswatini, Ghana, Namibia, Botswana and Lesotho had scores above 80. Malawi, Zambia, The Gambia, Mozambique, Uganda, Sierra Leone and Rwanda have scores ranging from 7-54.

Figure 19. Gender digital divide – Africa

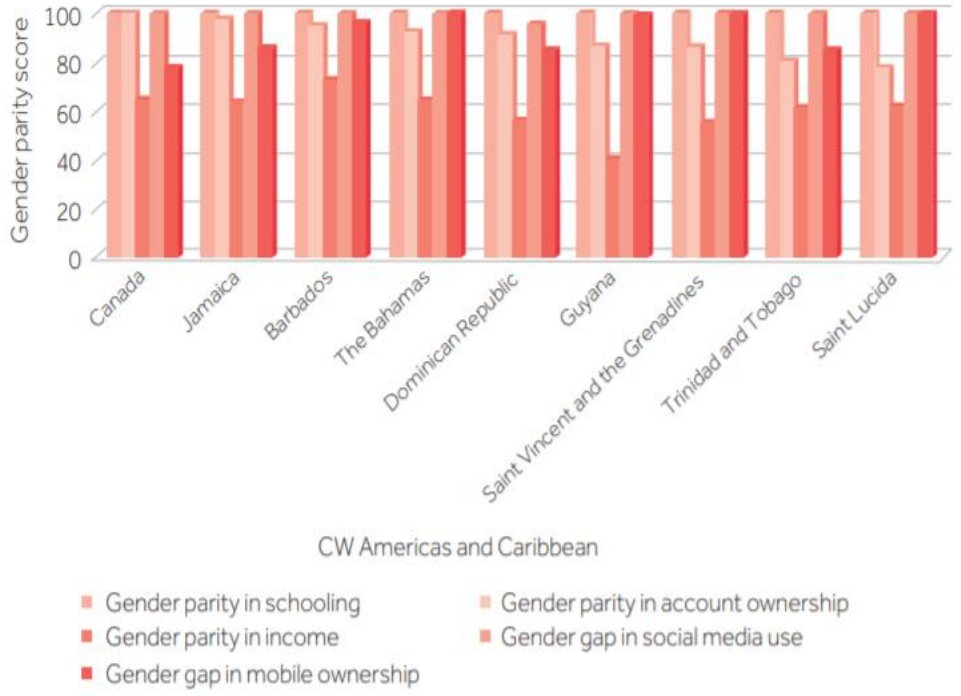


Source: GSMA database and authors own depiction

Caribbean & Americas

- **Gender Parity in Schooling:** Score of 100.
- **Account ownership:** All the countries had scores above 80 except for Saint Lucia at 78.
- **Income:** Barbados scored highest at 73. Guyana scored the lowest at 40.
- **Gender gap in social media**: All countries performed well with score of 100 with exception to Dominican Republic at 96.
- **Mobile device ownership:** Canada scored the lowest at 78. The rest of the countries score between 85-100.

Figure 20. Gender digital divide – Caribbean and Americas

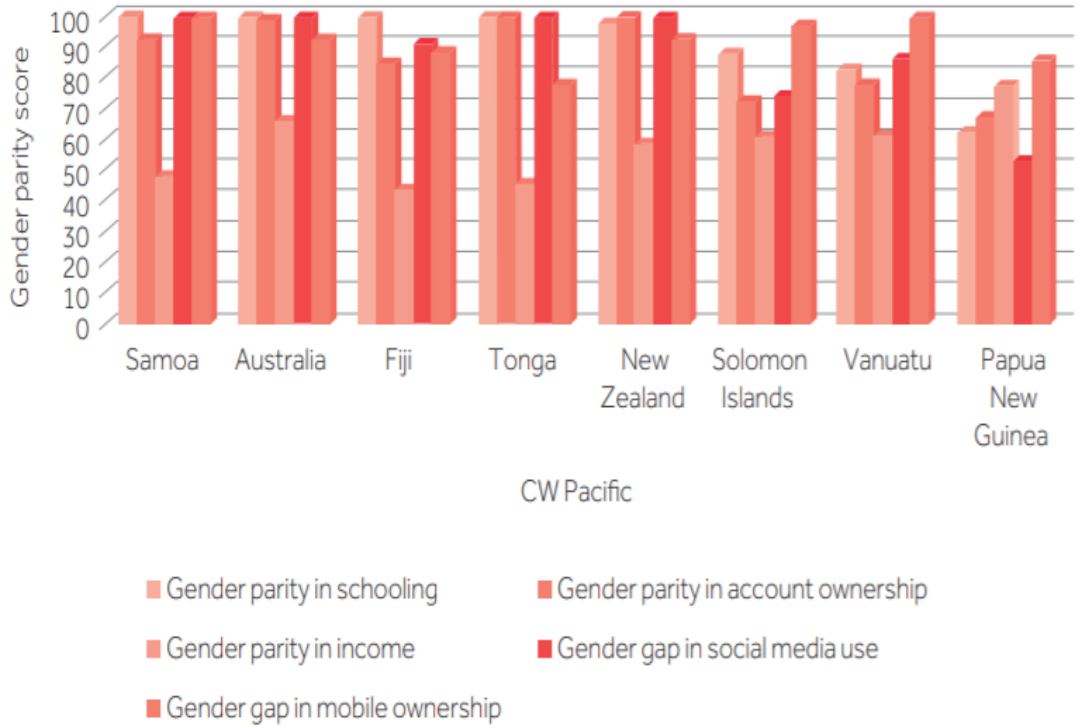


Source: GSMA database and authors own depiction

Pacific Context

- **Gender Parity in Schooling:** Vanuatu, Solomon Islands, New Zealand, Samoa, Tonga, Fiji and Australia scored above 83. PNG scored the lowest at 63.
- **Account ownership:** Papua New Guinea, and Vanuatu scored 68.
- **Income:** PNG had score of 78. Fiji Tonga and Samoa scored the lowest with 44, 46 and 48 respectively.
- **Gender gap in social media**: Fiji, Tonga, Samoa, New Zealand and Australia had scores above 90. Papua New Guinea scored the lowest at 53.
- **Mobile device ownership:** All the Pacific countries had scored between 86 to 100.Tonga scored the lowest at 78.

Figure 21. Gender digital divide – Pacific



Source: GSMA database and authors own depiction

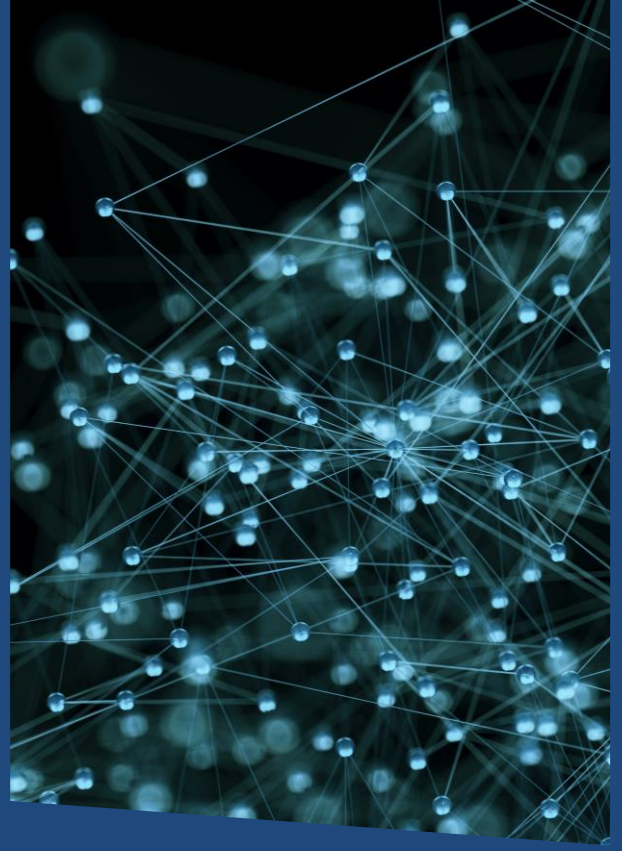
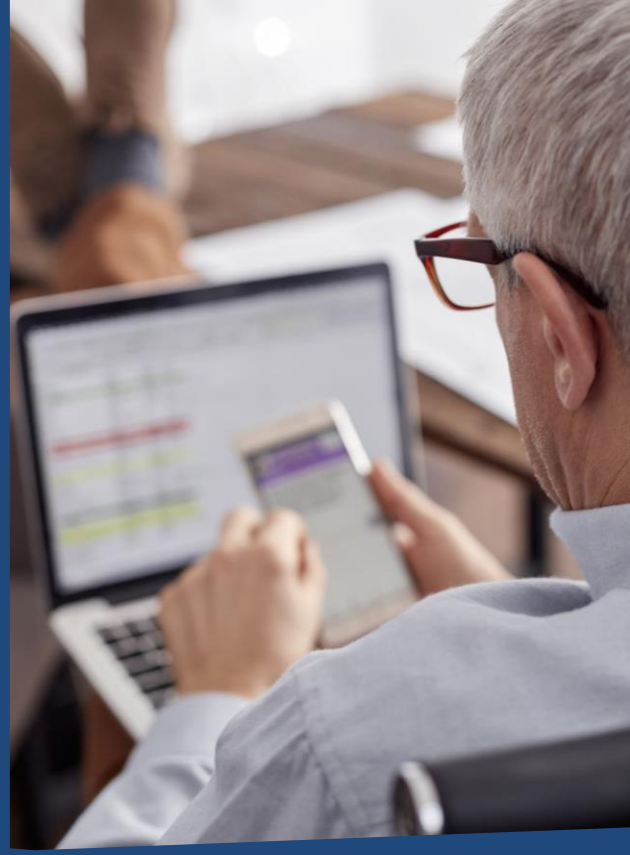
Discussion Question

Participants will be invited to share their country experiences in relation to Soft Digital Infrastructure Divide and Gender Digital Divide?



50



Section 6: Conclusion

Reflection



- **Digital Infrastructure divide:** With COVID-19 pandemic, with demand for deeper digitalization, there has been greater digital divide.
- **Synergy between the different layers of the infrastructure:** is important in order to understand the regional and national needs.
- **Digital infrastructure ecosystem:** Given the diverse size of the Commonwealth economies, policies in relation to this will differ.



- The underpinning **Principles of Sustainable Investment in Digital Infrastructure** is key to ensuring that members achieve sustainable economic recovery in COVID and post COVID.
- The development of both **hard and soft infrastructure including empowering women** through gender mainstreaming into digital infrastructure policies are important.

MAIN COVER

Course: Introduction to Digital Infrastructure and Digital Divide



External

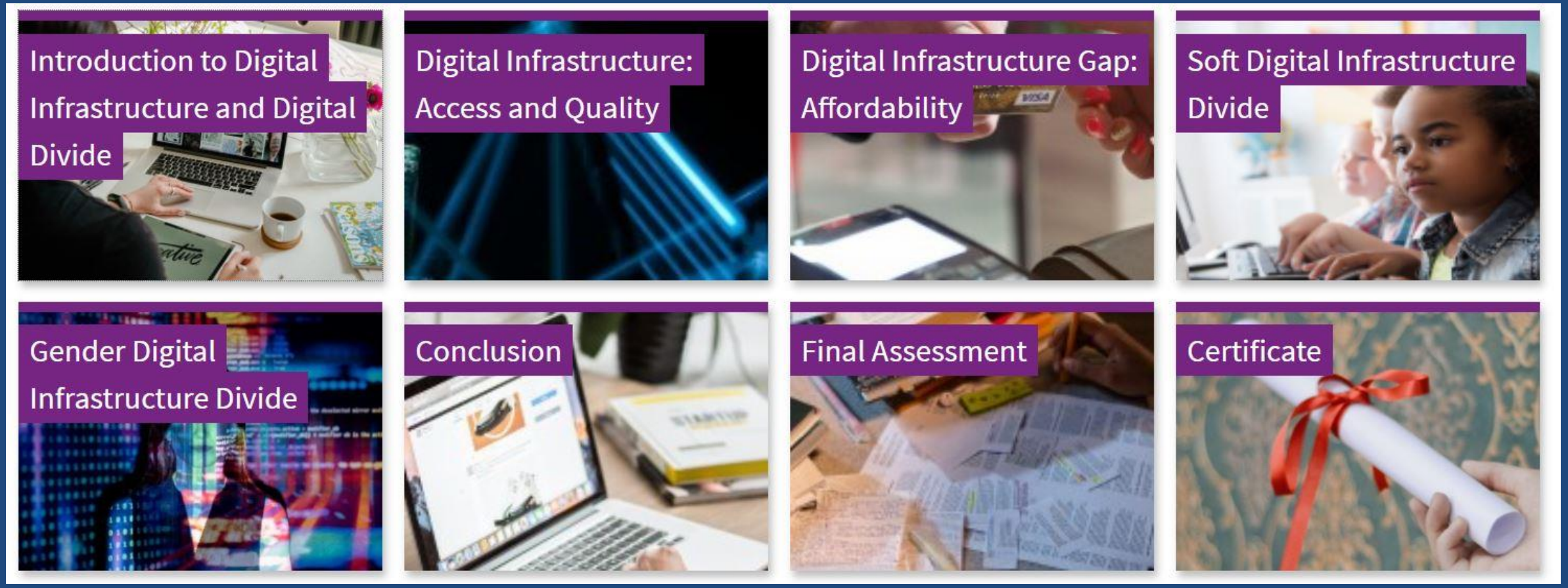
Digital Infrastructure and Digital Divide

100% complete

Course: Introduction to Digital Infrastructure and Digital Divide

Cover on Moodle Course:

Course Outline



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Course Outline



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INFORMATION

COURSE ON DIGITAL INFRASTRUCTURE AND DIGITAL DIVIDE

Course: Introduction to Digital Infrastructure and Digital Divide

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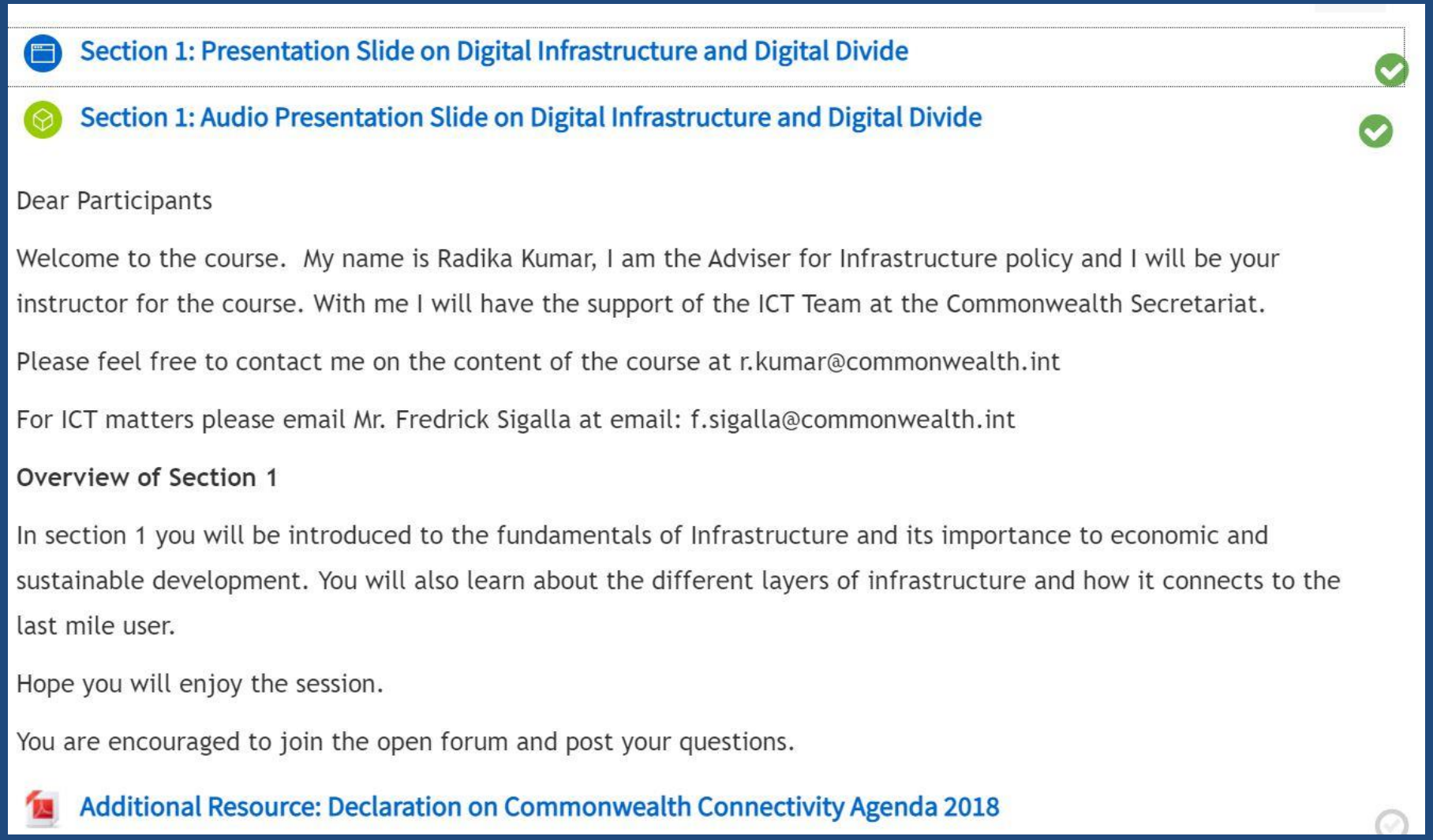
Page for each section



Course: Introduction to Digital Infrastructure and Digital Divide

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Audio Learning

Description of the Course

This is an introductory course which will examine:

a) the role of digital infrastructure in the digital economy.

b) the role of infrastructure, including digital infrastructure to sustainable development.

c) the digital infrastructure divide in the Commonwealth with policy imperatives.





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Additional Resources

Additional Resource: Paper on Digital Infrastructure and Digital Divide



This is an additional reference paper for the course, which you may like to read for further information.

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Audio Learning Search feature



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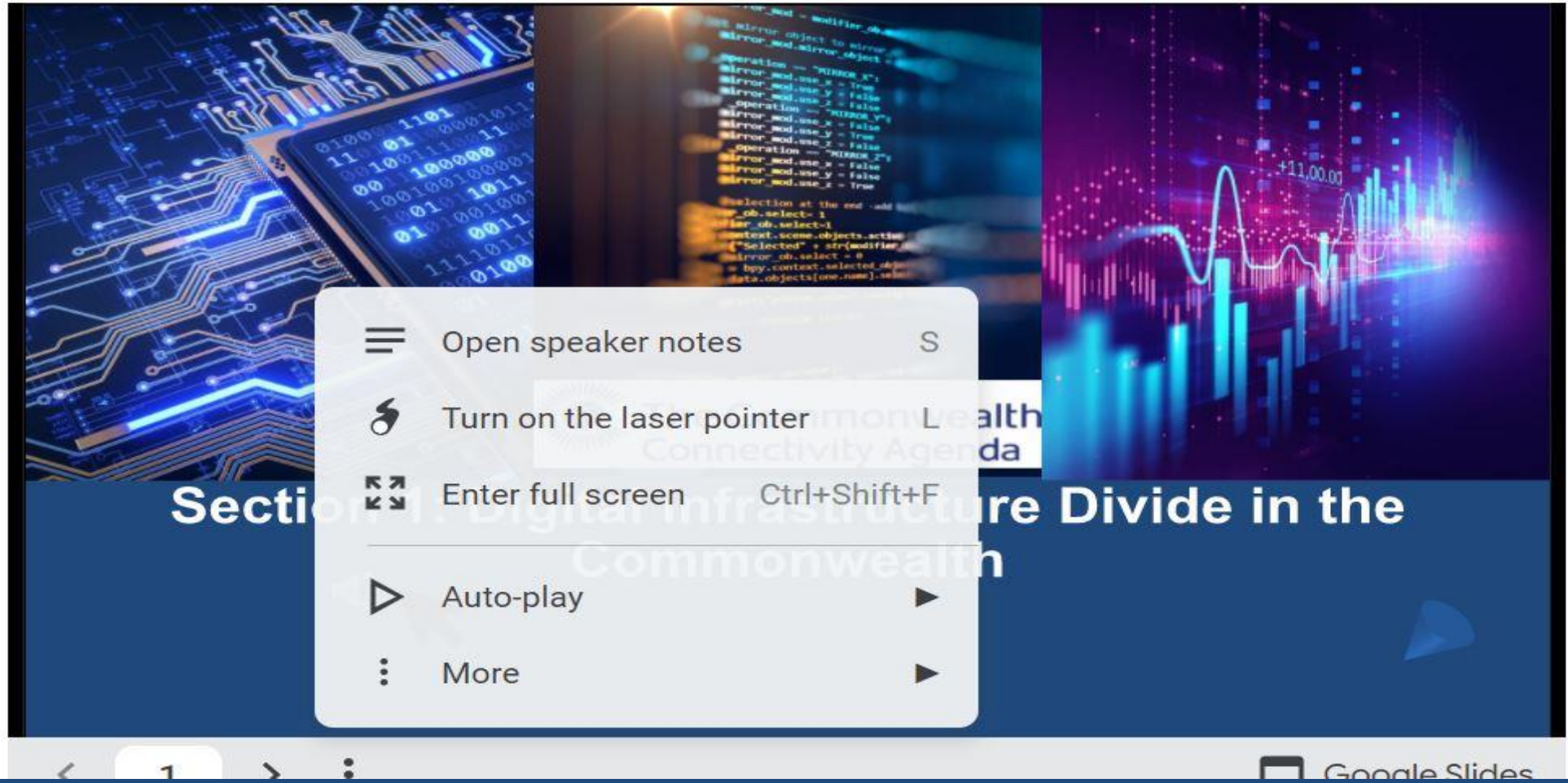
Slide only with features: Laser pointer, maximization feature.



Course: Introduction to Digital Infrastructure and Digital Divide

Forum Chats

Discussion Forum on Digital Infrastructure and Digital Divide



FORUM QUESTION

This is an open forum for the participants to share their country experience on the COVID-19 pandemic and impact on hard and soft digital infrastructure?

Please share your experiences.

Course: Introduction to Digital Infrastructure and Digital Divide

Reflection

Reflection questions: Introduction to Digital Infrastructure and Digital Divide



The reflection questions are not graded, they are only to help you reflect what you have learned on the previous section. You can attempt them as many times as you can.

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Final Assessment

Final Assessment for Digital Infrastructure Divide



Dear Participants

Congratulations for completing the course and reaching the final stage.

You will be required to complete the assessment and upon successful completion, you can download the certificate. Each assessment question has a photo attached in relation to the questions. You can zoom in your cursor to check it out, if interested. **The final assessment consists of 10 multiple choice questions. The minimum passing score is 70%.**

Feel free to go back to the respective sections and online videos to listen to the trainings and return to complete the assessment. Should you have additional questions you can get in touch with on the chat.

Course: Introduction to Digital Infrastructure and Digital Divide

Auto Generated Certificate

Certificate



Digital Infrastructure Divide in Commonwealth Certificate of Completion

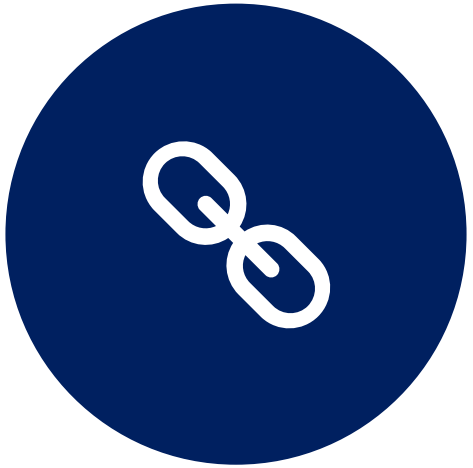
Restricted

Course: Introduction to Digital Infrastructure and Digital Divide

Auto Generated Certificate with QR Code



Information to Register for Course



REGISTRATION LINK:
HTTPS://FORMS.OFFICE.COM/R/P8BFRAKFHD



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https://www.worldinnovationday.com/



Thank you to our lead sponsors for organising the challenges, contributing to the prize pool and making this awesome event a reality!

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Contact

Name: Dr. Radika Kumar

Adviser, Infrastructure Policy

Trade, Oceans and Natural Resources

Commonwealth Secretariat

Email: r.kumar@commonwealth.int

Twitter: Radika_fiji

Linkedin: https://uk.linkedin.com/in/radika-kumar-989b3944

