

Handbook on mainstreaming gender in digital policies



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Foreword



I am pleased to present this handbook on “Mainstreaming Gender in Digital Policies”. In these pages you will find practices to mainstream gender in digital policies across the world.

As a practical, first-of-its-kind guide, the handbook provides 1) guidance on how to take concrete actions and 2) insights to help policymakers understand how to best influence policy making processes and advocate for gender equality. Moreover, the handbook offers an initial actionable checklist for policymakers on how to set up policy actions that are gender equal.

If the world is to achieve gender-equal digital inclusion in the future digital economy, Internet policies and strategies must enable an explicit focus on gender equality. This also means strengthening institutions and innovative policies that promote digital gender equality. This handbook serves as an important reminder that we must develop policies and solutions that put gender equality at the centre, rather than the sidelines.

Bridging the gender digital divide – in all its complexity and variability throughout the world – is essential work for all of us involved in building the global technological infrastructure and rules. The digital future belongs to all of us, regardless of gender.

I encourage all stakeholders to use this handbook, to focus on gender digital equality, and to work together to increase the impact of our efforts to achieve gender digital equality.

Dr. Cosmas Luckyson Zavazava
Director, Telecommunication Development Bureau (BDT)
International Telecommunication union (ITU)

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Executive summary

Many women around the world find it more difficult than men to participate in the financial, educational, social and health resources of the digital technology-driven world. While digital gender divide has been narrowing across all regions in the world, women remain digitally marginalized in many of the world's low-income countries.

Representatives of ministries in charge of information and communication technologies (ICTs) and other relevant government agencies of different countries around the world identified successful gender responsive policies, strategies, programmes and/or projects put in place by their own governments. These "successful practices" provided the basis for the analysis and recommendations in this handbook with information on what has been done, how it was implemented, and what was the impact.

Mainstreaming gender in digital policies happens in developed, developing and least developed countries

Practices in all six International Telecommunication Union (ITU) regions rarely cover only one policy area; they typically address more than one. Practices supporting women and girls are not exclusive to the ICT sector; they can be identified in other areas such as health. Practices often make physical infrastructure (e.g., Center for Genders in Technology in Argentina; IT Park centres in Uzbekistan; ICT Access centres in Trinidad and Tobago) and virtual resources (e.g., Virtual University in Senegal; Mahara-Tech online platform in Egypt) work together.

Practices mainstreaming gender in digital policies take different shape

Practices can be a specific activity (e.g., a conversation with girls on how to become a scientist held in Guatemala), to a project (e.g., Murambinda community network in Zimbabwe), a programme (e.g., eSafety Women Program in Australia), to a strategy (e.g., Gender Equality, Disability and Social Inclusion Strategy in Australia; National Inter-Sectoral Gender Strategy in the State of Palestine), an institution (e.g. Center Genders in Technology in Argentina), and a network or a community (e.g., Silicon Mountain Community in Cameroon).

Factors behind successful gender mainstreaming practices are multiple

In Guatemala, the support from ITU and the official support in the form of a ministerial decree, contributed to institutionalize the Girls in ICT Day. In Zimbabwe, the Murambinda Community Network was successful despite all odds, thanks to the passionate community driving the project and a multi-sector approach that brought everybody together. In Chile, setting up an institutionalized collaboration among ministries and other government agencies and structured communication has worked to mainstream gender across different policy areas including ICT. In Azerbaijan, campaigning about the practice and sending official letters to other ministries has contributed to its visibility. In Australia, extensive research and consultation across government institutions contributed to establishment of the eSafety Women Programme.

Practices are often supported by governments and are based on collaboration and partnerships

Governments often support practices by providing technology (e.g., laptops, tablets, mobile phones), facilitating physical infrastructure (e.g., digital points or centres that offer Internet connection) or offering free Internet access for a limited amount of time. Practices are based on partnerships between government, private sector, international and regional organizations, and local institutions.

Mainstreaming gender in digital policies does not seem to have a specific institutional set-up

The set up for putting in place digital policies that are gender equal does not seem to differ from the one needed for digital policies in general. Practices in this handbook show that the government institutions that put in place gender mainstreaming practices are the ones putting in place digital policies (e.g., the Ministry in charge of ICTs, the ICT regulator, and other government institutions dealing with the five policy areas contributing to gender equality in the digital space such as the ministry in charge of trade, the ministry in charge of education, the ministry in charge of finance; the central bank, the ministry in charge of gender).

Coordination mechanisms around gender in digital policies serves to connect ministries

Coordination between ministries, if institutionalized, takes the shape of an inter-ministerial committee such as Chile's Committee on Gender Equality in ICT. In most cases, however, coordination and consultation across government institutions takes place but it is not necessarily an institutionalized process.

Three ways to mainstream gender in digital policies

By including specific objectives (e.g., references) to gender/women/girls in key national strategic documents such as digital agendas, or national financial inclusion strategies. This approach has been illustrated in the special feature on least developed countries (LDCs) in this Handbook.

By putting in place programmes or projects that specifically address women and girls. This approach has been followed by most practices in this Handbook, ranging from online courses offering digital skills, to mentorship programmes especially dedicated to women.

And by setting gender criteria for the assessment of project proposals. This approach has been adopted in practices reported by Australia and by the State of Palestine¹.

¹ *The State of Palestine participates in ITU work under Resolution 99 (Rev. Dubai, 2018) of the Plenipotentiary Conference.

Checklist for policy-makers

The following actionable checklist outlines the process of mainstreaming gender in digital policies, based on 27 practices analysed in this Handbook:

- gather data and conduct research;
- define a gender mainstreaming practice;
- align the practice with national strategic documents;
- allocate resources;
- identify focal points in key government institutions and consult with stakeholders;
- collaborate and partner with other government institutions and stakeholders;
- measure impact.

1 Introduction

Globally, on its current trajectory, it will take 135.6 years to close the gender gap: the average distance completed to parity is at 68 per cent, according to World Economic Forum's Gender Gap Index.¹ Women in the digital economy are not an exception to this situation. Around the world women are less likely to be employed in the technology sector and when they are, they usually get paid less than men, according to ILOSTAT data. In almost every country, regardless of income level or development stage, women are under-represented in the information and communication sector.²

Many women around the world find it more difficult than men to participate in the financial, educational, social and health resources of the digital technology-driven world. While digital gender divide has been narrowing across all regions in the world, women remain digitally marginalized in many of the world's low-income countries: in 2022 only 21 per cent of women used the Internet in low-income countries, compared to 92 per cent in high-income countries. The digital gender divide also remains wide in landlocked developing countries (LLDCs) (33 per cent of women versus 40 per cent of men), the Africa region (34 per cent versus 45 per cent) and the Arab States region (65 per cent versus 76 per cent).³

Policies and strategies aiming at bridging this digital gender divide have been put in place by some governments, but they do not seem to be generalized across the globe. Gender is referenced in only half of national overarching ICT policies or master plans, according to ITU. Furthermore, over 40 per cent of countries studied in the Alliance for Affordable Internet (A4AI) Affordability Report 2020 had no meaningful policies or programmes to expand women's access to the Internet.⁴

Developing digital policies and strategies (i.e., national digital agendas, national broadband plans and other strategic documents related to the digital economy) as well as designing and implementing programmes and projects that are gender responsive, contributes to levelling the playing field between women and men, ensuring that both groups have the same opportunities.

To be gender responsive, digital policies, strategies, programmes, and projects need to consider the main challenges that prevent women to fully reap the benefits of the opportunities offered by the digital economy. Some of these challenges relate to women's access to digital technologies, digital skills (including also other type of skills such as financial skills), finance, entrepreneurship and leadership, and infrastructure and digital services.

Representatives of ministries in charge of information and communication technologies (ICTs) and other relevant government agencies of different countries around the world identified successful gender responsive policies, strategies, programmes and/or projects put in place by their own governments. These "successful practices" provided the basis for the analysis and recommendations in this handbook with information on what has been done, how it was implemented, and what was the impact.

¹ WEF, Global Gender Gap Report 2022, https://www3.weforum.org/docs/WEF_GGGR_2022.pdf

² ILOSTAT 2019, <https://ilostat ilo.org/techs-persistent-gender-gap/>

³ ITU 2022, Measuring digital development: Facts and figures 2022, <https://www.itu.int/itu-d/reports/statistics/facts-figures-2022/>

⁴ Alliance for Affordable Internet (A4AI), Affordability Report 2020. <https://a4ai.org/research/affordability-report/affordability-report-2020/>

The section 2 of this Handbook illustrates the five challenges faced by women in the digital space. Section 3 presents key highlights about the 27 practices addressing the five challenges illustrated in section 2 -it also includes a special feature dedicated to least developed countries (LDCs). Section 4 discusses main institutions, coordination mechanisms and national strategic documents for mainstreaming gender in digital policies. Section 5 presents lessons learned, conclusions, a checklist for policy-makers, and the way forward. Boxes are included along the handbook providing light examples on initiatives supporting women and girls in one (or more) of the five policy areas.

1.1 Purpose and objectives

The handbook intends to be a practical tool for policy-makers on how to mainstream gender into current and future digital policies related to fostering connectivity, including areas such as access and adoption/use, public-private partnerships, and programme and project implementation.

The handbook presents gender mainstreaming practices from different geographies across the world, collected in close collaboration with the six ITU regional offices.⁵ The handbook has a global focus, including practices from developed countries, developing countries, and LDCs (a dedicated section). The intention of this work is not to rank countries but, rather, to map gender mainstreaming practices around the world.

The handbook provides guidance and relevant information for policy-makers, especially from developing countries and LDCs. Through its content, they would have elements to base the improvement of existing policies in their countries by learning from the country good practices showcased in this document and addressing the same policy area(s). For instance, policy-makers interested in deepening women and girls' online safety frameworks can consider the practice from Australia; policy-makers interested on upgrading institutional mechanisms for coordination on gender and digital policies can consider the practice from Chile.

The objectives of the handbook are the following:

- Illustrate five challenges faced by women around the world (with regards to access to digital technology, digital skills, finance, entrepreneurship and leadership, and infrastructure and digital services).
- Showcase gender mainstreaming practices addressing these challenges, put in place by ministries of ICTs, ICT regulators and other relevant national agencies.
- Provide models that would allow the promotion and strengthening of such identified good practices and lessons learned.
- Analyse the role of ICT ministries and related ministries influencing the digital economy.
- Offer an initial actionable checklist for policy-makers on how to set up policy actions that are gender equal.

1.2 Existing handbooks on gender mainstreaming in digital policies

Existing handbooks on gender mainstreaming do not specifically target policy-makers involved in the formulation of digital policies (with very few exceptions). Some handbooks

⁵ ITU Regional Office are: Regional Office for Africa; Regional Office for the Americas; Regional Office for the Arab States; Regional Office for Asia and the Pacific; Regional Office for the Commonwealth of Independent States; and the Regional Office for Europe.

focus on mainstreaming gender in government agencies, others provide guidance on gender mainstreaming in public policy in general, and some are country or region specific.

The few existing guidance, at the global level, for policy-makers involved in the formulation of digital policies include tools developed by ITU, UN Women, the European Institute for Gender Equality (EIGE), the United States Agency for International Development (USAID), and the Government of Canada.

- The ITU Action Plan to close the digital gap⁶ sets out the framework for critical actions to foster and accelerate inclusive and sustainable development by closing the digital gender gap and harness the transformative potential of ICTs for women's empowerment. The Action Plan provides high level guidance for policy-makers.
- The publication by United Nations (UN) Women "The digital revolution: Implications for gender equality and women's rights 25 years after Beijing"⁷ concludes with a set of high-level policy recommendations for governments and policy-makers for leveraging digital technology to advance gender equality. These recommendations focus on new technologies, gender data, education and training, and human resources and labour market policies.
- EIGE offers resources and practical examples for mainstreaming gender into the Digital Agenda, organised according to four main phases of the policy cycle: define, plan, act check.⁸ EIGE provides a pool of good practices on gender mainstreaming, among which there is a category on "work-life balance in ICT".
- The USAID booklet on "Closing the Gender Digital Divide"⁹ identifies five strategies to close the gender digital divide and increase women's economic empowerment: Change Social Norms and Cultural Perceptions; Create economic opportunities; Cultivate women's confidence; Design Creative Women-Centric Technology; and Develop Community Support.
- The USAID report on "Women's Economic Empowerment in the Digital Economy - White Paper"¹⁰ offer action lines for the empowering women in the digital economy in the Association of Southeast Asian Nations (ASEAN) context, with a focus on development on women-owned micro, small, and medium enterprises (MSMEs), access to finance, and retraining and reskilling women workers.
- The Government of Canada's "Playbook for Gender Equality in the Digital Age"¹¹ identifies best practices to support gender equality in digital contexts. It is intended for governments, legislators, policy-makers, advocates, academics, human rights defenders, and anyone thinking about the impact of technological development on gender equality.

Other handbooks typically provide guidance to mainstream gender in public policy in general, not on digital policies or on policies related to the digital economy, specifically.

- The Organisation for Economic Co-operation and Development (OECD) Handbook on the OECD-DAC Gender Equality Policy Marker is a tool available to OECD Development

⁶ ITU (2020), Action plan to close the digital gap, <https://www.itu.int/en/action/gender-equality/Documents/ActionPlan.pdf>

⁷ UN Women (2020), The digital revolution: Implications for gender equality and women's rights 25 years after Beijing, <https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2020/The-digital-revolution-Implications-for-gender-equality-and-womens-rights-25-years-after-Beijing-en.pdf>

⁸ EIGE website, <https://eige.europa.eu/gender-mainstreaming/policy-areas/digital-agenda/policy-cycle>

⁹ USAID (2021), Closing the Gender Digital Divide, https://womenconnectchallenge.s3.amazonaws.com/media/uploads/proven_strategies_digitalgenderdivide_final.pdf

¹⁰ USAID (2018), Women's Economic Empowerment in the Digital Economy - White Paper, <https://www.nathaninc.com/wp-content/uploads/2019/03/WEE-in-the-Digital-Economy-White-Paper.pdf>

¹¹ Government of Canada (2018), Playbook for Gender Equality in the Digital Age, https://www.international.gc.ca/world-monde/issues_developpement-enjeux_developpement/human_rights-droits_homme/playbook-manuel_instructions.aspx?lang=eng

Assistance Committee (DAC) members to track bilateral aid in support of the implementation of the Sustainable Development Goals (SDGs) commitments on gender equality. The total amount of projects and/or programmes marked 1 and 2 by DAC donors are counted as gender equality focused aid. The tool focuses only on aid in support of gender equality.¹²

- The OECD Toolkit for Mainstreaming and Implementing Gender Equality focuses on strengthening governance and accountability for gender equality to improving the gender-responsiveness of public policy. The toolkit focuses on policy in general, not on digital policies.
- The Inter-Parliamentary Union (IPU) and UN Women Handbook on gender-responsive law-making¹³ is a resource for lawmakers from around the world for designing gender-responsive laws. It focuses on the role of parliamentarians in law making but does not target policy makers -and specifically those that are involved in the design of digital policies, strategies and programmes.
- The UN Women Gender mainstreaming: A global strategy for achieving gender equality and the empowerment of women and girls publication defines gender mainstreaming is the inter-governmentally agreed, global strategy for achieving the goal of gender equality. At a programmatic level, gender mainstreaming may be applied throughout the programme cycle following a sequence of steps: 1. Gender Analysis, 2. Programme Design, 3. Resource Allocation, 4. Implementation and 5. Monitoring and Evaluation. The publication does not specifically focus on digital policies.¹⁴

Some tools are country or region specific.

- The document on Gender mainstreaming in government agencies in Sweden¹⁵ aims to strengthen and develop gender mainstreaming in government agencies from Sweden such that their work helps to attain the objectives of gender equality policy. Its focus is on Swedish cultural agencies, not on agencies or ministries relevant for digital policies.
- The Government of Catalonia's Guide to gender mainstreaming in participatory processes¹⁶ provides citizen participation technicians with resources that will enable them to design equitable process. It includes references to participation in digital spaces, but the digital sector is not its main focus.
- The Philippines Commission on Women Handbook on the Application of the Enhanced Gender Mainstreaming Evaluation Framework¹⁷ provides guidance to measure the extent of gender mainstreaming efforts of organizations, both national government agencies and local government units.

Other tools are sector specific.

- The publication by the Food and Agriculture Organization (FAO) on Gender and ICTs: Mainstreaming gender in the use of information and communication technologies (ICTs)

¹² OECD (2016), Handbook on the OECD-DAC Gender Equality Policy Marker, <https://www.oecd.org/dac/gender-development/Handbook-OECD-DAC-Gender-Equality-Policy-Marker.pdf>

¹³ IPU & UN Women (2021), Handbook on gender-responsive law-making, <https://www.unwomen.org/en/digital-library/publications/2021/11/handbook-on-gender-responsive-law-making>

¹⁴ UN Women (2022), Gender mainstreaming: A global strategy for achieving gender equality and the empowerment of women and girls, <https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2020/Gender-mainstreaming-Strategy-for-achieving-gender-equality-and-empowerment-of-women-girls-en.pdf>

¹⁵ UNESCO (2016), Gender mainstreaming in government agencies, <https://en.unesco.org/creativity/policy-monitoring-platform/gender-mainstreaming-government>

¹⁶ Government of Catalonia (2020), Guide to gender mainstreaming in participatory processes, https://governobert.gencat.cat/web/.content/30 ParticipacioCiudadana/04 Difusio i recerca/guies breus de participacio ciutadana/Guia-transversalitat-genera/Guia_genera_28_10_20_ENGLISH_converted-ACC.pdf

¹⁷ Philippines Commission on Women (2016), Handbook on the Application of the Enhanced Gender Mainstreaming Evaluation Framework, https://pcieerd.dost.gov.ph/images/gad_corner/Enhanced-GMEF-handbook-complete-2.pdf

for agriculture and rural development¹⁸ focuses on the benefits of ICTs when placed in the hands of men and women working in agriculture and in rural areas. It examines the challenges to be overcome and makes recommendations so that rural communities can take full and equal advantage of the technologies.

- The United Nations Industrial Development Organization (UNIDO) Guide on Gender Mainstreaming Business, Investment and Technology Services for Private Sector Development¹⁹ provides guidance on mainstreaming gender into its business, investment and technology interventions to strengthen private sector development. The guide focuses on the cycle of private sector development projects; it has a section women and technology which includes a recommendation on identifying and promoting good practices and lessons learned on the ways women and girls are using technology.

1.3 Definitions: Gender mainstreaming; Practice, policy areas, regions

Gender mainstreaming in this handbook refers to the definition established by UN Women: "(...) a strategy, an approach, a means to achieve the goal of gender equality. Mainstreaming involves ensuring that gender perspectives and attention to the goal of gender equality are central to all activities - policy development, research, advocacy/ dialogue, legislation, resource allocation, and planning, implementation and monitoring of programmes and projects."²⁰

The term practices in this handbook includes *national policies, strategies, programmes, projects mainstreaming gender in digital policies*. The definition also includes other *initiatives related to the policy-making process* such as institutionalized gender-focused inter-ministerial coordination. The definition of practice was deliberately kept broad to be able to collect practices from countries of different level of development.

Practices of mainstreaming gender were categorised by type, according to five key policy areas:

- *Access to digital technology*: Access by women and girls to digital technology and cybersecurity (including online safety).
- *Access to digital skills*: Access by women and girls to technical/professional studies, university, and particularly, to programmes equipping them with, at least, basic digital skills in the area of science, technology, engineering and mathematics (STEM).
- *Financial inclusion*: Availability of digital banking and digital payments (national and international), especially for women. Availability of universal service funds or financial mechanisms in place for example to finance projects or programmes for vulnerable communities including women and girls, or to provide access to digital services. It is worth mentioning that, in order to be able to access these services, some specific skills are required.
- *Entrepreneurship and leadership*: Women's access to networks, knowledge sharing platforms and associations, presence in decision-making roles within the ICT field or the digital sector, and possibility to share knowledge and experiences.
- *Access to infrastructure and digital services*: Available, universal, and affordable.

¹⁸ FAO (2018), Gender and ICTs: Mainstreaming gender in the use of information and communication technologies (ICTs) for agriculture and rural development, <https://www.fao.org/3/i8670EN/i8670en.pdf>

¹⁹ UNIDO (2015), Guide on Gender Mainstreaming Business, Investment and Technology Services for Private Sector Development, https://www.unido.org/sites/default/files/2016-03/new_Guide_on_Gender_Mainstreaming_Business_Investment_and_Technology_Services_for_Private_Sector_Development_3_0.pdf

²⁰ UN Women, <https://www.un.org/womenwatch/osagi/gendermainstreaming.htm>

These policy areas include the EQUALS Global Partnership for Gender Equality in the Digital Age²¹ focus areas and follow the same definition used in the context of the ITU and Enhanced Integrated Framework (EIF) pilot project assessing gender in digital policies, strategies and regulations in Burundi, Ethiopia and Haiti, implemented in 2021 and 2022 and whose methodology is included in the Annex to this handbook.²²

1.4 Selection of practices

The selection of countries was made in consultations with ITU regional offices, which are best positioned to identify countries from their respective regions. Practices are clustered according to ITU regional groupings.²³

ITU regional offices identified a set of countries in which ministries and other government agencies put in place practices considered to be successful (i.e., practices that have effectively helped women and girls benefit from the opportunities offered by the digital economy) related to one (or more) of the five policy areas defined above.²⁴

A geographical representation within the six ITU regions as well as the inclusion of countries of different level of development were considered when selecting countries. The ease of acceding to government representatives for collecting information about practices was also taken into consideration. The selection includes both, countries with a high level of gender equality in the digital domain, and countries with a low level of gender equality but that, nevertheless managed

²¹ Launched in 2016 by ITU and four founding partners – GSMA, the International Trade Centre, the United Nations University and UN Women – EQUALS contributes to the UN Sustainable Development Agenda through actions and evidence-based research aimed at closing the global gender digital divide. EQUALS uses a multidisciplinary approach that integrates research, policy and programming to promote gender equality in technology access, skills and leadership, as well as conducting ground-breaking, evidence-based research. For more information: <https://www.equalsintech.org/>

²² ITU, <https://www.itu.int/en/ITU-D/Digital-Inclusion/Pages/events/eif.aspx>

²³ **Africa:** Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, South Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe.

Americas: Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Brazil, British Virgin Islands, Canada, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Saint Vincent and the Grenadines, Saint Kitts and Nevis, Suriname, Trinidad and Tobago, Turks and Caicos Islands, United States of America, Uruguay, Venezuela.

Arab States: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Somalia, State of Palestine, Sudan, Syria, Tunisia, United Arab Emirates, Yemen.

Asia and the Pacific: Afghanistan, Australia, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Democratic People's Republic of Korea, Fiji, India, Indonesia, Iran, Japan, Kiribati, Republic of Korea, Lao P.D.R., Malaysia, Maldives, Marshall Islands, Micronesia, Mongolia, Myanmar, Nauru, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Sri Lanka, Thailand, Timor-Leste, Tonga, Tuvalu, Vanuatu, Viet Nam.

Commonwealth of Independent States: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkmenistan, Uzbekistan.

Europe: Albania, Andorra, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Republic of North Macedonia, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Republic of Türkiye, Ukraine, United Kingdom, Vatican. For more information about the regional presence of ITU, <https://www.itu.int/en/ITU-D/Pages/Regional-Presence.aspx>

²⁴ ITU regional offices established contact with focal points in ministries and agencies and facilitated the collection of information about practices.

to successfully implement practices that effectively helped women and girls benefit from the opportunities offered by the digital economy.

A standardized approach was adopted for the collection of practices. Focal points in ministries and other government agencies were requested to provide information about practices in a template developed based on the ITU Good Practice Canvas (i.e., practice, type, goals and policy area, key activities, governance, resources and impact).²⁵

A pool of 27 practices on gender mainstreaming in digital policies, strategies, programmes and/or projects is the basis for this handbook (see Annex 2). Table 1 shows where these practices were put in place by governments of 19 countries from the ITU regions.

Table 1: Practices on gender mainstreaming in digital policies, strategies, programmes and/or projects (by region)

ITU region	Countries	Number of practices
Africa	Cameroon, Ethiopia, Senegal, Tanzania, Zimbabwe	6
Americas	Argentina, Barbados, Chile, Guatemala, Trinidad and Tobago	8
Arab States	Egypt; the State of Palestine	3
Asia and the Pacific	Australia; Republic of Korea	4
Commonwealth of Independent States	Azerbaijan; Uzbekistan	2
Europe	Germany; Montenegro; Serbia	4
Total	19	27

2 Selected challenges faced by women in the digital space

Women face multiple challenges that prevent them to fully benefit from the opportunities offered by the digital space. This section does not intend to list them all but, rather, to focus on access to digital technology, access to digital skills, financial inclusion, entrepreneurship and leadership, and access to infrastructure and digital services. Globally, access between women and men to these areas is currently unequal.

In many parts of the world women and girls are typically at disadvantage when compared to men in terms of access to digital technology, connectivity and security. When it comes to skills, women and girls find it more difficult than men to have access to programmes equipping them with, at least, basic digital skills in the area of science, technology, engineering and maths (STEM). Compared to men, availability of credit, digital banking, and payments (as well as financial training) are typically lower for women. Women's access to networks, knowledge sharing platforms and associations is also lower for women than for men and the same applies

²⁵ ITU Good Practices Canvas, <https://www.itu.int/en/ITU-D/Innovation/Documents/Goodper>

to women's presence in decision-making roles within the ICT field. Women, particularly those living in rural areas, find it more difficult than men to access to digital infrastructure.

These challenges are not static and are likely to vary across countries and regions. What follows is a brief illustration of selected challenges faced by women using global level data from datasets by different international organizations such as ITU and the World Bank.

2.1 Access to digital technology

In many parts of the world women and girls are typically at disadvantage when compared to men in terms of access to digital technology such as mobile phones and smartphones with connection to the Internet.

When it comes to owning mobile phones, the situation of women vis-à-vis men has improved in recent years but gaps remain. ITU suggests that in 30 of the 60 countries for which data are available for the 2018-2020 timeframe, gender parity in mobile phone ownership has been achieved, and in ten more countries, more women than men own a mobile phone. Nevertheless, in 21 countries, women lag behind men in mobile phone ownership, in some cases by a large margin.²⁶ According to GSMA data, "[w]hile the overall gender gap in mobile ownership remains largely unchanged since 2017, the gender gap in smartphone ownership has reduced for the first time since then, driven by South Asia where these gaps have consistently been widest. Across low- and middle-income countries, women are now 7 per cent less likely to own a mobile phone, which translates into 143 million fewer women mobile owners than men. Women are also 15 per cent less likely to own a smartphone than men, down from 20 per cent in 2019."²⁷

Smartphones require a proper Internet connection. Compared to men, fewer women use the Internet, although the gender Internet divide has been narrowing in all regions. Globally, in 2020, 62 per cent of all men use Internet, compared with 57 per cent of all women. The global gender parity score has improved from 0.89 in 2018 to 0.92 in 2020.²⁸

The Internet gender divide is more evident in some regions of the world. According to ITU data, "[p]arity has been achieved in developed countries as a whole and in the Americas, and almost achieved (parity score between 0.95 and 0.98) in the Commonwealth of Independent States (CIS) region, the small island developing States (SIDS) and Europe. The divide remains wide in the LDCs, where only 19 per cent of women are using the Internet (12 percentage points lower than men), the landlocked developing countries (LLDCs) (27 per cent of women versus 38 per cent of men), the Africa region (24 per cent versus 35 per cent) and the Arab States region (56 per cent versus 68 per cent)."²⁹

2.2 Access to digital skills

Women and girls find it more difficult than men to access programmes equipping them with digital skills in the area of science, technology, engineering and maths (STEM). Globally, only

²⁶ ITU 2022, Measuring digital development: Facts and figures 2021, <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2021.pdf>

²⁷ GSMA 2021, The Mobile Gender Gap Report, <https://www.gsma.com/r/wp-content/uploads/2021/06/The-Mobile-Gender-Gap-Report-2021.pdf>

²⁸ Gender parity is deemed achieved when the gender parity score, defined as the female percentage divided by the male percentage, stands between 0.98 and 1.02.

²⁹ ITU 2022, Measuring digital development: Facts and figures 2021, <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2021.pdf>

35 per cent of science, technology, engineering, and mathematics (STEM) students in higher education globally are women, and differences are observed within STEM disciplines. For instance, according to UNESCO, “only 3 per cent of female students in higher education choose information and communication technologies (ICT) studies. This gender disparity is alarming, especially as STEM careers are often referred to as the jobs of the future, driving innovation, social wellbeing, inclusive growth and sustainable development.”³⁰

Furthermore, women are still under-represented in fields such as computing, digital information technology, engineering, mathematics and physics. According to UNESCO, they made up a third (33 per cent) of researchers in 2018 and “have achieved parity when it comes to numbers in life sciences in many countries, the report says. But women make up just 28 per cent of graduates in engineering and 40 per cent of those in computer sciences – skills vital for the jobs of the future, it added.”³¹

Box 1: ITU Digital Skills Assessment Guidebook

The ITU Digital Skills Assessment Guidebook has been designed to serve as a comprehensive, practical step-by-step tool for national digital skills assessments. The guidebook can be used to determine the existing supply of a digitally skilled cohort at a national level, to assess skills demand from industry and other sectors, to identify skills gaps, and to develop policies to address future digital skills requirements. It is designed for use by policy-makers and other stakeholders, such as partners in the private sector, non-governmental organizations, and academia.

Source: ITU Digital Skills Assessment Guidebook, <https://academy.itu.int/main-activities/research-publications/digital-skills-insights/digital-skills-assessment-guidebook>

2.3 Financial inclusion

Although it has narrowed, a gender gap in access to finance still exists. Women are more likely to lack identification or a mobile phone, to live far from a bank branch, and to need support to open and effectively use a financial account. Globally, 78 per cent of men and 74 per cent of women have an account—a gender gap of 4 percentage points. Developing economies have a wider average gap, 6 percentage points, a decrease from 9 percentage points after many years of remaining unchanged. In 2021, 74 per cent of men but only 68 per cent of women in developing economies had an account.³²

Differences are encountered across regions in terms of account ownership. While sub-Saharan Africa and the Arab States region report 12 and 13 percentage point gender gaps in account ownership (twice as large as the developing economy average and three times larger than the global average), the gender gap in some countries in the Asia and Pacific region is at 3

³⁰ UNESCO 2017, Cracking the code: Girls’ and women’s education in STEM, <https://unesdoc.unesco.org/ark:/48223/pf0000253479>

³¹ UNESCO 2021, UNESCO Science Report, <https://www.weforum.org/agenda/2021/07/science-technology-gender-gap/>

³² World Bank 2021, The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience

percentage points. In countries in Latin America and the Caribbean, women are 7 percentage points less likely than men to have an account.³³

Box 2: GSMA Connected Women Programme: Accelerating digital and financial inclusion for women

Mobile has the power to transform women's lives. However, there is a substantial gender gap in mobile access and use across low- and middle-income countries (LMICs). The [GSMA Connected Women Programme](#) aims to reduce the gender gap in mobile Internet and mobile money services and unlock significant commercial and socio-economic opportunities. The programme aims to advance the global conversation around the mobile gender gap and to drive increased awareness, prioritisation and action amongst stakeholders.

Since 2016, over 40 mobile operators across Africa, Asia and the Pacific and the Americas have made formal commitments to reduce the gender gap in the customer base of their mobile Internet or mobile money services, as part of the [GSMA Connected Women Commitment Initiative](#). So far, they have collectively reached over 55 million additional women through initiatives such as offering low-cost Internet-enabled handsets to address women's price sensitivity, recruiting female agents and merchants, developing savings and loans products tailored to women's needs, redesigning mobile money apps to appeal to both women and men and developing and marketing use cases which appeal to women. GSMA Connected Women also develops insights and thought leadership on the size and drivers of the mobile gender gap as well as opportunities and approaches for addressing it.

Key Publications:

- [The Mobile Gender Gap Report](#)
- [Reaching 50 Million Women with Mobile: A Practical Guide](#)

Capacity building course for policy-makers:

- [Bridging the Mobile Gender Gap](#)

The GSMA Connected Women Programme is currently funded by the United Kingdom Foreign, Commonwealth and Development Office (FCDO), the Swedish International Development Cooperation Agency (SIDA) and supported by the GSMA and its members.

Source: GSMA Connected Women Programme, <https://www.gsma.com/mobilefordevelopment/connected-women/>

Use of digital payments also varies depending on the economy: while it is near universal for both women and men among account owners in high-income economies, in developing economies men with an account are, on average, 6 percentage points more likely than women with an account to use digital payments. This gender gap in the use of digital payments among account

³³ World Bank 2021, The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19, <https://www.worldbank.org/en/publication/globalfindex/Report>

owners has remained virtually unchanged since 2014, despite the overall increase in digital payments.³⁴

Technology-enabled mobile money accounts are helping drive inclusive access to finance for younger women. For instance, in sub-Saharan Africa, according to the World Bank, “[t]he gender gap for financial institution accounts increases as women age, but it remains small for men and women who only have mobile money accounts ...” Among economies in sub-Saharan Africa with more than 20 per cent of adults with a mobile money account, young adult men are 8 percentage points more likely than young adult women to have a financial institution account. As adults grow older, this gap increases to 9 percentage points between men and women ages 25–50 and 15 percentage points between men and woman age 51 and older.³⁵

Box 3: A 10-point action plan for prioritizing women’s digital financial inclusion

Digital private and public sector payments, designed to meet women’s needs and incentivized through policies that make them safe and affordable, can lead to increased GDP growth, increased customer growth and retention, higher labour force participation, improved household bargaining power and freer gender norms.

Drawing on decades of experience, research and in-field activity, the Better than Cash Alliance, Generation Equality Forum, UN Capital Development Fund, UN Secretary General’s Special Advocate for Inclusive Finance for Development, UN Women, Women’s World Banking, and the World Bank, produced a 10-point action plan to end financial inequality for women and to build more resilient economies.

The 10-point action plan for governments and businesses to rebuild stronger after COVID-19 by prioritizing women’s digital financial inclusion is as follows:

- 1 Digitalize private sector payments.
- 2 Digitalize payments of government social benefits.
- 3 Outlaw discrimination against women.
- 4 Ensure universal access to identification.
- 5 End the gender gap in mobile phone ownership.
- 6 Hire women at Banks and mobile network operators.
- 7 Collect, analyse and use sex-disaggregated data.
- 8 Design appropriate and affordable financial products for women.
- 9 Help women benefit from e-commerce opportunities.
- 10 Create and enforce strong digital finance consumer protection mechanisms.

All 10 actions are equally important. They are not sequential steps but mutually reinforcing actions for all stakeholders committed to reaching financial equality.

Source: Better than Cash Alliance, https://btca-production-site.s3.amazonaws.com/documents/569/english_attachments/Reaching_Financial_Equality_for_Women.pdf?1623448136

³⁴ World Bank 2021, The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience
³⁵ World Bank 2021, The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19, <https://www.worldbank.org/en/publication/globalfindex/Report>

2.4 Entrepreneurship and leadership

When it comes to business and entrepreneurship, globally, 28.3 per cent of women hold managerial positions.³⁶ Also, access to business networks, knowledge sharing platforms and associations is typically lower for women than for men, and the same applies to women's presence in decision-making roles within the ICT sector.

In most, but not all, economies, men are more likely to start new businesses than women.³⁷ "In low- and middle-income countries, 17 per cent of women are entrepreneurs and 35 per cent aspire to become entrepreneurs. Taken together, this implies that over half of women in developing countries see entrepreneurship as a path to a better future, compared to only 25 per cent in high-income countries."³⁸ Majority-male-owned exporting firms perform better and are more digitally connected than female-owned exporting firms.³⁹ Furthermore, according to Tufts University Digital Intelligence report, historically, men are more likely to get online than women. Particularly in emerging economies, women are less likely to go online and less likely to engage extensively online.⁴⁰

Women entrepreneurs represent about one in three growth-oriented entrepreneurs active in the world today. According to the Global Entrepreneurship Monitor (GEM), "globally, 30.2 per cent of women entrepreneurs surveyed expected to hire six or more employees in the next five years ... the percentage of men expecting to hire six or more employees in the next five years is 48 per cent."⁴¹ The rate of women as owning and managing a running business that has paid salaries, wages or any other payments to the owners for more than 42 months is 5.6 per cent, representing one in three established business owners globally.

Women in business (not only in the digital sector) are less likely to be part of formal business networks, particularly the international ones. These networks are important as they offer training, information, advice, partnerships and encouragement and support.⁴²

³⁶ UN Women data, <https://data.unwomen.org/data-portal/sdg?annex=Genderper>

³⁷ GEM & Babson College 2022, Global Entrepreneurship Monitor 2021/2022 Global Report: Opportunity Amid Disruption, <https://www.gemconsortium.org/file/open?fileId=50900>

³⁸ GEM 2021, Women's Entrepreneurship Report 2020/2021: Thriving through Crisis, <https://www.gemconsortium.org/reports/womens-entrepreneurship>

³⁹ World Bank & World Trade Organization 2020, Women and trade: The role of trade in promoting gender equality, https://www.wto.org/english/res_e/booksp_e/women_trade_pub2807_e.pdf

⁴⁰ Tufts University 2020, Digital intelligence, <https://digitalintelligence.fletcher.tufts.edu/analyze/et/ranking/institutions>

⁴¹ GEM 2021, Women's Entrepreneurship Report 2020/2021: Thriving through Crisis, <https://www.gemconsortium.org/reports/womens-entrepreneurship>

⁴² ITC 2015, Unlocking Markets for Women to Trade, https://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/women_in_trade_web.pdf

Box 4: International networks in the digital sector

The UNCTAD **eTrade for Women** Communities network gives opportunities to female digital entrepreneurs to be inspired, empowered and make connections all around the globe. eTrade for Women combines the transformative power of women entrepreneurship with the positive impact of digital technologies. It supports women entrepreneurs who are shaping the digital ecosystem in developing and transition economies to thrive as business leaders and emerge as an influential voice in the public policy debate.

Source: eTrade4allWOMEN, <https://etradeforall.org/et4women/>

The **Partner2Connect Digital Coalition** is a multi-stakeholders alliance launched by ITU to foster meaningful connectivity and digital transformation in the hardest-to-connect communities, including LDCs, landlocked developing countries, and small island developing States.

Source: ITU, <https://itu.int/itu-d/sites/partner2connect/>

The **Network of Women (NoW)** encourages gender balance in the activities leading up to the World Telecommunication Development Conference, WTDC-21. The objectives of the network are: Build, in the medium and long term, a community where female delegates support each other, expand their network, advocate and share experience and knowledge; Promote the active participation of women in the activities of ITU and the sector in general; Give visibility to women and empower them for larger responsibilities in their respective delegations, at WTDC-21 and in future similar platforms; and Encourage experienced female delegates to mentor ICT professionals in order to create a stronger base for women in the digital space.

Source: ITU, <https://www.itu.int/en/ITU-D/Conferences/WTDC/WTDC21/NoW/Pages/default.aspx>

Women are also under-represented at top of multinational technology companies, despite efforts to close the gender gap in technical and leadership roles. According to UNESCO, "Facebook leads the way with women accounting for 23 per cent of technical roles, and 33 per cent of leadership positions. Apple has been implementing measures to hire more women and under-represented minorities since 2014, but women still only make up 23 per cent of technical roles and 29 per cent of leadership ones. Meanwhile, Amazon has been working to correct the gender imbalance since 2018, when it realized that its Artificial Intelligence AI system was not ranking women candidates for software developer and other technical roles."⁴³ Overall, female representation remains under 25 per cent in roles such as artificial intelligence (AI) specialist, cloud engineer and DevOps manager.⁴⁴

⁴³ UNESCO 2021, UNESCO Science Report, <https://www.weforum.org/agenda/2021/07/science-technology-gender-gap/>

⁴⁴ WEF 2021, Global Gender Gap 2021, https://www3.weforum.org/docs/WEF_GGGR_2021.pdf

2.5 Access to infrastructure and digital services

Women, particularly living in rural areas, find it more difficult than men to access to infrastructure and digital services. Globally, over 1 billion people lack access to electricity, and close to 3 billion lack access to clean cooking. Women bear the greatest burden of this energy poverty.

⁴⁵ITU estimates that approximately 4.9 billion people – or 63 per cent of the world's population – were using the Internet in 2021. This represents an increase of 17 per cent since 2019, with 782 million people estimated to have come online during that period. However, this leaves 2.9 billion people still offline.⁴⁶ According to the Network Readiness Index 2021, “[d]ivides in access exist not just between regions and economies but also remain persistent between genders. The digital gender divide continues to present a significant barrier to meaningful participation in a digital society...”⁴⁷

Gaps in ICT infrastructure and Internet access are important elements of the digital divide. The region with the highest Telecommunication Infrastructure Index⁴⁸ value in 2020 was Europe (0.82); the corresponding values for Asia and the Pacific and the Americas are just under 0.60, and those for Africa and Oceania are below 0.40. The proportion of individuals with Internet ranges from 26.8 per cent in Africa to 82.4 per cent in Europe.⁴⁹

⁴⁵ United Nations – Department of Economic and Social Affairs 2018, Accelerating SDG 7 Achievement, Policy Brief 12 Global Progress of SDG 7 – Energy and Gender, <https://sustainabledevelopment.un.org/content/documents/17489PB12.pdf>

⁴⁶ ITU Statistics, <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>

⁴⁷ Protulans Institute 2021, Network Readiness Index 2021, <https://networkreadinessindex.org/analysis/#theme>

⁴⁸ The Telecommunication Infrastructure Index is part of the United Nations E-government Readiness Index (please refer to the next footnote). It is an arithmetic average composite of four indicators: (i) estimated Internet users per 100 inhabitants; (ii) number of mobile subscribers per 100 inhabitants; (iii) active mobile-broadband subscription; and (iv) number of fixed broadband subscriptions per 100 inhabitants. ITU is the primary source of data in each case.

⁴⁹ United Nations - Department of Economic and Social Affairs 2020, E-Government in the Decade of Action for Sustainable Development, <https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2020>

Box 5: Using funding to mainstream the inclusion of women and girls

The gender gap is not driven by technology, but rather exacerbated by it. Furthermore, societal structures and biases that value women's work less, underpay women (thus limiting their purchasing power), limit their opportunities for education (thus reducing digital literacy) and compromise women's security (thus limiting their participation) only enhance the real-world divides. Financing presents an opportunity to ensure that the response to these challenges is mainstreamed.

When assessing project proposals, universal service and access funds (USAFs) and other financiers can develop and apply selection criteria based on a digital-inclusion framework. It is important to bear in mind the following when considering the analysis of project impact on women and other marginalized communities:

- a) It is a process, not an event – the publication of a gender-gap report or research on an aspect of ICT and gender is important to identifying and quantifying gaps that need to be addressed; it is not, however, enough on its own;
- b) It has to form part of a broader national strategy and policy framework on inclusion, with which USAF 2.0 should be aligned; and
- c) It must be implemented in a coherent manner by first identifying gender gaps before designing and implementing appropriate measures to address them, e.g. gender mainstreaming or specific measures.

Source: ITU 2021, Financing universal access to digital technologies and services, https://www.itu.int/dms_pub/itu-d/opb/pref/D-PREF-EF-2021-ECO_FIN-PDF-E.pdf

3 Informing women overcome challenges in different regions

This section offers a snapshot of practices around the world that addresses challenges identified in section 2. Most practices have been identified (and submitted) by representatives of ministries or other government agencies. In the case of practices from Africa and Europe regions (except for Germany), ITU regional offices have shared raw information. The information about practices has been synthesized and key highlights were identified in terms of activities, resources, and collaboration and partnerships. Practices are clustered by ITU region, including a special feature on LDCs. Additional information on practices is available in the Annex 2, categorized by type, goals and policy area, activities, governance, resources and impact.

3.1 Overview of practices by region and by policy area

Practices on access to digital technology and to digital skills are common to all ITU regions. From a geographical perspective, all practices from the Asia and Pacific region (4 out of 4) and from the Arab States region (3 out of 3) cover more than one policy area. This is also the case for half of the practices from the Africa (3 out of 6) and Europe regions (2 out of 4).

Practices covering two or more policy areas are more common than those covering only one. More than half of practices (16 out of 27) cover more than one policy area. The most common policy area is access to digital skills (24 practices) and the least common is financial inclusion (1 practice).

Table 2: Practices on access to digital technology by region

ITU region	Number of practices	Practices covering more than one policy area	Access to digital technology	Access to digital skills	Financial inclusion	Entrepreneurship and leadership	Access to infrastructure and digital services
Africa	6	3	2	4	1	1	1
Americas	8	3	3	7	0	1	2
Arab States	3	3	1	3	0	3	1
Asia and the Pacific	4	4	3	4	0	1	0
Commonwealth of Independent States	2	1	1	2	0	0	0
Europe	4	2	1	4	0	2	0
Total	27	16	11	24	1	8	4

Note: The total sum of rows results in a higher number than the number of practices by region because there are practices that cover more than one policy area.

Practices on access to digital technology (11 practices) and access to digital skills (24 practices) have been identified in all ITU regions. Practices on entrepreneurship and leadership have been identified in five out of six regions (exception being Commonwealth of Independent States). Practices on access to infrastructure and digital services have been identified in three out of six regions (i.e., Africa; Americas; and Arab States). Only one practice on financial inclusion was reported (Africa).

When practices cover more than one policy area, the most common is combining access to digital technology with access to digital skills: 2 practices from Africa; 3 from the Americas; 1 from the Arab States (combined also with entrepreneurship and leadership and with access to infrastructure and digital services); 3 from Asia and the Pacific; 1 from the Commonwealth of Independent States; and 1 from Europe (combined also with entrepreneurship and leadership).

Access to digital skills coupled with entrepreneurship and leadership is the second most common combination: 1 practice from Africa; 1 from the Americas; 2 from the Arab States; 1 from Asia and the Pacific; and 1 from Europe.

Eleven practices cover one policy area only (i.e., access to digital skills; financial inclusion; and access to infrastructure and digital services): 2 from Africa; 2 from the Americas; 1 from the Commonwealth of Independent States; and 2 from Europe. No practices from Arab States and from Asia and the Pacific cover one policy area only.

3.2 Africa

Access to digital skills is the most common practice (4 out of 6 practices covering this policy area), followed by access to digital technology (2 out of 6 practices), and access to infrastructure and digital services (2 out of 6 practices). Four (out of 6 practices) target women and girls, specifically.

Table 3: Access to digital skill, technology, inclusion, entrepreneurship, infrastructure and services: Africa

Practice	Access to digital technology	Access to digital skills	Financial inclusion	Entrepreneurship and leadership	Access to infrastructure and digital services
Silicon Mountain Community (Cameroon)		X		X	X
First coding camp of the African Girls Can Code Initiative (Ethiopia)		X			
The Virtual University of Senegal (Senegal)	X	X			
Empowering Adolescent Girls and Young Women through Education (Tanzania)	X	X			
Community network for rural connectivity and access for women (Zimbabwe)					X
'Women's Bank' to ensure women's access to money at concessionary rates (Zimbabwe)			X		

Key highlights:

Activities

- Trainings on coding, digital literacy, personal development skills. Other topics include mathematical operations, communicating in English and Swahili, life skills, sexual and reproductive health, HIV and AIDS, gender equality, entrepreneurship and financial management skills, environmental and civic and human rights education.
- E-learning combined with presence-based training.
- Youth-led mentorship.
- Use of role models to address discriminatory norms. Organize national media campaigns around this topic.
- Gender mainstreaming workshops. Advocate for inclusion of gender mainstreaming into national curricula.

Resources

- Infrastructure available (e.g., Open Digital Spaces) to facilitate access to digital resources and IT tools.
- Women involvement in the setting up of infrastructure, management, day-to-day administration of servers and installation services at different sites.

- Laptops with mobile Internet connection provided by a university grant.
- Free high-speed Wi-Fi offered.
- Smartphones provided to former participants of trainings.
- Credit at concessionary rates made available for women, relying on the infrastructure of national institutions such as the post office to reach rural areas.

Collaboration and partnerships

- Stakeholders: National Post Office; Ministry of ICT; ICT regulator; Ministry of Finance; private and public banks.
- Collaboration with international organizations to implement practices (e.g., UNESCO, UN Women, UNFPA, UNICEF, ITU).
- Partnerships with institutions to offer internships to women and girls.

The Silicon Mountain Community (Cameroon), identified by World Bank as an initiative with high potential for women, is centred around academic institutions.⁵⁰ It provides youth-led mentorship as well as training on coding; partnerships with institutions offer the availability of internships. The government offered a one-year free high-speed Internet access to members of the community. To scale up this initiative, the World Bank recommended creating digital corridors with other digital entrepreneurship ecosystems.

The first coding camp of the African Girls Can Code Initiative (Ethiopia) equipped young girls with digital literacy, coding, and personal development skills. A workshop on gender mainstreaming was conducted in Addis Ababa and an online platform developed following the national camps. The project, implemented by UN Women Ethiopia in collaboration with the African Union and ITU, with the support of the government of Denmark in its first year, advocates for ICT, coding and gender equality to be mainstreamed into national curricula. It also implemented national media campaigns involving women role models to address discriminatory norms.

The Virtual University of Senegal (Senegal), first public digital university in Africa, combines e-learning with presence-based tutorials and networking. Laptops with mobile Internet connection provided by university grants.⁵¹ Open Digital Spaces as innovative infrastructures, connected to optical fibre, equipped with the latest generation hardware, designed to familiarize and facilitate access to digital resources and IT tools.

The Joint Programme on Empowering Adolescent Girls and Young Women through Education (Tanzania) adopted a collaborative, coordinated and multi-sectoral approach to ensuring girls' and women's right to quality education.⁵² Youth clubs and peer-led activities serve as safe spaces for counselling and training on mathematical operations, communicating in English and Swahili, life skills, sexual and reproductive health, HIV and AIDS, gender equality, entrepreneurship and financial management skills, environmental and civic and human rights education. Smartphones are provided to former participants. Implementation is led by UNESCO, in collaboration with

⁵⁰ World Bank 2020, Cameroon Digital Economy Assessment, <https://thedocs.worldbank.org/en/doc/379941605627277587-0090022020/original/DE4ACameroonCountryDiagnosticJun26.pdf> Practice identified by the author; validation by ITU's Regional Office for Africa is required.

⁵¹ Identified in the report "Digital4Women: how to enable women empowerment in Africa through mainstreaming digital technologies and services in EU development programmes" as a practice that contributes to the empowerment of women and girls in digital skills and literacy across sub-Saharan Africa. https://europa.eu/capacity4dev/file/107721/download?token=Om66l_tc

⁵² Practice identified by the author; validation by ITU Regional Office for Africa is required.

the government of Tanzania, UNFPA and UN Women; funded by the Korean International Cooperation Agency (KOICA).

The Community network for rural connectivity and access for women (Zimbabwe) is based on a cybercafé housed, developed by residents skilled in welding, art, and paintwork. It offers an affordable access to their e-learning material for a USD 1 per hour for an unlimited connection. Women are involved in the setting up of infrastructure, management, day-to-day administration of servers and installation services at different sites. The government, through the Postal, Telecommunications and Regulatory Authority (POTRAZ), donated laptops and computers. Zimbabwe Community Network Initiatives (ZCNI) offered expert knowledge in the building of community networks, together with Zimbabwean Ministry of ICT and Courier Services, POTRAZ, UNICEF, and ITU.

The 'Women's Bank' ensures women's access to money at concessionary rates (Zimbabwe). The bank's primary clientele are women, although it can also extend credit to disadvantaged men and other micro borrowers. The bank has opened branches nationwide by relying on the infrastructure of the Zimbabwe Post Office, which has a presence in every corner of the country, including in rural areas.

3.3 Americas

Access to digital skills is the most common practice (7 out of 8 practices covering this policy area), followed by access to digital technology (3 out of 8 practices), and access to infrastructure and digital services (2 out of 8 practices). Six (out of 8) practices target women and girls, specifically. The practice from Trinidad and Tobago is aligned with a national strategic document: the ICT Access Centres initiative are aligned with the National ICT Plan 2018-2022.

Table 4: Access to digital skill, technology, inclusion, entrepreneurship, infrastructure and services (Americas)

Practice	Access to digital technology	Access to digital skills	Financial inclusion	Entrepreneurship and leadership	Access to infrastructure and digital services
Center for Genders in Technology (Argentina)	X	X			
Digital@rs Girls Programme (Argentina)		X		X	
Girls in ICT Day and Caribbean girls 'hacking' for a safer future (Barbados)		X			
SAGA UNESCO and STEM and gender advancement (Chile)		X			
Transmission of mammograms through 5G technology (Chile)					X
National Girls in ICT Day (Guatemala)		X			

Table 4: Access to digital skill, technology, inclusion, entrepreneurship, infrastructure and services (Americas) (continued)

Practice	Access to digital technology	Access to digital skills	Financial inclusion	Entrepreneurship and leadership	Access to infrastructure and digital services
Practices stimulating girls' scientific curiosity, popularising science and promoting STEAM (Guatemala)	X	X			
ICT Access Centres Initiatives (Trinidad and Tobago)	X	X			X

Key highlights:

Activities

- Free courses for young women about programming and the transformative potential of technology. Topics include Videos Games and Apps - Block programming (App inventor, Scratch, Robotics, Batteries); design your first web page - level 1 (HTML + CSS + JavaScript); Program your web page - level 2 (HTML + CSS + JavaScript + Bootstrap + Agile Methodology) and introduction to programming - Block programming (App inventor, Scratch, Robotics, Python).
- Courses delivered online (e.g., through a YouTube channel) or presence based.
- Scientific curiosity among girls and promotion of STEAM (science, technology, engineering, art and mathematics) stimulated through talks and specialized workshops.
- Talks with women working for ICT companies.
- Mentorship for young women, for instance through a network of mentors. Internships and scholarships for young women (that can be financed by partnering companies).
- Celebration of the Girls in ICT Day, institutionalizing its commemoration, for instance through a ministerial decree.
- Hackathon for girls and young women to envision themselves, not only as users of technology, but as creators. Topics include fundamentals of filmmaking, design thinking, web and mobile app development, geo-spatial (drone) technology, podcasting, gaming and animation.
- Measurement and data collection on STEM: conduct technical analysis, develop indicators, monitor.

Resources

- Use the facilities of Digital Points or ICT Access Centres (public spaces offering access to the Internet) to deliver presence-based courses. Support the bring your own device (BYOD) concept.
- Rely on municipalities or local governments to reach out to girls and young women living in rural areas.
- Platform to provide vocational guidance with a gender perspective in STEM to women and girls.
- Network of mentors and institutions (public and private sector, research centres, universities, etc.).
- Provision of digital services use the 5G network to reach isolated areas.
- Tablets and foldscopes to support projects and programmes targeting women and girls.

Collaboration and partnerships

- Stakeholders: Head of Cabinet of Ministers; Ministry of Women, Gender and Diversity; Ministry of Public innovation; National Council for the Coordination of Social Policies ICT regulator; private sector; civil society.
- Institutionalized gender-focused inter-ministerial coordination mechanism, for instance, in the form of a technical committee with the participation of ministries in charge of Education, Science, and Women and gender equity.
- Collaboration with the private sector to offer training programmes and spaces of interaction for women and girls.
- Collaboration with international organizations to implement projects and programmes (e.g., UNESCO; ITU).
- Alliances with municipalities to reach the entire country, especially rural areas.

[The Center for Genders in Technology \(G+T\) \(Argentina\)](#) is a public-private initiative of the national government working together with companies in the ICT sector. It offers training programmes and spaces of interaction, for girls, women and minorities. Mentorship, cooperation agreements, and internships are key elements. Scholarships are financed by the participating companies. Online seminars are offered through a YouTube channel. Coordination meetings are held between the Secretariat for Public Sector Technical Innovation (Head of the Cabinet of Ministers), the Ministry of Women, Gender and Diversity, Ministry of Public innovation, National Council for the Coordination of Social Policies, a company ARSAT, and the G+T Center, together with representatives of other public bodies, civil society and private sectors, to develop strategies, objectives and action plans. The practice started to be replicated at the sub-national level.

[The Digital@rs Girls Programme \(Argentina\)](#) invites young women to discover the transformative potential of technology and connect with the world of programming, through free courses. Workshops on the following topics are offered: Videos Games and Apps - Block programming (App inventor, Scratch, Robotics, Batteries); design your first web page - level 1 (HTML + CSS + JavaScript); Program your web page - level 2 (HTML + CSS + JavaScript + Bootstrap + Agile Methodology) and introduction to programming - Block programming (App inventor, Scratch, Robotics, Python). These can be offered online or using the facilities of Digital Points, which are public spaces offering access to the Internet. Talks are organized with women working for the company, to help adolescents discover the transformative potential of ICTs. Alliances are established with municipalities for the programme to reach the entire country. The company that provides the budget for its execution and relies on the municipalities for the logistical work required to reach out to adolescents interested in the programme.

[The Girls in ICT Day and Caribbean girls 'hacking' for a safer future \(Barbados\)](#) raised awareness to all tech savvy females. The hackathon day gave girls and young women, an opportunity to envision themselves, not only as users of technology, but as creators. Topics include fundamentals of filmmaking, design thinking, web and mobile app development, geo-spatial (drone) technology, podcasting, gaming and animation. The practice was supported by private and public sector entities.

[The SAGA UNESCO and gender advancement \(Chile\)](#) project aims to improve the measurement of indicators for decision-making on plans and policies that reduce the gender gap in science, technology, engineering and mathematics (STEM). It is based on an institutionalized gender-focused inter-ministerial coordination, where the participation of the following ministries: Education, Science, and Women and gender equity (that has the technical secretariat). These

institutions collaborate in a Technical Committee on conducting technical analysis, making recommendations on the development of indicators, transfer, and transform international experience in monitoring systems. The project includes a platform to provide vocational guidance with a gender perspective in STEM to women and girls, as well as a network of mentors and institutions (public and private sector, research centres, universities, etc.).

[The pilot project on Transmission of mammograms through 5G technology \(Chile\)](#) included a gender perspective. An alliance between government and private sector demonstrated the potential of 5G network in the telemedicine sector, by developing the first mammography using this technology in Latin America. 5G technology will allow the results of a patient's mammography to be wirelessly transmitted to specialists located in the Digital Hospital, providing important prospects for remote examinations in isolated areas of the country. This project has the potential to bring the functionalities and benefits of the 5G network to citizens, especially women, through digital services. A 5G Campus network has been deployed - a public-private initiative that has experimental spectrum to test new technologies - and 22 universities and technical training centres in six regions of the country have already signed up.

[The celebration of the National Girls in ICT Day \(Guatemala\)](#) started as an event celebrated by the regulator (Superintendencia de Telecomunicaciones, SIT). Following the recommendations by ITU, different sectors and institutions have been convened achieving, ultimately, that the Ministry of Education issued a decree where the commemoration of the International Day of Girls in ICT was included in the annual calendar of all students in Guatemala. The Ministry of Education assumed responsibility for the commemoration. Given the legal framework and mandates of the institutions, the regulator participates approaching public and private institutions and reporting on this activity.

[Practices stimulating girls' scientific curiosity, popularising science and promoting STEAM \(Guatemala\)](#) include a project and programme geared towards the stimulation of scientific curiosity among girls and the promotion of STEAM (science, technology, engineering, art and mathematics). Talks and specialized workshops are organized, ensuring that there is gender equity in the student groups of the beneficiary schools. Also, a motivational forum on women in science promotes the participation of girls in science and eliminates false beliefs that it is an activity in which women do not fit. The programme "I can be a scientist", put in place out by the National Secretariat of Science and Technology (SENACYT) in coordination with the Ministry of Education, consists of a researcher or a scientist presenting her area of expertise, the challenges she faced and how she has overcome them. The Instituto Ítalo-Latino Americano donated to 30 tablets and 300 foldscopes to support the project and programme.

[The ICT Access Centres Initiative \(Trinidad and Tobago\)](#) has currently six operational community-based ICT Access Centres in the country. Location of the centres was determined through a survey conducted by the Telecommunication Authority of Trinidad and Tobago (TATT) which identified underserved communities throughout the country. The centres provide equipment for connectivity and Internet access via a cyber-café, rooms, and WIFI, supporting the bring your own device (BYOD) concept. Users can access information on government services, training and opportunities for entrepreneurship and income enhancement/generation. Facilities aim to be gender neutral and all the programmes are designed to be inclusive allowing access and use without discrimination. The ICT Access Centres are aligned with Strategic Thrusts of the ICT Blueprint (National ICT Plan 2018-2022).

3.4 Arab States

Practices are characterized by a focus on, at least, a combination of access to digital skills and access to digital technology (2 out of 3 practices covering these policy areas). The other practice addresses all the four policy areas. Two out of three practices target women and girls and/or gender equality, specifically.

Table 5: Access to digital skill, technology, inclusion, entrepreneurship, infrastructure and services (Arab States)

Practice	Access to digital technology	Access to digital skills	Financial inclusion	Entrepreneurship and leadership	Access to infrastructure and digital services
Qodwa Tech initiative for women empowerment (Egypt)		X		X	
Mahara-Tech online tech platform (Egypt)		X		X	
Mainstreaming Gender through National Inter-Sectoral Gender Strategy (State of Palestine)	X	X		X	X

Practices are aligned with national strategic documents. The practice from the State of Palestine is a strategy in itself: The National Inter-Sectoral Gender Strategy (State of Palestine) institutionalizes gender mainstreaming in both policies and practices, not only at the government level but in other sectors, projects and activities. Egypt's Tech initiative for women empowerment is in line with the Egypt vision 2030: National Strategy for the Empowerment of Egyptian Women and with Ministry of Communications and Information Technology (MCIT) human development strategy (placing special consideration to the development of disadvantaged groups including women and persons with disabilities).

Key highlights:

Activities

- Training packages in basic IT, Internet, digital marketing, and e-commerce.
- Online content specialized in ICT areas that are identified highly demanded such as cyber security; data analysis; programming using JAVA/Open Source/.
- Short technology career awareness movies presented by key experts.
- Mentorship by both males and females in order to address the gender perspective and take into consideration different socio-economic backgrounds and regions.
- Consultation sessions to support and guide women entrepreneurs in the field of digital marketing.
- Hackathon to raise young women's awareness on new technologies.
- Gender needs assessment and put in place an engagement approach to increase the access of women to IT service companies, including to management and leadership positions.

Resources

- Online portal for the exchange of knowledge among women and girls.

- Non-financial resources generated mainly through the wide network of partnerships including the government, civil society and the private sector.
- Internationally funded projects cover some of the required resources.
- Organization of joint activities for pooling resources.

Collaboration and partnerships

- Stakeholders: Ministry of Social Solidarity; Ministry of Communications and Information Technology; Ministry of Youth and Sports; National Council of Women; Micro, Small, Medium Enterprise Development Association.
- Project governance includes a project manager, an M&E manager, and a set of project coordinators.
- Institutionalized gender mainstreaming in both policies and practices, for instance, by developing a national inter-sectoral gender strategy such as the one from the State of Palestine.
- A project manager, an M&E manager, and a set of project coordinators in charge of the project governance.
- Two teams to manage the project: a technical team and a management and communication team.
- Gender mainstreaming is part of planning, strategic drafting and budgeting of government institutions (e.g., State of Palestine).

The [Tech initiative for women empowerment \(Egypt\)](#) designed an online portal that contributes to the exchange of knowledge among them, and developed training packages in basic IT, Internet, digital marketing, and e-commerce. Consultation sessions are organized to support and guide women entrepreneurs in the field of digital marketing, and a hackathon raises young women's awareness on new technologies. A project manager, an M&E manager, and a set of project coordinators are part of the governance of the project. Non-financial resources are generated mainly through the wide network of partnerships including the government, civil society and the private sector. Government partnerships include the Ministry of Social Solidarity, Ministry of Youth and Sports, National Council of Women, Micro, Small, Medium Enterprise Development Association. The initiative is in line with the Egypt vision 2030: National Strategy for the Empowerment of Egyptian Women and with Ministry of Communications and Information Technology human development strategy (placing special consideration to the development of disadvantaged groups including women and persons with disabilities).

The [Mahara-Tech online tech platform \(Egypt\)](#) offers training content and short technology career awareness movies presented by key experts. Online content is specialized in ICT areas that are identified highly demanded such as cybersecurity; data analysis; programming using JAVA/Open Source/. Mentors are both males and females in order to address the gender perspective effectively, while taking into consideration different socio-economic backgrounds and regions across the country. The project is managed by two main teams: the Technical Team (in-house production team) and the Management and Communication Team.

The [National Inter-Sectoral Gender Strategy \(State of Palestine\)](#) institutionalizes gender mainstreaming in both policies and practices, not only at the government level but in other sectors, projects and activities. While the work of the Ministry of Women's Affairs is fully dedicated to gender mainstreaming, ministerial gender units perform their own activities and initiatives. The same applies to private sector and is embedded in projects and other initiatives. The gender needs assessment and engagement subcomponent seeks to increase the access of women to IT service companies, including to management and leadership

positions. Gender mainstreaming is also part of planning, strategic drafting and budgeting of government institutions. Collaborations and partnerships with the private sector, civil society and internationally funded projects cover most of the required resources. Joint activities use pooled resources and knowledge is widely shared.

3.5 Asia and the Pacific

Three out of four practices combine access to digital skills and access to digital technology. The other practice combines access to digital skills with entrepreneurship and leadership. Three out of four practices target women and girls and/or gender equality, specifically.

Table 6: Access to digital skill, technology, inclusion, entrepreneurship, infrastructure and services (Asia-Pacific)

Practice	Access to digital technology	Access to digital skills	Financial inclusion	Entrepreneurship and leadership	Access to infrastructure and digital services
Online Safety Act 2021 (Australia)	X	X			
eSafety Women Program (Australia)	X	X			
Gender Equality, Disability and Social Inclusion Strategy (Australia)	X	X			
Addressing gender gap in access to ICT infrastructure and services and digital skills (Republic of Korea)		X		X	

Two practices are strategic documents themselves, aligned with other national strategic documents. The Gender Equality, Disability and Social Inclusion Strategy (Australia) is a strategic document and a Values Pillar of the International Cyber and Critical Tech Engagement Strategy. The 2022 Action Plan to Support Women Scientists and Engineers (Republic of Korea) launched by the Ministry of Science and ICT (MSIT) is implemented in line with Digital New Deal Strategy.

Key highlights:

Activities

- Act on online eSafety and give the authority in charge functions and regulatory power to address online harms and promote online safety. Sets specific requirements on basic online safety expectations.
- Consultation with other government institutions and stakeholders who are directly and indirectly affected by the policy.
- Educational (e.g., a social media self-defence training), promotional and community awareness events; regulatory and compliance activities; and research, advice and liaison.
- Extensive research conducted and industry consultation to develop a programme on online safety targeting women.

- Awareness-raising and understanding of technology-facilitated abuse (TFA) to help women identify it and take steps towards preventing it.
- Self-assessment activity for programme partners.
- Support to identify potential for better practice and increased resourcing, providing practical and implementable examples of how to improve the design, activities and monitoring of the project to better address gender mainstreaming priorities.
- Mentoring programmes for girls and young women, with voluntary participation of women experts and professionals.
- Training programmes on new digital technology, service and entrepreneurship for young women and women with career interruption.

Resources

- Tools and information brochures to equip women to protect themselves and their families against all forms of online abuse.
- Matrix to assist partners to understand the gender mainstreaming strategy.
- Financial resources for the implementation of the act and/or the strategy.
- Minimum percentage of investment on gender mainstreaming activities or projects across the portfolio.
- Guidelines to promote the participation of female researchers in critical R&D projects. When selecting the government budget R&D project, extra points are provided if more than 10 per cent of participants are women or the project leader is a woman.

Collaboration and partnerships

- Stakeholders: Department of Infrastructure, Transport, Regional Development and Communications; ICT regulator; eSafety Commissioner; Ministry of Science and ICT.
- Coordination and consultation across government institutions.
- Partnerships with domestic violence peak bodies, Aboriginal Community Controlled Organisations and organizations with staff who are required to have an online presence for work.

The [Online Safety Act 2021 \(Australia\)](#) provides the eSafety Commissioner (an independent statutory office holder who is appointed by the Minister and provided support by staff from the Australian Communications and Media Authority) with a broader range of functions and strengthened regulatory powers to better address online harms and promote online safety. The Act sets out requirements for Basic Online Safety Expectations and expands protections for women who are disproportionately impacted by online harms in a number of ways, including by creating a world-first cyber-abuse scheme for adults to assist victims of seriously harmful online abuse to have the material removed. Key activities include educational, promotional and community awareness events; regulatory and compliance activities; coordination across Government; and research, advice and liaison. In 2021-22 eSafety received AUD 18 million for measures to target online harms that disproportionately impact women and children (AUD 15 million to increase eSafety's investigations capacity, which includes investigations into reports of image-based abuse; and AUD 3 million to develop new technologies to identify intimate images and duplicates of intimate images which have been shared without consent, assisting in the rapid removal of image-based abuse material, providing greater support to victims). Department of Infrastructure, Transport, Regional Development and Communications is the policy department responsible for online safety in Australia. The Department worked very closely with the regulator, the eSafety Commissioner, consulted widely with a range of stakeholders directly or indirectly affected by the policy, to develop the Online Safety Act.

[The eSafety Women Programme \(Australia\)](#)⁵³ seeks to address online gender-based violence in a range of scenarios, including the use of technology as a means of abuse in domestic and family violence situations, and empowering women in public facing roles who disproportionately experience gendered online violence as a result of their profession. The programme has been developed through extensive research and industry consultation and supports stakeholders across government, non-government, universities, and the private sector. The programme helps women take control of their online experiences by: providing practical tools and information to equip women to protect themselves and their families against all forms of online abuse; training frontline, specialist and support staff in the domestic and family violence sector, giving them the knowledge, skills and resources to effectively support women and their families, and; actively raising awareness and understanding of technology-facilitated abuse (TFA) to help women identify it and take steps towards preventing it. The Women in the Spotlight programme provides training and resources to raise awareness about gendered online abuse and the ways it can be stopped, including social media self-defence training. The eSafety Women programme is driven by staff from the eSafety Education, Prevention and Inclusion branch. It currently comprises ten staff (including Women in the Spotlight). eSafety has key partnerships with domestic violence peak bodies, Aboriginal Community Controlled Organisations and organizations with staff who are required to have an online presence for work.

[The Gender Equality, Disability and Social Inclusion Strategy \(Australia\)](#) is a Values Pillar of the International Cyber and Critical Tech Engagement Strategy and a cross cutting theme of the Cyber and Critical Tech Cooperation Program (CCTCP). Recognising the different GEDSI skills and capacity of partner organizations, CCTCP will take a collaborative and incremental approach to facilitating improvements in GEDSI skills, practice and outcomes across the Program. The CCTCP GEDSI matrix will assist partners to understand the underpin a CCTCP-designed and supported self-assessment activity for Program partners. At the beginning of each project, partners will be supported to explore GEDSI components of the activity design, identifying potential for better practice and increased resourcing, providing practical and implementable examples of how to improve the design, activities and monitoring of the project to better address GEDSI risks and promote GEDSI priorities and need. Projects already funded through CCTCP will be provided with the opportunity to opt-in to the GEDSI self-assessment process. There has been a very collaborative approach by the CCTCP in the design and development of this strategy. As part of annual reporting processes and project evaluation, there was a clear theme that CCTCP partners were very interested and engaged in this work, and that they wanted to have more direction and support in terms of GEDSI practice. This work commenced with a literature review of cyber and critical technology to understand more broadly the challenges facing the sector across the globe, as well as the region in which the CCTCP operates. In addition to mainstreaming GEDSI across all project activities, CCTCP will fund strategic stand-alone initiatives that build GEDSI knowledge, data and practice in the sector. Across the CCTCP portfolio, a minimum of 10 per cent of the overall programme funds will be invested in GEDSI-specific activities (this is in addition to gender mainstreaming throughout activities) by 2025.

[Action Plan to Support Women Scientists and Engineers \(Republic of Korea\)](#). The Ministry of Science and ICT (MSIT) launched the 2022 Action Plan to Support Women Scientists and Engineers to help enhance capabilities of women scientists and engineers. It consists of three strategies: i) fostering innovative women talent in science and technology, ii) creating more

⁵³ Through its regulatory schemes, programmes and initiatives, eSafety has mainstreamed gender by taking a gendered lens to policy and decision making, as well as developing targeted initiatives, such as the eSafety Women program.

sustainable jobs for women scientists and engineers, and iii) fostering an environment where people can strike a balance between work and life. The Action Plan will include a project to foster and support women scientists and engineers, and a project to establish and operate the support centres for women scientists and engineers. Guidelines are established to promote the participation of woman researcher in critical R&D projects. When selecting the government budget R&D Project, extra points will be provided if more than 10 per cent of participants are women, or if the project leader is a woman. Government budget for gender equality and other funds are available. Various mentoring programmes with voluntary participation of women experts and professionals are provided for girls and young woman. Training programmes on new digital technology, service and entrepreneurship for young women and women with career interruption are implemented in line with Digital New Deal Strategy.

3.6 Commonwealth of Independent States

Both practices include access to digital skills but one of them combines this policy area with access to digital technology. Also, both practices target women and girls and/or gender equality, specifically.

Table 7: Access to digital skill, technology, inclusion, entrepreneurship, infrastructure and services (Commonwealth of Independent States)

Practice	Access to digital technology	Access to digital skills	Financial inclusion	Entrepreneurship and leadership	Access to infrastructure and digital services
A multimedia online course and web portal for women and girls (Azerbaijan)	X	X			
IT courses and IT parks for bridging the gender digital gap in rural regions (Uzbekistan)		X			

Key highlights:

Activities

- Multimedia online course (and presence-based) for women and girls living in rural areas, based on existing digital literacy tools such as the Microsoft Digital Literacy course. Topics include digital literacy; IT skills; graphic design.
- Promotion campaign about the project, including sending official letters signed by the ministry in charge of ICT to other relevant ministries and schools.

Resources

- E-learning platform to offer courses.
- Rely on infrastructure of IT centres to deliver presence-based courses.

Collaboration and partnerships

- Stakeholders: Ministry of ICT; ICT/IT centres; Ministry of Education, Ministry of Youth and Sport; schools and colleges.

- Collaboration with international organizations such as ITU to implement projects/programmes.

A multimedia online course and a web portal for women and girls (Azerbaijan) were implemented with the technical assistance of ITU and the infrastructure of the ICT LAB Applying and Training Centre. Expert profiles required for the project included areas such as project coordination and e-learning, teaching content, e-learning platform and programming. Content was developed based on the Microsoft Digital Literacy course and includes video lessons. The Ministry of Transport, Communication and High Technologies and ICT Applying and Training Centre conducted a promotion campaign about the project. The ministry also sent circular letters to the Ministry of Education, Ministry of Youth and Sport to inform all schools and colleges about this course and portal.

IT courses and IT centres for bridging the gender digital gap in rural regions (Uzbekistan). Courses on digital literacy and IT skills, and on graphic design will be organized for women living in rural regions. In addition, more than 200 IT centres were created by the IT Park all over the country. The IT Park actively develops IT education sphere in the regions. IT Park major activities include startups development, IT and regional infrastructure enlargement, IT education (IT Academy and regional IT centres), IT Park resident support, IT export development, and implementation of corporate innovations.

3.7 Europe

All practices include access to digital skills. Two (out of four) combine this policy area with access to digital technology and with entrepreneurship and leadership. Two out of four practices target women and girls and/or gender equality, specifically.

Table 8: Access to digital skill, technology, inclusion, entrepreneurship, infrastructure and services (Europe)

Practice	Access to digital technology	Access to digital skills	Financial inclusion	Entrepreneurship and leadership	Access to infrastructure and digital services
#eSkills4Girls (Germany)	X	X		X	
Systematic promotion and support of women in STEM is by a public university (Montenegro)		X			
Advancing the introduction of digital skills in the education system (Serbia)		X			
Health Tech Lab (Serbia)		X		X	

Practices are aligned with national strategic documents. #eSkills4Girls is part of the Federal Government implementation strategy “Shaping Digitalization” and of the Federal Ministry Digital Strategy. Gender representation in STEM areas is addressed by the Development Strategy of

University of Montenegro. And the Serbian Plan for Empowerment of Women in ICT 2019-2020 includes training on “programming, project management and digital entrepreneurship”.

Key highlights:

Activities

- Programming and informatics and computer science compulsory courses.
- Promotion of digital skills and integration of ICT in gender responsive vocational training and non-formal education as well as entrepreneurship, and leadership.
- Awareness-raising and promotion of female role models.
- Open science days and project competitions in the area of STEM.
- Connection to local tech ecosystems: tech meetups, conferences, workshops, start-up competitions and acceleration programmes.

Resources

- Joint statement with “like minded” countries on digital gender equality objectives.
- Schools connected to a free, secure academic Internet network (offering access to educational content and the ability to block sites with harmful content).
- Support from international experts requested.

Collaboration and partnerships

- Stakeholders: Federal Ministry for Economic Cooperation and Development (BMZ); academia; Ministry of Education; private sector.
- Collaboration with initiatives at the multilateral level such as the Global Partnership for Gender Equality in the Digital Age (EQUALS).
- Collaboration at the bilateral level, with governments of countries interested in implementing similar projects/programmes.
- Cooperation with private sector and NGOs.

#eSkills4Girls (Germany). With a joint statement on #eSkills4Girls published at the G20 summit in Hamburg in 2017, the Heads of State and Government of the G20 member states agreed to take action to close the gender digital divide. Since Germany’s G20 presidency in 2017, the Federal Ministry for Economic Cooperation and Development (BMZ) works on this initiative to globally increase women’s and girls’ access to and participation in the digital world and to boost relevant education and employment opportunities in emerging and developing countries. #eSkills4Girls corresponds to Germany’s development policy by promoting gender equality in the digital age. It is part of the Federal Government implementation strategy “Shaping Digitalization” and of the Federal Ministry’s Digital Strategy. #eSkills4Girls focuses on three pillars of digital inclusion for gender equality, namely the promotion of digital skills and the integration of ICT in gender responsive vocational training and non-formal education as well as entrepreneurship, and leadership. BMZ implements numerous activities under the framework of the initiative #eSkills4Girls, which are the result of the collaboration between governments, private sector, academia and civil society organizations. The initiative is implemented on three levels: (1) Bilaterally at project level (e.g., #eSkills4Girls projects launched in Cameroon, Ghana, Morocco, Mozambique, Nigeria, Rwanda, Zambia and South Africa), (2) Multilaterally through work in the Global Partnership for Gender Equality in the Digital Age (EQUALS), and (3) through cooperation with the private sector and NGOs. #eSkills4Girls raises awareness and promotes female role models.

Promotion and support of women in STEM is by a public university (Montenegro).⁵⁴ Gender representation in STEM areas is addressed by the Development Strategy of University of Montenegro. Science is promoted through Open Science Days and through project competitions organised annually.

Advancing digital skills in the education system (Serbia).⁵⁵ Programming is taught in all primary schools, and informatics and computer science was made compulsory in secondary schools. Efforts are made to ensure digital literacy, including experimenting with digital textbooks and equipping classrooms with digital equipment and materials. Schools being connected to a free, secure academic Internet network, which includes access to educational content and the ability to block sites with harmful content. The Serbian Plan for Empowerment of Women in ICT 2019-2020 includes training on “programming, project management and digital entrepreneurship”.

The Health Tech Lab (Serbia) is a health-tech ecosystem with the objective to create a global network of the local health-tech ecosystems collaborating for impact.⁵⁶ It organizes health-tech meetups, conferences, workshops, start-up competitions and acceleration programmes in order to foster the health tech-ecosystem. Health Tech Lab is a private initiative and non-governmental organization supported by an international Advisory Board of international experts from Israel, Serbia, United Kingdom, United States, and the European Union. Its partners and network are considered as one of the biggest assets.

3.8 Focus on least developed countries

This sub-section is based on a practice put in place in three LDCs, in the context of a joint project of the Enhanced Integrated Framework (EIF) and ITU. Instead of offering “Key highlights” about this practice, this sub-section provides a synthesis of what has been done and its impact and proposes policy actions and do’s and don’ts for the design and implementation of gender mainstreaming practices.

The project “Tech as a Driver of Women’s Economic Opportunity”, worked with policy-makers to mainstream a gender perspective in domestic policies and regulations to ensure women participate fully in the digital economy. A second component of the project provided skills and opportunities to drive women’s economic opportunities in the textile and apparel industries, coffee and tea sector and ICT sector in Burundi, Ethiopia, and Haiti.⁵⁷

Assessment of gender references in digital policies, strategies and regulations in Burundi, Ethiopia, and Haiti

⁵⁴ Practice identified in Regional Cooperation Council and European Union 2020, Mapping of Gender-Related Policies, Programmes and Mechanisms on Gender Disparity in STEM in Western Balkans, <https://www.rcc.int/pubs/107/mapping-of-gender-related-policies-programmes-and-mechanisms-on-gender-disparity-in-stem-in-western-balkans>

⁵⁵ Practice identified in ITU 2021, Digitally empowered Generation Equality: Women, girls and ICT in the context of COVID-19 in selected Western Balkan and Eastern Partnership countries, <https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Documents/Events/2021/Genderedper>

⁵⁶ Identified as good practice in ITU 2021, Regional Good Practices: Accelerating innovation, entrepreneurship and digital transformation in Europe, https://www.itu.int/dms_pub/itu-d/opb/inno/D-INNO-GOOD_PRACT_03-2021-PDF-E.pdf. Health Tech Lab was recognized as one of the four finalists of the Science and Research for Women In Tech programme in Paris, and was one of the top three winners of the 2020 ITU Innovation Challenges

⁵⁷ The project also contributed to the objectives of the EQUALS Global Partnership, <https://www.itu.int/en/ITU-D/Digital-Inclusion/Pages/EIF-Regional-Project.aspx>

The first project objective was to assess gender mainstreaming in national digital policies, strategies and regulations to ensure women participate fully in the digital economy in Burundi, Ethiopia and Haiti. The methodology for the assessment covered the following policy areas: access to digital technology, access to digital skills, financial inclusion, entrepreneurship and leadership, and access to infrastructure and digital services.

A methodology was developed by the ITU Digital Inclusion team to assess gender references in digital policies, strategies and regulations. The methodology was conceived to help policy-makers assess and re-design digital policies that are gender neutral, ensuring that both men and women have the same opportunities when they participate in the digital economy. In close cooperation with the EQUALS Global Partnership, the project worked with key public and private stakeholders including representatives of ICT ministries, gender focal points in other ministries or government agencies, etc. A short survey questionnaire was circulated among representatives of the private sector and of women associations in order to collect first-hand perceptions about women in the digital economy.

The three Country Reports had the same structure. The first chapter provided main (available) statistics on gender and ICT; the second chapter presented the gender references in digital policies, strategies, regulations, and identified programmes supporting women and girls in ICT; the third chapter mapped the main actions of the business ecosystem promoting gender equality in ICT as well as governance mechanisms for the development of digital policies; the fourth chapter identified areas in which there was room for improvement in terms of women's access to digital technology, digital skills, financial inclusion, entrepreneurship and leadership, and infrastructure and digital services; and the last chapter included conclusions and preliminary policy actions.

The presentation and validation of preliminary Country Reports on "Gender Mainstreaming in the Digital Economy" and the launch of the "National Consortium of Women in Tech" in Burundi and Ethiopia, were organized on 29 November and 02 December 2021. The presentation of the Country Report on Haiti was held on 19 May 2022. These events were organized in collaboration with the respective governments of Burundi, Ethiopia and Haiti, the International Telecommunication Union, the Enhanced Integrated Framework and the EQUALS Global Partnership to close the gender digital divide. Target audience was representatives of private sector, non-governmental organizations, United Nations agencies, ICT professionals, policy-makers, academicians, youth organizations and civil society organizations, with particular interest in topics related to digital inclusion, digital divide, gender equality, women economic empowerment and digital economy.

Findings of the assessment of gender references suggest that over 50 per cent of policy frameworks in Burundi include such references, as do over 80 per cent in Ethiopia and 70 per cent in Haiti.

Project output: Policy actions for bridging the digital gender divide in LDCs

Among the outputs of the joint EIF-ITU project, policy actions were identified for bridging the digital gender divide in the three LDCs where the project was implemented. Identification of these policy actions was based on the (limited) data publicly available on websites from international and regional organizations and national statistical offices. The logic for the analysis was based on identification of gaps between women and men access to digital technology, skills, finance, entrepreneurship and leadership, and infrastructure and digital services. These

policy actions may also be considered for other LDCs as the issues they address are common to all the three LDCs covered by the joint EIF-ITU project and hence are likely to exist in other LDCs.

- *Access to digital technology:* Collect sex-disaggregated data on mobile phone and computer ownership; Increase the number of women owning computers, mobile phones and tablets; Increase awareness and training for women entrepreneurs on the importance of digital technology.

Box 6: Partnership to facilitate access to technology for LDCs

UN Technology Bank signed a Memorandum of Understanding (MoU) with the Scientific and Technological Research Council of Turkey (TUBITAK) to support the international efforts to facilitate access to technology and to improve the science, technology, and innovation capacity development for the least developed countries (LDCs). University and Industry Collaborations Centre Platform (USIMP) will also be a signatory to the MoU.

The MoU provides a framework for the cooperation between the UN Technology Bank, TUBITAK and USIMP in supporting the development projects and activities to promote access to technologies, including the first initiative of developing and implementing applicable models for the establishment of technology transfer offices (TTO) in the selected LDCs.

The three organizations plan to cooperate on developing awareness and educational tools to promote global technology access and explore methods to utilize the experience and expertise related to the technology assessment, deployment, adaptation and implementation, and related capacity building activities.

Source: UN Technology Bank <https://www.un.org/technologybank/news/un-technology-bank-tubitak-and-usimp-partner-facilitate-access-technology-least-developed>

- *Access to digital skills:* Increase women's enrolment and completion of secondary and tertiary education; Increase graduation rate of women attending STEM programmes; Identify basic, standard and advanced digital skills and update existing national education strategies accordingly; Develop programmes aiming at putting in place role models to deal with stereotypes and promoting the participation of women in studies in the ICT area; Promote the use of technology in schools; Make available scholarships for women and girls in studies in related to ICTs; Continue to organize regular workshops and meetings on the digital economy with the private sector.
- *Financial inclusion:* Collect sex-disaggregated data; Facilitate access to a bank account, particularly for women; Facilitate access to credit cards, particularly for women; Work with the private sector for the provision of collateral for women; Train women on how to make digital payments and on its benefits. Put in place a financial inclusion strategy and a digital payments strategy (with a gender focus); Facilitate the reception of remittances using technology.
- *Entrepreneurship and leadership:* Collect sex-disaggregated data (e.g. on the number of female and male sole proprietors; on the female share of employment in senior and middle management); Involve private sector in digital policy making; Advocate about the benefits of founding a company, especially to lift cultural barriers; Facilitate women's engagement in entrepreneurial activities (areas such as mobility; workplace; marriage; and parenthood); Promote partnerships between women-owned companies; Facilitate women's access to networks, including those related to technology (at all levels, local, national and international).

- *Access to digital infrastructure and services:* Expand the electricity coverage, particularly in rural areas; Reduce the price of electricity to improve in affordability; Continue promoting the use of non-conventional installations such as solar panels, batteries, etc.
- *External support to women and girls in ICT:* Conduct a stocktaking exercise of existing projects and programmes supporting women and girls. Identify synergies and avoid duplication of efforts.
- *Collection of gender-disaggregated data:* Given its limited availability and coverage for developing and LDCs, collection of gender-disaggregated data is a transversal policy action to be performed across all policy areas. If data available is not disaggregated by gender, gaps and imbalances in terms of access and use are not visible, and corrective actions cannot be put in place. Examples of indicators used in the context of the joint EIF-ITU project are provided in Table 9.

Table 9: Government policy indicators (by gender)

Policy area	Examples of indicators disaggregated by gender
Access to digital technology	Individuals who own a mobile telephone Individuals who own a smartphone Mobile cellular networks coverage Householders who own a computer Individuals who use the Internet
Access to digital skills	Youth literacy rate of population between 15- and 24-year-olds Literacy rate of population between 25- and 64-year-olds Expected number of years of schooling Enrolment and completion rates across the three levels of education Graduates from science, technology, engineering and mathematics (STEM) programmes Basic, standard and advanced digital skills
Financial inclusion	Adults who have a bank account Adults with (and without) an account owning a mobile phone Adults owning an account at a financial institution or a mobile-Money service provider Individuals using the Internet to pay bills or to buy something online in the past year Individuals owning a credit card
Entrepreneurship and leadership	Female share of employment in senior and middle management Number of start-up procedures to register a business Individuals' access to formal and informal business networks individuals working in the ICT sector

Table 9: Government policy indicators (by gender) (continued)

Policy area	Examples of indicators disaggregated by gender
Access to infrastructure and digital services	Individuals with access to electricity Fixed telephone subscriptions Mobile cellular subscriptions Fixed-broadband subscriptions Mobile-broadband subscriptions

Recent efforts to improve the availability of gender statistics in LDCs include a Gender Statistics Indicators Handbook and booklet produced by Ethiopia's National Statistics Office, on how to produce, analyse and communicate gender statistics.⁵⁸ The document will be shared with sector ministries and other national specialists to support further documentation of gender statistics indicators and to support strategies for filling gaps.

Design and implementation of gender mainstreaming practices in LDCs: Do's and don'ts

What follows are lessons learned based on the experience implementing the first component of the joint ITU-EIF project: An assessment of gender references in digital policies, strategies and regulations.

These do's and don'ts are based on the project team experience implementing the project in Burundi, Ethiopia and Haiti, particularly, throughout the process of producing the three country reports assessing gender in digital policies, strategies and regulations.

Do's:

Practice design

- ✓ Trained and involve women in the design of practices focused on bridging the digital gender divide. Women are well positioned to provide potential solutions to the challenges they face with regards to access to digital technology, skills, finance, entrepreneurship and leadership, and infrastructure and digital services.

Consultation and stakeholder engagement

- ✓ Government institutions: When designing a gender mainstreaming practice (i.e., a project, programme, etc.), consult with different government institutions involved in the policy-making process of digital policies. In addition to institutions specifically dealing with the digital economy (e.g., Ministry in charge of ICT, ICT regulator, etc.), consult with institutions dealing with other dossiers that go beyond the digital economy (e.g., ministry in charge of gender, ministry in charge of infrastructure, ministry in charge of finance, ministry in charge of trade, etc.). Consultation with a broad set of actors contributes to take on board different perspectives, contributing ultimately to the overall effectiveness of the practice.
- ✓ Other stakeholders: Understand the situation of a given policy area by consulting with a wide range of stakeholders such as women associations, business associations, universities and training institutes, private sector, non-governmental organizations, etc.

⁵⁸ See <https://www.statsethiopia.gov.et/wp-content/uploads/2021/05/Gender-Statistics-Indicators-Handbook-Final-14-05-2020-1.pdf> and <https://www.statsethiopia.gov.et/wp-content/uploads/2021/05/Gender-Statistics-BOOKLET.pdf>

When identifying problems and solutions for bridging the digital gender divide, views from these non-government actors complement the views of government institutions.

Communication and planning

- ✓ When possible, try to speak the same language as your interlocutor. This facilitates the rapport between the two parties and builds a stronger relation.
- ✓ Plan activities well in advance and consider adding days to the initial planning. In LDCs, sometimes getting a list of stakeholders can take much longer than expected.
- ✓ When drafting recommendations keep in mind the “cultural” / “social” factor (e.g. stereotypes) as well as the low information context in which people operates.
- ✓ When doing desk research, do expect to find national laws, regulations and policies available from other websites than those of the government.

Don'ts:

Practice design and implementation

- ✗ Do not only use online tools to collect information. Internet penetration could be very low, particularly in rural areas.
- ✗ Do not assume that information available online is reliable or up to date. Often, official websites are outdated or simply not operational but, when discussing with government officials, it turns out that data is indeed available (but not through online means).
- ✗ Do not provide deadlines on a very short notice. Do expect late responses and changes in the agenda of events.

4 Setup for gender mainstreaming: institutions, coordination and national strategies

Gender mainstreaming practices presented in the previous section involve several stakeholders ranging from government institutions to private sector entities and NGOs. When it comes to government institutions, practices show that institutions that put in place gender mainstreaming practices are those that put in place digital policies (i.e., ministries in charge of ICT, ICT regulators, etc.). This section analyses the role of ministries in charge of ICT and other ministries influencing the digital economy, identifies institutionalized coordination mechanisms for connecting digital policies to gender, and highlights the link between gender mainstreaming practices to national strategic documents such as overarching national ICT policies.

4.1 Government institutions in charge of ICT

Mainstreaming gender in digital policies does not seem to have a specific institutional set-up. Table 10 below provides an overview of the main government institutions that intervened in the implementation of the gender mainstreaming practices reviewed in section 3.

Table 10: Government intervention in gender mainstreaming practices (by region)

ITU region	Government institutions (and other stakeholders)
Africa	National Post Office; Ministry of ICT; ICT regulator; Ministry of finance; private and public banks
Americas	Head of Cabinet of Ministers; ministry in charge of women, gender and diversity; ministry of public innovation; ICT regulator; private sector; civil society
Arab States	Ministry of Social Solidarity; Ministry of Communications and Information Technology; Ministry of Youth and Sports; Micro, Small, Medium Enterprise Development Association
Asia and the Pacific	Department of Infrastructure, Transport, Regional Development and Communications; ICT regulator; eSafety Commissioner; Ministry of Science and ICT
Commonwealth of Independent States	Ministry of ICT; ICT/IT Centres; Ministry of Education; Ministry of Youth and Sport; schools and colleges
Europe	Federal Ministry for Economic Cooperation and Development (BMZ); Ministry of Education; academia; private sector

Institutions that put in place gender mainstreaming practices are the ones that put in place digital policies: the Ministry in charge of ICT and the ICT regulator are present in most practices; other ministries that also intervene are those in charge of education, finance, infrastructure, gender, etc. This finding goes in line with ITU data suggesting that, overall, the policy-maker in charge of telecommunications/ICTs is typically the Ministry of telecommunications/ICT (50 per cent). Other institutions in charge can be Government/Cabinet (19 per cent), Other (15 per cent), and Telecommunications/ICT Regulatory Authority (17 per cent).⁵⁹

Key government institutions influencing digital policies are the Ministry in charge of ICTs, the ICT regulator, and other government institutions dealing with the five policy areas contributing to gender equality in the digital space such as the ministry in charge of trade, the ministry in charge of education, the ministry in charge of finance; the central bank, the ministry in charge of gender. Regional regulatory associations are also important stakeholders as they are a venue for sharing information among countries and, in some cases, also a source of digital policy guidelines.⁶⁰ Table 11 identifies the lead institution(s) and the institution(s) to be consulted for putting in place inclusive digital policies.

⁵⁹ ITU Data Hub, ICT sector Ministry, <https://datahub.itu.int/data/?i=100086>

⁶⁰ https://www.itu.int/en/ITU-D/Regulatory-Market/Pages/RA_Portal/Home.aspx

Table 11: Government institution consulted for inclusive digital policies

Policy area	Lead government institution(s)	Other institutions to be consulted	Main objectives	Expected results
Digital technology	Ministry in charge of ICTs; ICT regulator;	Ministry in charge of gender; Ministry in charge of trade; Regional regulatory associations	Promote women and girls' access to digital technology	Women and girls use digital technology
Digital skills	Ministry in charge of education;	Ministry in charge of gender; Ministry in charge of trade Universities and training institutes	Provide digital skills to girls and women and increase the number of women in STEM programmes	Women and girls equipped with digital skills; Increased number of women and girls in STEM programmes
Financial inclusion	Ministry in charge of finance; Central bank	Ministry in charge of Gender Ministry in charge of trade ICT regulator	Improve women's access to credit and provide training in the use of financial tools	Improved women's access to credit; Women and girls are trained in the use of financial tools
Entrepreneurship and leadership	Ministry in charge of trade	Ministry in charge of gender; Ministry in charge of education	Motivate the creation of enterprises, Promote labour insertion	Increased number of women with businesses in the digital sector; Increased number of women employed
Infrastructure and digital services	Ministry in charge of infrastructure; Ministry in charge of finance ICT regulator	Ministry in charge of gender; Ministry in charge of trade; Regional regulatory associations	Improve women and girls' access to infrastructure and digital services and train them in the use of digital services	Girls and women trained in the use of digital services

Ministries involved in the making of digital policies, often have different motivations. While ICT, by definition, is the core area of the ministry in charge of ICT and the ICT regulator, this is not necessarily the case for other ministries. In the case of the ministry in charge of trade, e-commerce can be one area of influence, but ICT is certainly not mainstreamed through all its areas of action. A similar situation can be depicted with reference to the ministry in charge of

education: the identification and provision of digital skills is an area of action but not its main mandated focus. These different motivations likely pose challenges when ministries collaborate.

4.2 Institutionalized coordination between digital policies and gender

Gender mainstreaming practices reported few institutionalized coordination mechanisms around gender in digital policies. These mechanisms are presented in Table 12.

Table 12: Government coordination mechanisms in gender policies (by region)

ITU region	Coordination and collaboration
Africa	Collaboration with international organizations to implement practices (e.g., UNESCO, UN Women, UNFPA, UNICEF, ITU)
Americas	National Council for the Coordination of Social Policies; Institutionalized gender-focused inter-ministerial coordination mechanism (a technical committee with the participation of ministries in charge of education, science, and women and gender equity)
Arab States	National Council of Women; National Inter-Sectoral Gender Strategy
Asia and the Pacific	Coordination and consultation across government institutions
Commonwealth of Independent States	Collaboration with international organizations such as ITU to implement projects/programmes
Europe	Collaboration at the multilateral level (e.g., EQUALS) and at the bilateral level (e.g., with governments of countries interested in implementing similar projects/programmes)

Connection between ministries in charge of digital policies and the ministry in charge of gender (or, in its absence, the national institution acting as focal point for gender issues) takes the shape of an inter-ministerial committee, a working group, etc. Chile's Inter-ministerial Committee on Gender Equality in ICT is an example of this type of collaborative governance.⁶¹ Such an institutionalized mechanism is not always available. For instance, in Burundi there are two individual instances, the National Commission for Information Society and the National Gender Council. In most cases, coordination and consultation across government institutions takes place but it is not necessarily an institutionalized process. Furthermore, collaboration between government institutions and international organizations is also frequent during the implementation of gender mainstreaming practices.

This finding is aligned with ITU data confirming that mechanisms of collaboration with the ICT regulator are very limited; collaboration is required by law or in the mandate of the regulator in only 4 per cent of cases.⁶² Furthermore, the average score of national collaborative governance is 15.77, which includes cooperation among ICT bodies and cooperation with other sector agencies such as the ministry in charge of education, compared to the maximum score registered of 29.63.

⁶¹ <https://drive.google.com/file/d/1RHcaRfMntbkZJdV8NTkkmgXD4sTLeK1O/view>

⁶² ITU Data Hub, Governance framework - Spectrum, <https://datahub.itu.int/data/?i=100076&s=23632>

4.3 Alignment with national strategies

National strategies include overarching ICT policies or master plans setting objectives and priorities that guide the process of making digital policies. According to ITU, one third of countries in the world did not develop yet a policy or master plan to guide the development of its ICT sector.⁶³ A similar ratio is found with regards to countries that have developed a national development strategy, digital agenda or digital stimulus strategy including broadband.

Gender mainstreaming practices collected for this handbook are often aligned with objectives of national strategic documents. Table 13 provides examples of this alignment.

Table 13: Government mainstreaming practices aligned national strategy (by region)

ITU region	Alignment with national strategic documents
Africa	N/A
Americas	Trinidad and Tobago's ICT Access Centres aligned with the National ICT Plan 2018-2022
Arab States	The State of Palestine's National Inter-Sectoral Gender Strategy institutionalizes gender mainstreaming in both policies and practices, not only at the government level but in other sectors, projects and activities Egypt's tech initiative for women empowerment aligned with Egypt vision 2030: National Strategy for the Empowerment of Egyptian Women
Asia and the Pacific	Australia's Gender Equality, Disability and Social Inclusion Strategy (is a strategic document and a Values Pillar of the International Cyber & Critical Tech Engagement Strategy Republic of Korea's 2022 Action Plan to Support Women Scientists and Engineers is aligned with the Digital New Deal Strategy.
Commonwealth of Independent States	N/A
Europe	Practices are aligned with national strategic documents. #eSkills4Girls is part of the Germany's Federal Government implementation strategy "Shaping Digitalization" Gender representation in STEM areas is addressed by the Development Strategy of University of Montenegro Serbia's Plan for Empowerment of Women in ICT 2019-2020 includes training on "programming, project management and digital entrepreneurship"

Inclusion of gender references in strategic documents is important to ensure that gender objectives are taken into consideration when putting in place digital policies. Gender references can be identified with keywords such as "gender"; "gender equality"; "gender empowerment"; "women"; "girls"; "digital inclusion"; etc. References can have different levels of relevance in the

⁶³ ITU Data Hub, Digital strategies and broadband plans, <https://datahub.itu.int/data/?i=100053&s=16158>

document (e.g., if there is an entire chapter dedicated to women or girls) and they can be just a statement or they can propose a specific course of action.

National strategic documents do not always include these references to gender: only half of national overarching ICT policies or master plans include them. Analysis of 85 national ICT plans conducted by ITU⁶⁴ finds that 46 of them include references to gender (women and girls). While further research is needed to investigate female inclusion in ICTs across national policies, it may be possible that some countries did not refer to women in such policies because their country's women and girls are already included in ICTs and/or the digital sector. For example, less than half of countries (13 out of 28) from Europe made a reference to women and girls. Furthermore, countries which do not refer to gender include highly developed nations such as Austria, Liechtenstein, Portugal, Switzerland, Denmark, and Finland, among others.

Examples of women's inclusion in national ICTs programmes include the following: ICT awareness, outreach and training programmes for women and girls (Trinidad and Tobago); Digital literacy skills programmes for women (Kenya, Slovakia, Nigeria, Malaysia); The establishment of a national level working group for women in science and technology that includes at least 30 per cent female representation (Maldives). Examples of gender references promoting equitable employment for women (using ICTs or through ICT development) include the following:

- Using digital transformation to increase women's opportunities for promotion and work-life balance; working to increase female representation in corporate and academic leadership roles (Canada);
- Coordinating the use of funds to support entrepreneurial ventures and corporate capabilities, for the development of digital initiatives and training of competitive human resources with a gender perspective, and reducing technological and gender gap in national entrepreneurial ventures (Costa Rica);
- Improving safety and amenities for women industrial workers, increasing number of women working in light manufacturing, i.e., for apparel, addressing the gender gap in employment by creating more jobs for women in the tourism industry (Ethiopia);
- Training and continuing education for – in particular women-managed – small and mid-sized businesses active in online trade (Germany);
- Digital vocational training for women, particularly women who have/had long-term absence(s) from the labour market (Greece);
- Capacity building of women in mobile technologies allowing them to earn a living by creating businesses via the mobile apps channel e.g., delivery of lunch packages (Mauritius).

5 Lessons learned, conclusion, check-list and way forward

Lessons learned

Some gender mainstreaming practices are more popular than others. Practices helping women and girls to access digital skills are the most reported in the pool of practices collected for this handbook. Practices on access to infrastructure and digital services are the least reported.

⁶⁴ 16 countries from Africa, 12 from the Americas, 19 from Asia and the Pacific, 3 from the CIS, 7 from the Arab States, and 28 from Europe.

Practices rarely cover only one policy area; they typically address more than one. Examples of practices addressing at least two policy areas include Center for Genders in Technology in Argentina, Mainstreaming Gender through National Inter-Sectoral Gender Strategy in the State of Palestine, and Silicon Mountain community in Cameroon.

Practices often make physical infrastructure (e.g., Center for Genders in Technology in Argentina; IT Park centres in Uzbekistan; ICT Access Centres in Trinidad and Tobago) and virtual resources (e.g., Virtual University in Senegal; Mahara-Tech online platform in Egypt) work together. Governments often support practices by providing technology (e.g. laptops, tablets, mobile phones), facilitating physical infrastructure (e.g. digital points or centres that offer Internet connection) or offering free Internet access for a limited amount of time.

Practices supporting women and girls are not exclusive to the ICT sector. They can be identified in other areas such as health. This is, for instance, the case of the Health Tech Lab in Serbia and the transmission of mammograms through 5G technology in Chile.

Mainstreaming gender in digital policies requires collective action and long-term commitments between governments, private sector, and civil society. Practices in this handbook established partnerships between government, private sector (typically owning knowledge and resources), international and regional organizations, and local institutions (e.g., Digitalr@s Girls programme partnering with municipalities in Argentina; Women's bank in Zimbabwe relying on the local infrastructure of the Zimbabwe Post Office).

Collaboration and partnerships were established at different levels: bilateral (e.g., Ghana, South Africa in the framework of #eSkills4Girls), multilateral (e.g., EQUALS), and with private sector and NGOs (e.g., Africa Code Week).

Not only financial resources need to be made available. Sometimes know how is a resource that, in order to make it available for women and girls, it requires an enhanced collaboration with private sector and universities.

The set up for putting in place digital policies that are gender equal does not seem to differ from the one needed for digital policies in general. Practices in this handbook show that the government institutions that put in place gender mainstreaming practices are the ones putting in place digital policies (e.g., the Ministry in charge of ICTs, the ICT regulator, and other government institutions dealing with the five policy areas contributing to gender equality in the digital space such as the ministry in charge of trade, the ministry in charge of education, the ministry in charge of finance; the central bank, the ministry in charge of gender).

Coordination between ministries, if institutionalized, takes the shape of an inter-ministerial committee such as Chile's Committee on Gender Equality in ICT. In most cases, however, coordination and consultation across government institutions takes place but it is not necessarily an institutionalized process. Furthermore, collaboration between government institutions and international organizations is also frequent during the implementation of gender mainstreaming practices.

Gender mainstreaming practices collected for this handbook are often aligned with objectives of national strategic documents. Inclusion of gender references in these strategic documents is important to ensure that gender objectives are taken into consideration when putting in place digital policies.

Conclusion

Practices mainstreaming gender in digital policies can take different shapes ranging from a specific activity (e.g., a conversation with girls on how to become a scientist held in Guatemala), to a project (e.g., Murambinda community network in Zimbabwe), a programme (e.g., eSafety Women Program in Australia), to a strategy (e.g. Gender Equality, Disability and Social Inclusion Strategy in Australia; National Inter-Sectoral Gender Strategy in the State of Palestine), an institution (e.g. Center Genders in Technology in Argentina), and a network or a community (e.g., Silicon Mountain Community in Cameroon).

Given the limited number of practices by region, it is difficult to provide conclusions highlighting regional differences. Based on the practices collected for this handbook, there seems to be no 'one size fits all' approach to gender mainstreaming. It does not seem feasible to implement practices if they are not adjusted to a given country context or reality. For instance, when it comes to practices supporting women and girls' access to digital skills, replicability and scalability will likely be determined by the existing level of digital skills in each country, its national priorities in terms of skills acquisition, etc.

Gender mainstreaming can be done by including specific objectives (e.g., references) to gender/women/girls in key national strategic documents such as digital agendas, or national financial inclusion strategies. This approach has been illustrated in the special feature on LDCs.

Another option is to put together programmes or projects that specifically address women and girls. This approach has been followed by most practices in this handbook, ranging from online courses offering digital skills, to mentorship programmes especially dedicated to women.

A third option is to set gender criteria for the assessment of project proposals. This approach has been adopted in practices reported by Australia and by the State of Palestine.

Lastly, success factors are multiple. For instance, in Guatemala, the support from ITU and the official support in the form of a ministerial decree contributed to institutionalize the Girls in ICT Day. In Zimbabwe, the Murambinda Community Network was successful despite all odds, thanks to the passionate community driving the project and a multi-sector approach that brought everybody together. In Chile, setting up an institutionalized collaboration among ministries and other government agencies and structured communication has worked to mainstream gender across different policy areas including ICT. In Azerbaijan, campaigning about the practice and sending official letters to other ministries has contributed to its visibility. In Australia, extensive research and consultation across government institutions contributed to establishment of the eSafety Women Programme.

Checklist for policy-makers

This actionable checklist outlines the process of mainstreaming gender in digital policies, based on the 27 practices analysed in this handbook.

Gather data and conduct research

- Gather gender disaggregated data and conduct research to identify areas where women are at disadvantage vis-à-vis men (e.g., Australia's practices were designed based on prior research; Ethiopia's National Statistics Office developed a manual on how to collect gender disaggregated data shared with other government agencies).

- Use surveys to understand the current situation of gender in digital policies (e.g., location of ICT centres in Trinidad and Tobago was defined based on the results of a survey assessing underserved areas).
- Gather information about existing similar projects and programmes – remove overlaps and promote synergies (e.g., EIF-ITU project found that in three LDCs covered by the project, several projects and/or programmes are in place targeting women and girls).

Define a gender mainstreaming practice

- Structure your practice by defining objective, activities and governance.
- Consider that the practice can address more than one policy area (e.g., practice often couple access to digital technology with access to digital skills).
- Identify similar gender mainstreaming practices from your region or elsewhere and take on board lessons learned from those practices.
- Define the practice activities (i.e., refer to the lists of activities identified in section 3), governance (e.g., appoint a technical and managerial team).

Align the practice with national strategic documents

- Ensure the practice is aligned with the objectives of the overarching national ICT policy or master plan.
- Ensure the practice is aligned with national strategic documents that guide work on other policy areas such as the National Strategy on Financial Inclusion; the National Education Strategy; the National Energy Plan, etc.
- If a national strategic document does not exist, promote the adoption of one that includes a dedicated chapter or section stating concrete actions to support women and girls.

Allocate resources

- Budget: Define a specific budget for the implementation of the gender mainstreaming practice (e.g., GESDI from Australia; Gender Mainstreaming practice from the State of Palestine).
- Staff: for some logistical tasks, consider relying on resources of institutions such as the national post office with offices in different parts of the country (e.g., Women's bank in Zimbabwe relying on the local infrastructure of the Zimbabwe Post Office, particularly to reach rural areas).
- Develop tools to help partners align with a gender mainstreaming strategy or policy (e.g., offer workshops to implementing agencies; design a self-assessment tool such as the one developed in the practice from Australia; refer to resources listed in section 3).

Identify focal points in key government institutions and consult with stakeholders

- Identify gender focal points in dedicated ministries (e.g., if the practice is about financial inclusion, consider the ministry in charge of finance, the central bank, etc.).
- Discuss the practice with gender focal points in other government institutions. Check UN Women's Directory of National Mechanisms for Gender Equality.⁶⁵
- Consult with stakeholders that will be affected by the practice and with other stakeholders such as business representatives, civil society organizations, regional regulatory associations, and international organizations.
- Get official support to the practice (e.g., the Ministry in charge of Education has issued a decree establishing the commemoration of the International Day of Girls in ICT as part of the annual calendar of all students in Guatemala).

⁶⁵ UN WOMEN (2021), Directory of national mechanisms for gender equality, <https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Partnerships/NationalMechanisms/Directory-of-National-Mechanisms-en.pdf>

- Actively communicate with stakeholders and campaign about the practice by, for instance, sending formal letters to ministries (e.g., practice from Azerbaijan), or organizing gender mainstreaming workshops.

Collaborate and partner with other government institutions and stakeholders

- Identify institutionalized coordination mechanisms in place relating addressing gender in digital policies (e.g., Chile's Inter-ministerial Committee on Gender Equality in ICT).
- If such mechanism does not exist, consult bilaterally with gender focal points from relevant ministries and other government agencies. Identify dedicated committees (e.g., Burundi's National Commission for Information Society and the National Gender Council).
- Establish partnerships with key stakeholders for the practice implementation (business, civil society, academia, etc.).
- Engage with partners at different levels – local (e.g., Digitaler@s Girls programme in Argentina), bilateral, multilateral, and private sector and NGOs (e.g. #eSkills4Girls initiative supported by Germany).
- Maintain regular communication with all government institutions and other stakeholders and provide timely support throughout implementation.

Measure impact

- Establish a framework to measure effectiveness of practices.
- Identify areas where there is room for improvement.
- Identify lessons learned for replication and scalability.

Way forward

Collect practices from all the countries under the scope of ITU Regional Offices. This handbook has a global perspective. But the nature and intensity of the challenges faced by women are not identical in all locations. Geographical and social contexts are important in order to design and implement effective gender mainstreaming practices. To gain in granularity, a similar exercise could be carried out at the regional level, collecting practices from all the countries under the scope of the six ITU Regional Offices.

The practices identified in these regional handbooks could be pulled together into a database of gender mainstreaming practices (to be embedded in the BDT website, for instance) that would serve as inspiration for policy-makers around the world, searchable by policy area, type of practice, etc.

Collect data on inter-ministerial coordination mechanisms around gender and ICT. These data can contribute to expand existing data on national collaborative governance, particularly, the data on cooperation with other sector agencies by, for instance, including collaboration with the Ministry of Gender.

Conduct further research on gender in national digital strategies. Additional research is needed, particularly with regards to why highlighted advanced countries did not make references to gender in their national ICT overarching policies or master plans. A similar in-depth analysis could be carried out at the level of national ICT regulations and laws.

Annex 1: Methodology for assessing policy documents and regulations

Gender in ICT policies and regulations were assessed with a qualitative approach, identifying references to keywords related to gender equality. Key words to be searched for include: "gender"; "gender equality"; "gender empowerment"; "women"; "girls"; "digital inclusion"; "STEM"; and "small businesses"⁶⁶.

References were analysed in terms of their relevance in the entire policy document or regulation (i.e., if there is an entire chapter dedicated to women or girls). The analysis also evaluated if a given reference is a mere statement or if it proposes a course of action, based on three criteria:

- (I) Recognition: the ICT policy, strategy or regulation includes direct a reference to gender and/or a gender equality perspective.
- (II) Action: the ICT policy, strategy or regulation states an action.
- (III) Adequacy: the ICT policy, strategy or regulation specifically addresses (one or more) the five pillars of digital inclusion for gender equality.

The following five pillars (including EQUALS focus areas) were considered for the analysis of gender in ICT strategies, policies and regulations:

Digital technology: access by women and girls to digital technology, connectivity and security.

Digital skills: access by women and girls to technical/professional studies, university, and particularly, to programmes equipping them with, at least, basic digital skills in the area of science, technology, engineering and maths (STEM).

Financial inclusion: availability of digital banking and digital payments (national and international), especially for women.

Entrepreneurship and leadership: women's access to networks, knowledge sharing platforms and associations, presence in decision-making roles within the ICT field, and possibility to share knowledge experiences.

Digital infrastructure: available, universal and affordable.

⁶⁶ Given that companies owned and/or led by women are typically small, ICT policies, strategies and regulations that specifically address small businesses are indirectly supporting women-led businesses.

Annex 2: Information about practices per region

Information is presented in a structured manner, including type, goals and policy area, activities, governance, resources and impact. *Type* refers to policies, strategies, programmes and other initiatives (e.g., institutionalized gender-focused inter-ministerial coordination, stakeholder consultation, government-to-industry, etc.). *Goals and policy area* refers to specific objectives and target stakeholders of the practice, and desired outcome around the five policy areas (digital technology, digital skills, financial inclusion, entrepreneurship and leadership, and infrastructure and digital services). *Activities* refers to events, related initiatives, processes, etc. to offer insights into the operating processes of the practice. *Governance* refers to the organizational structure, management and institutional frameworks as well as competencies required to perform the practice. *Resources* refers to elements, such as financial and non-financial resources (including partnerships), including human capital, equipment and processes. Lastly, *impact* refers to evidence of effectiveness of the practice in achieving results (ideally referring to outcomes based on key performance indicators set by the practice), as well as replicability and scalability of the practice.

Africa

Practice	Type	Policy area	Activities	Governance	Resources	Impact
Silicon Mountain Community (Cameroon)	Mentorship, training of youth, partnerships	Access to digital skills, Entrepreneurship and leadership, and Access to infrastructure and digital services	Vertical mentorship, training and practice what has been learned	Centred around the University of Buea and 12 other academic institutions	one-year free high-speed Internet connectivity from the Government through the Minister of Posts and Telecommunications	To make it more impactful, the World Bank recommends strengthening links between Silicon Mountain, Douala, and Yaoundé's digital entrepreneurship ecosystems by creating digital corridors. "This could be done through incentives for joint applications
First coding camp of the African Girls Can Code Initiative (Ethiopia)	Coding camp equipping young girls with digital literacy, coding, and personal development skills	Access to digital skills	Coding camps organized at the national, regional and continental level. Seeks to facilitate mainstreaming gender and coding in national curricula.	Implemented by UN Women Ethiopia in collaboration with the African Union, International Telecommunication Union with the support of the government of Denmark in its first year.	National media campaigns involving women role models to address discriminatory norms. An online platform for girls attending Coding Camps, where learners can stay connected, share experiences and learning, and mobilize a community of practice and inspiration.	Some girls and young women also launched initiatives to prevent and respond to rising cases of gender-based violence, financial challenges and learning loss in their local communities.
The Virtual University of Senegal (Senegal)	Combines e-learning with presence-based tutorials and networking. Laptops with mobile Internet connection provided by the university	Access to digital technology and Access to digital skills	Public university governed by the Council of Administration; the Academic Council; and the Coordinator.	N/A	Open Digital Spaces connected to optical fibre, located in all the regional capitals of the country. Students are free to connect to the numerical platform and to take classes from home or everywhere they are, with computer and 3G Internet key that are given at the registration. The Open Digital Spaces support all the educational objectives assigned to the University, helping to settle labour forces in their region and opens communities to the rest of the world.	By 2019 the university counted not less than 28 000 students, making it the second largest university of the country. Digital Spaces offered inspiration at the regional and international level. (e.g. Burkina Faso, Gambia and Niger).

(continued)

Practice	Type	Policy area	Activities	Governance	Resources	Impact
Empowering Adolescent Girls and Young Women through Education (Tanzania)	Collaborative, coordinated and multi-sectoral approach to develop digital literacy, skills in online communications and interactions, and understand the ethical use of information technology and online privacy and security.	Access to digital technology and access to digital skills	Youth clubs; guidance and counselling services for in-school adolescent boys and girls; skills training /economic empowerment for out of school young women; and the role of communities including parents in promotion of girls education. The training modules consist of basic literacy, mathematical operations, communicating in English and Swahili, life skills, sexual and reproductive health, HIV and AIDS, gender equality, entrepreneurship and financial management skills, environmental and civic and human rights education.	UNESCO leads the implementation, in collaboration with the government of Tanzania, UNFPA and UN Women.	A five-year programme funded by the Korean International Cooperation Agency (KOICA)	112 youth clubs provided platforms for peer-led activities on life skills namely leadership, communication, self-confidence and determination. Through the peer-led activities, students are now empowered to speak out on issues hindering their education. Increased access to literacy and non-formal education for out-of-school adolescent girls and young women through training of out-of-school adolescent girls and young women to acquire literacy, numeracy, and life skills including ICT-based literacy and numeracy using tablets.
Community network for rural connectivity and access for women (Zimbabwe)	Community network grows from cybercafé to local hub of knowledge, healthcare, and development.	Access to infrastructure and digital services	Established Vision Internet, a cybercafé housed in an old shipping container. Developed by local residents skilled in welding, art, and paintwork, Vision Internet embodies the spirit of ubuntu*, a shared humanity. Since then, it has grown to serve far more than Murambinda's few thousand residents affordable access to e-learning material for only a USD 1 per hour for an unlimited connection. The Murambinda School of Nursing and Midwifery benefited from the community network. The government, donated 10 laptops to the connected nurses' training school	Great external support of various activities came from ISOC, the Zimbabwean Ministry of ICT & Courier Services, POTRAZ, UNICEF, ITU Development Sector and Zimbabwe Community Network Initiatives (ZCNI) - the NGO offering expert knowledge in the building of community networks.	Women involved in the setting up of infrastructure, management, day-to-day administration of servers and installation services at different sites, e.g. in schools. The set up also brought the government to support the community's education system by donating computers to connected primary and secondary schools as the community network has a school management system which includes e-learning resources that are uploaded from the district education offices. This support also aligned with the vision of the International Girls in ICT day, which seeks to empower, expose and build the girl child into taking up ICT related courses in the future.	Managed to connect about 108 000 people in the Buhera North and West, as informed by ISOC. Breaking down this figure using the POTRAZ survey, showing 35.6 per cent connected households in rural areas, reveals that 3.01 per cent of women in Zimbabwe were connected by this community network. The network has more than 25 nodes and is a mesh topology with a fibre optic based backbone on the core network
'Women's Bank' to ensure women's access to money at concessionary rates (Zimbabwe)	Government supporting women's access to money at concessionary rates.	Financial inclusion	Finance small-scale farmers, meeting the financing requirements of cross-border traders, and savings accounts for registered small businesses and group savings account	Wholly owned by the Government of Zimbabwe, the primary clientele of the bank are women and SMEs.	The bank has opened branches nationwide by relying on the infrastructure of the Zimbabwe Post Office (Zimpost), which has a presence in every corner of the country, including in rural areas.	Opened a total of 38 000 accounts (June to November 2018), with account holders spread throughout the country's major provinces. As of November 2018, the bank had issued a total of 490 loans valued at a cumulative USD 1 million.

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Americas

Practice	Type	Policy area	Activities	Governance	Resources	Impact
Center for Gender Technology (Argentina)	A public-private initiative of the national government working together with companies in the ICT sector	Access to digital technology and Access to digital skills	Qualification of the gaps; Needs detection; Establishment of cooperation agreements; Coordination of courses, programmes and workshops; Preparation of promoters or mentors; Scholarships; Promotion of internships.	Coordination is carried out through coordination meetings, in which the Secretariat for Public Innovation of the Headquarters of the Cabinet of Ministers of the Nation, the Ministry of Women, Gender and Diversity, the company ARSAT, the G+T Center, together with representatives of other public bodies, civil society and the companies that make up the initiative, develop the strategies, objectives and action plans, incorporate new initiatives, as appropriate, to promote the training of a greater number of women and dissidents at the national level, in order to achieve their insertion in the world of work, and achieve equal opportunities for all. The G+T Center works within the scope of the Ministry of Public Innovation and from there the budgetary resources it manages are assigned.	As for the companies in the ICT sector that are part of the initiative, they allocate their own budgets for the execution of the training they offer, although on some occasions they can use public resources such as Digital Points. In the case of scholarships and certifications that are awarded, these are financed by the participating companies.	Although the initiative is national, it begins to expand to the provinces. It can also be promoted to other countries in the region, so that more girls, women and dissidents can receive the training and thus jointly achieve the closing of the gender gap in Latin America. By the end of 2021, the Center has reached and inspired more than 2,000 women and teens to pursue STEM careers. More than 800 young people and teachers were trained in technology. More than 1,700 women and people from the LGBTQ+ group of different ages participated in online talks and workshops, and more than 200 certifications were awarded on different technological topics. Five cooperation agreements were signed, more than 20 initiatives were worked on and more than 100 coordination meetings were held.

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Practice	Type	Policy area	Activities	Governance	Resources	Impact
Digital@rs Girls Programme (Argentina)	Discover the transformative potential of technology and connect with the world of programming, through free courses Offered by the company Telecom Argentina, working in partnership with municipalities and other institutions such as business chambers.	Access to digital skills and entrepreneurship and leadership	Collaborative work between the Telecom company and the country's municipalities, with the intention of providing training in different programming languages to adolescents from the provinces who are selected to participate.		Free programme offered by the same company that provides the budget for its execution. Due to the necessary coordination that is carried out with the municipalities, it uses the human capital of the municipality for the logistical work of locating the adolescents interested in the program.	In 2021, eight workshops of two initial and advanced levels were held. More than 270 girls from all over the country participated in twelve classes and were able to obtain the skills that allowed them to enter the world of programming and increased their digital skills. They also learned to make their own web pages with HTML. The programme has had the expected results in the municipalities where it is offered, with the participation of a large number of adolescents between the ages of 13 and 17 actively participating. The company Telecom Argentina continues with the programme in 2022.
Girls in ICT Day and Caribbean girls 'hacking' for a safer future (Barbados)	Hackathon day for girls and young women	Access to digital skills	Caribbean girls 'hacking' for a safer future: In April of 2018 over 800 girls with a target group of 15- to 22-year-olds, across five Caribbean countries: Barbados, Jamaica, Trinidad and Tobago, Guyana, and Saint Vincent and the Grenadines, came together for an immersive experience in technology in celebration of the ITU Girls in ICT Day. Following the ground-breaking first Girls in ICT Day Caribbean Hackathon in 2017, woman-led SheLeadsIT and Change Makers Development Ltd staged the 2nd edition under the theme #SafeGirlsSafeFuture.	N/A	Many local businesses came on-board as they did recognize the need for a technologically savvy, gender balanced workforce. The event was supported by many private and public sector entities. Local partners iCreate and GeoTech Vision joined in to cover a range of topics including, fundamentals of filmmaking, design thinking, web and mobile app development, geo-spatial (drone) technology, podcasting, gaming and animation. Google as an international entity was one such company who facilitated as a regional technical partner by providing a number of training webinars and mentorship support	The hackathon provided secondary school and tertiary level students with an interactive and hands-on experience in the use of digital skills to solve social challenges. Over 60 students came together at the UWI Cave Hill School of Business to compete for prizes.
SAGA UNESCO and gender advancement (Chile)	Institutionalized gender-focused inter-ministerial coordination, where the following ministries participate: education, science, and women and gender equity who has the technical secretariat	Access to digital skills	Technical transfer workshop for public institutions in Chile. Request them to report of indicators and policies that they develop in relation to the STEM areas. Preparation of matrix consolidation. Formation of the SAGA-UNESCO Chile Technical Commission; Elaboration of diagnostic report; "Diagnosis on indicators and policies with a gender perspective developed by the State of Chile in STEM areas"; Dissemination of the Diagnostic Report Technical meetings with the teams that implemented SAGA Argentina and SAGA Uruguay.	Permanent collaboration in the Technical Committee of these institutions: Ministry of Women and Gender Equity (technical and executive secretariat); Ministry of Science, Technology, Knowledge and Innovation (technical analysis report and recommendations for the preparation of new and better indicators and policies); Ministry of Education (design, application and analysis of a survey on science, technology and innovation) and UNESCO Chile (transfer international experience in application of the SAGA-UNESCO pilot to the technical committee).	Human capital of three public institutions that make up the SAGA UNESCO CHILE Technical Committee. Financial resources for the edition of the "Diagnosis on indicators and policies with a gender perspective developed by the State of Chile in STEM areas", prepared by the Inter-ministerial Technical Commission.	SAGA UNESCO CHILE starting in 2022 and projecting to 2025; Continuity of the Technical Commission 2022 with the aim of developing an Action Plan projected to 2025; Intersectoral work and dissemination workshops for the SAGA Project in Chile (public and private institutions) envisaged; Projected the design of the prototype platform "COLLABORATIVE MENTORING IN STEM with a gender perspective"; Update directory of civil society organizations with STEM work; Internal network of public services in STEM.

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Practice	Type	Policy area	Activities	Governance	Resources	Impact
Transmission of mammograms through 5G technology (Chile)	Gender perspective was included in this pilot project, since as a result of the COVID pandemic, many women could not have their annual mammograms, which implies a risk in early detection.	Access to infrastructure and digital services	In November 2021, the first mammography over the 5G network in Latin America was carried out in the commune of Maipú, in the Metropolitan Region.	The main leader of this initiative was the AIIIM company, which had the Join platform for sending the exams, and the Telefónica company, which had 5G connectivity. Meanwhile, the Ministry of Health and the Undersecretary of Telecommunications acted as support in the coordination of the pilot, facilitating the different processes of the service involved in the pilot (for example, MINSAL configuring its RISPACS, SUBTEL granting the experimental permit, among others).	There is a will to continue developing this type of pilots in other regions of the country, but it is necessary to have human and financial resources that must be provided by the Ministry of Health, which will have to be analysed once the new governmental and sectoral authorities of the country take over, the month of March 2022.	The pilot could be replicated in the different Family Health Centers (CESFAM) in the country, as long as they have 5G coverage in their location. In practice, they should have a 5G antenna in their facilities and the Join platform connected from the mammograph to the MINSAL Digital Hospital. It should be noted that this would require a public and/or private investment to have this service permanently. Goal: By 2024, it is projected to have 100 per cent of the localities with 5G Contest connectivity projects, of the total of 366 committed, and 100 per cent of communes with 5G Contest connectivity projects, of the total of 245 committed.
National Girls in ICT Day (Guatemala)	It is part of state policy as it is included by the Ministry of Education within the curriculum of current studies in the country.	Access to digital skills	Identification of key actors; Visit to educational centres; Virtual and face-to-face conferences and forums; Computer capsules in government channels; Involvement in gender activities promoted by other sectors; Application of good gender practices within the Telecommunications Superintendence (SIT). Convened by the Ministry of Education and the National Youth Council Entrepreneurs for Education and the Association of Private Schools from Guatemala, to connect to the virtual event that was prepared especially for girls and young women. Said activity was transmitted using the SIT website as the access portal.	Due to the legal framework of each institution, the Superintendence makes approaches to state and private institutions, reporting on this activity. Being a link so that the initiative promoted by the International Telecommunications Union. From 2014 to 2021, there has been a high participation and for this year it is expected that this activity will remain within the functions carried out by the entity that is responsible for the development of science and technology in the country.	Within the SIT budget, resources are reserved to carry out face-to-face activity and that of 2019 and 2020 were virtual due to the pandemic. Personnel are also designated to carry out the visits and participate in the communication forums and messages.	The Ministry of Education has already issued a decree where the commemoration of the International Day of Girls in ICT (Technology, Information and Communication) is included in the annual calendar of all students in Guatemala. The Ministry of Education assumed responsibility for the commemoration and in the 2017, 2018 and 2019 Ministerial Agreements they have included the day as such.

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Practice	Type	Policy area	Activities	Governance	Resources	Impact
Practices stimulating girls' scientific curiosity, popularising science and promoting STEAM (Guatemala)	Programme and project geared towards the stimulation of scientific curiosity among girls and the promotion of STEAM among girls. The programme aims to promote the scientific, technological and humanistic vocation of girls, boys and adolescents in 6th grade and basic between 11 and 17 years of age, through talks and specialized workshops, which allow the integration of a community interested in learning science, the recognition of actions that have led women to achieve prominent positions in the scientific area and decision-making. The project aims at ensuring that there is gender equity in the student groups of the beneficiary schools.	Access to digital technology and Access to digital skills	Celebration of the International Day of Women and Girls in Science; Conversation "I can be a scientist" to promote scientific and technological vocation of children and adolescents (put in place out by the The National Secretariat of Science and Technology (SENACYT) in coordination with the Ministry of Education, consists of a researcher or a scientist presenting to us her area of training, challenges she has had, how she has overcome them and especially what actions she carries out, associated with her professional and research activities, with the intention of learn to overcome challenges and recognize through life experiences, ways to achieve goals in professional and personal performance).	<p>The Ministry of Education coordinated with the National Secretariat of Science and Technology -Senacyt-, the development of the event, as well as the implementation of the Scientific dissemination Program "I can be a scientist", which will take place every Friday from February 18 to April 22, 2022.</p> <p>In the project Promotion of gender equality on steam: stimulate scientific curiosity in girls and young people, the Ministry of Education through professionals from the Gender Equity Unit with Cultural Relevance and Comprehensive Protection of Children, Adolescents and Youth is a focal point for its development because it is a regional initiative within the framework of the Central American Educational and Cultural Coordination (CECC) of the Central American Integration System (SICA). This Unit will monitor and support the implementation of the project's actions in the beneficiary educational centres, in coordination with the corresponding Departmental Directorates of Education.</p>	N/A	The project promoting gender equality in STEAM will benefit students from three educational centers, who must develop, with the support of their directors and teachers, a research project, with the use of 30 tablets and 300 foldscopes, donated by the Instituto Italo-Latino Americano, through the coordination of the project in charge of CECC-SICA.

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Practice	Type	Policy area	Activities	Governance	Resources	Impact
ICT Access Centres Initiatives (Trinidad and Tobago)	ICT Access Centres Initiative - There are currently six operational community-based ICT access centres in Trinidad and Tobago located in Carenage, Chaguanas, Cumana, Guayaguayare, Marac and Penal. Location of the centres was determined through the 2013 digital divide survey conducted by the Telecommunication Authority of Trinidad and Tobago (TATT) which identified underserved communities throughout the country. The centres provide the equipment needed for connectivity and Internet access via a cyber-café, training room, and WiFi, patio with the latter supporting the bring your own device (BYOD) concept. Consequently, users are provided with or can access information on government services, training and opportunities for entrepreneurship and income enhancement/ generation within the community.	Access to digital technology, access to digital skills, and access to infrastructure and digital services	All the programmes are designed to be inclusive allowing access and usage without discrimination. The Access Centres Team is currently supporting community use of existing online training platforms and assessing how programmes can be altered to support local content and meet the needs of the constituent users of the Centres. Areas for potential partnerships with Ministry of Education have been identified including courses which provide parents with the tools to monitor their children while online. Provides support services for the creation of professional portfolios for community members including women seeking to establish small businesses and pursue entrepreneurial activities. The staff complement of the ICT access centres is diverse with women playing instrumental roles in the management and coordination of the centres' activities, delivery of training and the provision of network support. The facilities aim to be gender neutral, providing amenities that are required by girls and women such as changing tables for babies, sanitary so that they are at ease when visiting and participating in activities offered by the Centres.	The Ministry of Digital Transformation (MDT) is responsible for the implementation, funding and strategic oversight of the ICT access centres. The establishment and operation of the centres have been executed in close collaboration with the Ministry with responsibility for Community Development to ensure appropriate alignment with plans for community development and wellbeing. The Ministry's National ICT Division serves as the Manager of the Centres and has responsibility for the personnel which man each centre. The staffing structure of the centres is relatively flat comprising Network Technicians, ICT Trainers, Customer Service Representatives and custodial personnel. The centres' staff are residents of the communities in which the centres are located or live in adjacent communities.	The establishment of the ICT access centres is funded, in part, by the Universal Service Fund, which is managed by the Telecommunications Authority of Trinidad and Tobago, and the Public Sector Investment Program (PSIP) through which funding is allocated to government ministries and Agencies for the development of and implementation of key national projects and programmes. As with the PSIP, the operational costs of the centres are met through recurrent budget allocations to the Ministry of Digital Transformation. In addition to the financing mechanisms, partnerships are pursued including with the National Library and Information Systems Authority (NALIS) which hosts library services at the sites and with the Adult Literacy Tutor's Association (ALTA) to facilitate adult literacy training at the centres. The NICT Division has sought to identify those government agencies that are facilitating virtual training so that they can be supported and provided via the access centres. In this regard, the Cumana centre has examined the possibility of supporting the virtual training being offered by the Ministry of Agriculture, Land and Fisheries.	Since mainstreaming gender into digital policy is at a nascent stage, it is difficult to assess the performance of the ICT access centres in this context. Nonetheless, noting that at the global level, Internet use is moving closer to the gender parity, the following details the anticipated achievements of the Centres: The ICT literacy rate and the country's ICT Development Index (IDI) will be increased with an anticipated 35 per cent increase in the sub value index of the IDI, in alignment with Strategic Thrust 5 of the National ICT Blueprint 2018-2022 which aims to increase ICT usage in education and enhance citizen's trust in and capability to use ICT. A key performance indicator for Strategic Thrust 6 is an increase in the IDI with an anticipated 45 per cent increase in the sub value index. The ICT access centres can contribute to the government's goal of doubling the contribution of the ICT sector to GDP from 4 per cent to 8 per cent.

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Arab States

Practice	Type	Policy area	Activities	Governance	Resources	Impact
Oodwa Tech initiative for women empowerment (Egypt)	Tech initiative for women empowerment in Egypt seeks to bridge the digital gender divide, empowering women economically and socially to lead change in the society. The initiative aims at building the capacities of women in employment and entrepreneurship to efficiently compete in the local and global markets. The initiative is commensurate with the Egyptian National Strategies (Egypt vision 2030: National Strategy for the Empowerment of Egyptian Women). Additionally, MCIT's human development strategy that places special consideration to the development of disadvantaged groups including women and persons with disabilities.	Access to digital skills and Entrepreneurship and leadership	Design and develop an online portal that contributes to the exchange of knowledge among them. Develop four training packages in Basic IT, Internet, digital marketing, and e-commerce. Cooperation with local NGOs, hold physical and online awareness sessions to the craftswomen communities. Build the capacities of craftswomen and girls through specialized training tracks and mentorship sessions. Training organized in partnership with a number of leading companies in the field of e-commerce (e.g. Mova Trading, Pogo company, Zvendo Company, Alexandria Businessmen Association, Paytabs Company). Consultation sessions to support and guide women entrepreneurs in the field of digital marketing. Host a monthly business talks session led by the market experts in needed advanced topics. Organize awareness seminars in Egyptian governorates. Organized a hackathon "Oodwa-Tech Artificial Intelligence (AI) Hackathon: Reviving Culture and Heritage" as part of the fifth edition of "She Can 2020" women entrepreneurship annual event.	A project manager, an M&E manager and a set of project coordinators are part of the governance of the project. The project manager has to coordinate the timely implementation of project activities; maintain and facilitate the partnerships with national and international project parties; manage day-to-day operations; prepare and update the track work plan; develop action plans and progress reports for the National Project Director; and represent and report on the project objectives and achievements to the National Project Director. The M&E manager is in charge of developing data collection tools; monitoring project activities, outputs and progress towards planned outcome; and disseminating evaluation findings and project results to donors and other stakeholders. Project coordinators coordinate with project partners to ensure effective delivery of e-commerce and digital marketing training; Analyse project requirements and preparing budgets and schedules; research digital marketing latest trends; organize consultation sessions with stakeholders; and are responsible for internal communication around work plans and scheduling.	Budgetary items: training materials (consultancy firms); training venue (in case of physical sessions); events; and project staff. Non-financial resources are generated mainly through the wide network of partnerships including the government, civil society and the private sector. Government partnerships: it includes the Ministry of social solidarity (MoSS), Ministry of Youth and Sports, National Council of Women, Micro, Small, Medium Enterprise Development Association (MEMSEDA). The government partners participated in the needs assessment of the project and the outreach for women beneficiaries through their networks and social media. In addition to the participation in the awareness campaigns, Egypt post: consultation sessions in many topics like photography, pricing, and packaging. Specialized companies in e-commerce such as Amazon, Jumia, and bogo plus. Rotary club: training sessions in financial inclusion, intellectual property, entrepreneurship.	The institutional development of 15 partner NGOs reached 170 000 beneficiaries outside the initiative scope. Thus, ensuring the sustainability of the project outcomes over the long run. More specifically, the project achieved the following results: Building the capacities of around 6500 craftswomen and girls to manage their entrepreneurship projects; Development of the initiative website www.qodwatech.com with around 200 contributions (articles, photos, videos, links) and 140 000 visitors; Raising the awareness of 2 000 beneficiaries in important topics such as financial inclusion, e-commerce, and exporting tricks; Empowerment of women with disabilities through skills development to establish entrepreneurship projects.

(continued)

Practice	Type	Policy area	Activities	Governance	Resources	Impact
Mahara-Tech online tech platform (Egypt)	Developed in effort to mainstream of accessing to digital skills based on its mandate to bridge the skills gaps in Egypt, particularly among the majority of Arabic speakers who do not master other languages; enhancing job opportunities and encouraging the adoption of new technologies towards the fulfilment of Egypt vision 2030 and the SDGs. Indeed, according to the World Economic Forum, forming the right talent remains among the leading barriers to the adoption of new technologies.	Access to digital skills and Entrepreneurship and leadership	Mahara-Tech offers a variety of high quality training programmes in Arabic, in different technology domains, including the Internet of Things (IoT), blockchain, cyber security, e-learning, freelancing, mobile app development and other specializations, helping upskill and qualify young people to compete in the labour market. Mentors (17 female mentors and 23 male mentors) are sensitive to male and female needs and constraints in their Arabic talks / discourses in order to sensitize beneficiaries to opportunities in skills building and employment. The free-lancing platform within Mahara-Tech avails physical free-lancing zones to allow for the exchange of expertise among freelancers (particularly women in Upper Egypt) within Universities and ITI's branches. These zones offer women in conservative environments the chance to interact and hone their skills with counterparts in safe environments. The technical courses are both self-paced and mentoring is done in live sessions and recorded sessions to accommodate the different needs related to daily time-management suitable to men and women, hence, encouraging women's involvement in their natural environment. Women and men get the chance to interact with mentors through open Q&As. This is particularly important for women view their restrictive mobility in specific parts of Egypt or in other Arab States region countries.	Two main teams (technical and management): Technical Team (In – House production Team), linking the ICT vision with the academic context, and in turn communicates technical ideas and information in clear and concise recorded sessions; working with “the instructional designers” parallel with internal and external instructors and experts to convert academic course material into digestible online learning material; scouting new tools and technologies which may enhance the functionality, accessibility and usability of the online learning platform; and focusing on development, instructional design and testing teams. And the Management and Communication Team, responsible for developing, testing, and implementing a branding strategy to reach and engage target learners and networking through digital channels like web, mobile, and social media; responsible for raising awareness of different universities to promote and availing content to the undergraduates; responsible for building communication channels with key experts and mentors who enrich the content; and divided into social media, Universities’ links and mentors linkage team.	N/A	Total number of students (Before the pandemic 10 000 – Currently 242 000) . Average number of students per course – (Before the pandemic three courses – Currently 38 courses). Career Talks (Before the pandemic 2 talks – currently 28 talks). Freelancing courses (Before the pandemic 0 course – Currently 6 courses). Freelancing students (Before the pandemic no students – Currently 63 350 students). Courses with sign language (Before the pandemic no courses – Currently 2 courses). Career talks freelancing learners (Before the pandemic no students – Currently 63 350 students). Accessibility of the platform through different channels (indicator of digital inclusion): 20 IT clubs across the country (affiliated to the ministry of youth of sports). MoU concluded: to be fully activated soon; 23 training centres (affiliated to the Ministry of Manpower) across the country- MOU concluded- to be fully activated soon; 94 ITI centres distributed across the country in Egyptian Universities (in collaboration with the Ministry of Higher Education and Scientific Research); 1 000 undergraduates from Al Azhar University. ITI Mahara-Tech Wins ESCWA DAC Award: Mahara-Tech platform of the Information Technology Institute (ITI) has won the ESCWA Digital Arabic Content (DAC) Award for Sustainable Development. The winners were announced during the Arab Forum for Sustainable Development (AFSD), held from 15 to 17 March 2022.

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Practice	Type	Policy area	Activities	Governance	Resources	Impact
Mainstreaming Gender through National Inter-Sectoral Gender Strategy (State of Palestine)	National strategy with action plan, institutionalized gender units, projects and partnerships. National Inter-Sectoral Gender Strategy by the Ministry of Women's Affairs as the government entity responsible for translating the government vision regarding gender into practice.	Access to digital technology, access to digital skills, entrepreneurship and leadership, and access to infrastructure and digital services				

Source: www.qpdwatech.com

(continued)

Asia and the Pacific

Practice	Type	Policy area	Activities	Governance	Resources	Impact
Online Safety Act 2021 (Australia)	According to the eSafety Commissioner's research, it was found that women and girls are subjected to very high levels of online abuse simply because they are women. The Act provides protections for all Australians, including those most at risk of experiencing online abuse, for example children, women and minority groups. During the development of the Act, the Department of Infrastructure, Transport, Regional Development and Communications (policy department responsible for administering the legislation) consulted widely with a range of stakeholders directly or indirectly affected by the policy. This included civil society groups in the areas of women's rights advocacy (Collective Shout), women's safety (Australian National Research Organisation for Women's Safety and Women's Safety NSW) and domestic violence (Domestic Violence Victoria).	Access to digital technology and Access to digital skills	<ul style="list-style-type: none"> • Educational, promotional and community awareness activities, including targeted materials for women experiencing abuse, harassment and other forms of harm • Regulatory and compliance activities • Coordination activities across Government • Research, advice and liaison activities. <p>For example, in the 2021-22 Budget, eSafety received AUD 18 million for measures to target online harms that disproportionately impact women and children. These include:</p> <ul style="list-style-type: none"> • AUD 15 million to increase eSafety's investigations capacity, which includes investigations into reports of image-based abuse. • AUD 3 million to develop new technologies to identify intimate images and duplicates of intimate images which have been shared without consent. This will assist in the rapid removal of image-based abuse material, providing greater support to victims. 	N/A	The Department of Infrastructure, Transport, Regional Development and Communications is the policy department responsible for online safety in Australia. The Department worked very closely with the regulator, the eSafety Commissioner, to develop the Online Safety Act and consider the practical implications of the policy. The Department and eSafety continue to work closely on online safety issues so that Australia's regulatory framework keeps pace with new technology and emerging online safety challenges. Note: the eSafety Commissioner is an independent statutory office holder who is appointed by the Minister and provided support by staff from the Australian Communications and Media Authority.	It is best practice to consult widely with a broad range of stakeholders when developing legislation and policy responses. This ensures that the direct or indirect impact of the policy on those groups is well understood and taken into account when developing the legislation. The Act has only been in place since 23 January 2022 and therefore there is insufficient evidence to evaluate its effectiveness in supporting women. However, an independent review of the Act must commence within three years of the Act coming into effect. The Act also sets out reporting requirements on the regulatory actions taken by the eSafety Commissioner. The Department of Infrastructure, Transport, Regional Development and Communications continues to monitor the effectiveness of the Act against its intended outcomes.

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Practice	Type	Policy area	Activities	Governance	Resources	Impact
eSafety Women Program (Australia)	Adopting a gendered lens to policy, programme design and implementation is part of the eSafety model of engagement. Through its data and research insights, eSafety has identified that the online experience is gendered, with women identified as disproportionately likely to experience online abuse, including image-based abuse. These insights have enabled eSafety to develop discrete programmes focusing on building awareness across Australia and globally of the gendered nature of online harms and help-seeking behaviours to reduce the level and severity of online harms.	Access to digital technology and Access to digital skills	<ul style="list-style-type: none"> • Providing practical tools and information to equip women to protect themselves and their families against all forms of online abuse • training frontline specialist and support staff in the domestic and family violence sector, giving them the knowledge, skills and resources to effectively support women and their families, and • actively raising awareness and understanding of technology-facilitated abuse to help women identify it and take steps towards preventing it. As of February 2022, more than 15 000 domestic and family violence frontline workers have participated in eSafety's face-to-face workshops or webinar sessions, and 3 500 frontline workers have registered for online professional development training. <p>The Women In The Spotlight programme began in recognition that women, particularly those in leadership positions or who are required to maintain an active online presence as part of their professional lives face unacceptably high levels of gender-based abuse online.</p>	The eSafety Commissioner is an independent statutory office holder, with responsibility for online safety regulation. Staff supporting the Commissioner have a range of skillsets and competencies including educators, investigators, programme managers, policy professionals, technology experts and digital specialists. The eSafety Women programme is driven by staff from eSafety's Education, Prevention and Inclusion branch.	The eSafety Women programme (including Women In The Spotlight) currently comprises 10 staff across two teams. eSafety has key partnerships with domestic violence peak bodies, Aboriginal Community Controlled Organisations and organizations with staff who are required to have an online presence for work. Recognising the importance of a strong evidence base to support the initial and ongoing development of the model, eSafety Women leverage the skills of the eSafety research team as well as academic institutions and national research think tanks to support this work.	There has been global interest in the eSafety Women program, with significant enquiries from international governments, multilateral organizations, international violence against women networks, national NGOs, and various academic institutions. In partnership with the Australian Government Department of Foreign Affairs and Trade, eSafety is currently working across the Pacific region with violence against women networks and national domestic and family violence (DFV) service providers to contextualise the eSafety Women training for frontline workers to meet the needs of Pacific Island DFV workforce. The evidence base supporting the Australian model will be used to complement the localised experiences of online gender-based violence across the Pacific. In addition, the Women In The Spotlight training will be delivered to the Network of Pacific Women Leaders to increase their capacity to safeguard themselves from online abuse.

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Practice	Type	Policy area	Activities	Governance	Resources	Impact
Gender equality, disability and social inclusion Strategy (Australia)	The Australian Government Department of Foreign Affairs and Trade (DFAT), through the Cyber and Critical Tech Cooperation Program (CCTCP), works with Southeast Asian and Pacific countries to improve cyber resilience within the region. Gender equality, disability and social inclusion (GEDSI) is a Values Pillar of the International Cyber & Critical Tech Engagement Strategy and a cross cutting theme of the CCTCP. As part of mainstreaming gender equality, disability and social inclusion into all program, in 2022 the CCTCP released a dedicated GEDSI Strategy. A GEDSI lens drives empowerment and equitable opportunity and benefit, upholding and protecting liberal democratic values, human rights and the ethical design, development and use of critical technologies.	Access to digital technology and Access to digital skills	Several flagship projects as well as mainstreaming these efforts across all activities. Across the CCTCP portfolio, a minimum of 10 per cent of the overall Program funds will be invested in GEDSI-specific activities (this is in addition to gender mainstreaming throughout activities) by 2025. Given approximately 6 per cent of funds is currently allocated towards GEDSI-specific projects, an increase in funding of approximately two per cent of the total budget is required per year. In targeted GEDSI projects, the CCTCP will work with partners that have specific technical expertise and knowledge and an ability to successfully influence outcomes, including GEDSI focused organizations and networks from the Pacific, Mekong and/or South-East Asia. CCTCP will take a collaborative and incremental approach to facilitating improvements in GEDSI skills, practice and outcomes across the Program. The CCTCP GEDSI matrix will assist partners to understand the underpin a CCTCP-designed and supported self-assessment activity for Program partners. As a diagnostic tool it can be used to assess if, and how well, interventions are currently identifying, examining and addressing GEDSI considerations, and to determine ways to move projects along the matrix toward more transformative and impactful GEDSI programming. Partners will be supported to explore GEDSI components of the activity design. Projects already funded through CCTCP will be provided with the opportunity to opt-in to the GEDSI self-assessment process. Projects that demonstrate improvement, progress, unique or exceptional interventions will be highlighted and celebrated within the programme via CCTCP learning events, programme communications (internal and external) and at relevant forums facilitated by CCTCP. Partners with low ratings will be supported to improve their practice over time in order to access continued funding.	There has been a very collaborative approach by the CCTCP in the design and development of this Strategy. As part of annual reporting processes and project evaluation, there was a clear theme that CCTCP partners were very interested and engaged in this work, and that they wanted to have more direction and support in terms of GEDSI practice. This work commenced with a literature review of cyber and critical technology to understand more broadly the challenges facing the sector across the globe, as well as the region in which the CCTCP operates. Following that review, there was then a survey of all CCTCP partners to gauge awareness and areas for improvement across the GEDSI spectrum. Based on this survey a series of workshops occurred with as well as a programme wide learning event to enhance awareness and share knowledge. The work then shifted focus on drafting the strategy and associated support materials and getting expert advice on both the gender and disability aspects.	Partners will be encouraged and supported to mainstream GEDSI into each stage of the project management cycle at the design phase. All project proposals and expressions of interest will be reviewed with a GEDSI lens aligned to CCTCP GEDSI self-assessment tool, ensuring that budgets, designs, implementation approaches, monitoring and evaluation frameworks and project risks appropriately consider, respond to and track progress against GEDSI priorities and opportunities.	Whilst the GEDSI Strategy is a relatively new document, the process and tools piloted to date have been very easy for partners to use and apply in a range of locations and contexts. CCTCP will use the following approaches to track the effectiveness of the GEDSI strategy in strengthening GEDSI practice across the Program: <ul style="list-style-type: none"> Annual review of partner self-assessments and reports, combined with interviews with select stakeholders to track the overall GEDSI status of projects funded against the CCTCP GEDSI matrix (initially this will involve new projects and opt-in projects only), with reference to the quality of GEDSI mainstreaming activities, and an assessment of intermediate and final GEDSI outcomes. Annual review of the percentage of specific projects against the GEDSI Strategy target of a minimum of 10 per cent by 2025, with an expected 2 per cent annual increase - funds allocated to mainstreaming activities in new project activities against Strategy targets of between three to 10 per cent Monitoring partner perceptions on an annual basis, including: <ul style="list-style-type: none"> level of awareness of other CCTCP partners working on the same issues, or in the same geographic area level of access to GEDSI resources and information at a country or regional level, facilitated by CCTCP the effectiveness and value of GEDSI learning events and tools for strengthening GEDSI practice across projects.

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Practice	Type	Policy area	Activities	Governance	Resources	Impact
Action Plan to Support Women Scientists and Engineers (Republic of Korea)	"Act on fostering an supporting women scientists and technicians" has been enacted to contribute to the reinforcement of the capacities of women for science and technology and the development of national science and technology by devising policies to foster women in science, engineering, and technology, to make practical use of their abilities, and to support them, by extending assistance helping them to sufficiently display their talents and abilities.	Access to digital skills and Entrepreneurship and leadership	MSIT launched 2022 Action Plan to Support Women Scientists and Engineers" to help enhance capabilities of women scientists and engineers. This Action Plan consists of three strategies: i) fostering innovative women talent in science and technology, ii) creating more sustainable jobs for women scientists and engineers, and iii) fostering an environment where people can strike a balance between work and life. The Action Plan will include a project to foster and support women scientists and engineers, and a project to establish and operate the support centres for women scientists and engineers. Some guidelines are established to promote the participation of woman researcher in critical R&D projects. When selecting the government budget R&D Project, extra points will be provided if more than 10 per cent of participants are woman or the project leader is woman. The Republic of Korea IT Business Women's Association has implemented research on Career Development of Female College Students in Science and Engineering in ICT industry and Promotion of ICT Entrepreneurship and Start-up by woman. The Association has mentored girls and young woman as well as held forums and seminars. Digital New Deal Project promoting job opportunities for Young Women are implemented by some local governments. This project financially supports companies who hiring young women for the post related to digital contents or digital technology.	The Framework Act and other policy measures creates enabling environment for gender equality and may provide guidelines to private sector.	Government budget for gender equality and other funds are available. Various mentoring programmes with voluntary participation of women experts and professionals are provided for girls and young woman. Training programmes on new digital technology, service and entrepreneurship for young women and women with career interruption are implemented in line with Digital New Deal Strategy.	Currently many proactive measures are taken and it is expected that some achievement and its positive impact will be visible in near future.

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The Commonwealth of Independent States

Practice	Type	Policy	Activities	Governance	Resources	Impact
A multimedia online course for women and girls (Azerbaijan)	An online multimedia course on digital skills for women and girls in order to ensure equal participation of women and girls in the digital economy and information society. As a result of the project, the goal was achieved, and an online multimedia course on digital skills was created. This e-learning resource will help build people's capacity, help women and girls start their careers or use digital technology in their work.	Access to digital technology and Access to digital skills	Expert profiles required for the project were identified in areas such as project coordination and e-learning, teaching content, e-learning platform and programming. To create a multimedia online course, analyses were conducted to identify the requirements and prepare a job description. Requirements were developed for the creation of an e-learning platform and a multimedia online course. These requirements include easy access to and registration for courses, comprehensible and easy-to-use content, post-course examinations, a certificate of completion, and feedback on the courses. Based on these requirements, the design and technical parameters of the portal, and the content and form of presentation of the courses were determined. It was decided to develop the content based on the Microsoft Digital Literacy course. As a result of the work, 120 video lessons for 8 courses were developed on the basis of content developed using the Microsoft Digital Skills course and other resources.	The Ministry of Transport, Communication and High Technologies and ICT Applying and Training Center conducted a promotion campaign about the project. The Ministry also sent circular letters to the Ministry of Education, Ministry of Youth and Sport to inform all schools and colleges about this course and portal. Another delivery strategy was to increase public awareness about this web platform through doing information sessions and attracting different organization to promote self-study on this web portal. Training Center has already organized many information sessions to attract more females to use this platform. So far, we have had several sessions in different conferences under the Innoweek 2020 in Azerbaijan. We presented the course and platform to different female organizations, NGOs, and government organizations. These presentations in female dedicated tech events allow to reach partners which can share information about the platform and the course.	Implemented with the technical assistance of ITU and the infrastructure of the ICT LAB Applying and Training Center. In the project also used Microsoft Digital Literacy course	Since the portal was launched, 682 people have registered and participated in the courses. At the same time, those who do not have access to the Internet and computers have access to the Center's regional study rooms. Participants of the courses submitted their opinions about the courses through the portal. About 100 reviews were collected for each course. According to the reviews, 97 per cent of respondents using the portal and courses gave the highest rating points and highly rated the courses. Also in 2022 The "Young IT Professionals" project was launched. About 200 people (75 women) are participating in the trainings offline and online.

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Practice	Type	Policy	Activities	Governance	Resources	Impact
IT courses and IT Parks for bridging the gender digital gap in rural regions (Uzbekistan)	Organize IT courses to empower rural women to obtain IT knowledge and skills in order to have equal opportunities to gain employment for generating income and have equal access to the boundless opportunities of ICT. The course on IT will be organized for the female citizens of Uzbekistan living in regions. There will be 2 types of IT courses depending on the level of girls' knowledge: digital literacy and IT skills course; and graphic design course.	Access to digital skills	To form the list of participant priority in selecting women for graphic design courses will be given to the following applicants: Women completed IT courses; Women having basic knowledge in the selected sphere of IT; Women having the motivation to work in the IT sphere; Women working in IT companies, but not having enough knowledge and skills to work in graphic design specialist positions. Selection of applications for the digital literacy course will be conducted depending on the following criteria: Women having the motivation to study IT; Women that do not have basic digital skills; Women planning to advance skills and knowledge after the course. The language of the course is Uzbek or Russian, duration is 3 months. IT Park's major activities include – startups development, attracting international BPO companies, IT and regional infrastructure enlargement, IT education (IT Academy and regional IT centres), IT Park resident support, IT export development, and implementation of Corporate Innovations.	In September 2019, Uzbekistan adopted the country's first ever gender equality law, "Guarantees of Equal Rights and Opportunities for Women and Men". The long-awaited law represents a firm stance against gender-based discrimination and ensures equal rights for both sexes – an ambitious goal in a society with deeply-rooted gender stereotypes.	One of the main objectives of IT Park is to promote IT education and strengthen IT skills and potential of citizen in IT. Therefore, IT Park actively develops IT education sphere in the regions. Today, there are more than 200 IT centres, created by IT Park all over Uzbekistan. The main aim of this is to create equal opportunities for IT education for every citizen from any region of Uzbekistan. IT Park Uzbekistan closely collaborates nationally and internationally. There are more than 30 projects with governmental organizations.	The organization of IT courses for bridging the gender digital gap in regions is important to provide IT literacy, knowledge and skills as for selected 180 women, so for Uzbek society. As of now, more than 500 companies have received resident status in IT Park and are actively engaged in processing of data and web portals, software development, training in information technology, and other IT-related activities, with some actively exporting their services to the United States of America, Sweden, Turkey, United Kingdom, and CIS countries.

Source:
<https://iktlab.edu.uz/>

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Europe

Practice	Type	Policy area	Activities	Governance	Resources	Impact
#eSkills4Girls (Germany)	With a joint statement on #eSkills4Girls published at the G20 summit in Hamburg in 2017, the Heads of State and Government of the G20 member states agreed to take action to close the gender digital divide. #eSkills4Girls corresponds to Germany's feminist development policy by promoting gender equality in the digital age. #eSkills4Girls is part of the Federal Governments implementation strategy "Shaping Digitalization".	Access to digital technology. Access to digital skills and entrepreneurship and leadership	<p>To translate the political commitments into practice, BMZ implements numerous activities under the framework of the initiative #eSkills4Girls, which are the result of the collaboration between governments, private sector, academia and civil society organizations. The initiative is implemented on three levels:</p> <p>(1) Bilaterally at project level: #eSkills4Girls Ghana focuses on formal as well as non-formal education the project incorporates activities in the field of (1) TVET and (2) the Digital Transformation Center. #eSkills4Girls South Africa promotes labour market relevant digital competencies to increase the employability of South African youth on various levels.</p> <p>(2) Multilaterally through work in the Global Partnership for Gender Equality in the Digital Age (EQUALS), and</p> <p>(3) through cooperation with the private sector and NGOs. Large IT corporations such as Google, Microsoft, Mozilla and SAP in particular are increasingly engaged, both financially and with their own projects, in promoting digital skills for women and girls in developing countries.</p>	N/A	N/A	<p>Since 2017, BMZ has supported #eSkills4Girls measures and projects in a total of 32 countries worldwide - 22 of which were from the African continent. Thanks to #eSkills4Girls over 60,000 girls and women have been trained in basic or advanced digital competencies. Examples include:</p> <ul style="list-style-type: none"> • #eSkills4Girls Rwanda: Since 2018, 210 women in Rwanda have completed WeCode Academy's 6-month training to become software testers or software developers. • #eSkills4Girls Fund: In the first two rounds of the #eSkills4Girls Fund 13,158 women have been trained in digital skills by 20 NGOs from around the globe. • #eSkills4Girls Coding workshops: Between 2017 and 2021, 31,679 women and girls from 20 African countries took part in #eSkills4Girls Coding Workshops during Africa Code Week. • 60 representatives from education and digital ministries took part in 3 #eSkills4PolicyMaker workshops in Africa and Asia promoting gender-responsive policymaking based on the R.E.A.C.T. framework. • Showcase female role models: Female role models and mentors from the digital sector can strengthen young girls' ambitions to take up a career in the tech sector and support those girls in pursuing their goals with self-confidence. #eSkills4Girls challenges existing gender roles e.g., the book "Women in Tech: Inspiration, No Fairytales" portrays 30 inspirational women from all over the world who have made their way into the tech industry.

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Practice	Type	Policy area	Activities	Governance	Resources	Impact
Systematic promotion and support of women in STEM is by a public university (Montenegro)	Committee for Women in Mathematics in Montenegro promoting gender equality and gender parity in STEM. Emphasis is put on science, innovation and technology policy, legal and institutional framework, but there is limited benefit for women. The only systematic approach to promotion and support of women in STEM is by the public university.	Access to digital skills	Science is promoted through Open Science Days organised from 1-5 October in 7 cities in the economy and through projects competitions organised annually from 2011 onwards.	N/A	Gender representation in STEM areas is also addressed by the Development Strategy of University of Montenegro, which states that "In addition to education in the field of modern educational content, special attention will be paid to the promotion and preservation of academic integrity, interdisciplinary approach and internationalisation of study programmes, as well as popularisation of studies in priority areas (STEM and S3) as key levers of successful positioning of the University of Montenegro in the European Higher Education Area". This document defines development of STEM areas as a priority goal, but also identifies possible risks stating that "The criteria for identifying priority national areas are not sufficiently based on real needs; as well the insufficient interest of the high school population in studies in priority areas".	Representatives of public educational institutions pointed out one organization - Tinker, with special interest in STEM and involvement of girls in STEM. Tinker is part of Devovox4kids and is introducing children to programming. Amplify, another NGO, has implemented Montenegrin Girls in STEM programme aimed at empowering young girls to discover STEM disciplines. The programme offered a school programme for 50 girls from elementary schools in Podgorica to learn more about robotics and programming.
Advancing the introduction of digital skills in the education system (Serbia)	Programming is taught in all primary schools, and informatics and computer science was made compulsory in secondary schools in 2017. Efforts are made to ensure digital literacy, including experimenting with digital textbooks and equipping classrooms with digital equipment and materials.	Access to digital skills	Small-scale and pilot efforts are being made to ensure that girls both participate in and benefit from this new system.	Nearly 1 750 additional schools are in the process of being connected to a free, secure academic Internet network, which includes access to educational content and the ability to block sites with harmful content.	The Serbian Plan for Empowerment of Women in ICT 2019-2020 includes training on "programming, project management and digital entrepreneurship" for 150 primary school girls; training for 200 secondary school girls to become peer educators on Internet safety; activities to connect 25 female students at technical faculties with IT companies to provide internships, professional training and mentoring; and "creative workshops" for female secondary school students on applying technology tools, such as virtual reality, robotics and computer-aided design, in fields from music to architecture.	Assessment of individual students' digital competences is the main focus of national tests in lower and upper secondary education in Serbia. The number of university technological facilities, IT departments in secondary schools and places for students at technical faculties is also increasing, as the Government aims to increase the number of new skilled IT workers from 1 500 per year to 5 000 per year. While the percentage of women studying ICT in Serbia remains small at 28 per cent, this is 7 percentage points higher than the European Union average of 21 per cent.

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Practice	Type	Policy area	Activities	Governance	Resources	Impact
Health Tech Lab (Serbia)	<p>Health Tech Lab is to create a global network of the local health-tech ecosystems collaborating for impact:</p> <ul style="list-style-type: none"> facilitate digitalization of health systems through new emerging technologies into medicine through telemedicine, robotics and other technologies for health-tech innovations in all developing countries; support and connect all health-tech ecosystems of developed countries that wish to develop ICT-centric health solutions; and promote existing innovative health-tech solutions and support their sustainable growth and development. 	Access to digital skills and Entrepreneurship and leadership	<p>Health Tech Lab Serbia organizes health-tech meetups, conferences, workshops, start-up competitions and acceleration programmes in order to foster the health-tech ecosystem. HTL is meant to be the core, foundational health-tech ecosystem that enables creation of new health-tech labs in other countries. Through local HTL chapter partnerships, other HTL ecosystems of other developing countries will be established that will be coached/supported by the HTL Serbia. HTL is currently at the stage of gathering requests from other countries</p>	<p>Health Tech Lab is a private initiative and non-governmental organization, driven by health-tech ecosystem stakeholders. In addition, Health Tech Lab Serbia is supported by an international Advisory Board, composed of seven prominent international experts from the United Kingdom, Israel, the United States, the European Union and Serbia. The Board supports the organization with mentorship, advice on technology transfer, business and entrepreneurship, and health-tech innovation activities.</p>	<p>HTL relies mainly on non-financial sources, developing the local, Serbian network of partnerships with institutions, health and tech professionals and students, building further connections, novel solutions and projects based on their skills and knowledge. The Advisory Board is crucial in that respect. HTL considers its partners and network one of its biggest assets. Local Serbian partners include Swiss Contact, Bel Medic, Roche Serbia, Epsilon, Data Science Conference, Polyhedra, Kikler ICT for kids, InCentar, Friedrich Naumann Foundation for Freedom, Institute for Molecular Genetics and Genetics Engineering, USAID Serbia, UNDP Serbia, Digital Serbia Initiative and ICT Hub International. International partners include MASHAV (Israel), European Youth Award, World Summit Awards, Science Park Graz (Austria), cLAB Ventures (the United Kingdom), and Governmental Blockchain Association (the United States). HTL has been an active member of the European Connected Health Alliance since 2018.</p>	<p>During the first two years, HTL organized several events and supported many start-ups by:</p> <ul style="list-style-type: none"> (co-)organizing eight health-tech meetups and health-tech start-up competitions with Startup Jerusalem; co-organizing a pre-acceleration programme for 24 health start-ups in collaboration with the Innovation Forum Cambridge (the United Kingdom) and the Science and Technology Park Belgrade; and co-developing 50 Serbian based health-tech start-ups, including Strem-Cath (innovative catheter), Anora technology (glove for the blind), and Herbelixa (innovative drug for treatment of Helicobacter pylori).

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

Email: bdtdirector@itu.int
Tel.: +41 22 730 5035/5435
Fax: +41 22 730 5484

Digital Networks and Society (DNS)

Email: bdt-dns@itu.int
Tel.: +41 22 730 5421
Fax: +41 22 730 5484

Digital Knowledge Hub Department (DKH)

Email: bdt-dkh@itu.int
Tel.: +41 22 730 5900
Fax: +41 22 730 5484

Office of Deputy Director and Regional Presence
Field Operations Coordination Department (DDR)
Place des Nations
CH-1211 Geneva 20
Switzerland

Email: bdtdeputydir@itu.int
Tel.: +41 22 730 5131
Fax: +41 22 730 5484

Partnerships for Digital Development Department (PDD)

Email: bdt-pdd@itu.int
Tel.: +41 22 730 5447
Fax: +41 22 730 5484

Africa

Ethiopia

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

Email: itu-ro-africa@itu.int
Tel.: +251 11 551 4977
Tel.: +251 11 551 4855
Tel.: +251 11 551 8328
Fax: +251 11 551 7299

Cameroon

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

Email: itu-yaounde@itu.int
Tel.: +237 22 22 9292
Tel.: +237 22 22 9291
Fax: +237 22 22 9297

Senegal

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

Email: itu-dakar@itu.int
Tel.: +221 33 859 7010
Tel.: +221 33 859 7021
Fax: +221 33 868 6386

Zimbabwe

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

Email: itu-harare@itu.int
Tel.: +263 4 77 5939
Tel.: +263 4 77 5941
Fax: +263 4 77 1257

Americas

Brazil

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

Email: itubrasilia@itu.int
Tel.: +55 61 2312 2730-1
Tel.: +55 61 2312 2733-5
Fax: +55 61 2312 2738

Barbados

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

Email: itubridgetown@itu.int
Tel.: +1 246 431 0343
Fax: +1 246 437 7403

Chile

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

Email: itusantiago@itu.int
Tel.: +56 2 632 6134/6147
Fax: +56 2 632 6154

Honduras

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

Email: itutegucigalpa@itu.int
Tel.: +504 2235 5470
Fax: +504 2235 5471

Arab States

Egypt

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

Email: itu-ro-arabstates@itu.int
Tel.: +202 3537 1777
Fax: +202 3537 1888

Asia-Pacific

Thailand

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

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

Email: itu-ro-asiapacific@itu.int
Tel.: +66 2 574 9326 – 8
+66 2 575 0055

Indonesia

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

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

CIS

Russian Federation

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

Email: itumoscow@itu.int
Tel.: +7 495 926 6070

Europe

Switzerland

International Telecommunication Union (ITU) Office for Europe
Place des Nations
CH-1211 Geneva 20
Switzerland
Email: euregion@itu.int
Tel.: +41 22 730 5467
Fax: +41 22 730 5484

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

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