![GSMA logo]

Powering Youth Employment through the Mobile Industry in Sub-Saharan Africa by 2025

Spotlight on Ghana, Senegal and Nigeria

The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators and nearly 400 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces the industry-leading MWC events held annually in Barcelona, Los Angeles and Shanghai, as well as the Mobile 360 Series of regional conferences.

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Executive Summary

The mobile industry will continue to be a significant job creator for youth in Sub-Saharan Africa

- Sub-Saharan Africa has the largest growing youth population in the world. This increasingly educated but inadequately skilled workforce poses a challenge for economies that must not only generate more jobs, but also support youth in their employment journeys.

- The mobile industry in Sub-Saharan Africa directly employed 1.2 million youth in 2018, and this number is expected to grow to 1.5 million by 2025. This growth will be driven primarily by increased network coverage, smartphone penetration and mobile services innovation, all of which are expected to create jobs by increasing demand for existing and new mobile services.

- However, over two-thirds of these jobs will be in the informal sector, a challenge to ensuring decent and quality employment for youth.

The 'skills gap' is the greatest challenge for youth seeking employment in the mobile industry in Sub-Saharan Africa

- Ineffective education systems and a disconnect between industries and educational institutions has created a 'skills gap' for youth in the region.

- Behavioural and digital skills, the most in-demand skills across all job levels, are also in the shortest supply, indicating a critical skills gap.

- Other barriers to youth employment include the expenses associated with skill development and job searches, progressing in their careers, poor human resource practices, and challenges specific to vulnerable groups, including women, persons with disabilities and rural youth.

The mobile industry has a role to play in supporting youth employment journeys

- The mobile industry has a role to play in not only creating jobs, but also in supporting youth through their employment journeys. This includes bridging the skills gap, providing lifelong learning and training opportunities, and ensuring decent working conditions.

- In the short term, the industry can engage with youth by improving access and raising awareness about job opportunities in the industry, implementing more inclusive HR practices and considering social incentives to benefit informal workers.

- Long-term strategies include supporting youth upskilling programmes developed in collaboration with educational institutions, development organisations and other tech organisations. The industry can also accelerate support for entrepreneurship in the broader ecosystem through incubators active in the region.

Research objectives and scope

Research objectives and scope

Research objectives

This research aims to **reveal the direct employment potential of the mobile industry** in three markets: Ghana, Senegal and Nigeria. It explores contextual issues surrounding youth employment in Sub-Saharan Africa (SSA) by investigating:

- Current and future contribution of the mobile industry to **job creation**;

- **Barriers youth encounter** in their employment journey; and

- **The role of the mobile industry** in fostering quality and decent work opportunities for youth.

Summary of methodology

Information collected, analysed and presented in this research comes from three sources:

- **45 key informant interviews** with mobile operators and industry experts, youth employment organisations, universities, investment funds, innovation hubs and digital platforms.

- **A two-day workshop** held in Accra in November 2019 with this expert group to create a roadmap for the mobile industry to create quality jobs for youth in the region.

- **Desk-based research** on quality job creation for African youth.

GSMA

Research objectives and scope

Youth employment in Sub-Saharan Africa
Context

Youth population is growing at unprecedented levels

Sub-Saharan Africa has the largest growing youth population in the world. In the last couple of decades, the youth population has grown by 70 per cent in the region to reach 366 million in 2019.[1] This is expected to grow by 17 per cent in the next five years and nearly double by 2050.[2]
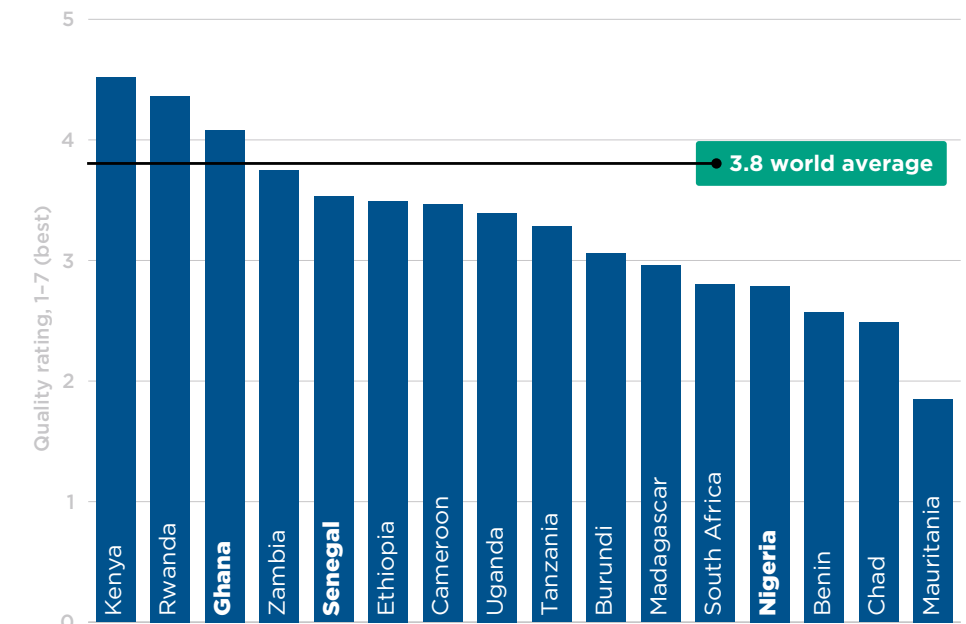
Figure 1 **SSA youth population growth** (aged 15–34)

2050 ^ 70% 729m
2025 ^ 17% 430m
2019 ^ 70% 366m
2000 219m

Source International Labour Organisation

Education levels are set to improve

- 52 per cent of Africa's total workforce is expected to have at least a secondary education by 2030 (versus 36 per cent in 2010).[3]

- However, the education system is perceived as low quality by students and employers, and is failing to meet the needs of the changing economy. The likely shift in the nature of work in the region will put additional strain on an already inadequate education system.

Figure 2 **Quality of Africa's education systems**

3.8 world average

Source World Economic Forum

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1   United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects

2   Ibid.

3   These statistics refer to all of Africa, not just the Sub-Saharan countries. World Economic Forum (WEF) (May 2017), The Future of Jobs and Skills in Africa: Preparing the Region for the Fourth Industrial Revolution. Data sourced from Lutz et al., IIASA/VID Educational Attainment Model, GET Projection, Wittgenstein Centre for Demography and Global Human Capital

Lack of quality formal employment is a big challenge

The emergence of an educated but underskilled workforce presents an opportunity to stimulate local innovation and economic growth. However, it is challenging for economies to generate more jobs for this increasingly educated workforce.

Lack of formal employment opportunities in Sub-Saharan Africa has made informal employment the norm. The International Labour Organisation (ILO) estimates over 75 per cent[4] of all non-agricultural employment in 2018 was informal. Ninety-five per cent of youth aged 15–24 years are employed in the informal sector. This is due to underdeveloped social security systems in the region that oblige youth to take up any form of employment to meet basic living standards.[5]

Lack of opportunities for highly skilled workers is leading to migration. The lack of quality opportunities in countries of origin and relatively long transitions from school to work have increased. In 2017, about 23 million people from Sub-Saharan Africa lived outside their country of origin, accounting for over 90 per cent of total migrants from the African continent.[6] The lack of high-quality jobs and the prevalence of working poverty are also driving rural-urban migration within the region.

The challenges are worse for vulnerable groups, such as women, rural youth and persons with disabilities (PWDs), who tend to face discrimination in access to education and other services from a young age.

Figure 3   **Non-agricultural informal employment by world regions**

Sub-Saharan Africa

77%

World

61%

Asia Pacific

59%

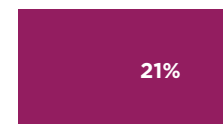**Americas**

36%

Europe and Central Asia

21%

Source International Labour Organisation

4   ILO, Women and Men in the Informal Economy, A statistical Picture (2018)
5   Ibid.
6   Ibid.

The mobile industry
A job creation catalyst for youth in Sub-Saharan Africa

The mobile industry is a significant job creator in Sub-Saharan Africa

- With 456 million unique mobile subscribers and contributing 8.6 per cent to GDP, the mobile industry has a huge footprint in Sub-Saharan Africa.[7]

- **In 2018, the industry employed 1.9 million people <u>directly</u> and over 2.4 million in the broader mobile ecosystem.**[8]

- The majority of <u>formal sector jobs</u> are in the distribution and retail sector (61 per cent, 420,000 jobs), followed by infrastructure and network providers/device manufacturers (20 per cent, 140,000 jobs), mobile network operators (15 per cent, 110,000 jobs) and content, application and service providers (4 per cent, 30,000 jobs).
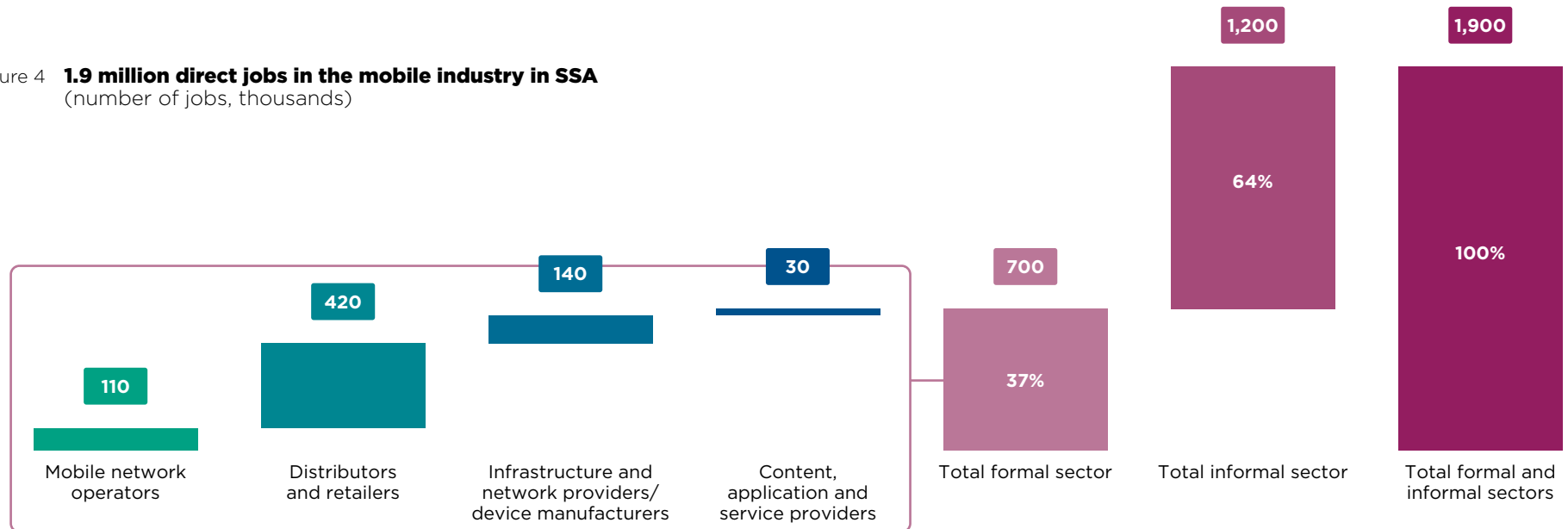
What about indirect employment?

The value created by other sectors that purchase materials and services from providers in the mobile industry's supply chain has an indirect multiplier effect. Employment created under this category is classified as 'indirect employment'.

In 2018, indirect employment in the mobile industry represented approximately **2.4 million jobs**. This could increase to **2.8 million jobs by 2025**.

This study focuses solely on direct employment.

Figure 4 **1.9 million direct jobs in the mobile industry in SSA**
(number of jobs, thousands)

				Total formal sector	Total informal sector	Total formal and informal sectors
Mobile network operators	Distributors and retailers	Infrastructure and network providers/ device manufacturers	Content, application and service providers			
110	420	140	30	700 (37%)	1,200 (64%)	1,900 (100%)

Source Estimates by Archipel and Co. based on data in GSMA Mobile Economy Sub-Saharan Africa reports (2018, 2019)

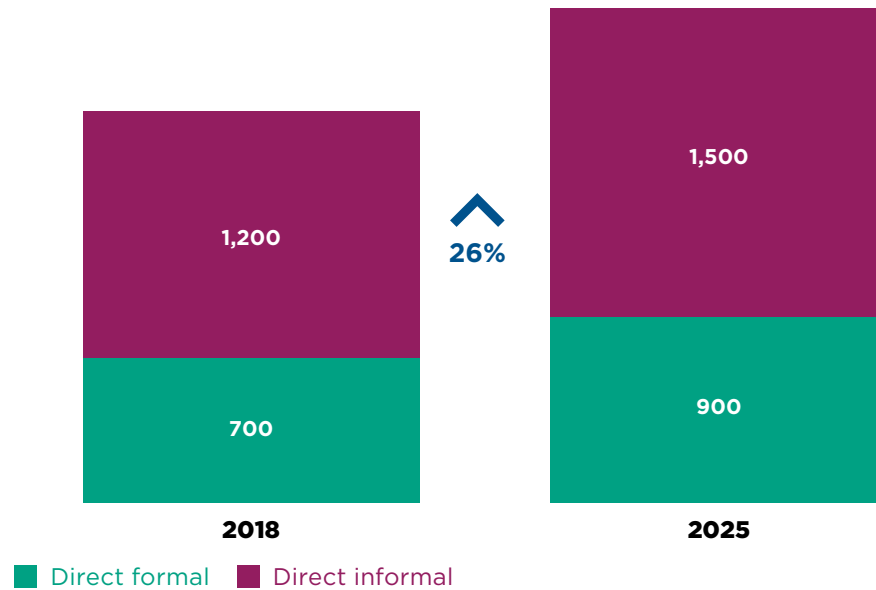7   GSMA, <u>The Mobile Economy Sub-Saharan Africa</u> (2019)
8   Estimates by Archipel and Co. based on data in GSMA Mobile Economy Sub-Saharan Africa reports (2018, 2019)

This job creation will continue, and informal jobs will continue to dominate in the future

- As of 2018, **three out of five people (1.2 million) directly employed by the mobile industry work in the informal sector**, predominantly associated with informal distribution (e.g. airtime resellers). Meanwhile, the formal sector employs nearly 700,000 people.
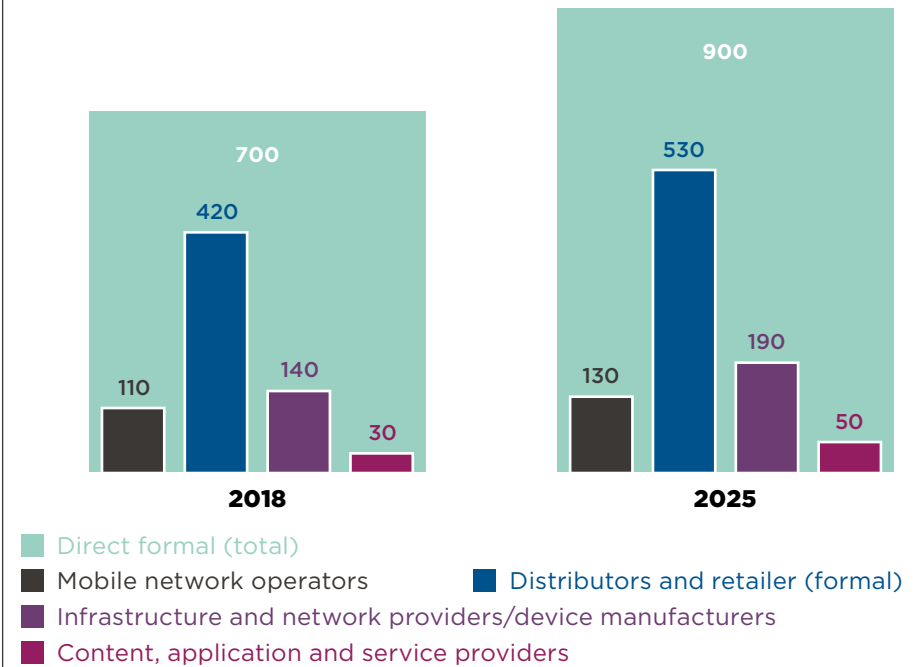
- **By 2025, total direct employment in the sector is expected to grow by 26 per cent, accounting for 2.4 million jobs, 500,000 of which will be new jobs.** The split between the formal and informal sector is expected to remain until 2025, with the informal sector expected to employ 1.5 million people. The formal distribution and retail sector will account for the largest proportion of formal jobs (530,000 direct jobs) in 2025.

Figure 5 **Change in mobile industry employment in SSA** (thousands)

	2018	2025
Direct informal	1,200	1,500
Direct formal	700	900

26%

■ Direct formal   ■ Direct informal

Figure 6 **Change in direct formal employment in the mobile industry in SSA** (thousands)

	2018	2025
Direct formal (total)	700	900
Mobile network operators	110	130
Distributors and retailer (formal)	420	530
Infrastructure and network providers/device manufacturers	140	190
Content, application and service providers	30	50

■ Direct formal (total)
■ Mobile network operators   ■ Distributors and retailer (formal)
■ Infrastructure and network providers/device manufacturers
■ Content, application and service providers

Source Estimates by Archipel and Co. based on data in GSMA Mobile Economy Sub-Saharan Africa reports (2018, 2019)

Source Estimates by Archipel and Co. based on data in GSMA Mobile Economy Sub-Saharan Africa reports (2018, 2019)

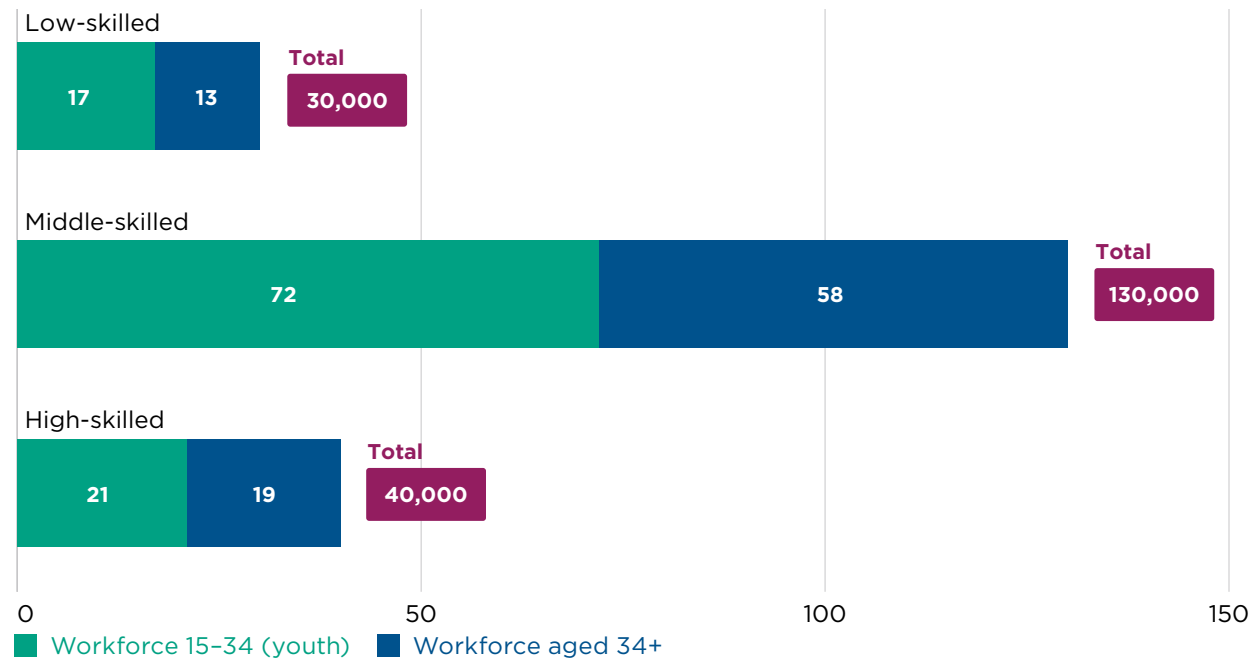# Majority of future jobs in formal sector will require middle-level skills

Most jobs created by 2025 are predicted to be low-skilled jobs in the informal sector

By 2025, 1.5 million people will be employed in the informal sector (as per Figure 7), one million of whom will be youth (as per Figure 6). Almost all these jobs, including newly created ones, will be low-skilled jobs, such as mobile money sales agents or airtime retailers.

In the formal sector, 65 per cent of jobs created will be middle-skilled jobs

- The industry will create 130,000 middle-skilled jobs, including 72,000 for youth, such as call centre technicians, sales and distribution teams and IT technicians or network deployment teams.

- 40,000 high-skilled jobs will be created, such as data analysts, pricing teams, project managers, product managers, engineers and accountants. Youth will occupy 21,000 of these jobs.

Figure 7   **Direct formal jobs created by 2025 by level of qualification** (thousands)

Low-skilled — 17 | 13 — Total **30,000**
Middle-skilled — 72 | 58 — Total **130,000**
High-skilled — 21 | 19 — Total **40,000**

■ Workforce 15–34 (youth)   ■ Workforce aged 34+

Job types by skill level

- **Low-skilled jobs:** require almost no qualification and can be learned through experience or on-the-job (e.g. airtime resellers, street hawkers selling mobile services).

- **Middle-skilled jobs:** require at least technical/vocational/specialised training to occupy skilled or semi-skilled job positions (e.g. web technicians, technical support advisor, sales assistant, customer services advisor, marketing assistant).

- **High-skilled jobs:** require qualification usually acquired through tertiary education that implies an understanding of interrelated issues and concerns. These jobs also involve responsibilities in management/executive teams (e.g. marketing manager, business intelligence manager, data analyst, HR manager, network engineer).

Source Estimates by Archipel and Co. based on data in GSMA Mobile Economy Sub-Saharan Africa reports (2018, 2019), ILO/ UN statistics and assessments obtained through interviews with industry experts.

Youth will account for nearly 70 per cent of direct employment in the mobile industry by 2025

- **The mobile industry employed 1.2 million youth in 2018**, nearly two thirds (800,000) in the informal sector and the other third in the formal sector.

- By 2025, the mobile industry is expected to directly employ 1.5 million youth and create 300,000 new jobs. About a million of these jobs will be in the informal sector and 500,000 in the formal sector.

Figure 8 **Youth employment in the mobile industry in SSA** (thousands)
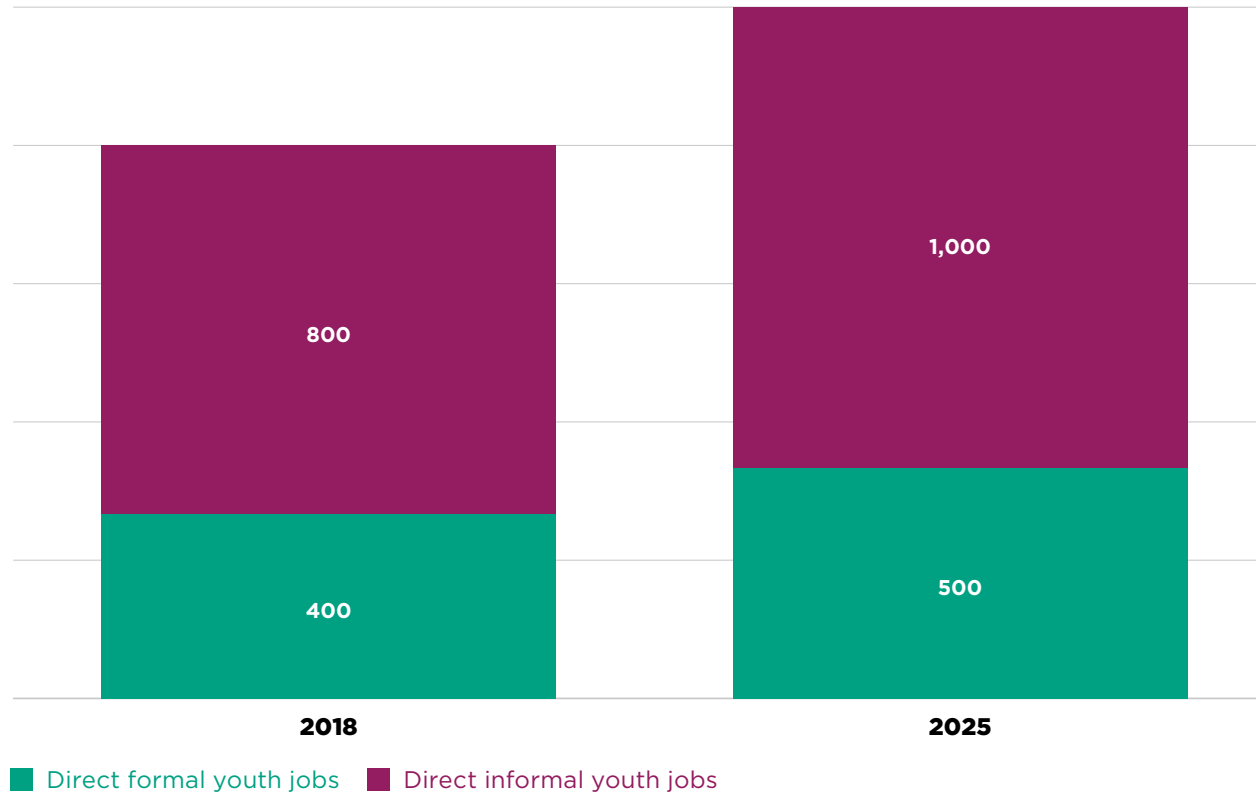
- Direct formal youth jobs
- Direct informal youth jobs

Source Estimates by Archipel and Co. based on data in GSMA Mobile Economy Sub-Saharan Africa reports (2018, 2019) and ILO/UN statistics

Factors likely to affect job creation in the mobile industry until 2025

- We have identified seven trends (henceforth called **drivers of employment change**) likely to have a significant impact on growth in the the mobile industry, as well as the type and number of employment opportunities available in the region by 2025.

- These include factors directly related to the industry's core business and to the business environment (see table below).

How were the drivers identified?

1 A preliminary list of drivers was identified through rigorous literature reviews.

2 Further insights were gathered from subject matter experts from the mobile industry and broader ecosystem.

3 The shortlisted drivers were then validated in a two-day workshop with industry experts.

CORE BUSINESS		
Increased network coverage	In SSA, 3G and 4G coverage will be key connectivity accelerators by 2025. Coverage will contribute to improving mobile technology access through upgrades of existing networks and by serving previously unserved areas.	
Increased smart feature phone/ smartphone penetration	More affordable smartphone and smart feature phone options will provide additional socio-economic benefits (communication, business and financial applications) to consumers, increasing their demand for mobile internet and associated digital economy services.	
Mobile services innovation	Continued innovation by mobile network operators, particularly in mobile financial services, will diversify mobile use and create new services.	

BUSINESS ENVIRONMENT	
Enabling regulation	Restrictive regulation limits industry development, particularly the provision of financial services, competition and licence attribution and renewal. Enabling laws can foster business activity and encourage new partnerships between the industry and other sectors (finance, health, energy, etc.).
Evolution of mobile sector taxation	Current tax burdens restrict the ability of industry players to invest in new technologies and improve connectivity. More favourable tax policies could contribute to increased investment and customer usage.
Development of disruptive technologies	AI and machine learning may automate certain job functions, optimise some human-performed tasks and enable new capabilities and services. Improvements to the Internet of Things (IoT) will increase the use of mobile technologies and support growth in business activity and associated opportunities (R&D, retail, etc.)
Advancements in energy supply	SSA has the lowest energy access rate globally. Increasing access to electricity and other forms of energy will improve private and business consumers' connectivity and growth in the mobile industry.

Drivers of employment change: effort vs. impact on job creation

- We analysed the cost-benefit ratio of each driver to determine the potential for a positive impact on job creation by 2025.

- **This cost-benefit assessment** was based on
  - The **potential of the driver to create jobs** (thousands of jobs); and
  - The **effort required by the industry to make these scenarios a reality**, both in terms of financial investment and difficulty of implementation (Figure 9).

- Based on this analysis, the drivers were grouped into three categories: Industry-led drivers; Enabling environment; and Disruption.

Enabling environment

These drivers **will have a positive impact on job creation, but are not directly controlled** by the industry, making it difficult to leverage them (besides advocacy/lobbying). These drivers depend primarily on political will or investment from other sectors.

Figure 9   **Cost-benefit analysis of drivers employment in mobile industry**

Industry-led drivers

The **most cost-effective employment** catalysts for the industry by 2025. These three trends – increased network coverage, smartphone/smart-feature phone penetration and mobile services innovation – will create jobs by increasing demand for existing and new mobile services.
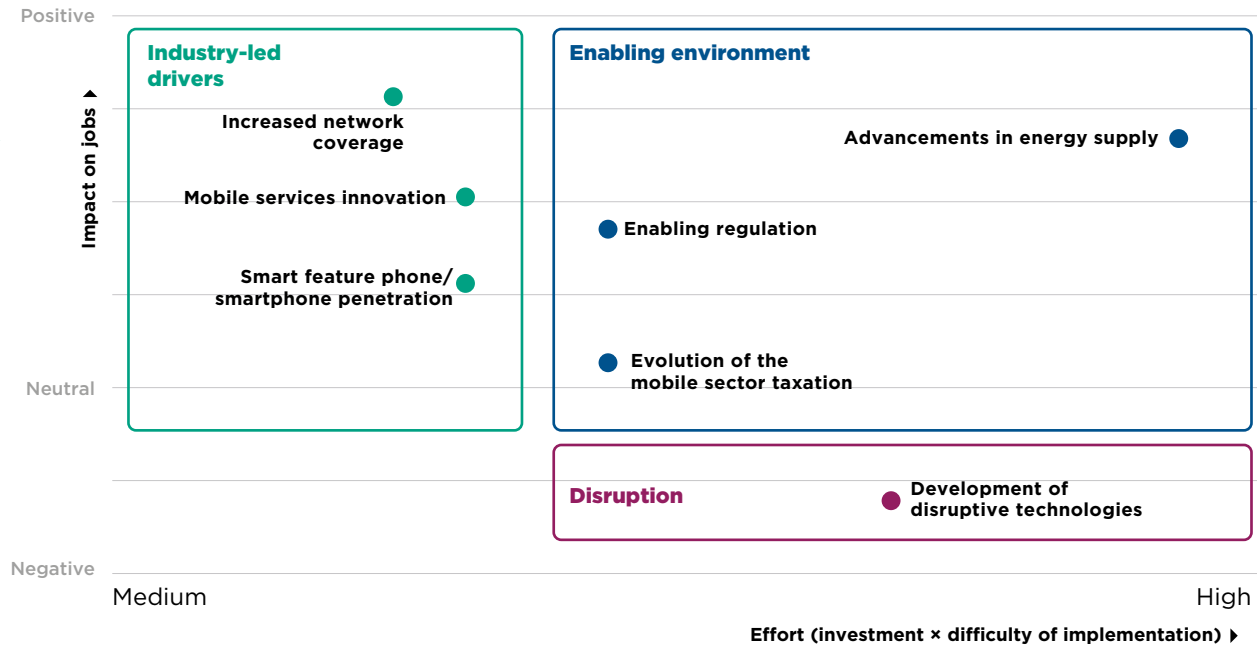
Disruption

Associated with the contradictory impact that disruptive technologies, such as AI and IoT, may have on employment. These drivers **have the potential to make several positions obsolete in the near future, particularly low-skilled jobs, but could also create high-value jobs**.

Industry-led drivers

Increased network coverage

Mobile services innovation

Smart feature phone/ smartphone penetration

Enabling environment

Advancements in energy supply

Enabling regulation

Evolution of the mobile sector taxation

Disruption

Development of disruptive technologies

Impact on jobs — Positive / Neutral / Negative

Effort (investment × difficulty of implementation) — Medium / High

Source GSMA Mobile for Development
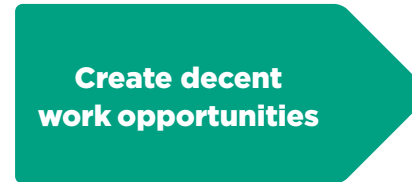
Youth employment
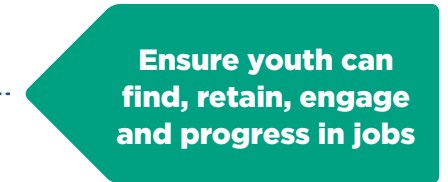# The 'skills gap' and other barriers

The role of the mobile industry in ensuring job supply and creating demand

- The mobile industry plays a two-pronged role in youth employment: on the supply side, creating opportunities for decent work, and on the demand side, enabling access to job opportunities, providing decent working conditions and opportunities for training, upskilling and career advancement for employees.

- However, the mobile industry faces several challenges, which can differ depending on the nature (formal/informal) and level (entry, mid, senior) of jobs, the country and cultural contexts, vulnerability of certain groups (women, PWDs, etc.) and many other factors.[9]

- We spoke with 45 experts from the mobile industry and broader ecosystem (henceforth called 'our expert group') to better understand these challenges and found that the **'skills gap' is by far the biggest challenge in youth employment in SSA**. We discuss this and other barriers in detail in this section.

SUPPLY   **DEMAND**

Create decent work opportunities   ●   **Ensure youth can find, retain, engage and progress in jobs**

Top challenges in youth employability in Sub-Saharan Africa

1	Lack of skills relevant to find, engage and progress in the jobs
2	Specific barriers for vulnerable groups (women and persons with disabilities)
3	Lack of on-the-job training and development opportunities
4	Generational gap between employers and youth
5	Adaptation to innovation
6	Informality of jobs and associated barriers

9   ILO, Palmer R., Jobs and Skills Mismatch in the Informal Economy (2017). This data comes from the ILO's School to Work Transition Survey (SWTS). Methodology: target group of the survey is youth aged 15 to 29. Self-employment is used as a proxy for informality.

The 'skills gap' is the greatest youth employment challenge

Defining the skills gap: The 'skills gap' is a situation in which the level or types of skills available do not correspond with labour market needs. In Sub-Saharan Africa, across all the industry sectors, nearly 46 per cent of employed youth are either over or underqualified for their jobs. This gap is even more evident among the self-employed, nearly 50 per cent of whom have a skill mismatch.[10]

Figure 10 **Skills most in demand and shortage in mobile industry across Sub-Saharan Africa**

Demand

Technical skills	Analytical skills	Digital skills	Behavioural skills
17%	17%	20%	47%

Shortage

Technical skills	Analytical skills	Digital skills	Behavioural skills
9%	22%	30%	39%

- Technical skills
- Analytical skills
- Digital skills
- Behavioural skills
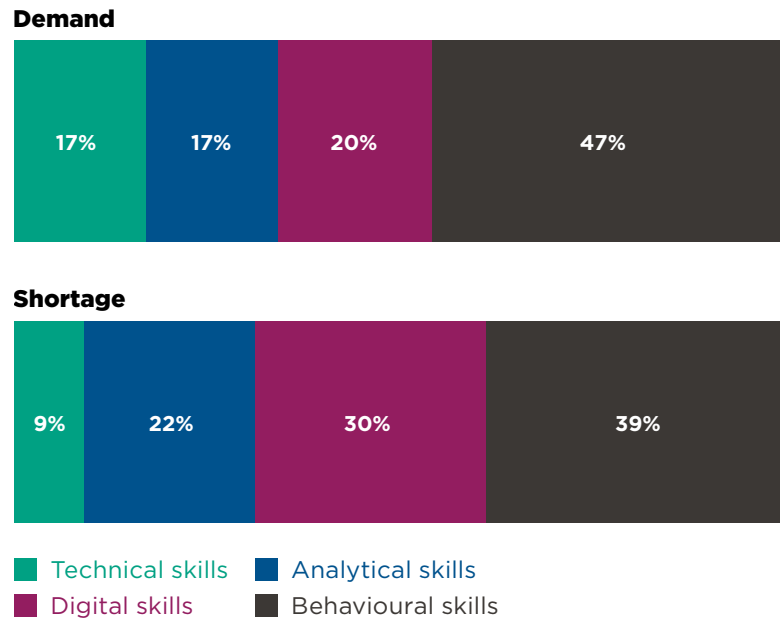
Ranking of responses in order of importance according to the number of occurrences in expert group interviews

10   ILO, Palmer R., Jobs and Skills Mismatch in the Informal Economy (2017). This data comes from the ILO's School to Work Transition Survey (SWTS). Methodology: target group of the survey is youth aged 15 to 29. Self-employment is used as a proxy for informality.

Understanding the skills gap

- Although more youth are completing tertiary education, **the education systems in Sub-Saharan Africa are often perceived as ineffective**.

- There is a **disconnect between universities and industries**, which results in curricula not being designed with market needs in mind.

- There is a **shortage of early work experience opportunities.** Before joining the workforce, youth often do not come across opportunities for internships, apprenticeships and other early professional learning opportunities.

- **Cultural barriers** (respect for elders, compliance with hierarchies and gender biases) discourage youth from expressing their opinions and asserting themselves, limiting the development of their behavioural skills and ability to be proactive on the job.

> Youth do not have enough experience. There is a need to provide [them] with professional experience before they apply for jobs: apprenticeship, internship, etc.

Youth employment organisation, Nigeria

> Young people who arrive on the job market are passive brains: the dominant culture says that elders are right and that one should not challenge the status quo so young people are completely passive and have a low sense of autonomy and agency.

Youth upskilling organisation, Senegal

# Key skill-sets required in the youth employment journey

Analytical skills refer to the ability to understand complex ideas, adapt effectively to one's environment and learn from experience and reason.[11]

|	
Writing	Critical Thinking
Numeracy	Problem Solving
Reading	Decision Making

Technical skills refer to the knowledge, expertise and interactions required to perform a specific job, including the mastery of the materials, tools or technologies.[12]

Technical / Vocational	Science Technology Engineering Mathematics (STEM)
Financial / Accounting	

Digital skills are a particular type of technical skill. In this report, digital skills are divided into three categories:[13]
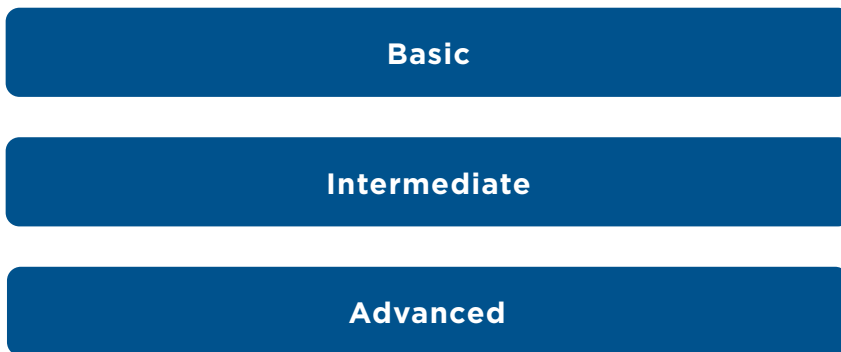
- Basic
- Intermediate
- Advanced

Behavioural skills refer to the ability to navigate interpersonal and social situations effectively and include leadership, teamwork and self-control.[14]

Communication	Creativity
Entrepreneurial	Leadership
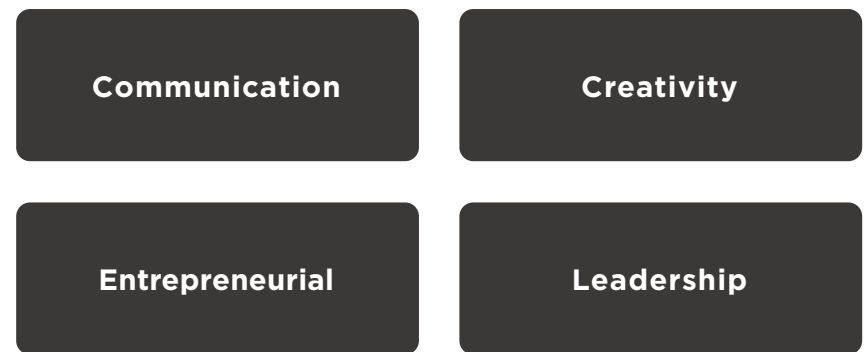
11   Definition from the World Bank
13   Definitions from IFC and International Telecommunication Union
12   Definition from the World Bank
14   Definition from the World Bank

Behavioural and digital skills are most in demand, but in shortest supply

Behavioural skills are in short supply

While technical skills might be expected to be the most valued in a tech-driven sector, it is in fact behavioural skills, such as communication, negotiation, teamwork and leadership, that are most in demand.

Interestingly, behavioural skills were also identified as those in shortest supply in the region, signifying a clear gap between in-demand and available skills.

> Hard skills can get you through the doors, but it is soft skills that keep you in.
>
> **Expert group member**

> Youth are losing out on their dream jobs because they lack the needed soft skills: communication, teamwork and leadership [behavioural skills].
>
> **Youth employment organisation, Ghana**

Digital skills are in high demand but often unavailable, particularly in middle- and high-skilled jobs

- Our expert group identified a lack of digital skills as the most pressing issue in hiring middle-skilled workers. **Intermediate digital skills**, such as the use of professional software and email, are essential to perform tasks effectively and progress in one's position. Employers in the mobile industry often have to provide intermediate digital training after hiring young graduates.

- **High-skilled jobs** often require **advanced digital skills** (big data analytics, web development, etc.). The shortage of such skills among employees leads employers to rely on external consultants offering bespoke services. However, this is less of a concern than the shortage of intermediate skills, as it relates to fewer employees and to specific jobs

- **Low-skilled jobs** require just **basic digital skills** as these positions require minimal use of digital tools. However, the expert group noted that a shortage of these skills hinder youth from accessing better opportunities.

> There is also an enormous shortage in digital skills as young graduates sometimes do not even have basic digital solutions such as word processor or online mailing system.
>
> **Youth employment organisation, Senegal**

The skills gap differs by job type

> Young people finishing school today lack problem-solving skills: which is what we do at work! And they need to be able to take decisions.
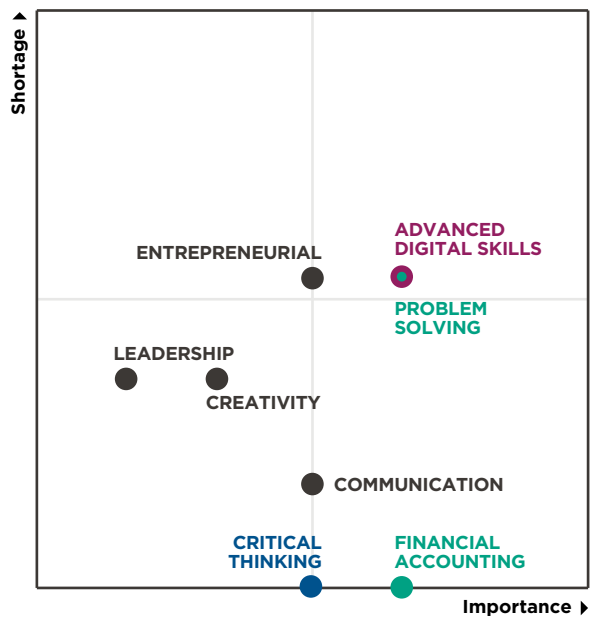> **Mobile network operator, Zambia**

> We studied the impact of short vocational training for low-skilled informal workers. In the medium run, they all remained in the informal sector but still all increased their revenues.
> **Youth upskilling organisation, Sub-Saharan Africa**

HIGH-SKILLED JOBS

Shortage ▲

ENTREPRENEURIAL

ADVANCED DIGITAL SKILLS

PROBLEM SOLVING

LEADERSHIP

CREATIVITY

COMMUNICATION

CRITICAL THINKING

FINANCIAL ACCOUNTING

Importance ▶

MIDDLE-SKILLED JOBS

Shortage ▲

PROBLEM SOLVING

LEADERSHIP

ADVANCED DIGITAL SKILLS

INTERMEDIATE DIGITAL SKILLS

CREATIVITY

ENTREPRENEURIAL

COMMUNICATION

BASIC DIGITAL SKILLS

FINANCIAL ACCOUNTING

Importance ▶

LOW-SKILLED JOBS

Shortage ▲

FINANCIAL ACCOUNTING

INTERMEDIATE DIGITAL SKILLS

ENTREPRENEURIAL

BASIC DIGITAL SKILLS

CREATIVITY

COMMUNICATION

WRITING

TECHNICAL VOCATION
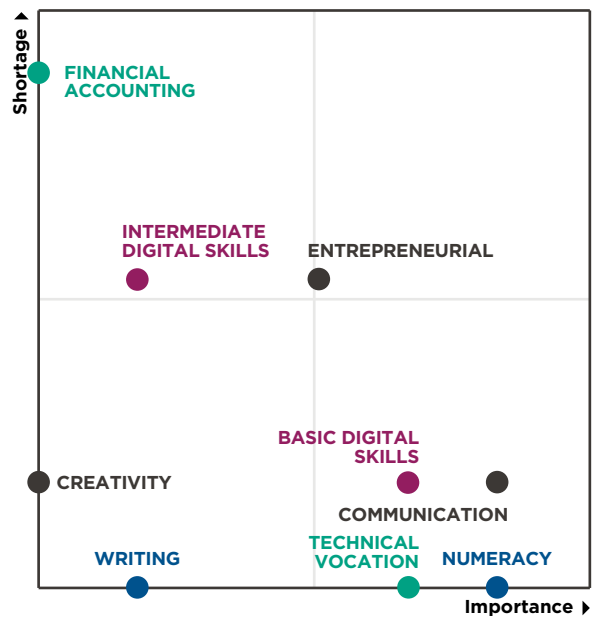
NUMERACY

Importance ▶

- **Most required:** Financial skills, critical thinking and communication
- **Greatest shortage:** Entrepreneurial skills, advanced digital skills and problem solving.
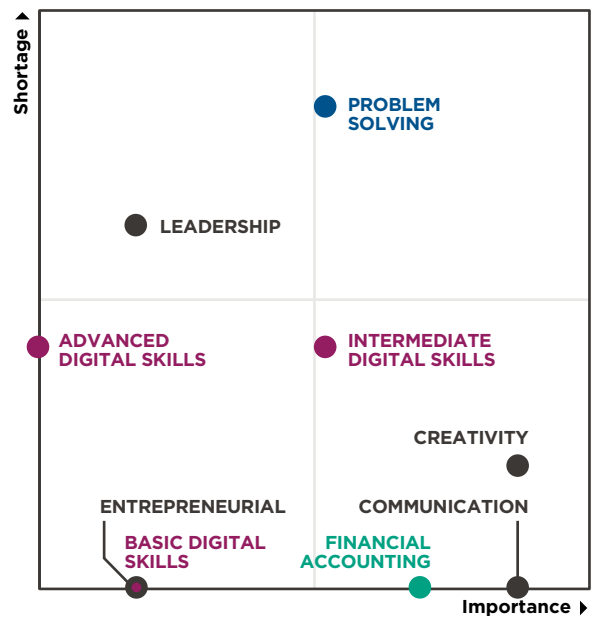
- **Most required:** Creativity, communication, financial accounting, intermediate digital skills
- **Greatest shortage:** Problem solving, leadership

- **Most required:** Basic digital skills, communication, technical/vocational, numeracy
- **Greatest shortage:** Entreprenuerial, financial/accounting

● Technical skills   ● Analytical skills
● Digital skills   ● Behavioural skills

Other barriers to employment: Financial constraints and lack of social protections

While skills gaps underpin most barriers to employment, our experts highlighted other challenges faced by the mobile industry in hiring and retaining a talented workforce.

Limited awareness of existing job opportunities — where to find them and how to apply for them

- Finding the right job requires a lot more skill than merely spotting job postings. Youth in the region experience difficulties identifying the right career path and then 'selling' their skills to an employer. Often, they do not have access to recruitment agencies or consultants who can help them.

- There is a disconnect between expectations and opportunities for youth. One survey has revealed that nearly a quarter of Francophone African youth want a job in the public sector, which accounts for only about four per cent of new jobs.[15]

Lack of financial resources hinders skill development and job search

- The region's education system is not in tune with market requirements, forcing youth to seek additional training. Accessing relevant training courses or recruitment consultants to find jobs is not affordable for youth most in need of these skills.

- Training programmes, specifically those related to soft skills, tend to be unsuccessful or unpopular because they are not perceived as income generating. High unemployment rates and acute financial pressure often steer youth towards courses linked to professional qualifications or certifications that can lead to quick employment.

- Youth cannot afford to wait for attractive job offers without a source of income (there are few unemployment benefits in the region), leading them to accept positions for which they are overqualified. According to the ILO, 16.1 per cent of young employees in SSA (formal sector) are overqualified.[16]

Low-skilled workers, especially informal workers, have limited prospects for job advancement and often lack social protections

- According to our expert group, youth with low skills working as sales agents often feel discouraged because they perceive few opportunities for job advancement. Lack of opportunity is compounded by difficult working conditions: most are informal jobs without social protections or job security, and unstable revenues.

- In a region where informal work is the norm, few are covered by social protection schemes. In Ghana, 18.3 per cent of the population is covered by at least one social protection, which is significantly lower than in other regions. Nigeria ranks much lower, however, with only 4.4 per cent of its population covered.[17]

> Access to information is an issue as there are no digital platforms communicating updated and relevant offers for all profiles. Finding a job depends a lot on who you know.
>
> **Youth employment organisation, Senegal**

> Launching digital training is complicated: youth often cannot afford not to work for six months and to live in the capital city without financial compensation.
>
> **Mobile network operator, Côte d'Ivoire**

> Jobs [such] as street hawkers distributing mobile services are hard and can be demotivating. Upskilling them to keep them motivated is important.
>
> **Youth employment organisation, Senegal**

15   IDRC (2015), Youth Employment in Sub-Saharan Africa, Taking Stock of the Evidence and Knowledge Gaps. 1-2-3 Surveys conducted in Francophone African country capital cities. Extracted from Cling et al. (2007)

16   ILO, Palmer R. (October 2017), Jobs and Skills Mismatch in the Informal Economy. Data from ILO's School to Work Transition Survey (SWTS). Methodology: target group of the survey is youth aged 15–29 years

17   ILO, World Social Protection Report (2017). Based on World Social Protection Database, ILOSTAT, national sources

Other barriers to employment: Poor human resources practices

Human resources (HR) recruitment practices: do high qualifications or better connections guarantee a good employee?

- According to some youth employment experts, private companies often recruit top achievers from the best schools and set high academic achievement criteria. Some believe 'youth potential' is not assessed or valued.

- According to a Cambridge University survey about youth experiences in low and middle income countries, the lack of 'right personal and family connections' was considered a key barrier to their job search.[18] This means that youth who do not attend the best universities or have the necessary connections cannot secure formal jobs with good employers in the mobile industry.

- This not only creates barriers for job seekers, but also significantly limits the talent pool for employers. The industry primarily recruits from top universities, which tend to have the right networks with employers. A lack of available platforms to connect employers with youth was highlighted as a key barrier by our expert group.

Employers face challenges retaining highly skilled talent and understanding the aspirations of the millennial generation

- Some in our expert group noted a lack of attractive jobs for the most talented workers, who tend to look abroad for better opportunities. MNOs also face competition from other sectors (insurance, banking, tech companies, etc.). They mentioned wages, lack of career progression and a culture of authority as some of the contributing factors.

- A lack of opportunities for employees to build their skills contributes to the problem of attrition. This is most common among youth in middle-skilled jobs, such as call centre agents, who tend to feel more limited by the opportunities in their organisations to learn and expand their skill-sets to progress in their career.

- Our expert group pointed out that the industry is also grappling with issues related to the generation gap between employers and job seekers. With the advent of the gig economy, job seekers are increasingly presented with informal employment opportunities that offer a secondary source of income, making them less reliant on employers. This is a new perspective for an older generation recruiting young graduates, and training is required to sensitise both employers and employees and help them adapt to the changes.

> **"**
> HR should be reminded that the skillset and demographics of the current youth are changing, and they should change their recruitment criteria to match this.
>
> **Recruitment and training agency, Ghana**

> **"**
> Millennials don't want to stay in the same company for more than six years. This is an issue since telcos invest a lot in training.
>
> **Mobile network operator, Nigeria**

> **"**
> Jobs in sales and call centres offer little advancement opportunities; people may spend many years there and they do not gain many skills in doing so.
>
> **Mobile network operator, Ghana**

18   Barford & Coombe (April 2019), Getting By: Young People's Working Lives, University of Cambridge. 249 respondents aged 18 to 35, predominantly from Sub-Saharan Africa, followed by Asia.

The specific challenges of vulnerable youth groups: Rural residents

Vulnerable youth groups enter the labour market with fewer assets

There are significant imbalances in education among vulnerable youth:

- The percentage of rural youth aged 12 to 14 who have not attended school is considerably higher than that of urban: 18 per cent versus 6 per cent.[19]

- In SSA, 35 per cent of females aged 15–24 are not in employment, education or training (NEET) compared to 20 per cent of males.[20]

- Young women are 41 per cent less likely than young men to use mobile internet, and rural populations are 58 per cent less likely to use mobile internet than those living in urban areas.[21]

- Primary school completion rates are 10 points lower for girls with disabilities than for girls without disabilities in SSA, and 13 points lower for boys with disabilities.[22]

Rural youth face higher poverty and geographical barriers

- The **main barrier for rural youth is geographical**: universities, training centres and most formal job opportunities are usually located in major cities.

- **Rural populations are also significantly poorer** than their urban counterparts:[23] 38 per cent of the rural population in Ghana is poor compared to 11 per cent of city dwellers. In Nigeria and Senegal, the rate is considerably higher: 53 per cent versus 34 per cent, and 57 per cent versus 33 per cent, respectively.

- **Higher levels of poverty influence training and employment opportunities:** rural youth often cannot afford to leave their hometown to study or find employment in major cities. They are also more likely to drop out of school than urban youth,[24] which considerably limits their chances of accessing quality, decent work.

> Rural connectivity issues [...] hamper rural youth access to information in real time.
>
> **Mobile network operator, Cameroon**

> There are a few good trainings outside of Dakar but they remain rare in Senegal. Everything is centred around the capital and it costs a lot of money for rural youth to study far from home. Moreover, most work opportunities are in Dakar, except for some sales jobs...
>
> **Youth employment organisation, Senegal**

19   World Bank Group (2015), Why Do Sub-Saharan African Youth Drop Out of School? Sources: Feda and Sakellariou (2013)
20   World Bank Data. Derived using data from ILO, ILOSTAT database.
21   GSMA, Mobile Internet Connectivity: Sub-Saharan Factsheet (2019)
22   World Health Organisation, World Report on Disability (2011)

23   World Bank data. Rural poverty headcount ratio at national poverty lines (% of rural population). Urban poverty headcount ratio at national poverty lines (% of urban population)
24   World Bank Group, Why Do Sub-Saharan African Youth Drop Out of School? (2015)

The specific challenges of vulnerable youth groups: Females and persons with disabilities

Young women face systemic and self-reinforcing employment barriers

Our expert group and the literature agree that cultural barriers limit access to education and training for young women.

- There is often a lack of HR policies encouraging work-life balance (e.g. parental leave, flexible hours) for women. A recent survey found that 32 per cent of female respondents in the ICT sector in Ghana said they would not be able to keep their job if they became pregnant.

- Sexual harassment and gender discrimination are also a concern. Some members of the expert group indicated that companies do not always align their values with internal policies to make women feel safe and valued at work.

- Consequently, women are less represented in senior positions (fewer than one in 10 senior leaders in African ICT companies according to the GSMA) and female youth have fewer female role models to inspire their education and career choices.

"
Barriers faced by women exist before employment (family pressure) and after employment (sexist attitudes in the workplace).

Youth upskilling organisation, Nigeria

Youth with disabilities face accessibility barriers and social stigma

- Many education systems are not designed to be inclusive of persons with disabilities (PWD), resulting in lower educational achievement.[27]

- The literature also shows that PWD are considerably less likely to be employed: in SSA, the employment to population ratio is 34 per cent compared to 53 per cent for persons without disabilities.[28]

- In terms of inclusiveness in the workplace, some mobile industry players admit they lack suitable infrastructure to welcome PWDs and/or are not proactive enough in their efforts to employ youth with disabilities. Persistent stereotypes also have an impact on the hiring of PWD.

- The **Digital Accessibility Rights Evaluation** (DARE) index score[29] assesses the progress of 121 countries in regulation and policy implementation for PWDs. Nigeria ranks 97th with very little regulation and medium-low implementation capacity. Ghana is 59th, with many laws and regulations, but also medium capacity for implementation. Senegal falls between them at 87th, with average results in both regulation and implementation.

"
We apply international standards to welcome PWDs, so we could hire them but there are few candidates and not a lot of communication towards them.

Mobile network operator, Madagascar

25   BSR, Women's Economic Empowerment in Sub-Saharan Africa: Recommendations for the Mobile Telecommunications Sector (2017)
26   GSMA, Accelerating the Digital Economy: Gender Diversity in the Telecommunications Sector

27   World Health Organisation, World Report on Disability (2011)
28   United Nations, Realisation of the SDGs by, for and with Persons with Disabilities (2018)
29   The Global Initiative for Inclusive ICTs, DARE INDEX Country Dashboard (2017–2018)

Youth employment
A roadmap for the mobile industry

Objectives and strategies for the mobile industry

Overview	Solutions that mobile industry players can implement quickly and with limited investment. These include programmes or activities that depend primarily on internal resources and can be led within their own organisation.	Solutions to complex challenges that often require collective solutions and/or structural changes. These will take longer to implement, often require collective actions and partnerships with other stakeholders (non-profit, government and public authorities, technology and other private companies and international organisations, such as development agencies) and medium to large investment. They also refer to advocacy efforts the mobile industry could be required to promote to create long-term structural transformation
	SHORT-TERM STRATEGIES	**MID/LONG-TERM STRATEGIES**
Bridge the skills gap for current and future employment opportunities	• Develop scholarships, internships, graduate and apprenticeship programmes for students. • Support educational institutions to build their capacities.	• Support and accelerate youth upskilling programmes in partnership with upskilling organisations and other partners (e.g. tech companies). Encourage affirmative action to ensure accessibility for vulnerable youth groups. • Promote future-ready education and curricula by working with education providers and universities. • Encourage the provision of student work placements through sectoral incentives for participating companies.
Increase information and awareness about employment opportunities and ensure inclusiveness for all	• Improve access to information and increase awareness of employment opportunities in the mobile industry. • Implement more inclusive HR practices to create more diverse recruitment profiles and shift away from the 'culture of the diploma'.	• Partner with employment organisations to increase the visibility of job offers, including among vulnerable youth groups. • Accelerate and support entrepreneurship in the mobile industry ecosystem, including organisations that foster entrepreneurship among vulnerable youth groups. • Investigate decentralising certain job functions, especially to rural areas.
Ensure decent working conditions to help youth achieve their full potential	• Consider social incentives to improve benefits for informal workers. • Create mechanisms that promote gender equality, such as parental benefits and flexible working hours. • Raise awareness of gender violence and establish mechanisms to improve women's safety in the workplace. • Improve accessibility for youth with disabilities. • Launch dedicated research/teams to better understand the expectations and needs of millennials.	• Advocate for better social protections and health schemes, especially for informal workers.
Develop lifelong learning and on-the-job training opportunities	• Design capacity building programmes that target low-skilled and informal workers. • Accelerate mentorship programmes in companies associated with the mobile industry. • Promote lifelong learning and on-the-job training.	

Bridging the skills gap

Develop scholarships, internships, graduate and apprenticeship programmes for students

- Industry players are facing increased competition from other sectors (banking, insurance, etc.) to recruit talent. Scholarship and graduate programmes make it possible to identify and retain talent from universities while also improving access to higher education for youth, including vulnerable groups. Since its inception, the **MTN Nigeria Foundation**[30] has awarded annual scholarships (200,000 Naira or $550) to over 3,300 STEM (science, technology, engineering and mathematics) students and about 500 visually impaired students attending Nigeria's public universities.

- From vocational and technical degrees to tertiary degrees, internship and apprenticeship programmes provide students with work experience and improve their work readiness and skills. In Nigeria and Ghana, **Microsoft's Apprenticeship Factory**[31] gives apprentice developers an opportunity to spend up to six months with senior software technicians and get priority access to jobs through the Microsoft ecosystem. Competitive programmes for young top talent, such as **Andela,**[32] provides students with six months of intensive on-the-job training, after which students are employed in a remote position for 3.5 years with a partner company in one of Andela's four African offices. Andela is backed by the IFC and Google Ventures, among others.

Support educational institutions to build their capacities

- To build the skills of youth, it is important to train teachers and trainers and support educational institutions with expertise (e.g. teacher training, conferences) and pedagogical tools (e.g. laboratories, computers, machines). Through its **Teacher Training programme**[33] in Nigeria, **9mobile**, in partnership with the British Council, strengthen teaching skills and English language proficiency.

33 9mobile CSR reporting

30 MTN Foundation
31 Microsoft4Africa
32 Andela

Bridging the skills gap

Support, accelerate and invest in youth upskilling programmes

- To address the skill needs of the mobile industry and create a pool of future candidates, mobile industry players can partner with youth upskilling organisations to co-design and support training programmes at all skill levels. Emphasis can be placed on skills most in demand but in shortest supply (behavioural and digital skills). These courses can range from awareness raising at an early age (**Vodafone's Instant Schools**,[34] which provides online access to educational resources from primary to secondary level) to training for young professionals (**Google Digital Skills for Africa**,[35] which trains job seekers and small and medium enterprises on digital tools, with two million people trained to date). In Senegal and Côte d'Ivoire, social start-up **Simplon**[36] supports vocational training and education programmes that teach technical skills and provide training for youth in digital professions (web developers, etc.).

- Joint efforts from MNOs, development organisations and private sector companies, including the tech sector, could support upskilling programmes at scale. **Coding for Employment**,[37] an **African Development Bank** programme supported by the **Rockefeller Foundation** and private companies such as **Microsoft, Facebook** and **Safaricom**, aims to equip African youth with basic to advanced digital skills. Each of the 130 centres is expected to train at least 1,800 youth over two years. **Global Alliance for YOUth**[38] (see case study) also demonstrates the importance of building coalitions to foster youth employment and training and accelerate opportunities.

34   Vodafone Instant School
35   Google Digital Skills for Africa
36   Simplon CIV
37   Coding for Employment press release

CASE STUDY

GLOBAL ALLIANCE FOR YOUth

Global

Global Alliance for YOUth[38] is a business-driven movement founded by Nestlé and 20 other global companies (Firmenich, EY, SAP, Microsoft, Vodafone, Mastercard and others). Established in 2014, it has supported 150,000 opportunities for youth to date. In 2019, initiatives were launched in **Côte d'Ivoire, Angola and South Africa**. In Côte d'Ivoire, MTN joined the initiative and pledged, along with other corporate partners, to create more opportunities for youth and to foster youth employment and entrepreneurship by investing in specific initiatives.

38   Global Alliance for Youth

Best practices in youth upskilling programmes

Link upskilling programmes with employment opportunities

Placement is the key to a successful upskilling programme. Partnerships between trainers and future employers are necessary to ensure that trainees get access to quality work opportunities. In South Africa, **Harambee**[39] provides training to unemployed youth aged 18–28 and partners with over 30 employers to secure placements. Placements also require proper assessment of skill demand at the local level. In Kenya, the **Vusha** project, through the **African Centre for Women in Information and Communication Technology**[40] (ACWICT), assesses which digital skills are most in demand locally and have a placement rate of 80 per cent (in jobs or online work).

Seek co-funding partners

Funding a business model linked to a training programme is challenging. Stakeholders should look for alternative funding and support, such as international organisations and donors, which are increasingly interested in these issues. The **African Development Bank**[41] has invested **$1.64 billion** in programmes over the past 15 years to prepare youth for careers in science, technology and innovation.

Be aware of infrastructure constraints

Many youth (especially those living in rural areas) still do not have access to stable electricity or mobile data. Training programmes should provide solutions to overcome infrastructure barriers (space, tools, etc.) to ensure training is accessible.

Develop pricing models that consider the target audience

There are different points of view on the price of training courses. Some believe training should be free to enable as many youth as possible to have access. Others suggest that free access can lessen the commitment of participants. Mobile industry companies should consider pricing decisions carefully and be aware of the constraints of their target audience.

Design incentives to keep trainees on the programme, especially the less privileged

Beyond pricing, incentives could be introduced to reduce attrition. Incentives can take different forms and range from financial incentives to benefits in kind. While **Orange**, through its partnership with **Open classrooms**,[42] guarantees access to free training to unemployed people in some countries (such as Benin and Togo), other incentives could include meals or transportation.

Ensure programmes are accessible to vulnerable youth groups

Extra effort should be taken to attract women, who are less likely than men to demand upskilling, to the digital ecosystem. Affirmative action and quotas can be implemented to ensure equitable access. Some organisations focus on women alone: in Nigeria, **Women Tech Empowerment Centers**[43] provide ICT training to women only (27,000 women have been reached and 86 per cent are pursuing a STEM-related career).

Other youth groups, like youth with disabilities or rural youth, require specific measures to follow training programmes. Blended approaches, such as mixing online and offline courses, can provide interesting alternatives, especially for people who cannot attend in-person training.

39   Harambee South Africa
40   BSR, Telecommunication Brief (2017)
41   Coding for Employment press release

42   Orange press release
43   WTEC

Best practices in youth upskilling programmes

⚙ Promote future-ready education and curricula by working with education providers and universities

Limited connections and lack of communication between academia and the professional world were often raised by the experts interviewed for this research. Two important steps can be taken to close this gap:

- **Provide data and information on skill demand:** Collect and share up-to-date data on industry needs and trends to inform education policies.

- **Foster and participate in national dialogue with education providers:** Participate in discussions led by education providers (public and private) to co-design future-ready curricula and publicly advocate for greater dialogue between industry and educational institutions. Such programmes have been implemented successfully in other industries, such as the **IECD's Seeds of Hope,**[44] which is currently operational in Nigeria and Côte d'Ivoire in the energy and utilities sectors (see case study).

⚙ Encourage student work placements through incentives for participating companies

- Internships and apprenticeships are initiatives the industry can take to increase work experience for youth. To foster this practice, government and public authorities should consider providing financial incentives (e.g. direct funding, tax incentives) to companies that provide work placements. In Nigeria, the government established and funded the **Students Industrial Work Experience Scheme (SIWES)**.[45] SIWES is a mandatory programme for all Nigerian university students in designated technical fields. Ministries and companies are obliged to provide industrial placements to students for six months. The federal government funds an allowance for all students (about $7/month) while employers pay them a salary. The government also funds the support structure that coordinates the scheme (providing orientation services, sourcing candidates, etc.). In South Africa, the non-profit **Yes4Youth (YES)**[46] partners with government and employers to upskill youth and provide them with work placement opportunities. The government assists employers with costs associated with the training and a 12-month work placement.

CASE STUDY

Seeds Of Hope, European Institute For Cooperation And Development (IECD)

Nigeria and Côte d'Ivoire[44]

IECD is a non-profit organisation that promotes education and vocational training in emerging economies. Seeds of Hope is a flagship programme developed in collaboration with electricity and energy industry players. **The programme provides low-skilled youth with skills in energy and utilities, and arranges work placements** in partner companies.

The programme was initiated in Lebanon in 2007 and has since been replicated in six countries, including Nigeria and Côte d'Ivoire. In addition to training, the IECD **promotes dialogue between employers and vocational education providers** to jointly develop work-oriented curricula. It also encourages all partners to advocate for the development of this curricula at a national level. In Lebanon, **this approach led to the creation of a new official vocational curriculum** recognised and scaled by the government.

44   Seeds of Hope
45   SIWES
46   Yes4Youth

Increase information and awareness about opportunities in the mobile industry

Improve access to information and raise awareness of employment opportunities in the mobile industry

Lack of access to information is one of the main barriers for young workers, especially those in vulnerable groups. The mobile industry can increase access to information through a mix of online and offline communication channels.

- **Offline:** Communicate opportunities at universities, vocational training centres and schools by initiating and participating in events like career fairs and conferences. Engage female managers specifically to develop champions for women in the digital economy.

- **Online:** Accelerate the use of job-matching platforms and services to improve the visibility of job postings. In 2016, **Talent2Africa**[47] was launched as the first pan-African online recruitment platform to target both the diaspora and people living in the region. Services are currently available in Casablanca, Dakar, Abidjan, Nairobi, Paris and Boston.

- Increasing information also requires raising awareness about entrepreneurship opportunities and promoting a generation of 'tech creators'. Mobile industry companies can launch awareness campaigns (online and offline) to communicate the potential of youth in the development of new technologies. **Voice of the Youth** is a social entrepreneurship training and contest launched by **Social Change Factory**.[48] It is broadcast on national TV in seven West African countries to showcase role models and connect rural and urban youth in entrepreneurship projects.

CASE STUDY

MTN Career Day

Global

MTN's first global Career Day[49] was held in 2018 and **was attended by 7,500 people**. The day aimed to provide youth with insights into current and future realities of work and the impact technologies will have on work, employment and entrepreneurship. The event was held on the same day in all countries in which MTN operates.

47   Talent2Africa
48   Social Change Factory
49   MTN Global Career Day

Increase information and awareness about opportunities in the mobile industry

Partner with employment organisations to increase the visibility of job postings, including among vulnerable groups

- Specific partnerships could be launched with employment and/or non-profit organisations (e.g. women's associations, rural schools) to provide information to vulnerable youth groups. In Nigeria, the **Center for Employment for People with Disabilities (CEPD)** facilitates the employment of PWDs by educating employers, the public and PWDs, as well as offering employment services and training.

Implement inclusive HR practices to recruit more diverse employees and shift away from 'diploma culture'

- Some recruitment processes are already in place to improve the likelihood of vulnerable youth groups accessing jobs, and should be accelerated. For example, setting diversity targets, training recruiters and raising awareness of unconscious bias. **Vodafone** has created a **gender equality steering committee**[50] across Africa, the Middle East and Asia Pacific to enhance opportunities in the company and improve communication with female employees and customers.

- Our research indicates the need to shift away from a 'diploma culture' that limits the ability of recruiters to identify high-potential profiles without traditional academic qualifications. The rise of digital and coding professions and alternative training courses (e.g. bootcamp) are changing perceptions, but slowly. Mobile industry players should raise awareness of recruitment processes that assess and value a candidate's potential beyond the possession of a diploma. HR staff should also be educated about alternative training approaches, particularly in digital professions.

50   BSR, Telecommunication Brief (2017)

Accelerate and support entrepreneurship in the mobile industry ecosystem, including organisations that foster entrepreneurship among vulnerable youth groups

The digital economy offers many opportunities for youth to start their own businesses. The mobile industry has been supporting young entrepreneurs on the continent for several years, particularly through incubators. These initiatives must be accelerated and strengthened to create quality opportunities for youth. Recommendations outlined below:

- **Accelerate entrepreneurship training:** Encourage students to look for digital entrepreneurship opportunities by supporting training programmes and incubation schemes for early-stage student enterprises. **MTN Academic Research and Development for Graduate Students (ARDIC)**[51] provides six-month virtual acceleration and access to digital tools and training to graduate students who want to translate their research into high-impact innovations.

- **Support the innovation ecosystem and integrate start-ups from the mobile industry ecosystem in R&D processes to support local, homegrown tech solutions:** New digital tools and innovation developed by local start-ups can be supported and integrated in large and established innovation processes through in-house start-up incubators and revenue-share business models. **Orange** has been developing its **Orange Fab initiative**[52] to develop commercial partnerships between local start-ups, Orange and other large ecosystem players. In Senegal, it offers $16,000 in seed funding, office space and a six month mentoring programme to selected start-ups.

- **Strengthen support for organisations encouraging entrepreneurship among vulnerable youth groups:** Organisations dedicated to entrepreneurship, including for vulnerable youth groups, are a burgeoning sector that can benefit from the support of mobile industry players. **Women in Tech Africa**[53] has been created to increase the number of women entrepreneurs in the digital economy. The organisation has members in 30 countries, including operations in Ghana. Every year, it organises the Women in Tech Week, sponsored by **Google**, **Facebook**, **Microsoft** and others to promote entrepreneurship among women.

CASE STUDY

Vodacom Digital Accelerator

Tanzania

Vodacom Digital Accelerator[54] was launched in 2019 to **support local early-stage and growth-stage digital start-ups**. It provides entrepreneurs with mentorship, business development training, office space and coaching from Vodacom staff. Vodacom also provides access to its customer base to test products, technical support for IT solutions and investment for the most promising start-ups. The **three-month acceleration programme is the result of a partnership between Vodacom and SmartLab**, a popular Tanzanian innovation hub.

51 MTN ARDICI
52 Orange Fab
53 Women in Tech Africa
54 Vodacom

Increase information and awareness about opportunities in the mobile industry

Investigate decentralising certain job functions, especially to rural areas

- One of the main difficulties rural youth face is the lack of opportunities where they live. The mobile industry already has a footprint in rural areas and small to medium-sized cities through different channels, such as distribution and retail, agencies and infrastructure. Interesting programmes have been launched to help rural youth access employment opportunities. For example, **Rural Shores**[55] is a social programme in India that provides solutions to outsource certain digital functions to rural areas (such as customer helpdesks or post-sales services) and provides employment for underprivileged rural youth. It aims to integrate rural youth into the digital economy with a specific focus on women, who represent 50 per cent of employees.

55   Rural Shores

Provide favourable working conditions to help youth achieve their full potential

Consider social incentives to improve benefits for informal workers

- Our research demonstrates that most employment opportunities in the mobile industry will still be informal in 2025 (64 per cent of direct employment). Informal workers are often self-employed and lack a basic safety net of social protections. While governments have a major role to play in expanding social protection schemes to informal workers, mobile industry players can introduce social benefits to workers in their value chains. The multinational cheese company **Bel** has created an interesting benchmark. The Group launched the **Sharing Cities programme**,[56] which offers social benefits like insurance products to its network of street vendors, including in Africa. The initiative benefits from the support of the IFC.

Advocate for better social protection and health schemes, especially for informal workers

- The mobile industry has a role to play in advocating and partnering with local and national governments to improve access to social protection and health services. Mobile health technologies are an opportunity to develop innovative services for the most people, including value-added services to identify practitioners and obtain health advices, etc.

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56   Bel Group press release

Provide favourable working conditions to help youth achieve their full potential

Create mechanisms to promote gender equality, such as parental benefits and flexible working hours

- Digital companies can create favourable environments for women to work outside traditional roles (e.g. marketing, sales, communications), promote equal career paths and bridge the gender pay gap. Some MNOs have established dedicated teams and committees to raise awareness of discrimination, conduct audits, set long-term goals and indicators to promote gender equality, ensure sufficient health and maternity benefits and offer flexible working hours. **Ericsson**[57] provides unconscious bias awareness training for its employees as part of an effort to close the gender gap.

Increase awareness of gender violence and improve women's safety in the workplace

- Creating safe workplaces is critical for women to pursue corporate careers. Companies can take steps to better understand the needs and potential issues women are facing, provide services to address sexual harassment (e.g. helplines) and raise awareness of gender violence among their employees.

CASE STUDY

Vodafone Parental Leave

Global policy

Vodafone Group announced its aim to become the world's **best employer for women by 2025**[58] and help them progress in their careers. In 2015, it launched a **global maternity policy** offering all women in its global market a minimum of 16 weeks fully paid maternity leave, and in October 2019 **extended this policy to 16 weeks parental leave**. Vodafone also launched the **Reconnect programme** in 2017 to recruit women who have been out of the workplace for several years and help them find new opportunities.

57   Ericsson

58   Vodafone press release

Provide favourable working conditions to help youth achieve their full potential

Improve accessibility for youth with disabilities

- To ensure the full participation of youth with disabilities, companies need to audit their practices for managing accessibility. For example, developing infrastructure and training programmes for employees with specific needs, ICT tools that enable access to information and communication and flexible hours.

Create dedicated HR teams to better understand the expectations and needs of millennials

- The mobile industry is finding it increasingly difficult to retain and motivate young talent, and have established dedicated HR teams for millennials to understand their perspectives, aspirations and motivations in the workplace, and find ways to engage and retain them (e.g. training programmes, incentives, specific career paths).

Foster career progression

🎯 Design capacity building programmes for low-skilled and informal workers

By 2025, most employment opportunities will be in low-skilled jobs, including informal ones. Mobile industry players have a unique opportunity to contribute to the social and economic empowerment of these workers.

- Other sectors have set up in-house training and programmes to facilitate internal promotions and career development for low-skilled workers. This has been implemented successfully in the retail and energy sectors, including **Total's young managers programme**,[59] which helps gas station attendants become managers.

- For informal workers who are primarily self-employed (e.g. airtime resellers), support from the mobile industry could include enhancing financial inclusion through access to credit and/or training and tools to improve their performance and earn higher wages. In Cameroon, **MTN Sales Academy**[60] supports partners and sales teams in its vast distribution network (40,000 mobile money touch points and 80,000 sales outlets across the country) with training and tools to increase their commercial performance. In 2019, 75 agents were trained as trainers and, in turn, trained thousands of individuals in digital sales management, the use of commercial tools, trade activation, negotiation, communication, management and other skills. MTN Nigeria launched **MTN Biz Grow**[61] in 2015 with LAPO Microfinance Bank to help retailers access credit.

- The mobile industry can take steps to strengthen the socio-economic inclusion of vulnerable youth groups working in the informal sector. The types of initiatives listed above should pay attention to the needs of these populations. In Senegal, **Sonatel** organised its first **'Handi Preneur' Foire**[62] in November 2019 to promote activities and products developed by entrepreneurs with disabilities.

59   Total, Formation des professionnels
60   MTN internal resources
61   LAPO
62   Orange-Sonatel press release

CASE STUDY

Tigo Women Entrepreneurship Fund

Rwanda

Tigo Women Entrepreneurship Fund[63] was established in 2016 in Rwanda when Tigo signed the **GSMA Connected Women Commitment initiative**. It aims to empower and foster financial inclusion by providing training and start-up capital to over **300 women to become Tigo mobile money agents**. In less than a year, it has increased Tigo's female customer base from 39 per cent to 41 per cent and the percentage of female mobile money agents from 30 per cent to 32 per cent.

63   GSMA (2017)

Foster career progression

Accelerate mentorship programmes in companies associated with the mobile industry

To retain talent and ensure career progression for new entrants, some companies have developed coaching and mentoring programmes that connect youth with executives and leaders who accompany them throughout their professional journey.

- These coaching programmes should be accelerated, especially for vulnerable youth groups who often lack role models. Some industry players offer programmes that promote more equal representation of women or PWD in leadership functions (mentorship, leadership training, etc.). For example, **Tigo**[64] has been promoting women in senior leadership for many years with platforms that mentor female employees and increase their visibility.

Promote lifelong learning and on-the-job training

Employees need skill-building opportunities throughout their careers to successfully navigate changing work environments.

- Companies can offer in-house programmes to ensure all employees remain engaged and up-to-date with new technologies and market trends. Many industry players have developed e-learning programmes and provide incentives for employees to update their skills. In Madagascar, Axian set up a training centre for its **TELMA**[65] employees to teach soft skills, new tools and agility.

64   BSR, Telecommunication Brief (2017)
65   Axian Group press release (2018)

CASE STUDY
Women At Y'ello (WAY)
Nigeria

The WAY[66] is a networking programme established in 2018 at MTN Nigeria to **increase gender diversity in MTN and develop leadership among female employees**. It is also used as a recruitment and retention tool. While aiming for complete equality in the future, by 2020 MTN aims to achieve a 60:40 ratio of male to female workers and a 70:30 ratio in senior management. Annual surveys assess the programme's performance based on the satisfaction level of female employees.

66   MTN Sustainability Report

Country profiles
Ghana, Senegal and Nigeria

Ghana
Youth employment landscape and the evolution of employment in the mobile industry
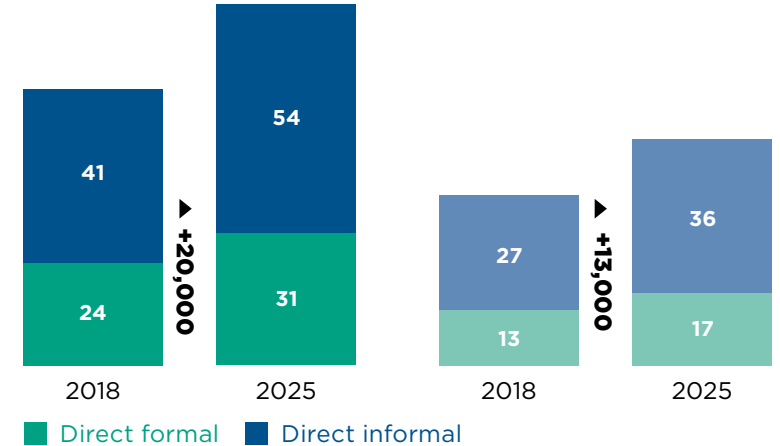
Youth employment landscape

- Ghana's high rate of youth unemployment is in stark contrast to the sustained economic growth recorded in the country over the past three decades. Data reveals that growth is concentrated in non-employment-generating sectors like the oil sector.[67]

- Youth unemployment in Ghana is exacerbated by low levels of formal education. Only seven per cent of youth workers have attended university or received vocational training or other forms of post-secondary education.[68]

- Rural-urban migration fuels the relatively high youth unemployment rate.

- The country's most urbanised areas, the Ashanti and Brong-Ahafo regions, are home to a large number of youth in search of formal employment opportunities.[69]

- In a World Bank study of 27 Sub-Saharan African countries, Ghana had medium to high penetration of basic to intermediate skills and high penetration of some advanced skills.[70]

Employment in the mobile industry, 2018–2025 (thousands)

85,000 jobs will be created in Ghana by 2025

53,000 of these jobs will be for youth

2018: Direct informal 41, Direct formal 24
2025: Direct informal 54, Direct formal 31
+20,000

2018: 27, 13
2025: 36, 17
+13,000

■ Direct formal   ■ Direct informal

2025 job creation by level of qualification (thousands)

The majority of job creation will be in middle-skilled jobs

Low-skilled

| 1 | 1 |

Middle-skilled

| 3 | 2 |

High-skilled

| 1 | 1 |

■ Workforce aged 15–34 (youth)   ■ Workforce aged 35+

Source Computed by Archipel&Co from data in GSMA SSA Industry report (2018, 2019) and from mobile industry experts assessments

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67 Youth Employment and Labor Market Vulnerability in Ghana: Aggregate Trends and Determinants
68 Ibid.
69 Ibid.
70 International Finance Corporation, Digital Skills in Sub-Saharan Africa, Spotlight on Ghana (2019)

Industry roadmap and challenges

Bridge the skills gap for current and future employment opportunities

> New graduates often lack the soft skills required for jobs. This extends to work etiquette: showing up to work on time, how to address people in positions of seniority, etc.
>
> **Youth employment organisation, Ghana**

Increase information and awareness about employment opportunities and ensure inclusiveness for all

> Education standards are low: students are taught skills that are no longer relevant in current industry. The industry is changing too rapidly.
>
> **Recruitment and training agency, Ghana**

> There are not enough jobs, universities do not prepare students for the corporate world. The type of training given is so theoretical that they only have basic Microsoft skills.
>
> **Industry player, Ghana**

Ensure decent working conditions to help youth achieve their full potential

> HR should be reminded that the skillset and demographics of the current youth are changing, and they should update their recruitment criteria to match this.
>
> **Recruitment and training agency, Ghana**

Develop lifelong learning and on-the-job training opportunities

> Jobs in sales and call centres offer little advancement opportunities; people may spend many years there and they do not gain many skills in doing so.
>
> **Industry player, Ghana**

CASE STUDIES

Soronko Foundation

Soronko Foundation connects girls and women with role models, mentorship and relevant ICT tools. The organisation runs the Tech Needs Girls programme, which teaches young girls how to programme. Women and girls gain both IT knowledge and soft skills. Soronko also runs a Women and Digital Skills project that aims to equip women in the informal sector with in-demand IT skills to help them find new jobs, internships or start their own businesses.

Through the Soronko Foundation, over 200 volunteer mentors (who are either computer scientists or engineers) have trained over 5,800 women across eight regions of Ghana.

Code for Ghana

Code for Ghana is part of the Code for Africa initiative, which uses open data and technology to promote responsive, innovative and effective governance. Code for Ghana follows in the tradition of Code for Kenya and Code for South Africa by embedding software developers and data fellows in media organisations for six months. During this period, the data fellows and developers are expected to work with their host organisations on open data projects.

Code for Ghana is jointly funded by the African Innovative News Challenge and Making All Voices Count with support from the Web Foundation.

Senegal

Youth employment landscape and the evolution of employment in the mobile industry

Youth employment landscape

- The Senegalese job market is characterised by few jobs in the underdeveloped formal sector, high rates of urban youth unemployment and chronic unemployment in rural areas that has caused many people, especially youth, to migrate to urban areas.[71]

- One in three youth are not in education, employment or training (NEET) and the rate is even higher for female youth at over 40 per cent.[72]

- Most youth unemployment in Senegal is among youth with no or very low education. In contrast, urban graduates represent the majority of the unemployed in Nigeria.[73]

- Over 40 per cent of employed youth in Senegal are part of the working poor.[74] The working poor are employed people who live in households that fall below an accepted poverty line.

- A 2013 survey conducted in northern Senegal found that youth had a pessimistic view of their labour market and often spent little time searching for a job due to lack of hope, limited information or insufficient funds.[75]

Employment in the mobile industry, 2018–2025 (thousands)

35,000 jobs will be created in Senegal by 2025

22,000 of these jobs will be for youth
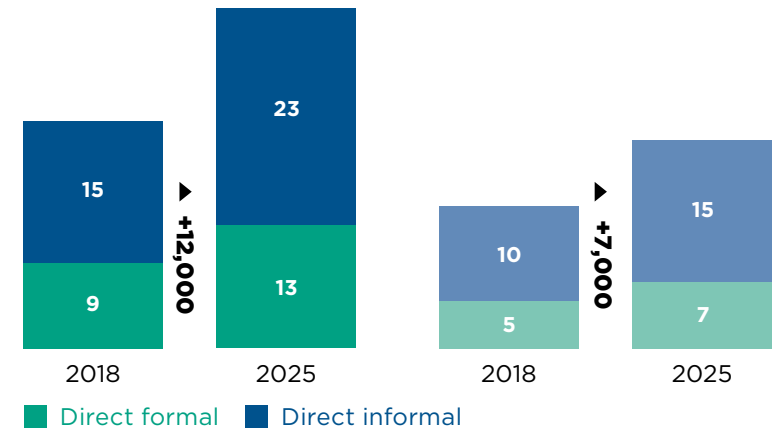
■ Direct formal   ■ Direct informal

2025 job creation by level of qualification (thousands)

The majority of job creation will be in middle-skilled jobs

Low-skilled

Middle-skilled

High-skilled

■ Workforce aged 15–34 (youth)   ■ Workforce aged 35+

Source Computed by Archipel&Co from data in GSMA SSA Industry report (2018, 2019) and from mobile industry experts assessments

71   International Youth Foundation, Youth Employment in Northern Senegal report (2013)
72   ILO
73   Mastercard Foundation, Future of Work report (2019)
74   Ibid.
75   Ibid.

Industry roadmap and challenges

Bridge the skills gap for current and future employment opportunities

> Young people do not know what skills are demanded by employers.
>
> **Youth employment organisation, Senegal**

> There is also a shortage of skills such as critical thinking and problem solving.
>
> **Youth upskilling organisation, Senegal**

Increase information and awareness about employment opportunities and ensure inclusiveness for all

> There is an enormous shortage in digital skills as graduates sometimes do not even have essential digital skills (how to properly use a word document or an online mailing system for instance).
>
> **Youth skilling organisation, Senegal**

Ensure decent working conditions to help youth achieve their full potential

> Access to information is an issue as there are no digital platforms communicating updated and relevant offers for all profiles. Finding a job depends a lot on who you know.
>
> **Youth employment organisation, Senegal**

Develop lifelong learning and on-the-job training opportunities

> The dominant culture says that elders are right and that one should not challenge the status quo so young people are completely passive and have a low sense of autonomy and agency.
>
> **Youth upskilling organisation, Senegal**

CASE STUDIES

Sonatel Academy

Sonatel Academy is a free digital skills training platform for youth in Senegal. Launched in 2017 and delivered in partnership with **Simplon.co**, it aims to increase youth employment by providing training in high-demand digital skills over six to seven months. Sonatel ensures that trainees leave the programme with permanent work placements, including with Sonatel and its ecosystem (labour market integration rate: 85 per cent).

350 students have obtained middle- to high-level qualifications to date, and affirmative action ensures women represent **at least 30 per cent of trainees**.

Université Virtuelle du Sénégal

Université Virtuelle du Sénégal (Virtual University of Senegal) is a government-funded training institution established in 2014. It provides a blend of online and offline training for young people across the country. Students get access to free computers and internet.

Training covers a range of topics, from STEM to social sciences and students can earn masters degrees. 28,000 students were trained through the programme between 2018 and 2019. Fifty training centres will soon be built across the country, including in rural areas.

Youth employment landscape and the evolution of employment in the mobile industry
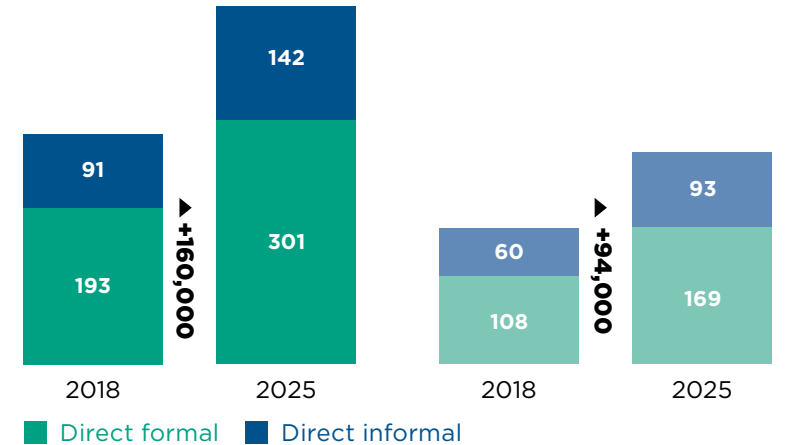
Youth employment landscape

• Factors driving youth unemployment in Nigeria include high population growth, low literacy rates, poor investment climate, and a lack of targeted investment in youth-dominated sectors.[76]

• The largest proportion of youth reside in the urban areas of Lagos in western Nigeria and Kano in the north. Young women represent the highest proportion of uneducated youth.[77]

• Nearly 22 per cent of youth are NEET[78] and this ratio goes up to nearly 25 per cent for young women.[79]

• Most employed people in Nigeria work for themselves or their families, and close to home, often in informal working conditions. Underemployment in the informal sector is therefore one of the main employment problems in Nigeria.[80]

• Reducing youth unemployment will require widescale acquisition of digital skills. However, 'brain drain' is depriving Nigeria of this high-skilled labour force.

• A 2017 report by Startup Genome showed that while Lagos is Africa's largest and most valuable tech ecosystem, it is also the least lucrative for software engineers. This lack of opportunity drives many young Nigerian developers to seek opportunities abroad.[81]

Employment in the mobile industry, 2018–2025 (thousands)

443,000 jobs will be created in Nigeria by 2025

262,000 of these jobs will be for youth

	2018	2025
Direct informal	91	142
Direct formal	193	301

▶ +160,000

	2018	2025
	60	93
	108	169

▶ +94,000

■ Direct formal   ■ Direct informal

2025 job creation by level of qualification (thousands)

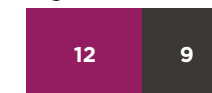The majority of job creation will be in middle-skilled jobs

Low-skilled

| 10 | 7 |

Middle-skilled

| 40 | 31 |

High-skilled

| 12 | 9 |
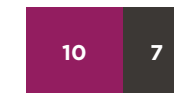
■ Workforce aged 15–34 (youth)   ■ Workforce aged 35+

Source Computed by Archipel&Co from data in GSMA SSA Industry report (2018, 2019) and from mobile industry experts assessments

76   ResearchGate, Factors Causing Youth Unemployment Problem in Nigeria: A Review (2019)
77   K4D, Youth employment needs in Nigeria report (2019)
78   Youth not in employment, education or training
79   ILO
80   Mastercard Foundation, Future of Work report (2019)
81   Quartz Africa, Nigeria's tech ecosystem is struggling to keep hold of its best software engineers (2018)

Nigeria   Youth employment challenges and case studies

Industry roadmap and challenges

Bridge the skills gap for current and future employment opportunities

Increase information and awareness about employment opportunities and ensure inclusiveness for all

Ensure decent working conditions to help youth achieve their full potential

Develop lifelong learning and on-the-job training opportunities

> There is an employability gap. Young people do not have the soft skills to thrive within the workplace.
>
> **Industry player, Nigeria**

> There are no direct links between employers: the trainings are focused on life skills, but are not directly work-ready.
>
> **Youth upskilling organisation, Nigeria**

> There is a need to provide the youth with professional experience before they apply for jobs: apprenticeship, internship etc.
>
> **Youth employment organisation, Nigeria**

> Having access to information and knowing where to look for it is a big problem for many youths. They don't know how to apply.
>
> **Industry player, Nigeria**

> Barriers faced by women exist before employment (family pressure) and after employment (sexist attitudes in the workplace).
>
> **Youth upskilling organisation, Senegal**

CASE STUDIES

Digify Africa Academy

Digify Africa Academy is a digital bootcamp founded in 2014 in South Africa in partnership with Google to teach digital and social media skills to youth.

The 10-week bootcamp provides free courses for anyone in Africa. Launched in Kenya and Nigeria in 2016, Digify's growing network of trainers delivers learning experiences that lead to in-demand jobs in the digital economy or help to launch businesses. As of 2019, Digify has trained over 75,000 students, 200 trainers and launched over 500 professional careers across the continent.

Women Tech Empowerment Centre (W.TEC)

W.TEC is a non-profit organisation that nurtures the next generation of female technology creators, entrepreneurs and leaders. It encourages girls to pursue STEM careers and supports girls and women to use technology for entrepreneurship and to speak about issues affecting their lives. W.TEC runs technology camps, after school clubs, mentoring and research activities.

As of 2019, W.TEC has reached 27,000 girls and women – 86 per cent of whom pursued a STEM-related career and 57 per cent use digital tools to generate income. In total, 1,800 women have started a business as a result of W.TEC support.

Research objectives and scope

Youth employment in Sub-Saharan Africa   Context

The mobile industry   A job creation catalyst for youth in Sub-Saharan Africa

Youth employment   The 'skills gap' and other barriers

Youth employment   A roadmap for the mobile industry

Country profiles   Ghana, Senegal and Nigeria

Appendix

Stakeholders consulted

Mobile industry players

9Mobile Nigeria

Airtel Nigeria

AirtelTigo Ghana

Axian Group, Madagascar

BusyInternet, Ghana

Expresso Senegal

MTN Group, South Africa

MTN Cameroon

MTN Nigeria

MTN Ghana

MTN Ivory Coast

MTN Zambia

Orange Ivory Coast

Orange Labs

Sonatel/Orange Senegal

Telekom Networks Malawi

Vodacom, Tanzania

Zamtel, Zambia

Investment funds and international organisations

African Development Bank

Agence Française du Développement (AFD)

Ghana Skills Development Fund

Investisseurs & Partenaires

Proparco

Wangara Green Venture, Ghana

Innovation Hubs & digital platforms

Ashoka Nigeria

Ashoka Sahel, Senegal

CC Hub, Rwanda

CTIC Dakar, Senegal

HYBR Group, Nigeria

Kumasi Hive, Ghana

Youth upskilling and employment organisations

African Centre for Women & Technology, Kenya

After School Career Development Center, Nigeria

Blossom Analytics, Ghana

Harambee Academy, South Africa

Hope Builders, Nigeria

Institut Européen de Coopération et de Développement (IECD)

Junior Achievement Africa

L'Ainé services, Ghana

OpenClassrooms

RecTrain Services, Ghana

Simplon.co, Senegal

Social Change Factory, Senegal

Talent2Africa, Senegal

Yes4Youth, South Africa

Volkeno, Senegal

University academics and consultants

Caribou Digital

Sciences Po University

University of Cape Town, South Africa

Youth: the World Bank defines youth as people ranging from the age of 15 to 24. This report takes into consideration the extended definition of youth that is more commonly used in the literature and ranges from the age of 15 to 34.

Mobile industry: as per GSMA definition, the mobile industry is defined in this report as the sum of the following sectors: mobile network operators, distributors and retailers, infrastructure and network providers, device manufacturers, content, application and service providers. In quantitative assessments, infrastructure and network providers and device manufacturers have been treated as a single 'equipment' category.

Direct and indirect employment (in the mobile industry)
- Direct employment refers to individuals, both in the formal and informal sector, that are employed by mobile industry companies
- Indirect employment refers to the employment created from the multiplier effect generated in other sectors by the mobile industry. The purchasing of materials and services from various providers along the mobile industry's supply chain contributes to job creation in other sectors.

Informal economy: refers to all economic activities undertaken by workers and economic units that are – by law or in practice – not covered or insufficiently covered by formal arrangement (International Labour Organisation, ILO). Informal employment is also used in this report to refer to these economic activities.

Youth employment journey: corresponds to the different stages youth have to undertake to find, engage in and retain employment. Four stages have been defined in this study as part of this journey: (1) getting the right skills, (2) identifying work opportunities, (3) benefitting from favourable working conditions, particularly for vulnerable youth (female, rural, youth with disabilities), (4) progressing in one's career.

Decent work: as per International Labour Organisation definition, decent work involves "opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organise and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men".

Vulnerable youth groups: in this study, vulnerable youth groups refer to sub-groups of youth. They include female and rural youth as well as youth with disabilities who might suffer from additional difficulties inhibiting their ability to find, engage in and retain employment.

Persons with disabilities (PWDs): persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (United Nations). This study mostly refers to 'youth with disabilities' taking into account persons with disabilities aged 15–34.

Sustainable Development Goals (SDGs): 17 global goals set in 2015 by the United Nations as part of the 2030 Agenda, designed to be a "blueprint to achieve a better and more sustainable future for all". The SDGs are intended to be achieved by 2030.

Skills:

Analytical skills: refers to the ability to understand complex ideas, adapt effectively to the environment and learn from experience and reason (World Bank).

Technical skills: refers to the acquired knowledge, expertise and interactions needed to perform a specific job, including the mastery of the materials, tools, or technologies (World Bank).

Digital skills: are a component of technical skills. For this report, digital skills are divided into three categories: basic, intermediate and advanced digital skills (definition adapted from International Financial Corporation, World Economic Forum and International Telecommunication Union).

- **Basic digital skills** refer to the performing of basic tasks: computer/smartphone literacy, email, typing, mobile app use, SMS and mobile communication.

- **Intermediate digital skills** refer to the use of technology in meaningful ways and accommodating changes in technology: professional software (e.g. Microsoft Office suite), creating presentations, data analytics, digital marketing, social media analytics, etc.

- **Advanced digital skills** refer to the skills required for ICT professions: artificial intelligence (AI) machine learning, big data analytics, Internet of Things (IoT), software development, user experience design (UX), app/ web development.

Behavioural skills: refer to the ability to navigate interpersonal and social situations effectively and include leadership, teamwork, and self-control (World Bank). Behavioural skills are also sometimes referred to as 'interpersonal skills'.

Skills mismatch: is a situation of imbalance in which the level or type of skills available does not correspond to labour market needs (UNESCO, CEDEFOP).

Low-skilled jobs: require almost no qualification and can be learnt through experience or on-the-job (e.g. airtime resellers, street hawkers selling mobile services).

Middle-skilled jobs: require at least technical/vocational/ specialised training to occupy skilled or semi-skilled job positions (e.g. web technicians, technical support advisor, sales assistant, customer services advisor, marketing assistant).

High-skilled jobs: require qualification usually obtained through tertiary education that implies an understanding of interrelated issues and concerns. These jobs also entail responsibilities in management/executive teams (e.g. marketing manager, business intelligence manager, data analyst, HR manager, network engineer, etc.).