



**SKILLS AT SCALE:**  
TRANSFERABLE SKILLS IN  
SECONDARY AND VOCATIONAL  
EDUCATION IN AFRICA

MARCH 2017

“The continent’s young people have the energy and the ingenuity to participate in Africa’s economic growth and create prosperity for themselves and their families. We can support their drive and contribution through relevant and critical transferable or soft skills training.”

-Reeta Roy  
President and CEO  
The MasterCard Foundation

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| Indicates transferable skills case study

# FOREWORD

Despite the recent economic slowdown, the majority of African countries continue to experience economic growth, rising trade and increasing inflows of foreign investment. Peace, political stability and good governance are also on the rise. Yet a closer examination offers a sobering reminder that growth alone does not guarantee equitable development.

Africa is, demographically, a young continent. It is experiencing rapid population growth, along with a slow decline in fertility. The continent's youth population (ages 15–35) is expected to double, to over 830 million by 2050. This new generation has the ingenuity and energy to translate growth into shared prosperity. Currently, however, young people remain on the margins of the formal economy; most work in temporary and vulnerable jobs and many are under- or unemployed. While the majority of youth are literate, they lack functional literacy and job-readiness skills (often referred to as soft or transferable skills). Improving the quality and relevance of education would reduce the skills deficit and mismatch in the job market. An estimated 11 million young people in the region will join the job market every year for the next decade. Secondary, vocational and tertiary institutions have a crucial role to play in preparing students for the workplace, particularly young women and those from economically disadvantaged backgrounds. Even youth who have found jobs

report that they are undereducated for them. Employers agree, noting that young employees lack technical skills and basic workplace skills such as communication, teamwork and problem solving.

This report stems from the Foundation's work to find ways to bridge the gap between the skills students acquire in school and what employers demand. It is a synthesis of three case studies on approaches to scaling up transferable skills training in three African countries. Two of the three case studies profiled in this report were projects supported by The MasterCard Foundation.

We hope the report will contribute to the broader dialogue, and inform stakeholders—other governments, development partners and implementers—on practical approaches to equipping young people with transferable skills and ensuring education systems are more relevant. We also hope to make a valuable contribution to the growing body of work that demonstrates how to take innovative and impactful programs to scale.

**Dr. Peter Materu**

Director, Education and Learning and Youth Livelihoods, The MasterCard Foundation

# ACKNOWLEDGEMENTS

This report synthesizes three case studies that scale up transferable skills training within formal secondary education and technical and vocational training systems in Kenya, Rwanda, and Nigeria. The case studies were completed in 2016<sup>1</sup> by the African Institute for Development Policy (AFIDEP) on behalf of The MasterCard Foundation. This report was prepared by Milena Novy-Marx in partnership with AFIDEP and draws heavily on the case study research and final technical report prepared by AFIDEP.<sup>2</sup> This report documents the experiences of governments, education officials, implementing partners, teachers, instructors, youth, and general secondary school and Technical Vocational Education and Training (TVET) administrators as they incorporated training on transferable skills into their curricula.

The AFIDEP team that conducted the field research and authored the country and final technical reports consisted of Eliya Zulu, Jackline Nyerere, Collins Ouma, Violet Murunga, Martin Atela, Bernard Onyango and Grace Kumchulesi. Angela McIntyre, a consultant engaged by AFIDEP, contributed to the writing of the technical report. Technical input was provided by Kimberley Kerr from The MasterCard Foundation and Milena Novy-Marx.

This project was made possible with the assistance and cooperation of many individuals, institutions and government agencies to which AFIDEP and The MasterCard Foundation are very grateful. In Rwanda, we thank the Ministry of Education, Rwanda Education Board, Workforce Development Agency, Education Development Center, Educate!, Akazi Kanoze Access, Frontiers Adventures Great Lakes, and Health Poverty Action. In Kenya, we are grateful to the Ministry of Education, the State Department of Vocational and Technical Education and Training, the Technical Vocational Education and Training Authority, the Curriculum Development,

Assessment and Certification Council, CAP-Youth Empowerment Institute, Sunrise Hotel, and PridelInn Hotel. In Nigeria, our thanks go to the Federal Ministry of Education, the Ministry of Education, Science and Technology, the West African Examination Council, the National Board for Technical Education, the National Education Research Council, the Science and Technology Schools Board, the Development Policy Resource Center, the MacArthur Foundation Nigeria Office, and the governments of Kano and Plateau States. We also extend our gratitude and appreciation to our country consultants Irene Ndayambaje, University of Rwanda College of Education, Khadijah Hawaja Gambo, Centre for Humanitarian Dialogue, Plateau State-Nigeria, Abdullahi Ishaq Flagore, Rogo Local Government, Kano State-Nigeria.

AFIDEP and The MasterCard Foundation are indebted to all participants in the study who gave their time and shared their thoughtful responses. We gained valuable input from stakeholders who attended the respective validation meetings we conducted at the end of the fieldwork in each of the three countries.

An advisory committee comprising eight experts provided technical input and advice on the design of the project and study instruments, and reviewed and provided input into the country and final technical reports. The committee included Oley Dibba-Wadda, Association for the Development of Education in Africa; Kristin Moore, ChildTrends; Jenny Perlman Robinson, The Brookings Institution; Okwach Abagi, Centre for Research and Development, Kenya; Florian Rutiyomba, Rwanda Education Board; Meshark Opwora, TVET State Department, Ministry of Education, Kenya; Richard Mussa University of Malawi; and Alh Garba Gombe, Kano Educational Resource Department, Nigeria. We sincerely appreciate their expertise and advice.

# EXECUTIVE SUMMARY

Africa is in the midst of dynamic transformation. Despite the recent slowdown in growth due to declines in commodity prices, the economies of many Sub-Saharan African countries continue to grow rapidly. More Africans are living in countries that are governed democratically, and stronger civil societies are making governments more accountable. Many countries on the continent have slowly begun to experience a demographic transition, in which fertility rates fall and a large youth cohort enters the labour force—offering these countries a golden opportunity to dramatically increase economic output and improve living conditions.

“Youth are Africa’s greatest asset ... Africa will remain the world’s youngest region, with the median age of the population under 25 years old. If properly harnessed, this growing working age population could drive Africa’s economic transformation.”

**Jobs for Youth in Africa,  
African Development Bank, 2016**

At the same time, African economies face many challenges in harnessing this demographic dividend. Under- and unemployment rates among the sizable youth population are some of the highest in the world. Not enough jobs exist to employ the vast number of young people seeking work, and youth also lack many of the skills demanded by employers.

Transferable skills, also referred to as soft skills, employability skills, life skills, or 21<sup>st</sup> century skills, are highly valued by employers<sup>3</sup> and have been shown to be correlated with improved outcomes in school, life, and work,<sup>4</sup> but until recently, have not been integrated within formal education systems on the continent.

Historically, curricula at the secondary and tertiary levels in Sub-Saharan Africa have not offered youth training in these skills. That is beginning to change. A number of African governments are responding by reforming their education systems to better prepare youth to participate in the global economy, replacing theoretically focused and knowledge-based curricula with curricula that are competency-based. These curricula emphasize student acquisition of competencies, more active and student-centred pedagogy, and training in both technical and transferable skills in order to help youth build the capacities they need to succeed in work and life.<sup>5</sup>

This study examines three cases in which governments in Sub-Saharan Africa have undertaken reforms of formal secondary as well as TVET systems to better incorporate training in transferable skills. While, until recently, this type of skills training was largely implemented on a small scale by private and non-profit organizations working largely with out-of-school youth, these cases offer early examples of how the governments of Rwanda, Kenya, and Nigeria have brought this training into the formal education system and scaled it up, sometimes dramatically.

## Definition of Transferable Skills

For the purposes of this report, we define transferable skills as “higher order cognitive skills and non-cognitive skills that individuals use to be successful across different situations in work and life.”<sup>6</sup> Transferable skills include, but are not limited to, problem solving, critical thinking, communication, collaboration, leadership, and character skills such as perseverance, empathy, and emotional regulation, as well as financial and information technology literacy and entrepreneurship capabilities.<sup>7</sup> The United

Nations includes conflict resolution and the ability to become a responsible global citizen. Transferable skills is the term we have chosen to use in this study due to its emphasis on the portability of skills across jobs and fields.

## Case Studies

The case studies examined in the report are:

*Akazi Kanoze, Rwanda*, an employability skills program designed by Education Development Center (EDC) for out-of-school youth, that was brought into the formal secondary school curriculum across Rwanda as part of the government's education reforms.

*CAP-Youth Empowerment Institute (CAP-YEI), Kenya*, an employability skills training program incorporated by the government within the formal technical and vocational educational system.

*Senior Secondary Education Curriculum, Nigeria*, a new curriculum that focuses on technical and transferable skills training designed and rolled out nationwide by the federal government.

The scale-up of transferable skills training described in the above three cases has occurred within the secondary education system in Rwanda and Nigeria and in the TVET system in Kenya. In the case of Rwanda and Kenya, the governments have incorporated skills training models that were piloted successfully in the non-profit sector, while in Nigeria, the federal government has reformed its curriculum from scratch and passed these changes on to the states for implementation. Each of these cases offers a unique view on how training in transferable skills can be scaled up widely within formal education systems, as well as lessons and insights on the drivers of scale, implementation challenges, and potential solutions.

## Drivers of Scale

The research found six drivers of scale that were important to pushing education reform forward.

*An enabling policy environment* that is supportive of education reforms, and where clear goals are articulated at a high level by government. This creates a window of opportunity for social entrepreneurs and other change makers within and outside of the system to promote innovation.

*Evidence of impact on youth employment and entrepreneurship* played an important role in catalyzing education reforms in each of the three countries, and, importantly, in the decisions to incorporate new transferable skills training models into formal school curricula as in the case of Rwanda and Kenya.

*Strong political champions* were key in scaling training programs within formal education systems in Rwanda and Kenya. Distinct from multi-stakeholder engagement, visible and vocal champions who support reforms or advocate for particular training models can ease scaling by removing institutional obstacles, making connections, and even providing resources, whether financial or in-kind. In-kind support can come in the form of government staffing or access to facilities. The combination of political champions and an enabling policy environment can be powerful.

*Wide stakeholder engagement* drove scaling in all three cases examined, particularly in Rwanda and Kenya. Broad engagement and input from a variety of actors were important in the design and implementation of these countries' competency-based curricula.

*Decentralization of authority for education* had mixed impact depending on the resources and capacity of governments at multiple levels.

*Flexible funding helped drive scaling* in the cases of Akazi Kanoze in Rwanda and CAP-YEI in Kenya.

## **Delivery Challenges and Solutions**

Numerous delivery challenges were encountered in each of the three cases. In many cases, solutions were available to help address them.

*Adapting training models for scale* was challenging in all three cases. Modular programs and innovative design, coupled with evaluations identifying necessary components, were solutions.

*Resource constraints, including teaching materials* was a common theme within each of the three cases. Partnerships with the private sector and parents, revenue generation at schools through practical projects, and use of the Internet were solutions.

*Training teachers and instructors in new pedagogies* was central for successful implementation, but occurred in varying degrees in each of the three cases. There was a need for early planning and coordination with teacher training institutions, and innovative in-service training models.

*Lack of assessment tools for measuring transferable skills* is a general challenge. There is a need to identify new tools and recognize that assessment of transferable skills may not be possible in traditional exam settings.

“... work readiness is not a curriculum. ... rather, it is an experience. Hence teachers need to be equipped with non conventional teaching methods right from teacher training so that they can design a set of activities that enable students to touch immediate results.”

**Akazi Kanoze implementing partner**

## **General Recommendations for Scaling Training in Transferable Skills**

Drawing from the three cases examined, this report makes the following recommendations to governments, donors, implementers, and researchers:

### **For Governments and Implementers:**

#### *Create space for innovation*

Identify well-designed pilot projects with a strong record of positive impact on youth livelihoods that can be embedded within schools or training centres and that can be eventually scaled.

#### *Plan for scale from the outset*

Create flexible, simple and adaptable training models, working early with government at national and local levels, with continuous monitoring and evaluation, and dissemination of evidence at key junctures.

### *Pursue multiple pathways to scale*

Effective scaling often occurs through a combination of four pathways<sup>9</sup> in order to reach more youth or achieve greater impact:

- **Horizontal** scaling (extending to new geographies and populations)
- **Vertical** scaling (adoption of the model within formal education policy)
- **Organizational** scaling (via capacity building for government or new organizations, or by creating new entities)
- **Functional** scaling (by adopting new activities)

### *Engage stakeholders early and broadly*

Include technical experts, the private sector, school administrators, teachers, and TVET instructors.

### *Prioritize costing*

Governments should prioritize costing the implementation of reforms during the design phase, before beginning to roll them out. A strong implementation plan is also key. Implementers and funders can also do more by providing nuanced calculations of the cost effectiveness of their models and the models' different components, so that governments can make informed decisions on what to take up, how, and through whom.

### *Develop new assessment tools*

Governments and implementers should work with donors to develop new ways of assessing acquisition of transferable skills that can be used at scale.

### *Prioritize training in new pedagogies*

Provide in-service and pre-service training for teachers and instructors in the kinds of active, learner-centred pedagogies that are most needed to impart transferable skills.

### **For Donors:**

#### *Provide flexible financing that embraces risk*

Outside donors should emphasize their comparative advantage in providing flexible financing to support riskier models and relatively new organizations.

#### *Continued and deeper investments in transferable skills training*

Donors should continue to offer support for innovative models of training in transferable skills, especially for difficult-to-reach populations.

#### *Invest in training for teachers and instructors in new pedagogies*

Donors can play a catalytic role in developing and rolling out training programs for teachers and TVET instructors that successfully impart the kinds of learner-centred pedagogies needed for supporting youth acquisition of transferable skills.

Future research should be directed towards:

- Low-cost models for training teachers and instructors to impart transferable skills through active pedagogies
- Creation and evaluation of additional models for transferable skills training for youth that can be embedded within formal education systems
- Developing means of assessing youth's transferable skills during and after training programs
- Innovative models for bringing transferable skills training into other levels of education (primary and higher education) in developing countries
- Tracking impacts on youth of early efforts to embed transferable skills training within formal curricula at the secondary, and technical and vocational education levels

# I. INTRODUCTION

## A. PURPOSE OF THE REPORT

Governments in Sub-Saharan Africa are increasingly interested in skills training for youth, as they seek to both meet ambitious national development goals and to prosper within the global economy. High rates of youth under- and unemployment lend urgency to these efforts. Some governments are undertaking education reforms to shift from a knowledge-based to a competency-based curriculum, with a greater emphasis on both technical and transferable skills. Transferable skills are highly valued by employers<sup>9</sup> and have been shown to be correlated with improved outcomes in school, life, and work,<sup>10</sup> but until recently have not been integrated within formal education systems on the continent.

The purpose of this report is to examine three cases in Sub-Saharan Africa in which governments have incorporated and scaled-up training on transferable skills within formal secondary education and TVET systems. It also offers insights and lessons from this process for other governments, implementers, donors, and education experts as they undertake similar efforts in other countries and regions. In two of the cases (Rwanda and Kenya), programs with proven impact from the non-profit sector were adapted for and scaled up within government school systems, while in the third case (Nigeria), the government revised its curriculum to incorporate technical and transferable skills into senior secondary schools without looking directly to models outside the formal school system.

## Why Case Studies?

We have chosen a case study approach to be able to delve deeply into early cases of curriculum reform and skills training scale-up. The cases in this study have been chosen after an extensive review of skills training programs in Africa, and based on several criteria:

- Being in operation for at least several years
- Focusing on transferable, soft, employability, or 21<sup>st</sup> century skills
- Availability of evaluations and other data on the model and its impacts
- Having already achieved some scale within formal education systems

The case study approach offers the opportunity to understand:

- How and why decisions to incorporate transferable skills into the curriculum were taken
- The roles and level of involvement of different actors
- How the changes in the curriculum were implemented
- The results of the initiatives

The evidence generated can help inform efforts to scale such training both in case study countries and across Sub-Saharan Africa.<sup>11</sup>

## Case Studies

- **Akazi Kanoze, Rwanda:** An employability skills program designed by EDC for out-of-school youth, brought into the formal secondary school curriculum across Rwanda as part of the government's education reforms.

- **CAP-Youth Empowerment Institute, Kenya:** An employability skills training program incorporated by government within the formal technical and vocational educational system.
- **Senior Secondary Education Curriculum, Nigeria:** A new curriculum that focuses on technical and transferable skills training designed and rolled out by the federal government nationwide.

#### Key Research Questions

- What are key aspects of each model that impart transferable skills to youth?
- What were the main drivers of the scaling process?
- What delivery challenges arose during scaling, and how were they addressed?
- What are key lessons for integrating transferable skills training within formal education systems?

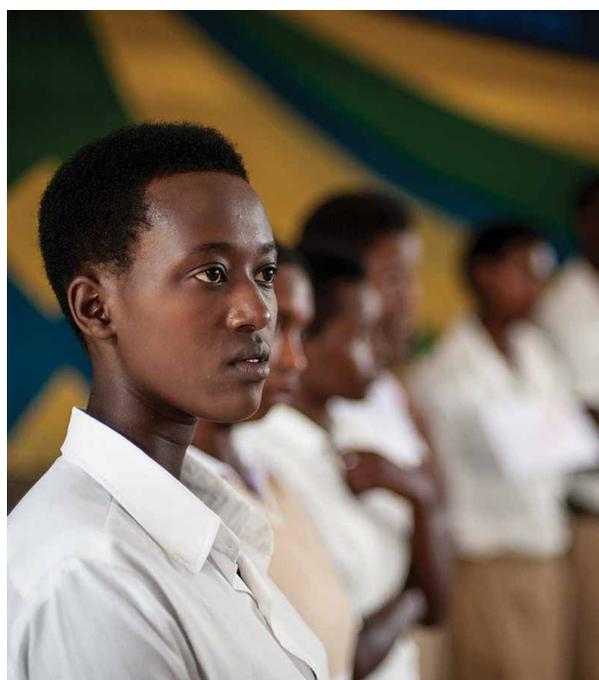
#### A Focus on the Early Stages of Scaling

Each of the reform and scale-up efforts we examine is in the early stages of implementation. Our focus is on lessons from the first years of scale-up, including government’s crucial decision to undertake reforms, selection and adoption of training models from the non-profit sector, adaptation of these models for the formal general secondary and TVET school systems, and factors that inhibited or advanced these processes. While these programs had proven impacts in their pilot phases, it is still too early to judge the ultimate impact on youth of these programs at scale. Given the strong interest of governments in competency-based reforms and transferable skills training, and the scale of need for youth employment, it is imperative to adopt early evidence in order to improve practice and generate further momentum for reform.

## B. THE IMPORTANCE OF TRANSFERABLE SKILLS

“Gaps in schooling and academic skills will also be exacerbated by changes in the world of work that demand a workforce with a broader set of skills that include critical thinking, collaborative problem solving, information literacy, and creativity.”

*Foresight Africa,*  
Brookings Africa Growth Initiative, 2017



Students at Mpanda Vocational Training Centre participate in life skills workshop. Photo Credit: Jennifer Huxta.

## A Definition of Transferable Skills

Transferable skills are “higher order cognitive skills and non-cognitive skills that individuals use to be successful across different situations in work and life.”<sup>12</sup> Transferable skills include, but are not limited to, problem solving, critical thinking, communication, collaboration, leadership, and character skills such as perseverance, empathy, and emotional regulation, as well as financial and information technology literacy and entrepreneurship capabilities.<sup>13</sup> The United Nations includes conflict resolution and the ability to become a responsible global citizen. Transferable skills is the term we have chosen to use in this study due to its emphasis on the portability of skills across jobs and fields.

## Recent Literature on Transferable Skills

Diverse and high-quality skills are linked to positive development outcomes in terms of employment and productivity, and for economic growth and competitiveness at the national level.<sup>14</sup> Transferable or soft skills have been linked to positive outcomes for youth in school, work, and life.<sup>15</sup> Research has demonstrated that employers in developing countries—within both the formal and informal sectors—highly value transferable skills, yet they find that most youth are unequipped with these skills.<sup>16</sup> A recent study by a non-profit research organization, ChildTrends, identified five key soft skills that best foster youth workforce success. These were “social skills; communication; and [sic] higher-order thinking skills (including problem solving, critical thinking, and decision-making); supported by the intrapersonal skills of self-control and positive self-concept.”<sup>17</sup>

The cases in this study were selected in part to help fill gaps in evidence on transferable skills identified by the International Initiative for Impact Evaluation (3ie) in its review of evaluations and other evidence on training in transferable skills for youth. 3ie’s “evidence gap map” found little evidence available on programs for out-of-school youth, curriculum reforms, pedagogy and capacity building within formal school systems. Further, it found a significant evidence gap in research on the impact of transferable skills on employability.<sup>18</sup>

Though transferable skills can be acquired through quality education and training programs, UNESCO has reported that they are not being taught in standard formal education systems in most Sub-Saharan African countries.<sup>19</sup> This is in contrast with other regions such as North America, Europe, and Asia. A recent study by UNESCO of 13 countries in the Asia-Pacific region reports that all the countries studied showed evidence of introducing transferable skills into their national curricula and policies, although countries varied in terms of the intensity and process of integration.<sup>20</sup> Further, the term “transferable skills” is not commonly used in Sub-Saharan Africa; more common terms for these skills in use by policymakers and educationalists on the continent are work-readiness skills, employability skills and life skills. Recognition of the importance of training in these types of skills for youth employment is gaining greater traction on the continent, as is evident in national development strategies and education sector plans and reforms.

## C. THE CONTEXT FOR SKILLS DEVELOPMENT IN AFRICA

### Economic Growth and Youth Unemployment

Africa is in the midst of transformation, with positive momentum across multiple levels—economic, political, and social. The majority of Africans now reside in countries that are more peaceful and secure, have stronger democracies, expanding economies and improved infrastructure, and a more active civil society. Economically, Sub-Saharan Africa is the third-fastest-growing region of the world, with 4.6 percent average annual growth in GDP, just behind South Asia (6.3 percent) and East Asia (6.7 percent).<sup>21</sup> This growth has not been inclusive, however, and has failed to create ample jobs for the continent’s rapidly growing youth population. Job seekers, including many youth, are eager nevertheless to participate in this wave of economic growth that could lift them and their families out of generations of poverty.<sup>22</sup>

World demographics are at a turning point, with the share of the working age population having peaked in 2012.<sup>23</sup> Sub-Saharan Africa is slowly following this trend. Many countries on the sub-continent have begun, or are about, to experience a demographic transition in which fertility rates fall and a one-time opportunity—called the demographic dividend—arises to boost economic productivity as the last large youth cohort enters the labour force. The dependency ratio declines and resources are freed for savings and investment.

Sub-Saharan Africa can only take advantage of this demographic dividend with significant investments to develop the human capital of its youth, but it faces enormous challenges in doing so. Children and youth under 30 years of age constitute about 70 percent of the continent’s current population of 988 million.<sup>24</sup> With the world’s fastest growing population, and over 50 percent of its people under age 24, high youth under- and unemployment are top concerns on the continent. Countries that do not educate their youth properly and reform their economies to generate ample quality jobs are likely to face rising youth unemployment and social instability.<sup>25</sup> The private and public sectors are not creating jobs at the rate needed to employ these youth, while many youth also lack the knowledge, skills, and mindsets required by employers to be productive members of the labour force.

African governments have responded by making considerable progress in expanding access to primary education, with a net primary enrolment rate of 80 percent as of 2014.<sup>26</sup> Still, over 33 million adolescents remain out of secondary school in Sub-Saharan Africa. UNESCO reports that just 43 percent of school-age youth are enrolled in secondary school on the continent, the lowest rate of any region of the world, and only 15 percent complete the full course of secondary school.<sup>27</sup> Among poor, rural and otherwise marginalized populations, including girls, these rates are even lower.<sup>28</sup> Importantly, secondary school (including both technical and general secondary school) is the period of education in which youth acquire the skills and

knowledge needed to be productive citizens and workers. For those who do access education, according to the Brookings Institution's Center for Universal Education, the quality of learning is very low, with "little mastery of core academic content and higher-order thinking skills."<sup>29</sup> Additionally, youth are also not sufficiently acquiring the transferable or 21<sup>st</sup> century skills that are increasingly associated with success in school, life, and work. Similarly, TVET is seen as lacking relevance to labour markets and growth sectors, and is not a preferred choice for young people.

Fortunately, the world is taking notice. Secondary education is featured prominently in the new Sustainable Development Goals agreed to by all UN Member States in 2015. The Sustainable Development Goal on education (SDG 4) calls for ensuring "inclusive, quality education for all" including specific sub-targets to expand access to quality secondary education and to quality, cost-effective technical and vocational education. They also aim to "substantially increase the number of youth...who have relevant skills...for employment, decent jobs and entrepreneurship."<sup>30</sup>

### **Education Sector Reforms**

Many African governments are undertaking major reforms in education to address these challenges and to meet the Sustainable Development Goals. Several are expanding universal free primary education to universal basic education that encompasses lower secondary school, and are

expanding upper secondary schools and TVET.<sup>31</sup> A number are shifting from knowledge-based to competency-based curricula to develop the skills and mindsets needed by youth to succeed in today's economy and to achieve national development goals. A recent review found that many Sub-Saharan African governments—as well as those around the world—include breadth of skills in their curriculum and policy documents.<sup>32</sup>

Competency-based curricula call for pedagogies that:

- Are student-centred as opposed to teacher-centred
- Encourage active and inquiry-based learning
- Emphasize technical competencies rather than theoretical knowledge
- Require new types of assessment systems
- Emphasize training in the skills and mindsets needed for work and life such as transferable skills

As African governments move to adopt competency-based curricula and to reform secondary education to make it more relevant to a global economy, some are turning to skills training programs in the not-for-profit and technical and vocational sectors as models for how to teach transferable and technical skills to youth in formal education systems. The case studies featured in this report examine such training programs and how they can be adapted within broader efforts to reform education systems to focus on competencies and readiness for employment or entrepreneurship.

## D. METHODOLOGY

In partnership with The MasterCard Foundation, the African Institute for Development Policy conducted research in 2016 on three cases in Rwanda, Kenya, and Nigeria that are featured in this report. Research methods included a broad literature review on transferable skills in middle- and low-income countries, and an examination of policy, program, and project documents pertaining to each case.

AFIDEP also conducted over 100 interviews with key stakeholders in each country from among governments, implementing organizations, employers, youth, and secondary school and TVET teachers and administrators.

In Rwanda, 26 interviews were held with these stakeholders, as well as eight focus groups with teachers. In Kenya, 30 interviews were

conducted. In Nigeria, AFIDEP conducted research in two of the country's 36 states (Kano and Plateau) in order to understand how the project was rolled out at the state level. A total of 71 interviews were conducted there—29 of these in Plateau State, 28 in Kano State, and 14 at the federal level.

Validation workshops were held in each country to share preliminary findings, to receive feedback and to draw out additional data that was not collected during the interview process. Conceptualization and implementation of the study were informed by the World Bank's Science of Delivery methodology for conducting case studies, where the primary aim is to document insights into the 'how' of policy implementation in different contexts.<sup>33</sup>



Students in Akazi Kanoze work-readiness workshop at Mpanda Vocational Training Centre gather to debrief and discuss learning. Photo credit: Jennifer Huxta

## II. GOING TO SCALE IN FORMAL EDUCATION SYSTEMS: THREE CASES

### Four Pathways to Scale:

- **Horizontal** – Reaching more people and places
- **Vertical** Policy adoption
- **Organizational** Strengthening capacity
- **Functional** Incorporating more activities

*Millions Learning: Scaling Up Quality Education in Developing Countries,*  
Brookings Institution, 2016

In its report, *Millions Learning*, the Brookings Institution’s Center for Universal Education identifies four main pathways to scale for education programs: horizontal (reaching more people and places); vertical (through policy adoption); organizational (strengthening capacity); and functional (incorporating more activities). These pathways are not mutually exclusive, and may be used simultaneously by an organization or government as it expands programs to achieve greater impact.<sup>34</sup> Governments and implementers in the cases examined in this report employ a combination of these four pathways to scale. Organizational scaling is of particular interest in this report due to our focus on building capacity of formal education systems. It “[p]ertains to increasing organizational strength to improve effectiveness, efficiency, and sustainability of activities” and “... can also include the involvement of other institutions or the creation of a new entity.”<sup>35</sup>



### A. SKILLS TRAINING IN RWANDAN SECONDARY SCHOOLS AND TVETS: AKAZI KANOZE

#### Rwandan Context

Nearly 40 percent of Rwanda’s population consists of people between the ages of 14–35. With a small formal employment sector unable to absorb most of these young people, youth unemployment is at 65 percent.<sup>36</sup> Like many low-income countries in Sub-Saharan Africa, Rwanda’s strong rates of growth in GDP, averaging 6.9 percent per year from 2014–2016, have not resulted in employment growth, and youth bear the greatest burden of both unemployment and underemployment.<sup>37</sup> Rwanda’s Vision 2020 seeks to transform the country from a low-income, agriculture-based economy into a middle-income, knowledge-based economy by 2020. The government of Rwanda recognizes that this will be difficult unless the youth labour force gains the essential skills that the country needs to be globally competitive.<sup>38</sup> Traditionally, the education system has been academically oriented and geared towards preparing a small, elite group of students for university, with less focus on the critical, practical and transferable skills.

The government of Rwanda responded in part to these challenges by creating universal free access to lower secondary school through its basic nine-year education policy in 2009 and continually expanding access to secondary education through its 12-year education policy (though fees are still charged and access more limited for the three years of senior secondary school).

In 2013, Rwanda embarked on further education reforms to transition from a knowledge-based to a competency-based curriculum in both general and technical secondary schools. The goal was to improve the quality and relevance of education by matching skills training to labour market needs and cultivating an entrepreneurial mind-set among youth.<sup>39</sup>

Two agencies within the Ministry of Education led the development of the new curriculum: the Workforce Development Authority (in charge of TVET) and the Rwanda Education Board (in charge of general secondary schools). As it developed the new curriculum, the Rwandan Education Board invited input from an NGO—EDC—that had been partnering with the Workforce Development Authority for a number of years, and which offers through local implementing partners an innovative work-readiness training program called Akazi Kanoze<sup>40</sup> to out-of-school and TVET youth. What follows is a description of how this NGO scaled up its program in Rwanda, reaching many more out-of-school youth, and eventually seeing its model incorporated within the national curriculum for all general and technical secondary schools.

### **The Model: Akazi Kanoze Work Readiness Program**

Recognizing that local institutes in Rwanda were not providing training in the kinds of transferable or soft skills sought by employers, USAID in 2009 invited EDC to design an innovative work-readiness program for Rwanda

that would incorporate high-quality transferable skills training and that could be rolled out by a variety of local partners and reach large numbers of out-of-school youth. From its inception, the program's designers worked with the goals of both sustainability (through local partners) and scale. The result was Akazi Kanoze, a five-year youth livelihoods project supported from 2009 to 2014 through a US\$9.8 million grant from USAID, and implemented by EDC together with local partners who offered the training.<sup>41</sup> USAID provided two additional years of support, and the project was extended from 2014 to 2016, bringing the total project budget to US\$12.5 million.

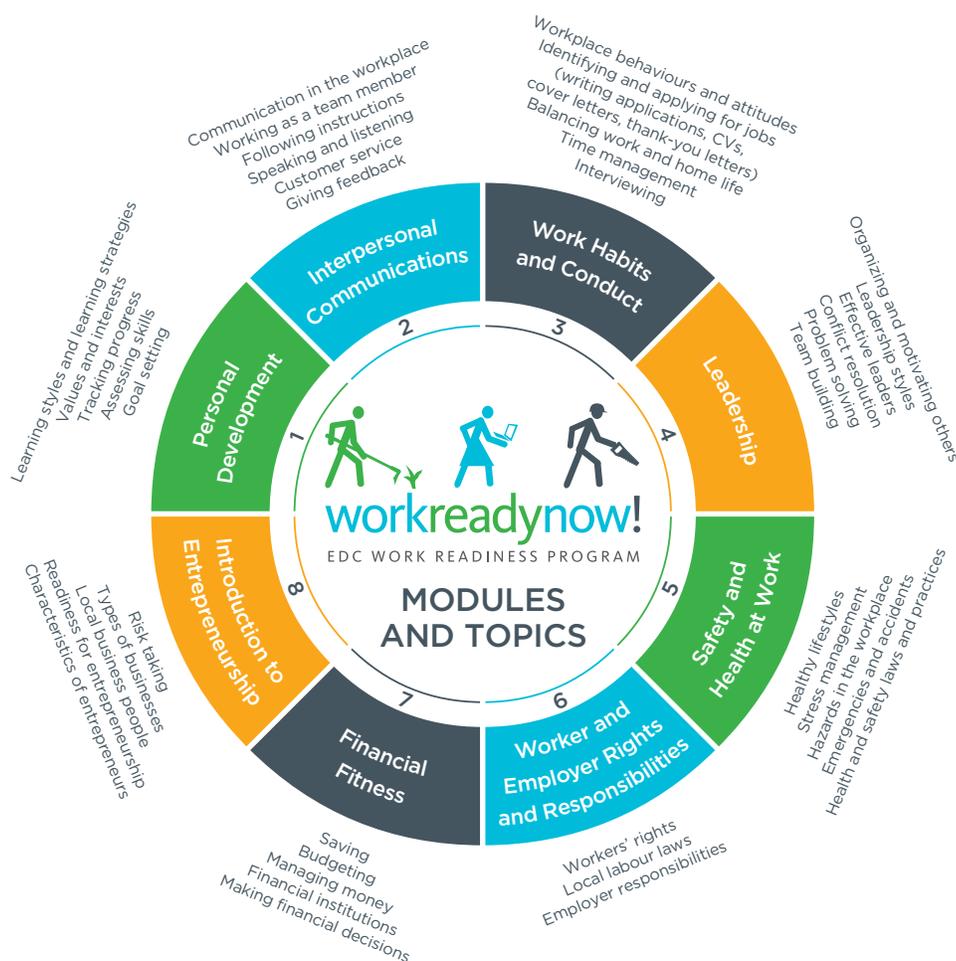
Akazi Kanoze's original model during this first phase targeted out-of-school youth. It consisted of two major components: 1) the work-readiness curriculum through which youth undergo a modular, 100-hour training lasting from three weeks to three months; and 2) a workforce linkages initiative through which youth are provided access to entry job opportunities, internships, and apprenticeships, as well as formal sector jobs and entrepreneurship opportunities. Internships and job placements are facilitated by strong links forged by EDC and its implementing partners with private and public sector employers. Youth who complete the work-readiness curriculum are awarded a nationally recognized certificate from Rwanda's Workforce Development Authority.

Akazi Kanoze Work Readiness Curriculum  
8 Content Modules<sup>42</sup>:

- Personal development: Identifying values, attributes, and skills; goal setting; planning.
- Interpersonal communication: Speaking and listening; workplace communication; teamwork.
- Work habits and conduct: Job seeking and interviewing; workplace behaviours and attitudes.
- Leadership: Leadership characteristics; motivating others; team building; problem solving.
- Safety and health at work: Health and safety laws; healthy lifestyles; stress management.
- Worker and employer rights and responsibilities: Rwandan labour code; worker rights and benefits.
- Financial fitness: Managing money; saving; budgeting; financial institutions; financial decision-making.
- Introduction to entrepreneurship: Risk taking; types of businesses; and readiness.

FIGURE 1

Akazi Kanoze Work Readiness Program<sup>43</sup>



Source: Education Development Center

In addition to the core work-readiness curriculum, Akazi Kanoze offers youth access to more specialized workforce skills training and resource programs tailored to their needs and interests, depending on location, level of education, market analysis and other factors. This specialized training includes: accelerated basic education (e.g., literacy and numeracy); technical training in particular vocations (e.g., hospitality, construction); entrepreneurship training; internship placements; Akazi Kanoze graduate follow-up services (e.g., job placement and coaching); and linkages to savings and loans and financial services to help youth entrepreneurs.<sup>44</sup>

### Active, Learner-Centred Pedagogy

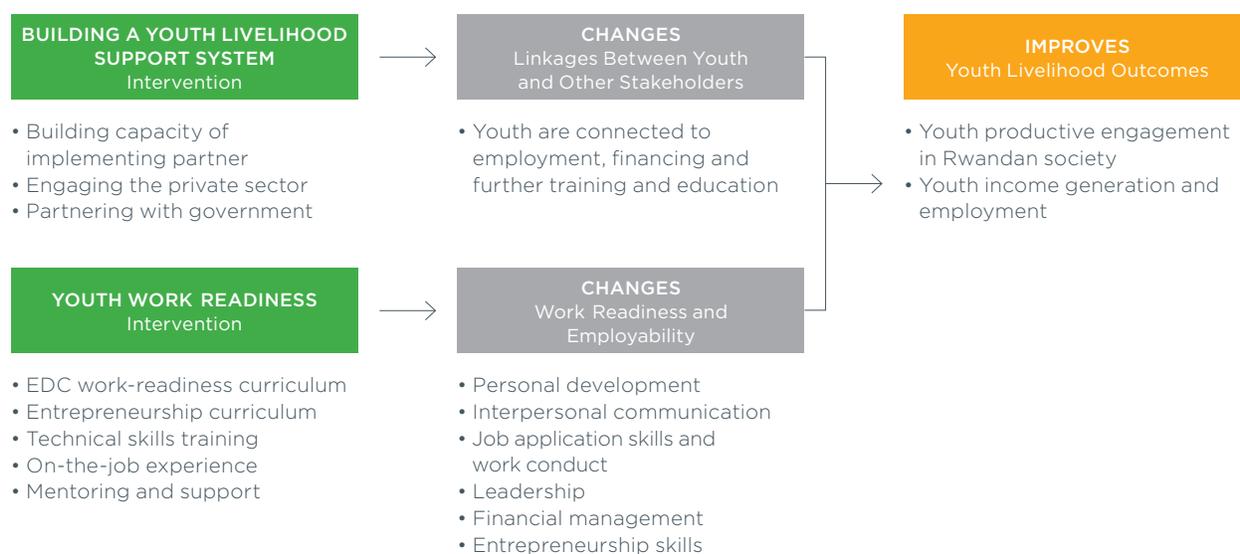
Unlike traditional pedagogic methods typical of most formal and vocational schools in Rwanda, Akazi Kanoze uses a learner-centred, participatory approach. Trainers are called facilitators, and are usually similar in age to trainees. Youth work in groups to problem-solve, share ideas and participate in various games and activities, including group discussions and active presentations.<sup>45</sup>

### Implementing Partners

EDC contracts with dozens of local implementing partners, most of which receive both technical and financial support from the organization to offer the Akazi Kanoze curriculum to out-of-school youth. According to a study of the program commissioned by USAID, “EDC evaluates IP [implementing partner] applicants using a standard set of criteria that includes technical capacity, responsiveness to market and youth needs, experience working with youth (especially those to be served), connections to the private sector, and capacity to manage funds. IPs must conduct market analyses to show that their technical training prepares youth for jobs that match market demand and to prove to EDC that they have the ability to place youth in internships.”<sup>46</sup> Implementing partners are responsible for training teachers/instructors, finding job or other field placements for youth, monitoring teacher performance, and coaching youth as they go through their internships or start businesses.

FIGURE 2

Akazi Kanoze Work Readiness Program Theory of Change



Source: Final Evaluation Report, Akazi Kanoze, USAID, 2014<sup>47</sup>

## **Akazi Kanoze’s Scale-Up Story: From Out-of-School Youth to All Secondary Schools**

Akazi Kanoze’s scale-up story begins during the program’s first days as a training model for out-of-school youth in 2009, and continues through the time when the Rwandan government adopted key aspects of the model within its competency-based curriculum for both TVET and general secondary schools nationwide in 2016. Along the way, many factors contributed to this expansion (see Section III: Drivers of Scale p.40). EDC, its implementing partners, and the government of Rwanda pursued multiple pathways to scaling Akazi Kanoze (horizontal, vertical, organizational, and functional) that together achieved this dramatic expansion in just seven years. Though it is still too soon to judge the impact of its most recent expansion to the formal education system, Akazi Kanoze’s journey contributes to the evidence base on scaling of education programs, and offers insights for other implementers, donors, and governments.

### **Horizontal Scaling—Expansion and Adaptation with Local Partners**

#### *Phase I: 2009–2014:*

#### *Serving Out-of-School Youth*

During its first five-year phase, EDC and its implementing partners expanded the reach of the Akazi Kanoze program by spreading the program geographically from urban to peri-urban and rural areas, and demographically to different youth populations, a process facilitated by the program’s modular nature. “Demographic scaling has taken place from the original target population of youth ages 15–25 with primary or secondary degrees to youth ages 25–35 with an educational attainment ranging from P4 to university graduates.”<sup>48</sup> Geographically, by

2013, EDC and its implementing partners had offered training in 18 districts across all five of the country’s provinces in training centres run by these organizations.<sup>49</sup> As it moved to offer training to youth in more rural areas, Akazi Kanoze’s training modules were adapted in cooperation with its implementing partners, incorporating more agriculture-related skills and a greater focus on entrepreneurship.

#### *2012–2013 Pilot: Reaching the Technical Secondary School System*

While originally focused on out-of-school youth, in 2012 and 2013 Akazi Kanoze adopted a new approach. At the request of the Workforce Development Authority, the agency in charge of TVET education in Rwanda, EDC developed an entrepreneurship-training program for use in 23 technical secondary schools in 11 districts in Kigali and Southern provinces. The Belgian Development Cooperation provided support for this pilot under its program for TVET development. This partnership enabled EDC to reach a new population: youth in technical schools at the secondary level.

#### *Evaluation of Phase I: Evidence Promotes Further Scaling*

A final evaluation of the first five years of Akazi Kanoze in Rwanda documented the program’s positive results in terms of both reach and impact. The evaluation consisted of a randomized control trial, designed to test the program’s impact on youth employability and employment levels, and a qualitative evaluation involving case studies and focus groups. Employability was defined as “a set of achievements, skills, understandings and personal attributes that make a person more likely to gain and retain employment”<sup>50</sup> and as such was partially a measure of the extent to

which youth had acquired transferable skills. The evaluation found that youth who participated in Akazi Kanoze training were 12 percent more likely to be employed compared to those who did not. Further, it found that “Akazi Kanoze youth in rural areas achieved significant gains in work-readiness skills and financial management.”<sup>51</sup> The reach of Akazi Kanoze’s was also extensive. During Phase I, the program trained 21,000 youth, 65 percent of whom gained employment, and another 24 percent who started businesses.<sup>52</sup>

### *2014–2017 Phase II: Scale-Up within Rwanda’s TVET and General Secondary School System*

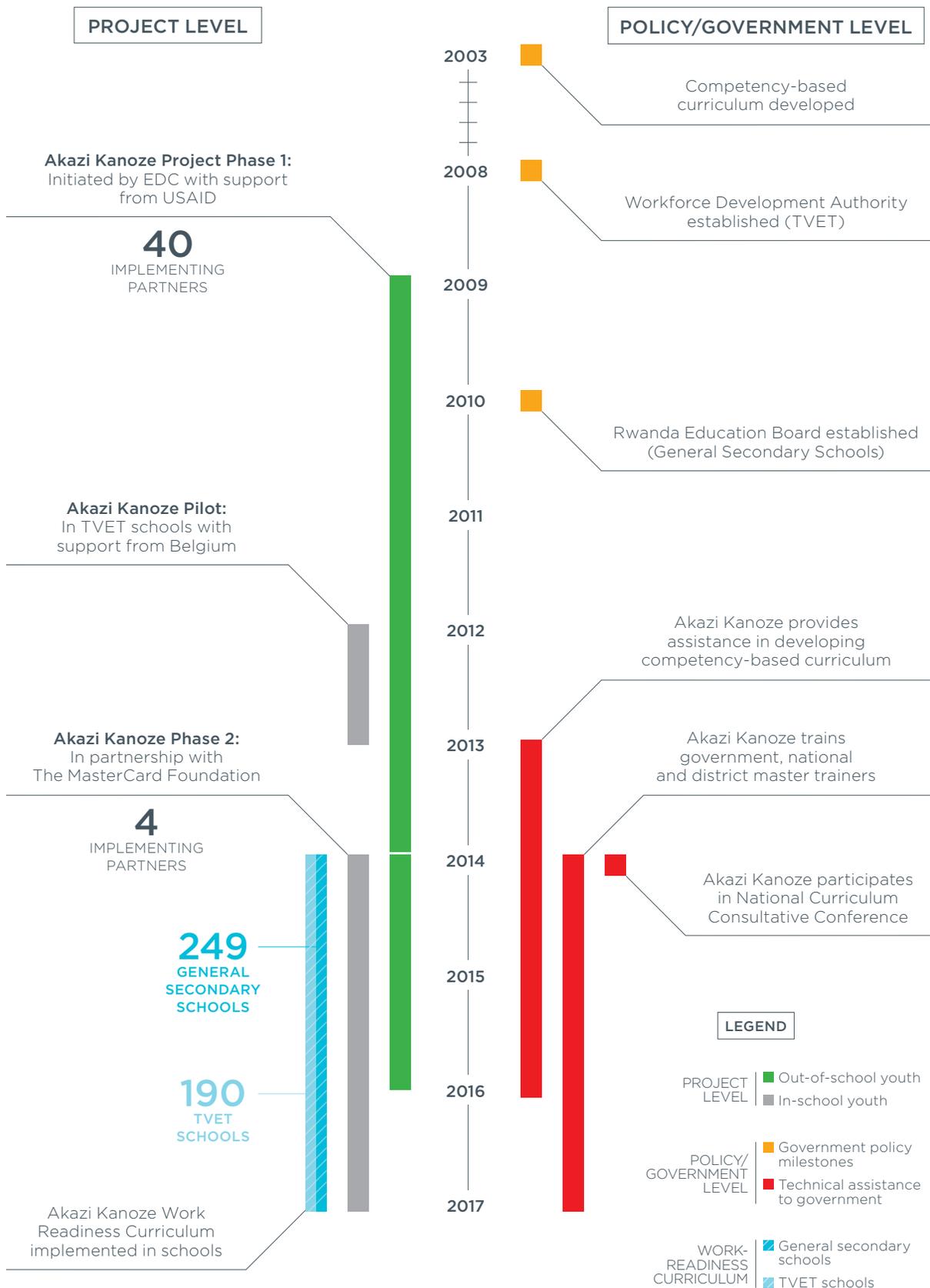
Evidence of impact, demand from government agencies, and promising results from its pilot within TVET schools led EDC to take the leap for a larger scale-up of its program within the formal school system. This was made possible through a five-year, US\$5.2 million partnership with The MasterCard Foundation awarded through a request for proposals of the Partnership to Strengthen Innovation and Practice in Secondary Education<sup>53</sup>, as well as through in-kind support from the government of Rwanda for curriculum development and teacher training. The objectives of work under Phase II in partnership with The MasterCard Foundation were: 1) to provide Rwandan secondary students in select schools with work-readiness skills and school-to-work transition support based on the Akazi Kanoze model to increase their chances of securing employment; and 2) to integrate work-readiness training and school-to-work transition programs within the secondary education system nationwide.<sup>54</sup> Phase II envisioned significant horizontal scaling, with EDC reaching 250 secondary schools (both general and technical) in the same provinces (Kigali and Southern) where it had piloted the model with the first 23 TVET

schools. The government of Rwanda and other partners would be in charge of implementing the program in all other TVET and senior secondary schools across the country, embedded within the new competency-based curriculum for entrepreneurship.

Just as when it expanded to rural areas, embedding its curriculum within the formal education system required EDC to adapt the Akazi Kanoze model in several significant ways. The original model was designed for out-of-school youth and delivered over three weeks to three-months of intensive classroom training depending on youth’s level of education, followed by a month-long field-based placement. EDC now had to adapt the work-readiness curriculum to be offered during three years of senior general secondary school (called S4, S5, and S6) so that it could be embedded within students’ required entrepreneurship course, where the government felt this training was most appropriate. Roll-out began in S4 (the first year of senior secondary school) in 2016. In 2017, S4 and S5 (first and second years of senior secondary) receive the training, and in 2018, S4, S5 and S6 (first, second, and third years of senior secondary) receive the training. Thus, the 2018 graduating class is the first cohort of senior secondary students to be instructed in the new curriculum. The second part of Akazi Kanoze’s program, workforce linkages, was renamed and adapted as a school-to-work transition component, in which students gain practical experience in the job market or entrepreneurship. Within technical and vocational schools, the Work Readiness Curriculum and School to Work Transitions were adapted as a one-year training program, with five of the eight original training modules embedded within the curriculum.

FIGURE 3

Rwanda - Akazi Kanoze Project Timeline



Source: AFIDEP, "Draft Report on Integrations of Transferable Skills in Secondary and TVET Education in Sub-Saharan Africa: Case Study of the Akazi Kanoze 2 Project in Rwanda," prepared for The MasterCard Foundation, December 2016, and EDC.

### **Vertical Scaling: Embedding Aspects of the Akazi Kanoze Model within the National Curriculum**

In 2013, as the Workforce Development Authority embarked on design of a new, competency-based curriculum for TVET schools, it invited its working partners from EDC and other institutions to provide technical assistance and expertise. EDC and the Workforce Development Authority had established close working relationships since the early days of Akazi Kanoze's work with out-of-school youth, and later during the 2012–2013 pilot in TVET schools. The Workforce Development Authority linked EDC with its partner agency in the Ministry of Education, the Rwanda Education Board, which was also developing a competency-based curriculum for general secondary schools.

EDC was thus invited to provide input into the TVET and secondary school curriculum, from the early stages of its design in 2013 through to completion in 2015, and roll-out beginning in 2016. Interviewees reported that this was an inclusive process, with many stakeholders consulted and involved in the curriculum design on an ongoing basis.<sup>55</sup> All eight modules of Akazi Kanoze's work-readiness and workforce linkages curriculum (with the exception of the introductory module) were embedded within the competency-based curricula for general secondary schools. Educate!, an NGO active in youth entrepreneurship training in Uganda, began operating in Rwanda in 2016. Aspects of its entrepreneurship skills lab methodology and wider model were also included within the government's entrepreneurship curriculum. As described below, both Educate! and EDC helped to roll out the new curriculum at schools in the districts where they had been working, as well as nationwide, by supporting broader teacher training.

### **Organizational Scaling**

EDC scaled Akazi Kanoze organizationally by 1) building capacity among its over 40 implementing partners offering training for out-of-school youth during Phase I; 2) offering training to government trainers within the formal education system; and 3) eventually creating a new organization, Akazi Kanoze Access (AK Access), as a lead implementing partner that could take over the role of EDC to ensure sustainability when its project came to an end.

“The mindset of teachers and students has totally changed. Some skills like setting goals and financial fitness that used to not be considered as important, are now valued.”

**Akazi Kanoze school head teacher**

### **Capacity Building for Implementing Partners**

In line with its goal to help enable local institutions (private, non-profit, and government-run) to offer high-quality, work-readiness training for youth that incorporated a range of transferable skills, EDC's implementing partners participated in capacity-building programs including “technical assistance and training in areas such as the delivery of workforce education and training services; career counselling and job placement services; understanding labour market demand and working with the private sector; and organization and management.”<sup>56</sup>

## Capacity Building within TVET and General Secondary Schools

Entrepreneurship teachers and TVET instructors needed significant training in the program's content, as well as in new, more active forms of pedagogy that are crucial in imparting transferable skills. Importantly, entrepreneurship teachers and their schools needed to be assisted not only in new kinds of classroom instruction, including skills labs, but also in implementing the crucial school-to-work transition aspect of the program, placing youth in job practicums outside school walls and requiring linkages with employers and businesses in the community.

EDC developed a comprehensive cascade training model, in which its staff trained master trainers at the Workforce Development Authority (for TVET schools) and the Rwanda Education Board (for general secondary schools). It also helped train National and District Master Trainers at both agencies, who were put in charge of training all technical and secondary school teachers and instructors charged with offering the Akazi Kanoze work-readiness and school-to-work transition curriculum. A massive undertaking in a country with hundreds of secondary and TVET schools.

EDC and the government have addressed this challenge in part through a division of labour: EDC would initially be responsible for rolling out the program in 150 TVET and general secondary schools in 11 districts, while the government and other implementers, such as the organization Educate!, would manage roll-out in other schools. By the end of the Akazi Kanoze project, EDC will be supporting at least 249 general secondary schools and 190 TVET schools, and will have trained at least one teacher in the work-readiness curriculum at every TVET school in the country,

across all 30 districts. Educate! was responsible for supporting the roll-out of the work-readiness embedded curriculum for the entrepreneurship subject in 150 schools in 11 other districts, largely by training schools on offering skills labs, the work-readiness approach and curriculum, and running entrepreneurship clubs. The Rwanda Education Board has requested that both EDC and Educate! focus more on teacher training nationwide, rather than implementation at the school level.

Interviewees suggest that broad stakeholder involvement eased implementation of the model. Scaling of the program is managed through a steering committee bringing together representatives of the District Education Offices, head-teachers, teachers, students, parents and local communities across the country. To stay focused and keep all stakeholders informed, the committee holds regular joint meetings with Akazi Kanoze implementers in the schools where it is rolling out the program.<sup>57</sup>

## Creating a New Organization to Facilitate Scale and Sustainability

During Phase II, EDC also created a new, independent entity and implementing partner, Akazi Kanoze Access, through support from both The MasterCard Foundation and from USAID under the two-year extension of the program. Akazi Kanoze Access' role was to serve as the in-country control centre for assisting the government with scale-up of the program within general and TVET secondary schools, while also horizontally expanding training for out-of-school youth begun in Phase I. Akazi Kanoze Access became responsible for: curriculum design and capacity building around the entrepreneurship subject; supporting districts and schools in the school-to-work transition program; providing

work-readiness materials to schools; engaging the government and private sector; providing refresher training to teachers; and assessing teachers' performance in implementation of the program.

Akazi Kanoze Access now also oversees the work of three other implementing partners who help roll out the program within other general and technical secondary schools. It offers in-country technical support to other implementing partners, the Workforce Development Authority, and technical and general secondary schools, as well as monitoring and evaluation expertise to ensure quality program delivery. The creation of the implementing partner, which will continue to operate after The MasterCard Foundation supported project in Rwanda comes to an end, will contribute to the reach and long-term sustainability of the work-readiness curriculum and training.



## **B. SKILLS TRAINING IN KENYA'S VOCATIONAL TRAINING CENTRES: CAP-YOUTH EMPOWERMENT INSTITUTE**

### **Kenyan Context**

Kenya, like many other African countries, faces a significant youth unemployment challenge, as well as high rates of underemployment and working poverty. Estimates for 2013 show that the country's overall youth unemployment rate was 35 percent,<sup>58</sup> of particular concern given that over one-third of Kenya's population of 46 million people is made up of youth aged 15–35 years.<sup>59</sup> The vast majority of these (92 percent) have no vocational or professional training. In an effort to address this skills gap, the Kenyan government has embarked on reforms to improve the reach, quality, and relevance of education, including transitioning from a knowledge-based

to a competency-based curriculum. A portion of these reforms integrate work-readiness or transferable skills into formal TVET curricula to better prepare youth for success in the labour market. Reforms are also underway to integrate these skills into basic education.

The education reform process began in earnest in 2013, when Kenya's government signed into law a new TVET Act, launching the transition to a Competency Based Education and Training (CBET) framework across vocational training centres, formerly known as youth polytechnics.<sup>60</sup> At that time, the government also created the independent Technical and Vocational Education and Training Authority (TVETA) to regulate provision of quality, relevant TVET education. The importance of training in transferable skills was reinforced for education policymakers by the Kenya Institute for Curriculum Development, which recommended that specific skills such as creativity, organization, interpersonal relationships, planning, coordination and decision-making—all of which can be considered transferable skills—be emphasized to prepare graduates for life and work.<sup>61</sup> These reforms were codified in the 2015 National Curriculum Policy. It was in 2014 that Kenya's TVET Authority identified the CAP-Youth Empowerment Institute's Basic Employability Skills Training (BEST) program as a model for demonstrating the incorporation of skills training within the new competency-based education and training approach.

### **The Model: CAP-Youth Empowerment Institute's Basic Employability Skills Training (BEST)**

CAP-Youth Empowerment Institute (CAP-YEI) in Kenya uses the BEST model, first developed in India by the CAP Foundation and later expanded in partnership with Plan International, the European Commission, USAID and others.<sup>62</sup> It was first employed in Africa in Egypt in 2008,

and later in Tanzania, Sudan, and South Sudan.<sup>63</sup> In 2010, CAP-YEI in Kenya began to adapt the model for the Kenyan context where the dearth of formal sector jobs called for greater emphasis on market-focused skills training and entrepreneurship.

CAP-YEI's BEST model offers out-of-school, out-of-work youth aged 18–25 entry-level training in a combination of transferable and technical skills, as well as access to internships, jobs, and business opportunities to help them build the confidence and capacities needed to gain employment or start their own business. Training during CAP-YEI's first five-year pilot phase served youth in urban and peri-urban, impoverished areas mainly around Nairobi, Mombasa, Nakuru, Eldoret, Kakamega and Kisumu. The organization's nine-step model is based on strong collaboration with both public and private sector employers and businesses and financial service providers, who help identify the skills needed in local labour markets and provide input into the curriculum delivery and review. In October 2015, the African Union and FHI 360, a non-profit human development organization, selected CAP-YEI as having one of the "10 most promising TVET models in Africa".

"Evidence suggests that employers are looking for young people who communicate effectively with colleagues and customers, show commitment and confidence, and are willing and eager to learn. These transferable skills are often as important as technical know how."

CAP YEI, Kenya<sup>64</sup>

**CAP-YEI's nine-step BEST model** begins with a market scan of the local area in terms of jobs and business opportunities available, and skills demanded by employers and businesses (step 1). This scan informs curriculum development for training in the course profiles chosen (step 2). CAP-YEI then travels to communities putting on "road shows" and dramatic skits in which it publicizes the program (step 3). Then CAP-YEI recruits and inducts youth for the program offering them some initial transferable skills training, including team-building and setting personal learning goals (step 4). Youth inductees undertake three months of classroom training in market-relevant technical skills (step 5), including technical and vocational skills, further transferable skills, and business training and financial literacy, in which youth are connected to financial service providers.

These technical skills are oriented to sectors with strong job growth in the local area, whether in hospitality, security services or electrical installation, for example. Following classroom training, youth receive field-based assignments through field exposure visits and engagement with industry employers (step 6). Youth then begin a work-readiness module providing them the employability or transferable skills training they need to help them negotiate varied and often unpredictable livelihood options. These include teamwork, workplace behaviour, resume writing and interviewing (step 7). CAP-YEI then places youth in internships and helps them convert these into jobs or facilitates entrepreneurship opportunities (step 8). Finally, once a cohort of youth are in field placements, CAP-YEI tracks participants' outcomes and conducts new or revisited market scans, allowing for real-time program feedback to improve program design and curriculum changes (step 9).<sup>65</sup> The entire training program takes four months, with three months in the classroom, and one month spent in field assignments. See Figure 3.

FIGURE 4

### CAP-YEI Nine-Step Basic Employability Skills Training Model



Source: CAP-YEI

In a scholarly article analyzing the program by researchers at the University of Minnesota and CAP-YEI’s executive director, the authors emphasize that the active, youth-centred pedagogy helps to impart transferable skills that increase youth’s agency and ability to handle real-life situations. This contrasts with more passive and didactic approaches typically used in the formal education system: “in day-to-day programming, CAP-YEI youth participants engage in discussions that are presented in a variety of ways (e.g., role-playing, discussions, case studies, and videos); respond to material in flexible ways (through drama, writing, small group discussions, and practical training); operate at a high level of engagement (through activities that link content with real-life outcomes, community-oriented approaches, and self-confidence building activities); engage with a variety of mentors and facilitators of learning; and focus on their own agency. Many of the techniques employed by CAP-YEI were purposefully chosen in response to the perceived failures of the more didactic formal system of education.”<sup>66</sup>

#### CAP-YEI’s Scale-Up Story

Following its success in India, CAP Foundation and its for-profit arm, CAP Work Force Development Institute (India), working in partnership with Plan International, a global child-focused NGO, applied its training model in various countries including Vietnam, Sri Lanka, Egypt, Sudan, and Tanzania. In 2010, however, when the CAP Foundation explored how this approach could work in Kenya to help vulnerable youth acquire transferable and life skills, it decided to adopt an independent, standalone model of implementation. CAP-Youth Empowerment Institute was then registered as a Kenyan NGO to adapt the BEST model to the country.

In the first five years (2011–2016), CAP-YEI achieved significant scale-up through a pilot established in partnership with The MasterCard Foundation. A second five-year phase (2016–2021), also in partnership with The MasterCard Foundation, is currently scaling up the program further by embedding aspects of the model within the TVET system in Kenya. CAP-YEI has also begun collaborating with additional funding partners to expand its work.

## Horizontal Scaling

### *Phase I: Pilot and Initial Scaling (2011–2015)*

In 2011, CAP-YEI partnered with The MasterCard Foundation on a five-year, US\$5.8 million pilot. The Foundation took considerable risk in providing this financing to a new organization to support a model that had not yet been tried in Kenya. This partnership was part of the Learn, Earn and Save Initiative for Sub-Saharan Africa, an effort created to test high-potential models for addressing youth unemployment, implemented by three organizations across Kenya, Tanzania and Uganda, and including the University of Minnesota as a learning partner. The project aimed to offer CAP-YEI's training model to 10,000 out-of-school youth through a set of CAP-YEI's own demonstration centres, as well as a series of replication centres largely hosted by government-run TVET institutions called vocational training centres (VTCs).<sup>67</sup> A third strategy (from 2013) involved training and supporting staff from VTCs to apply some of the same principles of the BEST model to their programs (see Organizational Scaling section). VTCs<sup>68</sup> are part of Kenya's TVET system at the lowest educational level (corresponding to the level of general secondary schools) and are run by county governments.

CAP-YEI and The MasterCard Foundation conceived the project from the outset as a proof of concept effort to pilot and slowly scale this high potential program in Kenya through different strategies, including partnerships with the government TVET system. This impacted program design and roll-out, including the

choice to create demonstration and replication centres (the latter within TVET facilities), to include an independent learning partner, and to build capacity within government by training government trainers. Throughout the five-year pilot, CAP-YEI gradually expanded the number of demonstration and replication centres each year, eventually growing from one demonstration centre in 2011 to a total of six demonstration and eight replication centres by 2015 (see Figure 5).

An independent evaluation of the program in the fourth year (2015) by New Economy Development Group, an Ottawa-based consulting company, was commissioned to assess impact and inform future scaling.<sup>69</sup> If successful, the Foundation and CAP-YEI hoped to scale up the model when the first five-year phase concluded in 2016.

### *Evidence of Impact from Phase I Pilot*

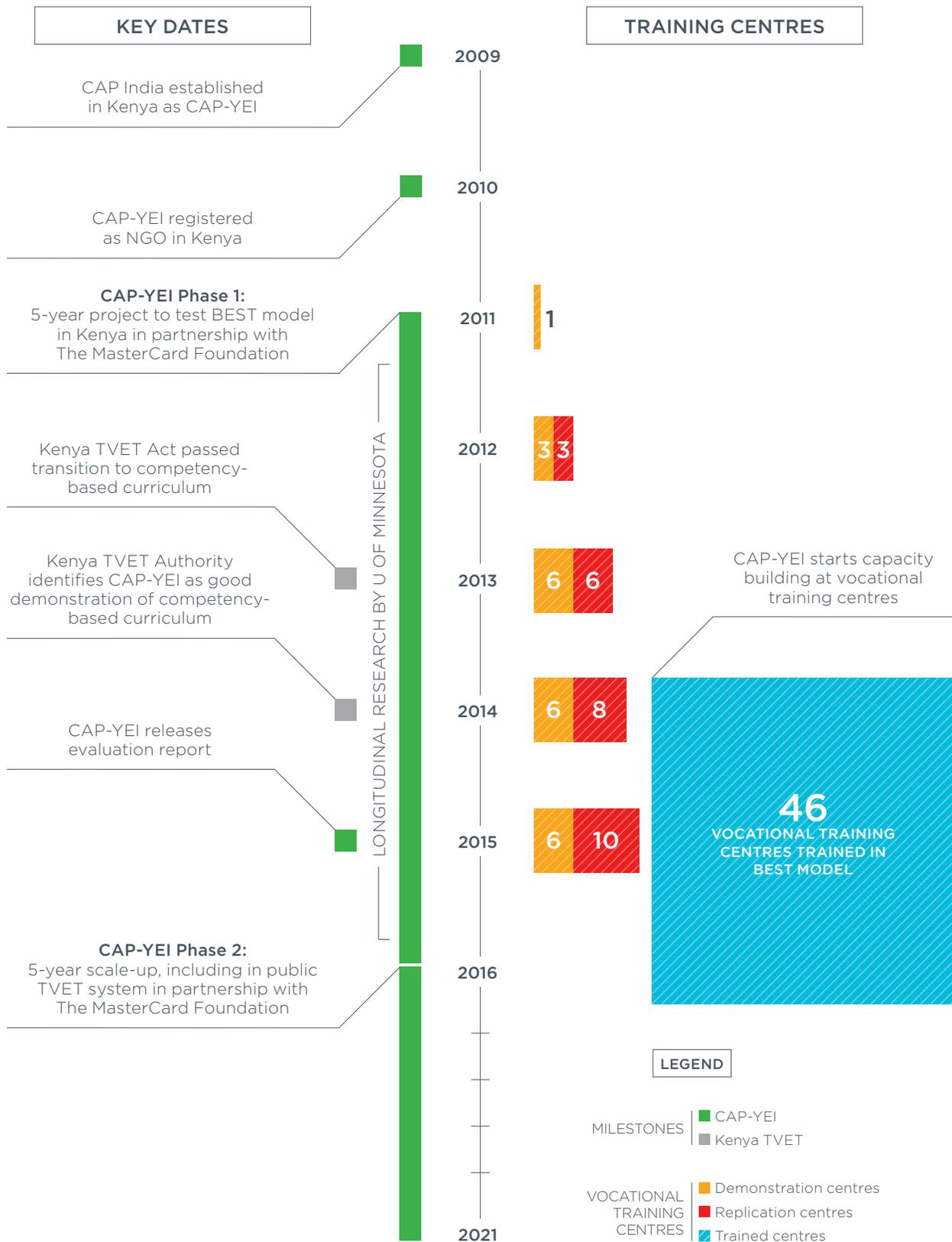
In 2015, New Economy Development Group produced an independent, summative and formative evaluation, based on CAP-YEI's longitudinal data, that the University of Minnesota had been collecting since the pilot began in 2011,<sup>70</sup> and additional primary and secondary data collection. Throughout the first phase, CAP-YEI enrolled 8,911 youth within its demonstration (4,666) and replication (4,245) centres, and reached an additional 5,786 youth indirectly, through capacity building by CAP-YEI VTC managers and tutors.<sup>71</sup> Through both direct and indirect training models, CAP-YEI's program thus reached nearly 15,000 youth, exceeding its original target of 10,000—a significant feat for a program in its first five years in Kenya.

#### CAP-YEI OUTCOMES 2011-2015:

- Trained nearly 15,000 youth
- Ninety-two managers in 46 VTCs trained in BEST model
- Seventy-five percent of youth in CAP-YEI programs placed in jobs
- Eight percent became self-employed or started businesses
- Eighty percent of youth participants opened a bank account and saved on a monthly basis

FIGURE 5

Scale-Up of CAP-YEI Training Centres



Source: AFIDEP, "Draft Report on Integration of Transferable Skills in Secondary and TVET Education in Sub-Saharan Africa: The Case of the CAP-Youth Empowerment Institute in Kenya," prepared for The MasterCard Foundation, November 2016 and CAP-YEI.

### *Phase II: Further Scale-Up (2016–2021)*

Strong outcomes for youth documented in the first five-year pilot phase by CAP-YEI's learning partner and the independent final evaluation supported the decision to further scale-up the CAP-YEI BEST model. A second, five-year phase (2016–2021), through a continued partnership (US\$10.5 million) between CAP-YEI and The MasterCard Foundation, will be implemented in close cooperation with the Kenyan government at county and national levels. Through this new partnership, the BEST model would be scaled via several pathways: horizontal, functional, and vertical. CAP-YEI intends to directly train and support 23,000 youth through demonstration and replication centres to gain positive livelihood skills and opportunities, with 4,000 from among this number supported to establish or grow micro-businesses. The organization also hopes to reach 39,000 youth indirectly through the capacity building of VTCs.

#### **Horizontal Scaling in Phase II—Adapting the BEST Model for Rural Communities and New Populations**

In Phase II, CAP-YEI aims to offer BEST within 20 replication centres and demonstration centres, spread across 42 of the country's 47 counties.<sup>73</sup> This requires CAP-YEI to adapt its model for more rural contexts, and marginalized youth, including young mothers, disabled youth, and youth in remote areas. Compared to the area around Nairobi and other urban centres, where CAP-YEI piloted its model, semi-rural and rural areas and these marginalized populations require different types of youth recruitment methods, market scans, skills training curriculum, and business and employer partnerships. These

adaptations are required to remain relevant in the rural economy, which is highly dominated by agriculture, and has fewer formal sector jobs, making entrepreneurship even more important.

Starting in 2016, CAP-YEI also worked with the German development agency GIZ to implement its BEST Model in Lamu, Kwale and Turkana—counties that are focused on employability opportunities available in the oil and gas sector and are considered economically marginalized.

#### **Organizational Scaling (Capacity Building)**

Building on government interest and strong relationships established with Kenya's TVET Authority, in 2014 CAP-YEI began a capacity-building component, in which CAP-YEI staff trained the government's VTC managers and tutors from select counties in components of the BEST Model, in order to facilitate sustainability and wider use of the model within the formal TVET education system. Trainees from the VTCs attended two-week training sessions, with periodic refresher sessions. Tutors and managers trained by CAP-YEI reported incorporating life skills and transferable skills training in their teaching, with positive results in terms of attitude and behaviour change, and knowledge acquisition among youth participants.<sup>74</sup>

CAP-YEI has intentionally designed this training so that the BEST model could be offered within the government centres without CAP-YEI staff. In the future, this training will also include an introduction to the CBET approach. Partnering with government training centres provides a low-cost way to achieve this wide reach.

“With life skills we have seen a lot of changes like commitment on the side of instructors and increase of enrollment on the side of students. The attitude and behavioural change is attracting young people to come and register ...”

**Vocational Training Centre Manager,  
Kenya**

Adaptation during scaling can be a delicate balance between flexibility within new contexts and fidelity to a proven model. As described above, since it planned for scaling in the second phase, The MasterCard Foundation commissioned an evaluation to help identify the key aspects of CAP-YEI’s nine-step BEST model crucial to achieving positive outcomes for youth.<sup>75</sup> The report recommended several necessary components if a VTC wanted to draw on the BEST model to train and support youth:

- Engagement of stakeholders, especially employers, in a direct and purposeful manner throughout the entire process.
- Ensuring curriculum and skills are grounded in the local needs of employers.
- Offering opportunities for youth to be exposed to the world of work, and to gain guidance from mentors, employers, financial service providers and local leaders.
- Confidence, and a sense of worth; offering a safe place to learn, combined with providing a set of life skills to enhance self-esteem.

While accepting that some aspects of its model may be adapted or changed by government trainers, whether due to the resource pressures of scale-up or entrenched practices, CAP-YEI is naturally interested in maintaining aspects of the model that contribute most to youth employability and success.

#### *Decentralization of TVET Education*

The decentralization of vocational training education to county governments in 2010 brought provision and management of this level of education closer to communities, a factor that has helped CAP-YEI promote their model and partner with county governments directly, with relative independence from national level bureaucracies (though local VTCs are still regulated by the national Authority).

CAP-YEI capacity building has also provided a forum for government TVET institutions to engage with policymakers at the county level through meetings, forums, and events that VTC staff may not normally be invited to. This has been of benefit to training institutions, which have been able to get the audience of key decision-makers on matters affecting them, for example, inadequate resource allocation. In summary, cooperation with County TVET Directors in charge of youth training at VTCs was important in facilitating this training, as well as providing the space for offering the BEST model at the “replication centres” located within the host TVET institutions. In this case, Kenya’s decentralized approach that allowed counties to manage TVET training appears to have made it easier for CAP-YEI to develop relationships with government, and to facilitate training and uptake of the model within the formal TVET education system.

FIGURE 6

### CAP-Youth Empowerment Institute Training Strategies (2011–2016)



Source: AFIDEP, "Draft Report on Integration of Transferable Skills in Secondary and TVET Education in Sub-Saharan Africa: The Case of the CAP-Youth Empowerment Institute in Kenya," prepared for The MasterCard Foundation, November 2016.

#### *Organizational Scaling (Capacity Building): Phase II*

CAP-YEI during Phase 2 will continue to scale its model functionally, by providing capacity-building training to 500 TVET instructors and managers in 100 public VTCs. Through this, they will gain the knowledge and skills needed to support improved learning and employment outcomes for youth. This will include introduction to the CBET approach through materials that have been provided to CAP-YEI by the Curriculum Development Assessment and Certification Council (CDACC) of the TVET Authority. This training includes helping instructors adopt new, more active forms of pedagogy that are practical and participatory, and that utilize team work and training in other transferable skills that help to produce the required competencies.<sup>76</sup> Here organizational scaling has contributed to the sustainability of the program, as government trainers gain the capacity to offer the BEST model in public VTCs without the involvement of CAP-YEI or financial support from outside partners.

#### **Vertical Scaling (Policy Adoption): Policy Openings, Government Champions, and Accreditation**

Important policy windows opened for CAP-YEI in 2013, when the government adopted the TVET Act and again in 2015 when it adopted the National Curriculum Policy, both of which aimed to develop a competent workforce and equip youth with practical skills relevant for employment in the 21<sup>st</sup> century. In the TVET sector, this has resulted in major curriculum reform to introduce CBET that integrates life and transferable skills into technical and vocational training programs.<sup>77</sup>

#### *Enabling Policy Changes*

These policy changes made the hands-on technical and transferable skills training that were key features of the BEST model even more relevant and attractive to policymakers and administrators within Kenya's education system. In 2014, Kenya's TVET Authority identified the CAP-YEI BEST model as an example that could help inform development of the skills training

aspect of the CBET curriculum, which it was in the process of developing. Working closely with the leaders of CAP-YEI, the government began to incorporate aspects of the BEST model within its technical and transferable skills training subjects for TVET.

Importantly, in Phase II, CAP-YEI has been able to scale its model by positioning the BEST model as an integral part of the wider CBET approach of the Kenyan government's new CBET curriculum for the TVET system. The government (through the Curriculum Development Assessment and Certification Council) sees the CAP-YEI model and approach as a demonstration of competency-based training in practice, and often makes reference to it as such. The fact that Kenya's education reform coincided with the last years of CAP-YEI's pilot and first years of the second scaling phase provided a valuable opportunity. CAP-YEI, in part through relationships forged within the TVET Authority during implementation of the pilot as well as the positive program impacts on youth documented by the evaluation, has been offered multiple opportunities to share and provide technical assistance to different organizations and government departments at the county and national levels.

CAP-YEI shared its curricular and other materials and facilitated trainings of its staff and partners in the CBET curriculum.<sup>78</sup> CAP-YEI and the Curriculum Development Assessment and Certification Council identified key principles and processes applied in the CAP-YEI BEST model that aligned with the goals of the CBET curriculum. It felt that the model served as a demonstration of how a competency-based curriculum can be implemented in practice. CAP-YEI has demonstrated a readiness and flexibility to support the government and be part of the TVET reform agenda, including

providing important technical assistance in the CBET framework roll-out process. It has also demonstrated that the impact of the BEST model helped make it possible for the government to facilitate scale-up of the program within public VTCs using this public-private-partnership approach. The government further opened its doors to capacity building and training of public TVET staff by CAP-YEI staff. A key part of CAP-YEI's work in Phase II of the scale-up will be to further integrate the BEST model into the competency-based TVET curriculum, making it compliant with and integral to the country's TVET system.

### *Accreditation*

The opportunity has presented itself in 2016 and 2017 for CAP-YEI and other private and non-profit training institutions to be accredited by the TVET Authority for offering the CBET curriculum. This is a chance to achieve even greater impact for youth participants. Graduates of accredited training programs, such as those offering training in the BEST model (e.g., CAP-YEI demonstration centres and government VTCs), will receive certifications that are recognized nationally by employers.

### *Political Champions*

CAP-YEI benefitted from good timing as its planning and scale-up coincided with a period of government education reform. Yet timing was not enough to ensure success. Many champions within government also advocated for inclusion of aspects of the BEST model within the ongoing TVET reforms. In particular, the late inaugural Chairman of Kenya's TVET Authority, Professor Wilson Ogola, and Curriculum Development Assessment and Certification Council Chairman, Professor Charles Manasseh Mokua Ondieki, were instrumental in their support of CAP-YEI and proved influential advocates within the government.<sup>79</sup>

While reforms to the TVET curriculum have largely been adopted (if not fully rolled out), reforms to make Kenya's basic education curriculum competency-based are still in process,<sup>80</sup> offering the possibility of further influence for CAP-YEI's model within general secondary education.

### Functional Scaling (New Activities)

Since 2015, CAP-YEI has partnered with the McKinsey Social Initiative as an implementing partner to host their Generation Initiative. A skills training program similar in many respects to the BEST Model in its strong partnerships with employers and emphasis on both technical and transferable skills, Generation Initiative puts a special focus on retail and financial industries, and has a shorter training period. While the generation model does not aim to engage public sector TVET institutions or curricula, CAP-YEI and the Generation Initiative share a commitment to skills development—including transferable skills—driven by demands of employers.<sup>81</sup> This partnership allowed CAP-YEI to reach 4,000 more youth (with a job placement success rate exceeding 90 percent) by adapting and adding new activities to its offerings, within its own demonstration centres as well as by acquiring six additional independent training centres—an example of functional scaling.

## C. BRINGING SKILLS INTO NIGERIA'S SENIOR SECONDARY CURRICULUM

### Nigerian Context

Nigeria has a very large youth population, with a stunning 71 percent of its 182 million people under 30 years of age.<sup>82</sup> As in many other Sub-Saharan African countries, youth unemployment and underemployment are major challenges. Rates of youth unemployment are growing rapidly, from 41 percent in 2009 to over 50 percent in 2013.<sup>83</sup> After several years

of strong expansion, economic growth began to slow in 2015 and in 2016 Nigeria entered a recession caused in part by low oil prices. Whether during times of economic expansion and contraction, not enough jobs are being created to fill demand for work among youth. Additionally, many young people lack the skills and competencies demanded by employers, because of low quality of learning. While Nigeria made basic education through junior secondary school free and compulsory in 1999, helping to increase enrolment, access to three years of senior secondary school is still limited by school fees and the long distances to school for many students.<sup>84</sup> Additionally, the vast majority of those in school are not learning at levels required to pass national university entrance exams. Nor are they acquiring the skills to be competitive in local and national job markets, in part due to outdated curricula and traditional pedagogies focused on passive knowledge accumulation.<sup>85</sup> Less than one-third of students taking the West African Senior School Certification Examination receive the minimum score for consideration for tertiary education in 2014.

Nigeria's long-term development agenda, Vision 2020, recognizes education as instrumental for national development, and prioritizes investments in technical and vocational education and training. Even prior to the formulation of this agenda, the government of Nigeria had begun to review the curriculum of its three-year senior secondary schools in 2005. Formal redesign of the curriculum began in 2006, with the goal of making the curriculum more relevant to the demands of the global economy, and to promote youth employment. The federal government finally launched the new Senior Secondary Education Curriculum five years later in 2011, which was disseminated to the states for implementation.<sup>86</sup>

In 2013, Nigeria revised its National Policy on Education to align with the national aspirations articulated in Vision 2020, and to include the new curriculum. The policy sought to “develop a competent workforce through the acquisition of practical life skills relevant to the world of work” and develop “sound intelligent learning societies fit and relevant to the 21<sup>st</sup> century.”<sup>87</sup> The policy emphasized the shift from knowledge and examination-based learning to learning that focuses on developing the whole person and prepares all learners to become active, informed and responsible citizens—thus emphasizing many aspects of transferable skills. The government began to assess students through national examinations and the first cohort to complete the full three years of the new curriculum graduated in 2014.

States implemented the new curriculum at varying speeds and at different times, and with a range of resources and commitment. This case examines how the new Senior Secondary Education Curriculum was rolled out within two of Nigeria’s 36 states: Kano in the North West region, and Plateau in the North Central region. While both states faced significant challenges to implementation, their differing approaches to these challenges provide insights for other states and countries rolling out curricula that seek to incorporate training in entrepreneurship, trades, and transferable skills on a large scale.

### **Nigeria’s New Senior Secondary School Education Curriculum**

Nigeria’s new Senior Secondary School Curriculum was not expressly designed to transition from a knowledge-based to a competency-based curriculum as in Rwanda and Kenya. Rather, the new curriculum emphasized

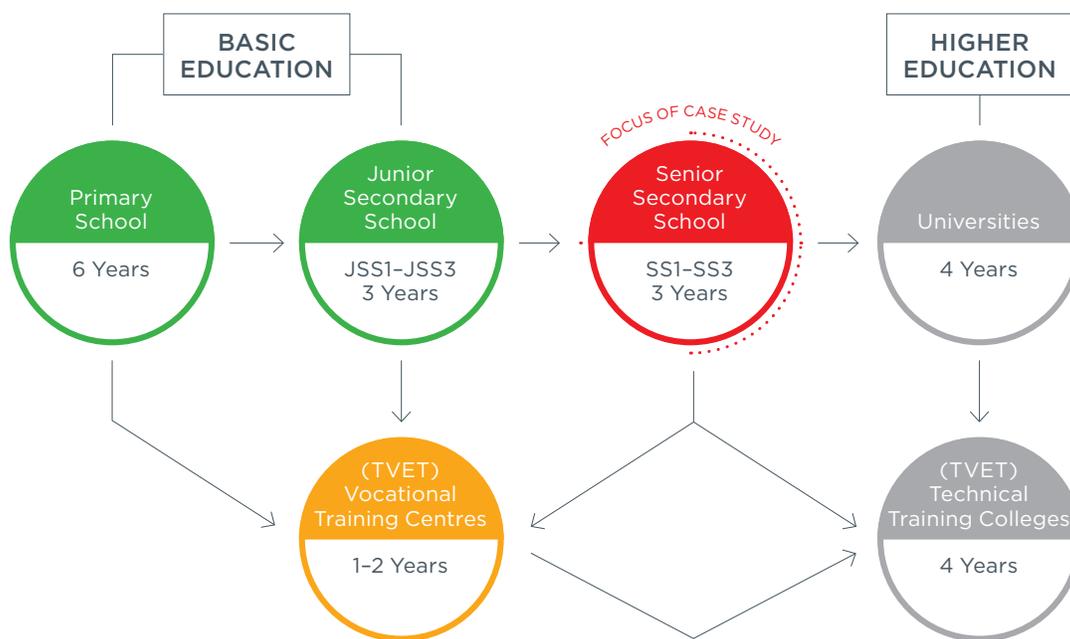
technical, vocational, and entrepreneurial training to prepare youth for employment and self-employment and broad-based learning. While the framers of Nigeria’s new curriculum do not explicitly refer to transferable skills, they reference practical skills, employability, life skills, and 21<sup>st</sup> century needs in their policy documents and curricular materials. A review of the curriculum and materials to guide its implementation by states and teachers, as well as interviews with officials and educators<sup>88</sup> reveals that learning transferable skills—though not explicit—is nevertheless a cross-cutting theme and goal of Nigeria’s education reform. How well this theme of transferable skills development has come through as teachers and students bring the curriculum to life in the classroom is still unclear.



Speed catch game during National Institute for Policy and Strategic Studies and Development Research and Projects Centre (dRPC) training workshop for civil servants. Photo Credit: dRPC

FIGURE 7

### Nigerian Education System



Source: AFIDEP, "Draft Report on Integration of Transferable Skills in Secondary and TVET Education in Sub-Saharan Africa: The Case of the New Senior Secondary School Curriculum in Nigeria," prepared for The MasterCard Foundation, November 2016.

The key change in the new curriculum was the introduction of trade and entrepreneurship subjects as compulsory alongside more traditional subjects such as English, science, and mathematics. Each senior secondary student is required to choose one trade as part of his or her course of studies. While the new curriculum

emphasizes instruction in the 34 trades in order to make secondary education more practical and to better equip students for employment and entrepreneurship, it is also anchored in seven learning goals that include students acquiring a variety of transferable and life skills.

#### SEVEN BASIC LEARNING GOALS OF NIGERIA'S NEW SENIOR SECONDARY EDUCATION CURRICULUM:<sup>89</sup>

1. To be bilingual and trilingual with adequate proficiency.
2. To understand contemporary issues that may impact daily life at personal, community, national and global levels.
3. To be an informed and responsible citizen with a sense of global and national identity.
4. To respect pluralism of cultures and views, and be a critical, reflective and independent thinker.
5. To acquire information technology and other skills to become a life-long learner.
6. To understand one's own career/academic aspirations and develop positive attitudes towards work and learning.
7. To lead a healthy lifestyle with active participation in aesthetic and physical activities.

The new Senior Secondary Education Curriculum structure is as follows<sup>90</sup>:

- A group of five compulsory, core cross-cutting subjects (English language, general mathematics, computer studies/ICT, civic education, trade and entrepreneurship).
- Four distinct fields of study (science/mathematics, humanities, technology and business), and elective subjects.
- A group of 34 trade and entrepreneurship subjects.<sup>91</sup>

Though curriculum designers in Nigeria's National Education Research and Development Council did not explicitly refer to the reforms as an effort to create a competency-based curriculum, they called for more active pedagogic approaches typical of such curricula. As with other training in practical and transferable skills, this type of pedagogy, according to the Council, should be a pedagogy "that engages students, supports them to develop thinking and problem-solving skills and enables them to develop life-long learning skills." It calls for a form of assessment that takes place during daily teaching and "engages students in peer assessment and self-assessment." Furthermore, it aspires to a values-based education that helps students "respect pluralism of culture and views," "enhance career aspirations and positive work ethics" and "provide students with a broad and balanced curriculum with essential learning experiences alongside the core and elective components" including applied learning courses.<sup>92</sup>

## Curriculum Review and Design Process

In 2005, the National Educational Research and Development Council (NERDC) began the curriculum review process by putting together a team of education experts from within its ranks, as well as from national universities and outside experts. The team crafted a draft curriculum drawing on the previous technical curriculum developed in 1981, regional and global trends, and consultations held with states as part of its regular workshops with state Ministries of Education. States, through these consultations, submitted their top trade and economic sector priorities for which they felt youth should receive training, though some officials interviewed in Plateau noted that they were not consulted.<sup>93</sup>

A review of the new curriculum completed by Dalberg Global Development Associates for the Ford Foundation observed that the choice of the 34 trades did not take into account growth potential of each trade identified.<sup>94</sup> While some states were consulted, there appears to have been inconsistent, and often limited, consultation with the private sector and education stakeholders such as teachers and students.<sup>95</sup> Dalberg found a "disconnect between the subjects taught and labour market needs" with "little employability or market-driven consideration given to the selection of subjects offered by schools."<sup>96</sup> The final curriculum was also not fully aligned to the existing National Occupational Standards, which have started to roll out in five trades.<sup>97</sup> After completion of the draft curriculum, it underwent a federal curriculum review by Ministry of Education officials, members of the National Education Research and Development Council Reference Committee, and others, and was launched in 2011; six years after the curriculum review began.<sup>98</sup>

## Scale-Up in Nigeria: Rolling Out the New Senior Secondary School Curriculum—A Tale of Two States

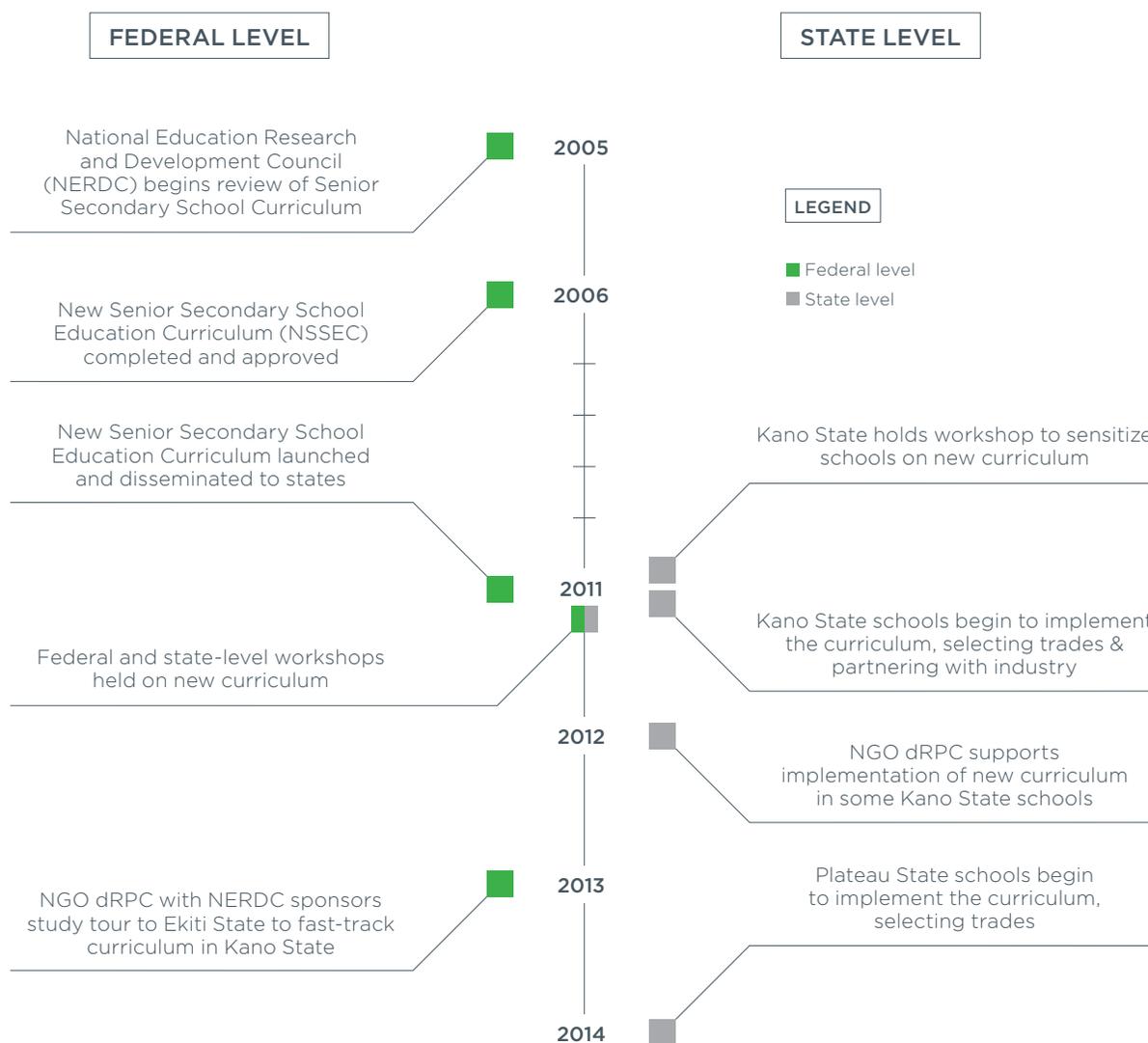
### Horizontal Scaling

The case of Nigeria’s implementation of the new curriculum is largely a case of horizontal scaling. Unlike the cases of Kenya and Rwanda, we did not find significant examples of organizational

or functional scaling of the curriculum. To some extent, given that the reform went from the federal to state level, it can also be considered a case of vertical scaling in reverse (top-down scaling), where policy drives adoption at lower levels, rather than models on the ground influencing national policy (bottom-up scaling), as is the case in Rwanda and Kenya.

FIGURE 8

Nigeria - New Senior Secondary Curriculum Timeline



Source: AFIDEP, "Draft Report on Integration of Transferable Skills in Secondary and TVET Education in Sub-Saharan Africa: The Case of the New Senior Secondary School Curriculum in Nigeria," prepared for The MasterCard Foundation, November 2016.

### *Curricular Materials*

In 2011, Nigeria began an ambitious and highly challenging scale-up. It implemented a new curriculum simultaneously in 36 states for a student population in the tens of millions, in varied cultural, religious and geographic contexts across a large, densely populated country. It is apparent from the research that funding at the US\$2.7 billion level, as estimated by Dalberg to be required per year to roll out the curriculum nationwide, was not provided.<sup>99</sup> At the time of data collection, there did not appear to be any detailed curricula for the new required entrepreneurship and trade subject, for each of the 34 trades within it, nor for the transferable or “practical life skills” aspects of the curriculum’s learning goals (see Text Box).

Dalberg found that “[w]hile the new senior secondary curriculum has been developed at a high level, the tools required for implementation of these curricula at school level—lesson plans, detailed teaching guides, etc.—have not been developed. There is a concern about whether the curriculum will match the private sector requirements in the field, e.g., could a secondary school course lead to a certificate?”<sup>100</sup> Additionally, in contrast to Kenya and Rwanda, the federal government does not appear to have incorporated proven skills training programs and models from outside the formal education system into its curriculum, a fact that may have limited its ability to provide teaching materials.

### *Disseminating the Curriculum to States*

To roll-out the curriculum, beginning in 2011, federal officials from the National Education Research and Development Center held sensitization workshops in each state with education officials, school administrators and

teachers. Some states additionally held state-led workshops. The Kano Education and Research Department organized sensitization workshops to introduce the new curriculum to teachers and principals that same year. The Plateau State Education Research Center received copies of the new curriculum to disseminate to schools but did not organize any state-level workshops due to lack of funds. Rather, they distributed copies of the curriculum to schools through district offices and sent a circular to schools advising them to implement the curriculum, but only in 2014, three years after the curriculum had been launched.<sup>101</sup>

At the school level, principals and department heads were responsible for the selection of trade subjects that would be offered in the schools. This selection was often based on which teachers were delivering subjects similar to any of the trade subjects, and the kinds of materials and facilities available. As was the case with the original selection of 34 trades at the federal level; the selection of trades taught at the school level appears to be dictated by what teachers and materials are already in place, rather than which trades and skills the local labour market is currently demanding. This experience stands in contrast to the continual market feedback incorporated into the CAP-YEI training in Kenya (through market scans) and by Akazi Kanoze in Rwanda (through market scans and private sector input to the work-readiness curriculum and in-field placements). Further, as lesson guidelines and learning materials were not provided by the federal government, schools were left on their own to find resources to implement the new curriculum if state-level education ministries did not come to their aid.

### *States Implementation of the Curriculum: Kano and Plateau*

The practical nature of training in the trades requires special materials and facilities, and training in transferable skills requires special pedagogies and classroom practices. States responded differently to this challenge. Kano state's Ministry of Education established a trade department to set standards for how courses should be developed and teachers trained, and provided some start-up capital to schools to buy equipment and materials focusing on seven of the 34 trades.<sup>102</sup> In some cases, it used this capital in innovative ways. For example, by providing fishponds, fingerlings, and feed for the Fisheries trade in select schools. After harvesting the fish and selling it within the community, the school could use the proceeds and student fees to continue raising fish.

"I like the subject because it is practical. We have about four to five fishponds here in our school. The first time the teacher taught us how to preserve a fish. He illustrated this practically and then gave us a chance to do it while he supervised us. The second time he taught us about fish feeding. He also taught us on how to prepare a pond. Our teacher is very good and well educated. When we saw the [national examination] question papers we were able to respond to most of the questions."

Senior secondary school student, Nigeria

### *Private Sector Support*

To supplement state contributions, some schools were able to raise other resources and in-kind contributions from parents, the parent-teacher associations, private sector partners and others to partially fill the funding gap. They received funding from mobile service providers and banks to renovate facilities, and equipment provided by entertainment and Internet companies. Additionally, private sector employers, in part from Kano's large industrial centre, provided internships and work experience opportunities for youth, offering one platform for learning transferable skills. These cases, however, are anecdotal and do not represent a consistent or comprehensive approach for implementing the curriculum across the state.

### *Expertise and Capacity Building from NGOs*

As in Rwanda and Kenya, Kano state also benefitted from input and capacity building from NGOs experienced in education and skills training, though not on as large a scale as was the case with CAP-YEI and Akazi Kanoze. In Kano, the local organization, Development Research and Projects Centre (dRPC), helped strengthen implementation of the new curriculum in eight girls' schools in the state through a two-year pilot project funded by the MacArthur Foundation. The NGO offered capacity development and training for teachers and school administrators, focusing on training in transferable skills including self-empowerment. Another NGO, the Centre for Information Technology and Development, collaborated with the state Ministry of Education to build female teachers' capacity to teach information and communication technology, benefitting 20 teachers.<sup>103</sup> While important, both of these efforts were not on a scale sufficient to impact the roll-out of the curriculum statewide.

Other states such as Plateau were slower to pick up the curriculum and less able to generate outside resources for implementation.<sup>104</sup> Schools in Plateau state lacked support from state education officials through sensitization workshops, and did not receive capital inputs for facilities, materials, or training, as was the case in Kano state. In Plateau, state officials also advised the schools to source trade experts from the community, to teach trades they already had experience in and teaching materials for. For schools in marginalized communities with

very limited resources, such strategies can only go so far. Plateau state also struggled to attract outside funding partners—although it received some support from the Nigerian mobile service provider MTN and Zenith Bank, which provided computers, Internet services and training in some schools. Plateau also did not benefit to the extent of Kano state from input and capacity building by education NGOs—though in one case teachers in the state received ICT training from a local non-profit organization.<sup>105</sup>



Consultative Workshop on Guidance and Counseling for in-school and out-of-school girls, Nigeria. Photo Credit: DRPC

### III. DRIVERS OF SCALE

Our research found six drivers of scale that were important in pushing education reforms forward, and in creating the opportunity for expansion of transferable skills training and curricula within formal education systems. These drivers are:

1. Enabling Policy Environment
2. Evidence
3. Champions
4. Stakeholder Engagement
5. Flexible Funding
6. Decentralization of Education Authority

Most of these six drivers were present in each of the three cases—in Rwanda, Kenya, and Nigeria—though in some instances some drivers were more important than others, or not present. A number of these drivers align with the “14 core ingredients” identified by Robinson and Winthrop in their study *Millions Learning*<sup>106</sup>, which examined successful education programs that have achieved a very large scale, in many cases reaching millions of students. Only the case of Nigeria in our report achieved this kind of scale in terms of numbers of students reached. Nevertheless, there appear to be several common drivers of scale that are important for cases of medium scaling (such as Akaze Kanozi and CAP-YEI), which reached tens of thousands of students, as well as cases of much larger scaling (such as Nigeria’s New Senior Secondary School Curriculum).

#### A. ENABLING POLICY ENVIRONMENT

A policy environment that is supportive of education reforms, and where clear goals are articulated at a high level by government, creates a window of opportunity for social entrepreneurs and other change makers within and outside of the system to promote innovation. This enabling policy environment, combined with committed leadership, can promote a culture of learning and support for bold decisions to experiment with

education reforms. Change makers can leverage resources and technical expertise from a wide range of stakeholders to support pilot projects, work towards expanding successful experiments, and maintain the reform momentum by bringing these projects to scale, sometimes nationally. In all this, timing is critical: pilot projects and new curricula that align with education policy reform windows of opportunity seem to stand a greater chance of being identified and taken to scale. Robinson and Winthrop, in their study of how quality learning “from the margins” of an education system can be scaled, stress the importance of an enabling environment: “Largely guided by governments from national to local, the ecosystem in which programs or policies operate plays a critical role in facilitating or impeding the scaling process.”<sup>107</sup>

The stories of scaling within each of the three cases considered in this report occurred in an enabling policy environment characterized by major education reform. The countries’ long-term development visions (Vision 2030 in Kenya and Vision 2020 in Rwanda and Nigeria) highlight the importance of universal access to quality, economically relevant education for transforming unskilled youth populations and were the guiding framework for sectoral policies. Rwanda and Kenya were in the process of shifting from a knowledge-based to a competency-based curriculum when they turned to the NGO training models featured in this report. Reforms to make Nigeria’s education system more practical and economically relevant created demand for a new Senior Secondary Education Curriculum. Akazi Kanoze in Rwanda and CAP-YEI in Kenya initiated their work in the midst of these reforms, “on the margins” of the education system, and at a time when the governments needed sound technical assistance to actualize their education reform plans.

These windows of reform opened space for organizational scaling, in which a training model or organization can reach a wider audience through capacity-building efforts. This was the case for both Akazi Kanoze and CAP-YEI, when the governments of Rwanda and Kenya respectively invited experts and implementers from both organizations to contribute to curriculum design for a new skills training program within TVET (Kenya) and general (Rwanda) secondary schools. Akazi Kanoze infused its work-readiness curriculum into the entrepreneurship track required for all senior secondary students in the country. Meanwhile CAP-YEI incorporated many aspects of its BEST model into the curriculum for technical (TVET) secondary schools as part of the consultative process initiated by the TVET Authority soon after the Authority was created. This type of “organizational scaling” and capacity building within government by outside experts and organizations does not appear to be as important a factor in Nigeria’s reform. In each of the three cases, however, a window of opportunity during major education reforms created the enabling policy environment for scale-up of skills training.



CAP-YEI vocational students participate in BEST small group discussion.  
Photo Credit: Frederic Courbet

## B. EVIDENCE

Evidence played an important role in catalyzing education reforms in each of the three countries, and, importantly, in the decisions to incorporate new transferable skills training models into formal school curricula as in the case of Rwanda and Kenya.

### Evidence Driving Education Reform

Evidence was one key driver of education reform. In Kenya, the TVET Authority’s review of the TVET curriculum was informed by a training-needs analysis completed by the Kenya Institute for Curriculum Development as well as the Kenya Youth Assessment report of 2014 completed by USAID and FHI 360.<sup>108</sup> Both reports highlighted youth unemployment and the need for soft or transferable skills training to address it. Similarly, the Rwanda Skills Survey of 2012 by the Rwanda Education Board also identified a gap in training on technical and soft skills such as leadership, business communication, and innovation. In Nigeria, experts from the National Education Research and Development Council reviewed evidence on the state of the economy and on education reforms in other countries as they designed the new curriculum. They also surveyed the states regarding their priorities and the local labour market, to help determine the core list of 34 trades to be included in the curriculum. In each of these cases, evidence drove reforms and the move to more skills training, as well as the kinds of training offered.

### Evidence of Successful Models

In terms of adopting outside models, decision-makers across the development landscape in Sub-Saharan Africa have demonstrated a growing appetite for practical research evidence

that can inform decisions on which interventions will enable them to achieve reform goals. Positive evaluation reports from CAP-YEI in Kenya and Akazi Kanoze in Rwanda were strong selling points for governments in deciding whether to scale these models. In the case of CAP-YEI in Kenya, annual tracking studies of youth participants, as well as a summative evaluation of the longitudinal data at the end of the five-year pilot,<sup>109</sup> proved highly influential. Support for rigorous evidence building from the start by outside learning partner University of Minnesota was thus instrumental. This same evidence also played a large role in The MasterCard Foundation's decision to extend its funding partnership for another five years, supporting scale-up of CAP-YEI's BEST within government TVET training centres.

Similarly, the rigorous evaluations of Akazi Kanoze's first five years (both a randomized control trial and a qualitative evaluation), were crucial in the Rwandan government's decision to include the work-readiness curriculum within the entrepreneurship track for all Rwandan secondary schools—and for The MasterCard Foundation in its decision to support this second phase, furthering scale-up after USAID funding expired. These evaluations, both supported by USAID, demonstrated strong outcomes for youth in terms of employment and entrepreneurship, and built a convincing, evidence-based argument for scale. Finally, an assessment by Ramirez et al later identified necessary components of the model that would have to be part of any scaling in order for the training to have continued positive impacts for youth.<sup>110</sup> This evidence and analysis continues to inform the scale-up today.

### Missing Evidence: Costing

A vital area where evidence seemed to be missing was the costing of what it would take to fully implement new curricula in each country. Though Dalberg estimated that the annual cost for implementing the new Senior Secondary Education Curriculum in Nigeria to be US\$2.7 billion, this was based on a review of existing TVET programs, Nigerian education data and stakeholder interviews, and was not a result of a government costing effort.<sup>111</sup> We were not able to locate any information generated by government to cost the implementation of the competency-based curricula in Rwanda and Kenya, nor for the new Senior Secondary Education Curriculum in Nigeria. Officials interviewed were not aware of any attempts to estimate these costs.

### C. CHAMPIONS

Support from high-level champions also contributed to the success of scaling training programs within formal education systems in Rwanda and Kenya. Distinct from multi-stakeholder engagement, visible and vocal champions who support reforms or advocate for particular training models can ease scaling by removing institutional obstacles, making connections, and even providing resources, whether financial or in-kind. In-kind support can come in the form of government staffing or access to facilities. The combination of political champions and an enabling policy environment can be powerful.

In Kenya, CAP-YEI benefitted enormously from the support of champions at the helm of the TVET Authority and the Curriculum Development Assessment and Certification Council, who

advocated for CAP-YEI's model during the reform process. These champions also provided access to VTCs where CAP-YEI trainers helped create "replication centres," and later where they offered capacity building for centre managers and instructors to offer the BEST model.

In Rwanda, a top official at the Workforce Development Authority was widely seen as the skills development champion and a force behind the competency-based curriculum reforms.<sup>112</sup> Also in Rwanda, President Kagame helped create an enabling environment as an outspoken champion for education, youth employment, and Rwanda's goal of becoming a middle-income country by 2020. Such champions did not emerge spontaneously: directors and staff of both EDC and CAP-YEI played an important role in building relationships with these champions beginning when their programs were still operating on the margins of the education system. These relationships were further facilitated by an enabling policy environment.

## D. STAKEHOLDER ENGAGEMENT

### Multi-stakeholder Engagement by Governments

Strong multi-stakeholder relationships drove scaling in the cases examined here, particularly in Rwanda and Kenya. Broad engagement and input from a variety of actors was important in the design and implementation of these countries' competency-based curricula. EDC (Akazi Kanoze) and CAP-YEI established relationships of mutual trust and respect with government officials that enabled scaling of their interventions and the central role they are playing in shaping the broad education reforms in their respective countries.

Governments also sought input from other stakeholders in designing the new competency-based curricula, including additional technical experts, school administrators, principals, and the private sector. Stakeholder consultations in the conceptualization and design phase were public and open. For program delivery, ongoing stakeholder engagement on a smaller scale involving technical and implementing partners becomes critical. The two are linked; interviewees from Plateau state in Nigeria suggested if stakeholders are excluded from the design phase, it might be more difficult to engage their support at later stages.

In Nigeria, lack of structured external technical assistance during the development of the Senior Secondary Education Curriculum and its roll-out hampered technical development of the new curriculum and scaling processes at the state level. While the NSSE curriculum included principles of transferable skills, there was no defined process to determine methodologies that would be deployed to impart the skills in various subjects. Consequently, the new curriculum's defining feature is understood by many to be the mere introduction of the 34 trades as opposed to a competency-oriented curriculum, transferable skills training, and new pedagogies. Implementation by state government in the absence of federal assistance has meant that the states with greater access to technical assistance, more involvement of the private sector, and more proactive education officials (e.g., in Kano state) have forged ahead of those with limited technical assistance and stakeholder involvement, such as Plateau state.

## Multi-Stakeholder Engagement Impacts Training Models

Multi-stakeholder engagement was not only important for government but also for developing and delivering effective models for training in transferable skills. Involvement of many stakeholders, particularly from the private sector, was key for both CAP-YEI in Kenya and Akazi Kanoze in Rwanda. CAP-YEI and Akazi Kanoze both conducted market scans in the areas in which they worked, which informed their training curricula. Youth provided

key inputs to both models. Relationships with employers and businesses also helped pave the way for internships, mentoring, and job placements. Finally, relationships of trust built with VTC managers and school administrators, teachers, instructors, youth, and parents led to a virtuous cycle whereby stakeholder input built strong programs, which generated positive impacts and drove further scaling. In Rwanda, stakeholder relationships were especially key for implementing the program with partners and steering committees in general secondary and TVET schools.

FIGURE 9

Theory of Change for Stakeholder Engagement



Source: Milena Novy-Marx and The MasterCard Foundation.

## E. DECENTRALIZATION OF EDUCATION AUTHORITY

Decentralization of responsibility for education was a two-edged sword in the cases we examined, and had mixed impacts depending on the resources and capacity of governments at multiple levels.

### Rwanda

While Rwanda and Kenya have greater centralization in their education system, Nigeria devolves responsibility for implementation to the state level. Rwanda's more centralized system proved advantageous in some respects, through rapid creation of the competency-based curriculum (three years compared to five years in Nigeria), and the fact that all schools had to implement the curriculum simultaneously. Small geographically, and with a population of only 12 million, this centralized system did not inhibit the efforts of EDC and its partners to roll out the work-readiness training in secondary schools; in many cases centralized authority helped ease the scale-up process through a clear chain of command and fewer actors with whom to work.

### Kenya

While responsibility for education in Kenya is centralized at the national level under the Ministry of Education, Science, and Technology, some authority for implementation and oversight of schools is devolved to the county and district levels. The opportunities and challenges associated with such a devolved

governance system have become apparent in Kenya through the CAP-YEI program. Since 2014, CAP-YEI has worked with progressive county governments that have shown interest in having their TVET instructors trained in the BEST model. The devolution of authority over TVET education therefore provides opportunities for key program implementers like CAP-YEI to move forward by focusing on the progressive leaders at the sub-national level.

### Nigeria

In Nigeria, states are responsible for education, and have the option to choose which aspects of the new Senior Secondary Education Curriculum, and which trades, they will implement. While this system is more flexible, it can have both positive and negative consequences. On one hand, as the outcome of training is assessed at the federal level through national examinations, states that have more progressive leadership and that channel resources to education and training are more likely to offer greater options and higher-quality learning for their students, which gives their graduates an advantage in the labour market.

Kano state in Nigeria, for example, is further ahead in implementing the new curriculum than Plateau state, partly because Kano fully owned the new curriculum and provided the key resources needed for its implementation, while Plateau state adopted a more passive stance, waiting for the program to be funded through the federal government, a prospect which appears uncertain at best.

## F. FLEXIBLE FUNDING

Brookings Center for Universal Education emphasizes in *Millions Learning* the importance of flexible financing for scaling education innovations. Flexible financing, or funding from donors, should help build organizations' core operational capacity, be long term (sometimes lasting for a decade or more), and cover the crucial "middle phase" of a project, between proof of concept and broad uptake.<sup>113</sup> We found several examples of flexible financing that helped drive scaling in the cases of Akazi Kanoze in Rwanda and CAP-YEI in Kenya.

### Kenya

External donors—Plan International and the European Commission—were crucial funders of early horizontal scaling, bringing the CAP Foundation's BEST model from India to East Africa. The MasterCard Foundation took a chance in providing relatively long-term, flexible funding to CAP-YEI, a newly created African organization, to try this model in Kenya on a medium scale (reaching over 10,000 youth) over five years. A learning partner was also brought onboard to document the results.

When shown to be successful, the Foundation offered an additional five years of support through 2020, providing the critical long-term financing for this "middle phase" of the project, between pilot and scale. The middle phase, sometimes referred to as the "valley of death" can be a time when promising innovations nevertheless fade into obscurity, unable to fund the operational strengthening needed for mid-levels of scale.<sup>114</sup> Hartmann and Linn also stress the gaps in funding by outside donors, governments, and capital markets for this "intermediate" stage.<sup>115</sup>

By providing comprehensive support, including financing for internal capacity building and operations, the Foundation enabled CAP-YEI to develop its organizational capacity in the way it saw fit, allowing it to expand and to reach over 60,000 youth by 2021.

### Rwanda

USAID provided similar "middle phase" funding to EDC for implementing Akazi Kanoze in its first years in Rwanda (from 2009 to 2014, and later extended to 2016), at a level of scale to reach youth in the tens of thousands rather than millions. The MasterCard Foundation stepped in to provide flexible support for the next five-year phase to continue scale-up in the formal school system with the government at the close of EDC's project.

External donors such as foundations often have a greater willingness to take on some of the risks inherent when piloting and expanding new organizations and models. They are able to wait longer for results than most government or private sector funders and are not seeking a financial return on this support. However, when expanding at a large scale, to hundreds of thousands or millions of students, government as the largest funder of education is key.

### Nigeria

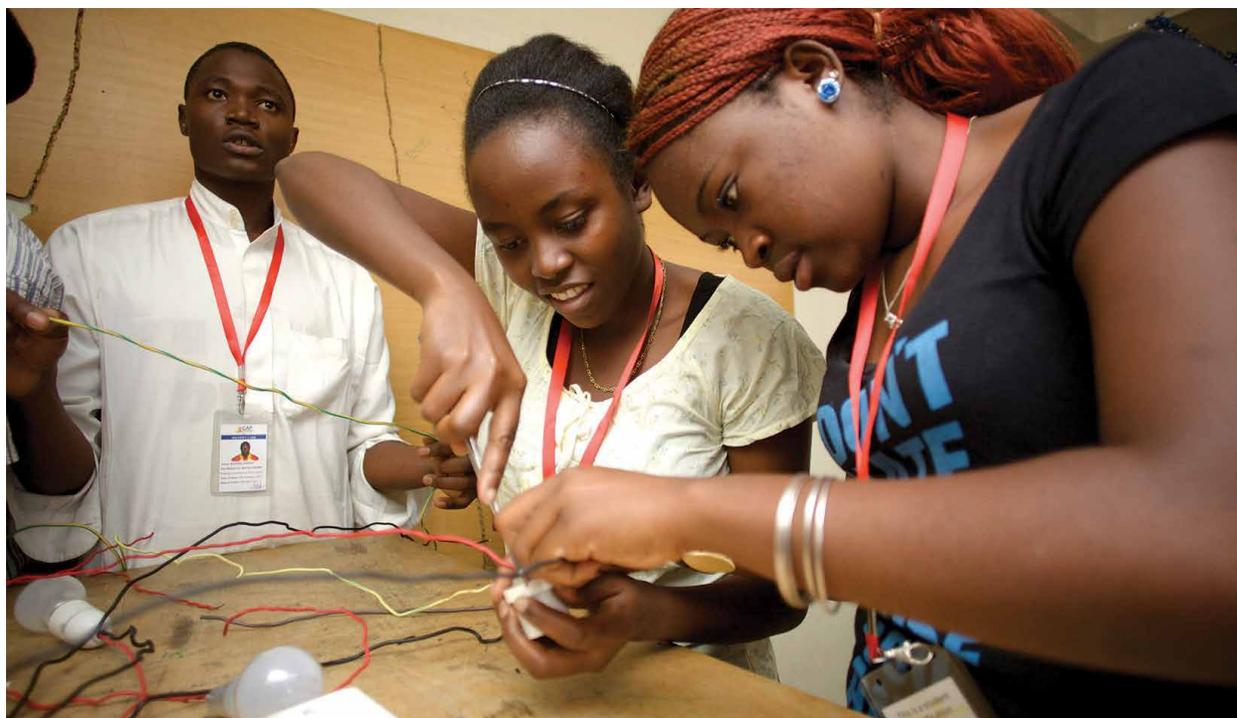
With the government as the sole funder of curriculum reform at the senior secondary level, Nigeria is a case of scale of far greater magnitude than either of the other two cases, as the curriculum is aimed to reach many millions of youth across the country. Yet as Dalberg reports, "the education sector in Nigeria has for several years been at the receiving end

of insufficient budgetary releases across all education levels (from primary to tertiary).<sup>116</sup> With the lack of curricular materials for states, nor the resources to develop facilities or help with training teachers in new pedagogies, this case demonstrates the impact of low levels of financing to support secondary education reform. The cost of technical and vocational education can be anywhere from one to 13 times greater than general education per student, according to the World Bank, due to facilities and materials costs.<sup>117</sup> These figures suggest that implementing the new entrepreneurship and trade curriculum could be very costly, yet training in crucial transferable skills does not need to be so expensive. Transferable skills can be imparted without costly materials and facilities—but do require teachers trained in the appropriate, learner-centred pedagogies.

While flexible financing eased both CAP-YEI and Akazi Kanoze through the “middle phase,” reaching many tens of thousands of youth, it will

remain up to governments to fully scale these models nationally, to reach millions. The first steps to do so have been undertaken by the government of Rwanda and results of this effort will be closely watched by other governments and by the global education community. Whether the government in Kenya will step in to bring the transferable skills training begun by CAP-YEI to further scale in the TVET system remains to be seen. A similar question remains in Nigeria, where with additional budgetary resources and support to the states, implementation of the new Senior Secondary Education Curriculum and skills training could be vastly improved.

Whatever decisions taken by government in future years, these models together demonstrate how initial scale-up of transferable skills can proceed with a combination of flexible financing, strong champions, an enabling policy environment, and innovative models brought in “from the margins” of the education system and supported through wide stakeholder engagement.



CAP-YEI youth participants learn basic employability skills. Photo Credit: Frederic Courbet

## IV. DELIVERY CHALLENGES AND SOLUTIONS

### A. ADAPTING TRAINING MODELS FOR FORMAL EDUCATION SYSTEMS

Adaptation of training models for scale requires a delicate balance between flexibility in new environments and fidelity to the model. Flexible and creative adaptation of training models and curricula eased scale-up in each of the three cases we examined.

In Rwanda, Akazi Kanoze adapted its intensive, three-month classroom training and work-readiness curriculum so that it could be delivered over three years in the Rwandan senior secondary school system's entrepreneurship course, and over one year in TVET secondary schools. This redesign of the curriculum required cooperation with Rwanda Education Board curriculum development officials, teachers, and school administrators. Though some interviewees felt the new model may have suffered from a loss of intensity, most saw great opportunity in offering transferable skills training (supplemented by field placements) over an extended period of time to each student.

CAP-YEI offered its original BEST model intact in most vocational training replication and demonstration centres by offering it through their own trainers. Yet they allowed some flexibility for instructors to modify it for the VTCs receiving capacity-building assistance from CAP-YEI. CAP-YEI in Phase II will need to adapt the training curriculum for more rural areas, adding more training on agricultural skills and entrepreneurship.

In Nigeria, flexibility in implementing the new Senior Secondary Education Curriculum was a product of the federal system. States were allowed to choose which aspects of the curriculum and which trades to take on. The

cost of this flexibility is that many states lacked the resources to implement the curriculum, and it was not always clear where, and how well, transferable skills were actually being taught.

Experience adapting models for scale offer two main lessons:

1. Adaptation should be done in cooperation with market actors and in response to demand in labour markets, rather than out of convenience.
2. Monitoring and evaluation throughout the scaling process must be incorporated to ensure that highly necessary aspects of the model are preserved, and thus the ultimate impact on youth participants is maintained.

### B. RESOURCE CONSTRAINTS AND LIMITED TEACHING MATERIALS

A lack of sufficient resources to implement these programs at scale is a common theme within each of the three cases. It is clear that without innovative forms of financing, increased government outlays, and further involvement by outside donors and the private sector, the training models and reformed curricula described here cannot meet their full potential, with consequences for youth livelihoods and ongoing high levels of youth unemployment.

Resource constraints were particularly evident in the shortage of teaching materials within schools, particularly in Nigeria, as well as in Rwanda. In Rwandan secondary schools, many teachers and school administrators complained that materials to guide lesson plans, and to teach the new entrepreneurship subject and related skills were not available. The Rwanda Education Board has since contracted with a publisher to provide text books and materials for schools in

the competency-based curriculum and work-readiness modules (with input to the content provided by EDC). These will be available soon, but nevertheless represent a delay in implementation that could have been avoided.

In Nigeria, resource constraints similarly limited availability of teaching materials and tools for the senior secondary school curriculum, leaving states, schools, and teachers on their own to come up with solutions. Some were able to turn to resources on the Internet, though this option is not available to many teachers and schools where Internet access is unavailable or intermittent.

### C. PREPARING TEACHERS AND INSTRUCTORS TO USE NEW PEDAGOGIES

Learning transferable skills, and competency-based curricula more broadly, necessitate new pedagogical approaches based on student-centred or ‘authentic’ learning, which bring in students’ experiences and involve students actively in the learning process. This approach differs markedly from the old knowledge-based, ‘instructivist’ learning models that still pervade teacher training in many countries.<sup>118</sup> Practical application through work experience, apprenticeships and internships also takes on greater importance in learner-centred models for imparting transferable skills.

Training teachers and instructors in these new pedagogies was central for successful implementation of the models, but nevertheless occurred to varying degrees in the three cases. Teaching new forms of pedagogy is time consuming and requires continual training, practice, and feedback from peers and teachers or instructors. Providing such training to teachers and instructors proved to be a delivery challenge in each of these three cases.

In-service training for TVET instructors within public VTCs in Kenya was integral to CAP-YEI’s scale-up process and core philosophy. CAP-YEI offered training in new pedagogies at the same time that it trained these instructors in the BEST curriculum. Indeed, the two could not be separated.

In Rwanda, training teachers and TVET instructors occurred through a cascade model, in which EDC experts trained Master Trainers within the Work Development Authority (responsible for TVET) and the Rwanda Education Board (responsible for general education) in the work-readiness curriculum. These Master Trainers then trained National and District Master Trainers who were in charge of training all technical and secondary school teachers and TVET instructors in the country. New, learner-centred pedagogies were central to this training of trainers. While the process was thorough and well conceived, some interviewees felt that even a two-week period of instruction for in-service teachers and instructors was not sufficient to impart these techniques. EDC did not intend this instruction to be final; rather, it was to be updated through ongoing refresher courses and trainings.

In coming years, as part of the competency-based curriculum roll-out, officials report that outside organizations such as EDC and Educate! will be asked to take on a greater role in helping to train teachers and instructors in the new pedagogy and curriculum, rather than monitoring the implementation at the school level.

In Nigeria, training of teachers in the new curriculum, and on new pedagogies for imparting it, was virtually absent. Federal and state-level sensitization workshops were held to introduce the new curriculum, but in-service teacher training was not offered.

In all three cases, pre-service teacher training institutions are lagging behind curriculum reform and roll-out. Significant investment will be needed to bring teacher training colleges and institutions up to date on the new curriculum and new ways of teaching, so that future teachers and TVET instructors can hit the ground running as they enter schools and are asked to impart transferable skills, work-readiness curricula and entrepreneurship to youth. This process is just now beginning in the three countries examined.

#### **D. ASSESSING TRANSFERABLE SKILLS**

Because learning in transferable skills is by definition active and practical, assessment of these skills must also be. An emerging body of research and literature has demonstrated the difficulty of assessing learning outcomes in the types of skills referred to as transferable skills, soft skills, life skills, and 21<sup>st</sup> century skills. This skill set, comprised of skills such as communication, teamwork, problem solving, creativity, leadership, and resilience, do not lend themselves to quantitative evaluation or traditional examination rubrics. As a result, many evaluations to date miss these skills. Others have relied on participants' self-assessments, pre- and post-training. Yet such self-assessments are complicated by the fact that as youth learn more about these skills, they tend to assess their acquisition of them more harshly. In other cases, assessments of qualities such as creativity that are negative may have a harmful effect on

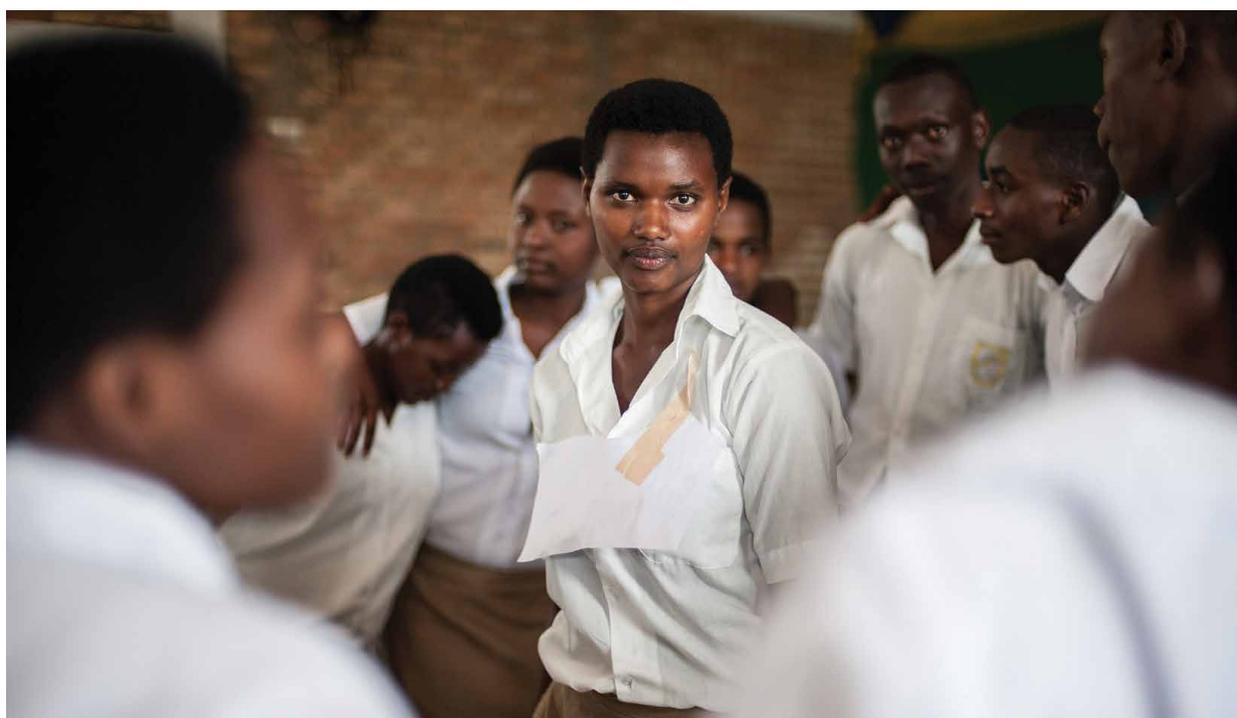
students' development, producing the opposite of intended consequences.<sup>119</sup> This is a challenge faced by school systems worldwide, and is in no way unique to developing countries or the cases examined here.<sup>120</sup>

Countries and assessment experts are just beginning to develop assessment tools to measure these types of skills, including through responses to situational questions, anchoring vignettes, interactive games, observation, and other methods. Experts call for assessments that are project-based, 'authentic,' and could rely on a portfolio of student work, and would be embedded in day-to-day learning, or might even involve collection of 'badges' representing acquisition of different skills. None of these methods lend themselves to traditional national examinations.<sup>121</sup>

Assessment systems in Kenya, Nigeria and Rwanda are beginning to adapt to these challenges, and are being revised to reflect the new competency-based, or senior secondary curricula in their national exams. This was the case in Rwanda, where national exams reflect the new competency-based curriculum. In Kenya and Nigeria, assessment systems are still in the process of reform. In all of these cases, it is clear that the development and dissemination of assessment and certification has not kept pace with the scale-up of programs.

Practical certification in transferable and technical skills is somewhat simpler, and has already been put in place in Kenya, where the TVET Authority has accredited CAP-YEI and offers an official certificate for youth who complete the BEST program, as part of the process to develop a centralized examination system for the CBET curriculum, which will serve all TVET institutions.

Practical assessment of the majority of Nigeria's 34 trade subjects requires extensive materials, equipment and infrastructure. But the inadequacy in resources has led to shortfalls in equipment, forcing states to select few subjects or those that require fewer resource investments. One of the challenges reported is that students are learning and being examined more theoretically, undermining the envisioned practical benefits of the curriculum. In some cases, and in states like Kano, communities and business people have come together to support schools with teachers and materials to offset the shortfall.



Akazi Kanoze Work Readiness Program in progress at Mpanda Vocational Training Centre, Rwanda. Photo credit: Jennifer Huxta

## V. RECOMMENDATIONS

Experience from the three cases profiled in this report point to the following recommendations for governments, implementers, donors, and researchers seeking to support training in transferable skills for youth within formal general and technical secondary schools.

### **For Governments and Implementers:**

#### *Create space for innovation*

Governments that wish to embrace transferable skills, but that lack the full capacity to design or integrate these skills within the curricula should allow space for experimentation, research and development. Some of this can be achieved by identifying well-designed pilot projects with strong records of positive impact on youth livelihoods that can be embedded within schools or training centres, and eventually scaled.

#### *Plan for scale from the outset*

The experience of CAP-YEI and Akazi Kanoze demonstrates the value of planning for scale from the outset by: creating flexible, simple and adaptable training models; working early with government at national and local levels; continuous monitoring and evaluation through learning partners; and dissemination of evidence at key junctures.

#### *Pursue multiple pathways to scale*

Effective scaling of training takes a variety of avenues to expand reach and impact: from horizontal (across geographies and populations) to vertical (through policy adoption), organizational (via capacity building or creating new entities), and functional (by adopting new activities). We found vertical and organizational scaling to be particularly important in paving the way for nationwide impact.

#### *Engage stakeholders early and broadly*

Broad-based engagement of actors—including technical experts, the private sector, school administrators, teachers, and TVET instructors is crucial for designing reforms and for scaling new approaches to skills training. Stakeholder engagement should be pursued early to have the greatest impact.

#### *Prioritize costing*

Governments should cost out implementation of reforms during the design phase, before beginning to roll them out. A strong implementation plan is also key. Implementers and funders can also do more by providing nuanced calculations of the cost effectiveness of their models and the different components, so that governments can make informed decisions on what to take up, how, and by what means. A realistic assessment of implementation costs will facilitate proper phasing of the roll-out.

Delivery challenges such as training teachers and instructors (in-service and pre-service); creating teaching materials and resources; and changing assessment tools must be budgeted and planned for early. While resource constraints are ubiquitous, partnerships with parents, the private sector, and outside donors are crucial in helping overcome them.

#### *Develop new assessment tools*

Governments and implementers should work with education experts to develop new ways of assessing transferable skills that can be used at scale. As it becomes easier to measure acquisition of transferable skills, pedagogies can be improved and more governments will likely be able to take on similar efforts.

### *Prioritize training in new pedagogies*

Perhaps the greatest delivery gap evident in the three cases was the lack of in-service and pre-service training for teachers and TVET instructors in the kinds of active, learner-centred pedagogies that are most needed to impart transferable skills—and that are key to learning across academic subjects as well. Such training should be introduced as soon as possible.

#### **For Donors:**

### *Flexible funding that embraces risk*

Outside donors should emphasize their comparative advantage in providing flexible funding to support riskier models and relatively new organizations as they grow and scale. Support for the middle phase of expansion, between pilots and national impact, were important to bringing innovative models from the NGO sector into government secondary school and TVET systems.

### *Continued and deeper investments in transferable skills training*

Donors should continue to offer support for innovative models of training in transferable skills, especially for difficult-to-reach populations. Transferable skills are only now beginning to be incorporated into formal education systems. There is more work to do to expand these efforts at the secondary and TVET levels, as well as within basic and tertiary education. Over time, increasing evidence should emerge to facilitate these reforms.

### *Invest in training for teachers and instructors in new pedagogies*

Donors can play a catalytic role in developing and rolling out training programs for teachers and TVET instructors that successfully impart the kinds of learner-centred pedagogies needed for supporting youth to acquire transferable skills.

Future research should be directed toward:

- Low-cost models for training teachers and instructors to impart transferable skills through active pedagogies
- Other models for transferable skills training for youth
- Developing means of assessing transferable skills
- Innovative models for bringing transferable skills training to other levels of education (primary and higher education) in developing countries
- Tracking impacts on youth of early efforts to embed transferable skills training within formal curricula at the secondary level

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41. "Scale and Sustainability Study: The Akazi Kanoze Youth Education and Livelihoods Project," USAID, 2014. The Akazi Kanoze project was eventually extended for two years and ended in 2016. Education Development Center (EDC) is an international organization founded in 1958 and based in the U.S. whose mission is to design, implement and evaluate programs to improve education, health and economic opportunities globally.
42. This list provides a representative description of the eight modules but is not comprehensive. The curriculum developed for Akazi Kanoze was the foundation for the EDC Work Ready Now! (WRN!) Curriculum, a standardized curriculum that has been adapted for different countries, allowing further scaling. From 2011 through 2015, WRN! was used to train 95,000 youth worldwide and, in addition to the institutionalization work in Rwanda, is being adopted within the national curriculum of vocational training centres in Macedonia (Work Readiness Now! Fact Sheet, EDC).
43. EDC's Work Ready Now! Curriculum has been slightly adapted from the original Akazi Kanoze program and is applied in different countries. However, the modules shown in this graphic are the same as those being implemented by Akazi Kanoze in Rwanda.
44. "Scale and Sustainability Study," USAID, 2014.
45. *Ibid.*, p. 14.
46. *Ibid.*, p. 17.
47. Annie Alcid, "Akazi Kanoze Youth Livelihoods Project," 2014, p. 14.
48. *Ibid.*, p. 18.
49. *Ibid.*
50. Annie Alcid, "A Randomized Control Trial of Akazi Kanoze Youth in Rural Rwanda: Final Evaluation Report," Produced by EDC for USAID, October 2014, citing Knight & Yorke, 2002.
51. *Ibid.*, p. 2.
52. *Ibid.*
53. The Partnership to Strengthen Innovation and Practice in Secondary Education is a donor collaborative that seeks to increase secondary education access and improve learning outcomes for marginalized populations.
54. The MasterCard Foundation internal documents.
55. AFIDEP, Rwanda, 2016.
56. "Scale and Sustainability Study," USAID, 2014, p. 28.
57. AFIDEP, Rwanda, 2016.
58. United National Development Program, Discussion Paper: Kenya's Youth Employment, New York, UN Bureau for Development Policy, 2013.
59. United Nations, Department of Economic and Social Affairs, Population Division, 2015. World Population Prospects: The 2015 Revision, Key Findings and Advance Tables. Working Paper No. ESA/P/WP.241. Data accessed electronically on January 13, 2016. On <https://esa.un.org/unpd/wpp/DataQuery/>
60. Republic of Kenya, "Technical and Vocational Education and Training Act No. 29 of 2013," revised edition, National Council for Law Reporting, 2013.

61. "KICD Curriculum Reform Needs Assessment Findings," Dr Julius Jwan, at <http://www.slideshare.net/jmjmwanzo/kicd-curriculum-reform-needs-assessment-findings-report-by-dr-julias-juang-kicd-ceo-april-2016>; and Ministry of Education Science and Technology, "National Curriculum Policy", Kenya Institute of Curriculum Development, Nairobi.
62. CAP Foundation's founder, Dr. Nalini Gangadharan, has won numerous awards for her role in developing the BEST model.
63. Christopher Johnstone, Acacia Nikoi, and Ndungu Kahihu, "Uhusiano Design for learning," *International Journal of Educational Development*, 52, 2017.
64. See blog <http://www.mastercardfdn.org/holistic-collaborative-programming-a-success-in-kenya/>.
65. Christopher Johnstone, et al., p. 22.
66. Christopher Johnstone et al., p. 22.
67. This project was part of The MasterCard Foundation's Learn, Earn, and Save Initiative, in which the Foundation aimed to test high potential models for supporting young people to address acute youth unemployment. See original Request for Expression of Interest at <http://www.mastercardfdn.org/pdfs/Request20EOI20Learning20Earning20Saving.pdf>.
68. Vocational training centres in Kenya were formerly called Youth Polytechnics.
69. "Final Report of Five Years of Longitudinal Data of the CAP-YEI Program," University of Minnesota (UMN) 2016, and R. Ramirez, G. Kora, J. Nyangaga, and Dal Brodhead, "CAP-Youth Empowerment Institute Final Evaluation Report," New Economy Development Group, 2015.
70. UMN collected pre- and post-training survey data on CAP-YEI as well as annual longitudinal interviews with youth participants and implementers as part of The MasterCard Foundation's Learn, Earn, and Save initiative's learning partnership.
71. After dropouts, the total number of youth trained was 8,663.
72. "Final Report of Five Years of Longitudinal Data of the CAP-YEI Program," University of Minnesota (UMN) 2016, and R. Ramirez, G. Kora, J. Nyangaga, and Dal Brodhead, "CAP-Youth Empowerment Institute Final Evaluation Report," New Economy Development Group, 2015.
73. The counties of Mandera, Wajir, Garissa, Tana River and Lamu, which are contiguous with Somalia, will not benefit from direct program activities due to insecurity. However, CAP-YEI is exploring remote/portable training and support strategies that can reach youth in these counties.
74. AFIDEP, Kenya, 2016.
75. Ibid.
76. AFIDEP, Kenya, 2016.
77. Kenya is undertaking a parallel process within the Basic Education system to incorporate social and financial education within the curriculum.
78. Ibid., p. 15.
79. Ibid., and interviews with The MasterCard Foundation staff.
80. Ibid., p. 15.
81. McKinsey Social Initiative's Generation Initiative is a multi-country effort supported by USAID and McKinsey corporation, and aims to reach 50,000 youth in Kenya by 2019.
82. United Nations, Department of Economic and Social Affairs, Population Division, 2015. World Population Prospects: The 2015 Revision, Key Findings and Advance Tables. Working Paper No. ESA/P/WP.241. retrieved at <https://esa.un.org/unpd/wpp/DataQuery/>.
83. "Transforming Secondary Education in Nigeria: Supporting Vocational/Technical Curriculum Rollout," Report completed by Dalberg Global Development Advisors for the Ford Foundation, August 2014.
84. Dalberg, p. 11.
85. Ibid.; and AFIDEP, Nigeria, 2016, p. 3.
86. Within Nigeria's federal system, states are responsible for education.
87. *National Policy on Education*, Nigeria Education Research and Development Council, 2013, p. ii.
88. AFIDEP conducted 14 interviews with policy officials and experts at the federal level; and 29 interviews in Plateau state and 28 interviews in Kano state with government officials, principals, teachers, and students. See AFIDEP country reports.
89. NERDC, "Senior Secondary School Curriculum Guide - The Future is now: From Vision to Realization," Secondary 4-6, Prepared by the Curriculum Development Council, 2009. Retrieved at: [cd1.edb.hkedcity.net/cd/cns/sscg\\_web/html/english/main07.html](http://cd1.edb.hkedcity.net/cd/cns/sscg_web/html/english/main07.html).
90. Nna Sunday Orji, "The New Senior Secondary School Curricula: Prospects and Challenges for Achieving the Millennium Development Goals," 2011.
91. These 34 trade and entrepreneurship subjects range, for example, from auto body repair to furniture-making, data processing, tourism, fisheries, welding, animal husbandry, and marketing.
92. Nigeria Education Research and Development Council, in its 12 booklets guiding implementation of the new curriculum. See NERDC, "Senior Secondary School Curriculum Guide - The Future is now: From Vision to Realization (Secondary 4-6)," Prepared by the Curriculum Development Council, 2009. Found at: [cd1.edb.hkedcity.net/cd/cns/sscg\\_web/html/english/main07.html](http://cd1.edb.hkedcity.net/cd/cns/sscg_web/html/english/main07.html).

93. AFIDEP, Nigeria, 2016. State-level policymakers and education officials interviewed in Plateau state by AFIDEP did not recall consultations with the federal government or being consulted on the new curriculum.
94. Dalberg, 2014.
95. Dalberg, 2014 and AFIDEP, Nigeria, 2016, p. 13.
96. Dalberg, p. v.
97. AFIDEP, Nigeria, 2016, p. 13.
98. Ibid, p.8.
99. Dalberg, p. vi.
100. Dalberg, p. v.
101. Some Plateau state principals interviewed reported hearing about the curriculum in unrelated sectoral workshops on the Basic Education curriculum, and learned that other states had already begun the implementation process. AFIDEP, "Nigeria," p. 16.
102. These included animal husbandry, home and catering, metal work, leather works, woodwork and carpentry, data processing, and fisheries.
103. AFIDEP, Nigeria, pp. 11-12.
104. Ibid., p. 13.
105. Ibid., p. 12.
106. Robinson and Winthrop, *Millions Learning*.
107. Robinson and Winthrop, *Millions Learning*, pp. 50-51. The authors identify both a "supportive policy environment," and "a culture of R&D" as key factors to creating a positive environment for scaling innovations. A supportive policy environment was particularly important in the cases examined here, though we did not find evidence of a strong culture of R&D. Such a culture, if created, could further propel reforms and innovation.
108. "Workforce Connections: Kenya Youth Assessment," USAID, August 2014.
109. Both were completed by learning partner University of Minnesota. See "Final Report of Five Years of Longitudinal Data of the CAP-YEI Program," Prepared by the University of Minnesota for The MasterCard Foundation, November 2016.
110. R. Ramirez, G. Kora, J. Nyangaga and Dal Brodhead, CAP-Youth Empowerment Institute Final Evaluation Report, 2015.
111. Both were completed by learning partner University of Minnesota. See "Final Report of Five Years of Longitudinal Data of the CAP-YEI Program," Prepared by the University of Minnesota for The MasterCard Foundation, November 2016.
112. Interviews with stakeholders and AFIDEP, Rwanda, 2016.
113. Robinson and Winthrop, *Millions Learning*, pp. 104-112.
114. Ibid., pp. 110-11.
115. Arntraud Hartmann and Johannes F. Linn, "Scaling Up: A Framework and Lessons for Development Effectiveness from Literature and Practice," Washington, Brookings Institution, 2008, p. 22.
116. Dalberg, p. 22.
117. Ibid.
118. Constructivist or active, learner-centred pedagogies emphasize students learning through inquiry and by doing, while instructivist approaches emphasize a body of knowledge that must be mastered through instruction by a teacher.
119. "Best Practices in Soft Skills Assessment," Hanover Research, February 2014.
120. For a discussion of transferable skills or soft skills assessment in U.S. high schools, for example, see "Best Practices in Soft Skills Assessment," Hanover Research, February 2014.
121. Heckman and Kautz, 2012.

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