



# Akazi Kanoze 2: Cost Analysis Report

Sustaining Work Readiness in Rwanda's  
Secondary School System

**External Evaluation**  
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## Introduction

Since June 2014, the Akazi Kanoze 2 (AK2) project has been building on EDC's efforts to strengthen workforce development programs in Rwanda. Through the Partnership to Strengthen Innovation and Practice in Secondary Education (PSIPSE) program, funded by the Mastercard Foundation, AK2 builds on the foundations of its predecessor program, the Akazi Kanoze Youth Livelihood Development Project. AK2 assists schools, government offices, employers, and communities to institutionalize work readiness and transition-to-work programming within the Rwandan secondary school system.

EDC integrated Akazi Kanoze's two most relevant and successful components—work readiness training and school-to-work transition support programming—into the Rwanda's secondary school system nationwide.

To accomplish this, AK2 is:

- Establishing work readiness training (WR) and school-to-work transitional support as integral parts of the secondary school system. AK2 works directly with Rwanda's Ministry of Education (MINEDUC) to implement EDC's Work Ready Now! curriculum across over 400 secondary and technical and vocational education and training (TVET) schools.
- Improving livelihood opportunities for Rwandan youth, through strengthened partnerships among employers, schools, and communities, to link youth with on-the-job learning opportunities and to facilitate their transition to work after graduation.
- Enhancing MINEDUC capacity to scale up work readiness and school-to-work transition programming within Rwanda's secondary education system nationwide.

## Context

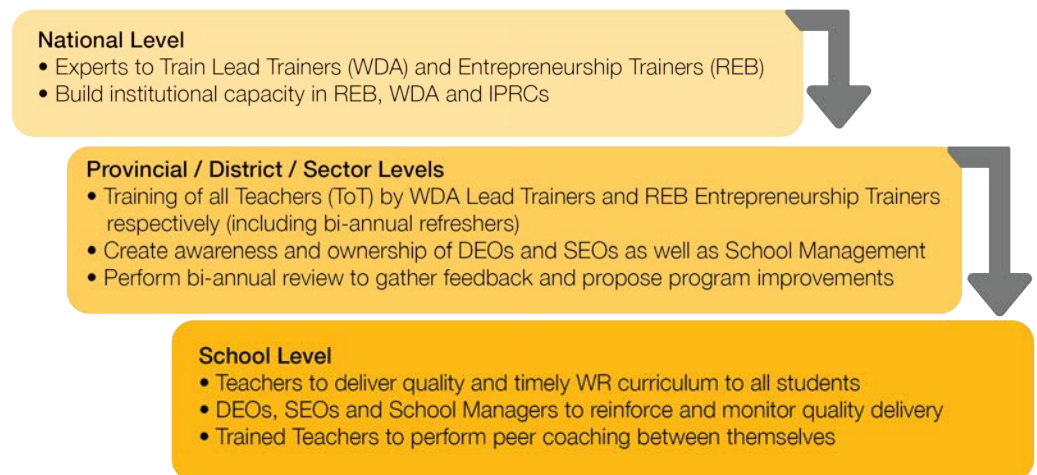
A critical determinant of success in institutionalizing Work Readiness (WR) into Rwanda's General Secondary and TVET schools nationwide is the availability, accuracy and effective use of cost information related to the implementation of WR activities. This cost analysis study was carried out from October 2015 to October 2017. The results of this study aim to inform the relevant government Ministries and its development partners about the required budgets to roll out the national Work Readiness curriculum nationwide successfully, while maintaining adequate standards of quality and sustainability. The study provides insights to answer the question ***“If the government of Rwanda is going to expand and sustain the program, what are the cost factors that need to be considered and embedded in Ministry planning and budgeting to ensure that the program activities continue and maintain high quality standards?”***

The study focused on different scenarios that would make the model both affordable and practical to implement, considering limited financial, human capital, and time resources.

## Model Based on School-Based In-Service (SBI) Training Approach

To institutionalize and roll out its new curriculum, the Government of Rwanda adopted a top-down School-based In-service (SBI) Training approach based on the benefits of Training of Trainers (ToT) and peer/ school base coaching rather than direct school-based training. This approach aims to build institutional capacity to gradually reduce the reliance on third-party support (development partners / experts / non-governmental organizations [NGOs]) both in terms of competencies & knowledge, as well as financial support. The consultant therefore used the same approach but tailored it to Akazi Kanoze Work Readiness, as a specific subject within the CBC-CBT.

**Figure 1: SBI Training approach**



## A. WDA / TVET Work-Readiness Model Scenarios and Assumptions

The cost model developed is showing a 5-year period, and Year 1 is assumed to be 2018, therefore excluding the costing of all efforts covered in 2016-17 by EDC under AK2. The AK2 funding has allowed for completion of: curriculum development, validation and integration within the Workforce Development Authority (WDA) CBC-CBT curriculum, as well as the program institutionalization, training of 32 Lead Trainers, and direct training and monitoring to teachers of 190 schools. All these activities are therefore removed from the cost model. In order to provide options for potential

financial partners, we developed 4 scenarios where the 3 key variables that change in different scenarios are:

1. Number of schools;
2. The ToT training period (number of days);
3. Provision or not of tool kits and handbooks for training delivery to students.

In each scenario, only one variable is changing to isolate impact of each variable in terms of cost and quality. Figures 2 and 3 below give a cost breakdown per category of activity, and the total cost over 5 years for each scenario.

Figure 2: WDA breakdown per cost category in USD

Cost in USD		835	Scenario A	Scenario B	Scenario C	Scenario D
Cost Category	Assumptions		All included / Base scenario	Removing 12% alarming schools	Reducing training (ToT) to 12 days	Training kits and handbooks not supplied
<b>a. Institutionalization</b>	Completed		0	0	0	0
<b>b. Content review and validation</b>	Completed		0	0	0	0
<b>c. Training of Lead Trainers (ToLT)</b>	Completed - 32 Lead Trainers Trained and ready to Train School Teachers Completed		0	0	0	0
<b>c-1. Training of Additional Lead Trainers (ToLT)</b>	Train 15 additional Lead Trainers every 2 years for program sustainability		37,268	37,268	37,268	37,268
<b>d. Training of School Teachers (ToT) for all schools</b>	Training 2 teachers in all schools (ToT) for 12 to 15 consecutive days; cost include in school venue; paying all associated costs of bringing together Lead trainers and teachers including allowances, transport, etc.		172,677	138,523	140,601	172,677
<b>e. Training of School Teachers (ToT) For New schools and turnover each year - Assuming one group of 60 per year</b>	Training new school teachers (ToT) for 12 to 15 intensive days before new year start; cost include in school venue; paying all associated costs of bringing together Lead trainers and teachers including allowances, transport, etc.		108,163	108,163	88,388	108,163
<b>f. Awareness Training for DEOs, SEOs, and School Management to enforce quality and timely delivery in schools</b>	3 days high level awareness training to school Management, SEOs and DEOs to enforce delivery; cost include in school venue; paying all associated costs of bringing together Lead trainers DEOs, SEOs and School Management including allowances, transport, etc.		167,499	152,378	167,499	167,499
<b>g. Refresher for School Teachers every 2 years - 2 teacher per school and DEOs responsible to cascade down to SEOs respectively</b>	Refresher training to school Teachers for 5 intensive days on bi-annual basis; cost include all associated costs of bringing together Lead trainers DEOs and teachers including allowances, transport, etc.		192,819	175,179	192,819	192,819
<b>h. Training of students</b>	Implementation of trainings at school level, assuming teachers costs are already incurred		619,607	531,929	619,607	0
<b>i. M&amp;E (QA)</b>	3 assessments per school per year to check quality of students and trainers done by either Lead Trainers, DEOs or SEOs		101,856	89,634	101,856	101,856
<b>j. Coordination &amp; Review (Bi-annual)</b>	1 day Bi-annual curricula review to assess the curricula, its implementation, lessons learnt and adapting changes which may be applied.		6,886	6,886	6,886	6,886
<b>TOTAL over 5 years</b>			<b>\$1,406,777</b>	<b>\$1,241,493</b>	<b>\$1,354,925</b>	<b>\$787,170</b>

**Figure 3: WDA cost model results for all 4 scenarios**

<b>WDA WORK READINESS (WR) 5-YEAR INSTITUTIONALIZATION COST SUMMARY (RWF)</b>							
<b>Scenario</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>5-Year TOTAL</b>
Scenario A	As per WDA / EDC proposal	404,532,080	241,999,900	143,063,400	241,999,900	143,063,400	1,174,658,680
Scenario B	Eliminates Alarming schools	346,703,222	218,271,692	126,699,992	218,271,692	126,699,992	1,036,646,590
Scenario C	Reduce number of days of training of teachers from 15 to 12	377,748,080	237,871,900	138,935,400	237,871,900	138,935,400	1,131,362,680
Scenario D	Students buy their handbooks and schools buy their training kits	301,057,680	138,525,500	39,589,000	138,525,500	39,589,000	657,286,680

Exchange rate: 835 RWF for 1 USD

**835**

<b>WDA WORK READINESS (WR) 5-YEAR INSTITUTIONALIZATION COST SUMMARY (USD)</b>							
<b>Scenario</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>5-Year TOTAL</b>
Scenario A	As per WDA / EDC proposal	484,470	289,820	171,333	289,820	171,333	1,406,777
Scenario B	Eliminates Alarming schools	415,213	261,403	151,737	261,403	151,737	1,241,493
Scenario C	Reduce number of days of training of teachers from 15 to 12	452,393	284,877	166,390	284,877	166,390	1,354,925
Scenario D	Students buy their handbooks and schools buy their training kits	360,548	165,899	47,412	165,899	47,412	787,170

Note: Year 1 is assumed to be 2018, therefore excluding costing of all efforts covered in 2016-17 by EDC under AK2

## WDA Recommendations

Looking at the results above, the cost of institutionalizing WR into WDA / TVET schools can range between about \$787,170US to \$1.406Million USD over the 5-year period depending on the selected scenario. If one decides to opt for the preferred practical approach (Scenario A) the price tag is \$1.406 Million USD.

However, the cost can be reduced by almost half, more precisely to \$787,170 USD over 5 years if one opt to request schools and students to cater for tool kits and handbooks (Scenario D). That said, one needs to ensure that these didactic materials will not be missed since it would have a significant impact on quality delivery and therefore students' competencies.

The other 2 scenarios, B and C, where either some lower quality schools are excluded or the ToT training period is reduced to 12 days respectively, have a limited impact on cost but can have a more significant impact on program reach and quality which one should be conscious of.

In that context, the consultant would recommend opting for scenario A if one can afford, and if not possible, scenario D but with strong measures to ensure didactic material is not missing at school delivery level.

## B. Rwanda Education Board (REB) Work-Readiness Model Scenarios and Assumptions

Again, the Cost model developed for REB is showing a 5-year period, and year 1 is assumed to be 2018, therefore excluding the costing of all efforts covered in 2016-17 by EDC under AK2. The AK2 funding has allowed for completion of: Curriculum development, validation and integration within the REB CBC-CBT curriculum at senior 4-5-6, as well as the program institutionalization, and direct training to teachers of 248 schools located in Kigali and Southern Province. All these activities are therefore removed from the cost model. In order to provide options for potential financial partners, we also developed 4 scenarios where the 3 key variables that change in different scenarios are:

1. Number of school Managers and SEOs attending the high-level awareness session;
2. Number of Entrepreneurship teachers trained per schools;
3. Provision or not of tool kits and for training delivery to students.

In each scenario, only one variable is changing to isolate impact of each variable in terms of cost and quality. Figures 4 and 5 below give a cost breakdown per category of activity, and the total cost over 5 years for each scenario.



Figure 4: REB breakdown per cost category in USD

Cost in USD					
Cost category	Assumptions	Scenario A	Scenario B	Scenario C	Scenario D
		All included / Base scenario	Awareness: 1 Manager no SEO	1 teacher per school only	Training Kits not supplied
a. Institutionalization	Completed	0	0	0	0
b. Content review and validation	Completed	0	0	0	0
c. Training of Entrepreneurship Trainers (ToLT)	Training Entrepreneurship trainers for 7 intensive days; cost include hiring workshop venue; paying all associated costs for participants	35,620	35,620	35,620	35,620
c-1. Training of Additional Entrepreneurship Trainers (ToLT)	Train 25 additional Entrepreneurship Trainers every 2 years for program sustainability	24,442	24,442	24,442	24,442
d. Training of School Teachers (ToT) for all schools	Training 2 teachers at all schools (ToT) for 7 intensive days; cost include in school venue; paying all associated costs of bringing together Entrepreneurship trainers and teachers including allowances, transport, etc.	250,254	250,254	138,473	250,254
e. Training of School Teachers (ToT) For New schools and turnover each year - Assuming 60 new teachers per year	Training new school teachers (ToT) for 7 intensive days before new year start; cost include in school venue; paying all associated costs of bringing together District trainers and teachers including allowances, transport, etc.	53,945	53,945	53,945	53,945
f. Awareness Training for DEOs, SEOs, and School Management to enforce quality and timely delivery in schools	3 days high level awareness training to school Management, SEOs and DEOs to enforce delivery; cost include in school venue; paying all associated costs of bringing together Entrepreneurship trainers DEOs, SEOs and School Management including allowances, transport, etc.	376,690	161,121	376,690	376,690
g. Refresher for School Teachers every 2 years - 2 teacher per school and DEOs responsible to cascade down to SEOs respectively	Refresher training to school Teachers for 3 intensive days on bi-annual basis; cost include all associated costs of bringing together Entrepreneurship trainers DEOs and teachers including allowances, transport.	307,678	307,678	171,042	307,678
h. Training of students	Implementation of trainings at school level, assuming teachers' costs are already incurred.	1,182,332	1,182,332	1,182,332	0
i. M&E (QA)	3 assessments per school per year to check quality of students and trainers done by either Entrepreneurship Trainers, DEOs or SEOs	212,066	212,066	212,066	212,066
j. Coordination & Review (Bi-annual)	1 day Bi-annual curricula review to assess the curricula, its implementation, lessons learnt and adapting changes which may be applied.	7,186	7,186	7,186	7,186
<b>TOTAL over 5 years</b>		<b>\$2,450,212</b>	<b>\$2,234,644</b>	<b>\$2,201,795</b>	<b>\$1,267,880</b>

**Figure 5: REB cost model results for all 4 scenarios**

<b>REB WORK READINESS (WR) 5-YEAR INSTITUTIONALIZATION COST SUMMARY (RWF)</b>							
<b>Scenario</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>5-Year TOTAL</b>
Scenario A	As per REB / EDC proposal	786,104,976	385,785,727	244,125,493	385,785,727	244,125,493	2,045,927,416
Scenario B	Eliminate SEOs and one School Manager in the awareness session	606,105,243	385,785,727	244,125,493	385,785,727	244,125,493	1,865,927,683
Scenario C	Reduce number of teachers from 2 to 1 per school (training and refresher)	692,767,603	328,739,993	244,125,493	328,739,993	244,125,493	1,838,498,576
Scenario D	Students buy their handbooks and schools buy their training kits	588,655,483	188,336,233	46,676,000	188,336,233	46,676,000	1,058,679,949

**Exchange rate: 835 RWF for 1 USD****835**

<b>REB WORK READINESS (WR) 5-YEAR INSTITUTIONALIZATION COST SUMMARY (USD)</b>							
<b>Scenario</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>5-Year TOTAL</b>
Scenario A	As per REB / EDC proposal	941,443	462,019	292,366	462,019	292,366	2,450,212
Scenario B	Eliminate SEOs and one School Manager in the awareness session	725,875	462,019	292,366	462,019	292,366	2,234,644
Scenario C	Reduce number of teachers from 2 to 1 per school (training and refresher)	829,662	393,701	292,366	393,701	292,366	2,201,795
Scenario D	Students buy their handbooks and schools buy their training kits	704,977	225,552	55,899	225,552	55,899	1,267,880

**Note: Year 1 is assumed to be 2018, therefore excluding costing of all efforts covered in 2016-17 by EDC under AK2**

## REB Recommendations

Looking at the results above, the cost of institutionalizing WR into REB A Level schools can range between about \$1.27Million to \$2.45Million USD over the 5-year period depending on the selected scenario. If one decides to opt for the preferred practical approach (Scenario A) the price tag is \$2.4507Million USD. However, the cost can be reduced by about half (48%), precisely to \$1.268 USD over 5 years if one opts to request schools and students to cater for tool kits (Scenario D). *That said, one needs to ensure that these didactic materials will not be missed since it would have a significant impact on quality delivery and therefore students' competencies.*

The other 2 scenarios, B and C, where attendance is reduced during high level awareness session or the number of teachers trained per school is reduced from 2 to 1, have a limited impact on cost but can have a more significant impact on program reach and quality which one should be conscious of.

In that context, the consultant would recommend opting for scenario A if one can afford, and if not possible, scenario D but with strong measures to ensure didactic material is not missing at school delivery level.

## Risk Factors to be considered:

The following 3 main risks included in the assumptions need to be considered when one decides to implement the above proposal.

1. The cost model is based on the assumption that **cascading Training of Trainer (ToT) models work efficiently and produce good results**. We took this assumption as it is the model used for the introduction of the new CBC/CBT curriculum and training methods for both REB and WDA. That said, experience shows that it is not easy to make a cascading model work efficiently. It needs a lot of supervision, quality control and very strong trainers from top to bottom of the pyramid.
2. The model is also based on assumption that **the Rwandan Government and its Agencies have all the required resources to implement**, both in quantity and quality. But we all know resources are limited, so one may need to consider additional cost for accompaniment by external resources to assure quality and timely implementation.
3. The **M&E process will be very critical to the entire success** of the scaling-up of the work readiness program in all secondary schools, so one needs to see if the proposed method is enough or there would be need for external support on this process.

## Conclusion

In conclusion, institutionalizing the Work Readiness into both technical education under WDA and general education A Level under REB will need resources and it seems affordable, less than \$4Million USD in total. The study shows that depending on scenario chosen, the price tag over a 5-year period will range from:

- **WDA: \$787,170 to \$1.406Million USD**
- **REB: \$1.267Million to \$2.450Million USD**
- **WDA and REB together: \$2.054 Million to \$3.856 Million USD**

There going forward, it is advised to find means to institutionalize the program in all secondary schools to ensure long term sustainability. This could be done by:

- Supporting the GOR to implement the work costed to institutionalize WR in all secondary schools;
- Support the GOR in developing the "pre-service" package and ToT of trainers in Education Universities for real long-term sustainability;
- Further develop the methodology and cost model to institutionalize the School to Work Transition program through work-based learning.

