

CLASSworks activity report 2009



Viafrica Foundation

Planciusstraat 25E
1013 MD Amsterdam
The Netherlands

Tel.: +31(0)20.7073377
Fax: +31(0)20.7073380
KvK 34154419
Rabobank 32.46.95.543
www.viafrica.org
info@viafrica.org

1 Results 2009 in a nutshell

CLASSworks

- 30 new CLASSworks schools
- >115 functional CLASSworks schools
- a new CLASSworks platform
- computer education available for more than 11.000 new students
- 11 headmaster seminars resulting in more awareness about ICT education (increasing understanding of ICT in education among the school management)
- >75 new ICT teachers trained
- expanded to new country Sierra Leone
- new partnerships with organisations in Tanzania
- several new trainings developed for the CLASSworks curriculum
- organised three missions with international consultants
- continuously internships offered in Kenya and Tanzania

CLASSworks Boxes

- development of the first CLASSworks Box (biodiversity)
- found new implementing partners
- first Biology teachers trained

Viafrica Awards

- 2 Award ceremonies in Kenya and Tanzania
- First prizes (implementation of computers) donated to schools

1.1 Financial realisation

	<i>Budget</i>	<i>Realised</i>
CLASSworks	€ 240.000,00	€ 304.026,00
CLASSworks boxes	€ 20.000,00	€ 23.320,00
CLASSworks award	€ 7.200,00	€ 8.239,00

2 Educational perspectives

Before entering the concrete results of the CLASSworks activities in 2009, this chapter is a small reflection on education in Africa and the circumstances most CLASSworks schools face. This general introduction provides perspective to the environment Viafrica is working in and the decisions that are being made. Also it shows the sometimes difficult position of the schools.

2.1 School realities

When writing about secondary schools, we actually cover a wide range of school types. Public schools that are government owned, community schools that are initiated by the communities and “handed over” to the government, private schools that are managed by religious institutions and private schools that are managed by individuals, to name a few. Then there are boarding and day schools; boys, girls and mixed schools; O-level (Ordinary Level) and A-level (Advanced Level) schools; small and very large schools; rural and urban schools; etc.. This chapter is not intended to show all the differences in detail, the intention is to show the wide range of possibilities and challenges.

2.1.1 Resources



When it comes to resources the main differences are between government and private schools. Government schools are totally depending on the government for their resources. It happens in Tanzania that the government does not have the resources to pay all the schools resulting in schools closing down for a period because they can not feed the students. Another issue are the low salaries that the government schools offer to the teachers. Thereby encouraging the teachers to look for better jobs and resulting in fast turnover rates because teachers are leaving.

In Kenya the issues are similar, to overcome financial problems schools have something called “Harambee” in which they ask members of the communities to contribute to meet some of the

costs, for instance for a CLASSworks computer room.

The schools are very much depending on the quality of the headmasters. In Kenya the headmasters are appointed by the Teacher Service Commission, in Tanzania by the government for government schools and by the board for private schools. Where the government is involved the process is subject to politics and this is not always in the best interest of the schools. We have seen very good schools dramatically drop in quality because of headmasters being replaced.

2.1.2 Parents expectations

In general the expectations of the parents towards the schools are *“to mould their children into good citizens by impacting them with knowledge to cope with the day to day world.”* The reality is that for children on government schools the expectations can not be too high as the school fees are low and parents have to bring their expectations in line with the costs. In general they depend on the quality of the headmaster and the teachers and as can be expected these relate to the financial resources available.

The pressure on children attending private schools is high. Parents pay higher school fees and expect a high performance from their child. Apart from the individual capacities of the children most private schools are better equipped and managed to meet these higher demands. Please note that private schools are no elite schools. In Tanzania roughly 50% of the schools is a private school of some sort. When we mention “higher school fees”, these should be related to government schools, not to

international standards. We are talking amounts of \$300 - \$500 per year per child, depending on the school type.

2.1.3 Teachers



FORM	CLASS MASTER
I	MR. KESU
II	USIASHI R. J. YAMI
III	MR. KOMBO. M
IV	MR. Z. S. MSANGI

Teachers tend to move a lot from school to school. Most teachers start at poor paid government school positions. They try to advantage themselves through experience and self-study. As soon as they have the opportunity they move to “greener pastures”: the private schools which pay better, but also demand more from the teachers.

The further advancement of the knowledge of the teachers is their own responsibility. The result is that most teachers do not have the opportunities to do so. The lack of time, up to date materials and incentives are important causes. Also poorer schools look for teachers

who can teach multiple subjects as to lower the salary costs. Apart from the work pressure on these teachers, they also have to keep up in more subjects. An almost impossible task.

The position of the teacher towards the students is one way. The teacher teaches and the student listens. Asking difficult or challenging questions is often taken as a lack of discipline from the student and thus very much discouraged. The reason for this didactical model are numerous. To name a few: there is an overall lack of teaching aids. There is no money to improve, the same concepts are copied and pasted over and over again. Due to lack of teaching aids, the emphasis is on theory as practical teaching is difficult without tools. Another important reason is that some schools are promising bonuses to their teachers when high numbers of students pass the exams. Teachers know that facts are being tested and that understanding the concepts is not important for the examinations and these are therefore neglected.

Interviews

During interviews at Viafrica a returning question to candidates for technical functions is to explain the function of certain parts of the computer (f.i. a hard disk). Without exception candidates can give nice definitions. However, if we ask two additional questions namely: “explain in your own words what the part is doing” and “open this computer and show me the part”. Hardly any of the candidates is able to do so.

English is the official language at secondary schools. Many teachers do not master English fluently (especially in Tanzania) and switch to Swahili. Not only for their own comfort but also because, especially in the lower classes, students have difficulties with the English language. Primary education is in Swahili in Tanzania and the switch to English education is too sudden.

2.2 ICT and education

As it comes to ICT education at schools Viafrica and the schools face quite some challenges. Partly as a result of the above, but also as a result of some specific issues.



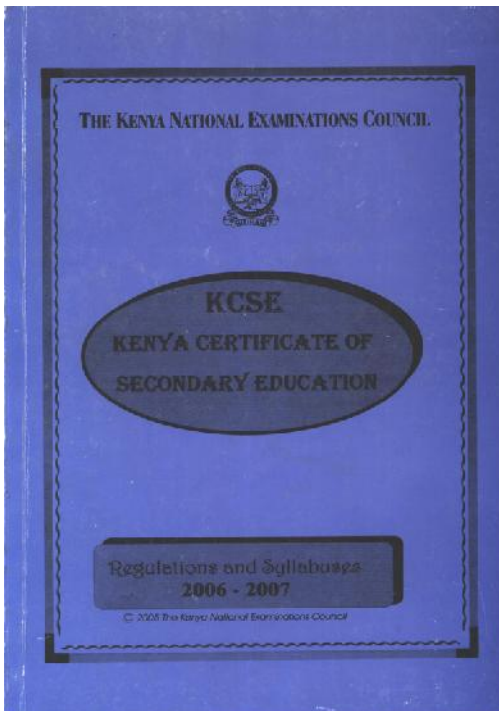
2.2.1 Teacher colleges

Computer education as a subject is relatively new. The teacher colleges, responsible for the education of future teachers, are the institutes where teachers should acquire knowledge about this subject. However,

1. colleges do not have the knowledge themselves;
2. colleges do not have the infrastructure needed;
3. the national curriculum for computer education is not up to date;
4. lesson plans and books or software for computer education have not been developed.

The result is that there are hardly any qualified ICT teachers for the schools to hire. One of the services Viafrica provides is to test candidates before a school employs an ICT teacher.

2.2.2 National curriculum



Both in Kenya and Tanzania a national computer curriculum was developed by the government. This curriculum describes all subjects that a teacher has to cover. A few things are very remarkable about this curriculum.

Although nowhere mentioned in the curriculum, the school inspectors only allow Microsoft Windows as the platform for examinations. Ubuntu¹ (an Open Source Operating System) is not recognized by these inspectors and thus not allowed. Viafrica has talked with the central government and they have no objection to Ubuntu as such. The next step is to get an official accreditation for Ubuntu which the schools can show to the inspectors.

The curriculum mentions the need to learn about software packages that are not supported any more by the companies that once developed it or do not even run on a graphical interface like Windows. The principals of the schools, of course without the specific knowledge, demand from Viafrica that we install these software packages. A very logical question, however impossible to realise and difficult to explain to the principals.

¹ <http://www.ubuntu.com/>

3 CLASSworks



CLASSworks is the Viafrica's major programme and exists since 2003. CLASSworks focusses on the integration of ICT within education. In 2009 three countries were targeted: Kenya, Sierra Leone and Tanzania. The total number of CLASSworks schools is now 115 schools in four countries; besides the above also in Uganda. The operational activities for the CLASSworks programme are executed by local Viafrica partners. These partners establish a long term relationship with the schools. They deliver services, support and training to the schools and guarantee the proper running of the computer labs.

The majority of the hardware used within the CLASSworks programme comes from donations in The Netherlands. Where possible Viafrica uses Open Source Software as this offers huge advantages in comparison with licensed software in terms of costs, stability, management, viruses, etc.. In 2009 we used an Ubuntu² server and Edubuntu³ workstations.

3.1 Targets and results

Target	Result
1. Implement 30 new schools	Implementation of 30 new schools in three countries
2. Train 60 ICT teachers	79 ICT teachers trained
3. Faster and easier preparation of computers	A special cloning server has been set up to quickly do multiple installations at the same time.
4. Expand the training programme	New teacher manuals were developed and an advanced training is developed.
5. Develop CLASSworks to support different subjects	The development of the new e-learning environment in which teaching materials, games, movies, etc. can be found on the different subjects taught in the schools is

² <http://www.ubuntu.com/>

³ <http://edubuntu.com/>

ready for implementation.

The CLASSworks boxes are ready for implementation and will bridge the gap between ICT and other subjects in a natural way.

6. Make CLASSworks more sustainable

A new service contract has been launched. Schools lease the computers from Viafrica for a period of three years, after which they become owner of the hardware. This ensures proper running of the computers, as Viafrica is responsible and a steady source of income for the operational costs.

All hardware donors are asked to agree that 25% of the donated hardware is being sold to cover operational expenses. So far all donors agree to this proposal. Depending on the quantity and quality of the hardware this adds to a financial healthy foundation.

3.1.1 CLASSworks new schools

Below a list of all new CLASSworks schools that were implemented under the 2009 programme.

<i>School name</i>	<i>Girls</i>	<i>Boys</i>	<i>Teachers</i>
Kenya			
1. Avant Garde High School	50	100	9
2. Blue Hills Academy	-	120	9
3. Danons High School	60	40	8
4. Divine Word High School	-	76	6
5. Laikipia High School	35	165	20
6. Falling Water Secondary School	65	85	8
7. Githunguri Technical	153	175	15
8. Komothai Girls Tech	700	-	37
9. Nkaimurunya	106	127	12
10. Olkeri Day Secondary School	121	74	9
11. Kings Academy	150	170	10
12. Satellite Starehe	92	68	8
13. Gichongo Secondary School	89	95	8
14. Ruaraka Secondary School	175	200	15
15. St. Antony Dagogokore	185	230	18
16. Diligent Resource centre, Youth centre Nairobi *			
Sierra Leone			
17. St. Josephs Convent School	1100	-	49
18. Grace School of Science	31	19	13
19. Elim International Academy	55	48	14
20. Bilingual School	32	46	11
21. Ahmadiyya Secondary School	704	1471	65
Tanzania			
22. Faraja Seminary	280	257	20
23. Green Bird Secondary School	400	120	32
24. Joyland Girls Secondary School	198	-	8

25.	Kilimanjaro Mahadil Islamiya	87	65	9
26.	Kibohehe Secondary School	96	119	10
27.	Kiriki Secondary School	318	429	33
28.	Lemira Secondary School	184	177	10
29.	St. Theresa of Avila	200	-	11
30.	Vudoi Secondary School	380	370	20
31.	Valley View Secondary	56	57	11
Totals		6102	4903	508

* In Kenya our office implemented one extra project, the Dilligent Resource Centre. This is a yourt information centre located in the slums of Nairobi. In this project we cooperated with Nairobiits and Yike.

3.2 Activities

3.2.1 Selection

During the whole year Viafrica technicians have visited schools that applied for a computer laboratory. They guided the schools through the preparation process in which the school has to prepare a room, proper electricity, furniture, safety precautions, etc.. Having this in place is a condition before the actual implementation takes place.



3.2.2 Implementations

Implementations normally take 2 days of preparing at the office and one day of implementation at the school. However, due to power cuts our technicians do regularly have to come back to the schools to do the final testing. For schools that are located far from the office, this sometimes takes an whole extra day.

3.2.3 Teacher trainings

Teachers are trained around the time of the actual implementation. We try to have all teachers trained before the implementations take place. The trainings are given at the Viafrica office and cover basic computer knowledge on the most used applications. The training takes two weeks and is focussed on the effective and interactive use of the computers by the teachers. In the first year after implementations the teachers come back for an additional course. The trainings are done in groups with teachers from other CLASSworks schools.

All trainings end with an official examination which the teachers can pass or fail. The results per subject will also be communicated to the schools. So far all teachers passed the examinations. If they fail an extra course will be provided. This examination is highly appreciated by the schools as this ensures them that the teachers seriously participate in the trainings. For the teachers, the certificate is an official paper that mentions their knowledge level. In the future we plan to

provide the results online as well.

New trainings

In addition to the teacher trainings that were developed in 2008, we have developed an advanced training. This training is also based on the national curriculum and focusses on more advanced knowledge. The training has the same set-up and is designed in the same format as the Jamani guide⁴.

Training of Ukengee teachers

For Ukengee, a Dutch-Tanzanian NGO, Viafrica has trained five teachers. These teachers were from two schools in the South of Tanzania. The teachers were trained on the CLASSworks platform and the national ICT curriculum.

3.2.4 Headmaster seminars

All headmasters are invited for headmaster seminars at the Viafrica office. During these seminars information is shared about the CLASSworks programme and related activities. In 2009 we had:

- 5 seminars in Tanzania
- 4 seminars in Kenya
- 2 seminars in Sierra Leone

3.2.5 New server and client software

A new server and client software has been developed and configured to meet the needs of the schools. Both the server and the clients are based on Ubuntu, Linux. The server is primarily used as a file- and webserver. The webserver will host the CLASSworksAcademy software. The exact idea of the CLASSworksAcademy will be explained in detail in chapter 4. With the development of the new platform also the implementation and preparation process is streamlined. Through a staging server our technicians can faster install workstations.

3.2.6 Internal capacity building

In 2009 our internal capacity building has been facilitated by IT-Staffing. IT-Staffing, a large consulting agency in The Netherlands, facilitates the travel and stay expenses for consultants visiting Viafrica offices, also they support the acquisition of the right consultants. We have had visits from consultants:

- Kenya: 2 consultants on service management for three weeks
- Tanzania and Kenya: 1 TOPdesk consultant for the implementation of TOPdesk and explanation of incident – and configuration management.
- Tanzania and Kenya: 1 bookkeeper for the implementation of Exact Software and training on bookkeeping standards and procedures.
- Tanzania: 1 trainer to advise on the effectiveness of the CLASSworks trainings, also for an expansion to a more rural area in the South of Tanzania.
- Tanzania: 1 alternative energy specialist to advise on the possibilities of the use of alternative energy for the CLASSworks and KIDSworks programme.

Visit The Netherlands

Both directors of Viafrica Tanzania and Kenya visited the Dutch Viafrica office. During these visits project management trainings were organised. These trainings had a focus on a more efficient operation in Africa. Another goal for the visit was to get a better understanding of the processes at hand in The Netherlands. Both directors visited the major partners of Viafrica and were informed about the hardware donations, the logistics, the fund-raising and the work being done by all volunteers.

TOPdesk and Exact software

Both TOPdesk, an ITIL based software package that registers incidents and stock, and Exact software, a financial package, were used by Viafrica. Both organisations support Viafrica since a couple of years.

⁴ <http://www.jamani.nl/site/PEJGC.html>

In 2009 we decided that it would be a huge advantage when the African offices were also able to use the software. With the introduction of these web-based packages the organisation becomes more transparent as we are able to see what is happening with the hardware real-time, at the same time all financial bookings are registered in Exact and viewable from anywhere on the world. The big advantage is that staff in The Netherlands is able to support the African staff and that we have a further integration of our procedures.

African team meeting



For the first time since we have more than ten staff members working in Africa, all staff from the Kenya and Tanzania office met during a team weekend in Tanzania. The goal of this weekend was to have the opportunity to meet the counterparts from the other office, work together and of course have a good time together. During the weekend team-building games were done and presentations by the different departments were given on how they saw the future. The next team meeting will be in Kenya in 2010.

3.3 Sustainability

From the start of CLASSworks sustainability has been a prime attention area. In 2009 we strengthened our sustainability even further. The decision was made to make all services that were delivered to the schools available to everybody. The aim for the coming years is to cover all fixed costs by income generating activities and only fund the operational project costs. We are not there yet, but we made steps to achieve this.

- 25% of the donated hardware can be sold and used to cover project expenses. This potentially results in 50.000 Euro in 2010;
- we offer daily training classes in both offices. Currently our classes are 75% occupied;
- we train staff members of other African organisations;
- we test participants of other training institutes on their acquired knowledge;
- we import refurbished and new hardware for sales;
- we offer service contracts to the CLASSworks schools and other organisations;

All the above services are offered and delivered in Africa. For 2010 and 2011 we intend to also offer our services to international organisations who are planning ICT implementations in Africa. A lot of organisations have difficulties achieving the desired results. Our 7 years of (local) experience can be an added value to these projects.

3.4 Lessons learned

3.4.1 Positive

- The technical teams are working independent and are delivering good quality.
- The new server and client software is ready and stable.
- We are happy to have the first schools in Tanzania with an Islamic identity. In 2009 more than 9 different types of schools were implemented (private; public; community; Christian; Islamic; O- and (Ordinary Level) A-level (Advanced Level) schools; day- and boarding schools).
- The IT-Staffing consultants bring a lot of knowledge and experience that is bit by bit being integrated in the organisation.
- The organisation is still developing and becoming more professional
- Viafrica is recognized by the schools as an important partner for ICT *and* education.
- The technical and training teams are working more closely together on the development of software and training materials.

3.4.2 Challenges

- Schools have difficulties paying the service contract in certain periods. We now try to have all schools extend their contract in either January to overcome this problem.
- The power cuts were extremely often this year, which led to difficulties during implementations and extra visits to the schools to finalize implementations.
- Bad roads led to our service car breaking down. We have bought a new 4x4 service car in Tanzania. This one is better suited for the roads. Also Kenya needed a new car.
- Improper electrical equipment installed by the schools, despite Viafrica guidelines. Material literally blows up, since some schools use improper cheap materials or incapable electricians.
- Delay in the development of the new CLASSworks server and client software. The intention was to have it ready in the first quarter of 2009. Due to a too tight planning and unforeseen technical difficulties this became the third quarter 2009.
- The language during teacher trainings. Our trainers often switch to Swahili since many secondary school teachers were not properly able to understand the English used in our trainings.
- In Kenya every now and then we receive applications from non-existing schools. The people applying hope they can get free computers this way. Unlike Tanzania, the Kenyan staff has to pay an extra visit to the applying school to check whether the school really exists and the applicant is legally representing the school.
- Schools have difficulties preparing their school in time, due to many reasons among which a huge fraud case in Kenya. This results in extra school visits and extra costs for Viafrica. In 2010 we will extend

3.5 CLASSworks Sierra Leone

The CLASSworks expansion to Sierra Leone deserves extra attention as this was a major step for CLASSworks and Viafrica. We are very happy we succeeded in this difficult task and proved that the CLASSworks concept and the Viafrica procedures are up to the test.



3.5.1 Targets and results

In 2009 Viafrica initiated a pilot project for extension of the CLASSworks programme to Western Africa, Sierra Leone. One of the objectives was to gain experience on how operations in an entirely new country could be started up within a reasonably short implementation time and at low costs.

For this reason a contracting model has been adopted: the CLASSworks programme in Sierra Leone needed to be implemented by an existing local organization that would assure a quick time to market. At the same time best practices from the Kenya and Tanzania operations would be transferred to this new partner in Sierra Leone. In this way, start-up costs and time to market would be kept to a minimum.

For the pilot project the following targets have been set:

<i>Target</i>	<i>Result</i>
1. Research to what extent target schools would be interested in joining the CLASSworks programme.	There is a strong interest from schools in providing ICT education. Schools are willing to invest in this programme, both financially as well as in terms of making resource available.
2. Selection of a reliable local partner to contract the implementation process of the CLASSworks programme.	A local partner, Sierra eRiders, has been selected to handle the pilot project
3. Transfer best practices and knowledge from existing operations in Kenya and Tanzania to Sierra Leone.	Work procedures, a contractual framework, IT tools and operational best practices have been transferred to the new partner.
4. Implement a pilot project for five schools in greater Freetown area.	Five schools have been implemented.
5. Evaluate the pilot in its full extend.	Evaluation and quality assurance will take place in the second quarter of 2010.

3.5.2 Activities

The main activities in 2009 have been:

April 2009:

Field visit (1 volunteer) to Sierra Leone. During the visit discussions have taken place with headmasters in greater Freetown area in order to investigate whether or not there would be a demand for a project like CLASSworks. Also, an important subject has been to investigate how, and to what extent, schools would be willing to financially contribute to this project. One of the key principles of the project is that schools need to make a (small) financial contribution in order to make sure they are committed to a successful project on the long term.

April 8, a headmasters seminar has been organized in Freetown. About 40 school headmasters attended this meeting. Of these, 20 schools applied for participation in the pilot project, of which 5 schools were selected for first implementation.

May – November 2009:

Preparation of the programme, making sure the financial business case was positive and preparing contractual and service delivery framework for Sierra Leone. Also the local partner needed to fulfil a number of prerequisites (safe storage, financial reporting, government licenses etc.) in order to start the programme.

December 2009 – March 2010:

Shipment of equipment and installation of first 5 schools.

3.5.3 Lessons learned

The full evaluation of the project is scheduled for April 2010. Until then we can't provide a

comprehensive overview of all lessons learned. Some conclusions that seem right at this moment, although they might change after full evaluation:

Positive

- Collaborating with an existing local partner tremendously speeds up the go to market time and keeps the initial start-up costs to a minimum.
- Project controls, especially on quality, sustainability and best practices need a very strong focus. Proper contracts, service agreements and work flows need to be in place in order to make the project manageable and controllable.
- Some form of reliable local network (people, organisations) is an absolute prerequisite for starting working with a local partner on a contracting base.

Challenges

- Custom clearing procedures with local authorities.
- Physical storage facilities need improvement as the project grows
- For now the project is focused on infrastructure (equipment, training etc.). The next step will need to be to integrate computers in the existing curriculum in Sierra Leone and focus more on the learning content.



4 www.classworksacademy.net

The CLASSworksAcademy (CWA) is the new environment in which we offer educational content to the schools. The CLASSworksAcademy will be distributed among all schools as long as internet connections do not permit schools to make use of an Internet based solution. For the time being the CWA will be hosted on internal web-servers at each school and updated during regular service visits. The Academy is a collection of e-learning content that fits the national curriculum of most subjects taught at the CLASSworks schools.

4.1 Targets and results

Target	Result
1. Develop an attractive e-learning environment	An user-friendly and African interface has been designed by a student. The interface was tested in Tanzania on students and teachers and chosen from four other options.
2. Gather content for non-ICT classes	Volunteers in The Netherlands have gathered a wide range of e-content that has been uploaded with permission of the lawful owners of the content to the e-learning platform.

- | | | |
|----|--|---|
| 3. | Develop a simple and maintainable environment | Volunteers in The Netherlands have developed a basic e-learning system that applies to the perception of the students and teachers.
The system has an administration environment that enables content managers to add and edit content easily.
The whole system is web-based. |
| 4. | Develop a system that can be run at de-central servers at the schools. | CLASSworksAcademy is web-based and runs on the web-servers at the CLASSworks schools. With a simple script can the Viafrica technicians do periodic updates on their maintenance visits to the schools. A central version is kept at www.classworksacademy.net . |
| 5. | Stimulate the use among non-ICT teachers | A training was developed and new teachers from each pilot school have been trained on basic ICT knowledge and the e-learning system. A Viafrica trainer visits all schools regularly to support the teachers on-site with the system and the ICT equipment. |

4.2 Activities

Early February a student started an internship. During the internship possible designs and set-ups have been tested. These tests were performed with students and teachers from Tanzanian schools in April 2009. From the test an definite interface design was developed by the student.

Halfway 2009 we formed a project team of 4 people (1 web-developer, 1 designer (the student), 1 project manager, 1 content manager) who have since then been working on an operational version of the prototype developed by the student.

In December 2009 the first beta version was tested in Tanzania and Kenya by the Viafrica staff.

In March 2010 the platform is implemented on 3 pilot schools in Tanzania and in May 2010 it will be implemented at 5 pilot schools in Kenya.

After acceptance and possible adaptations, the platform will be introduced to all existing schools with a service contract and all future CLASSworks schools.

4.3 Lessons learned

4.3.1 Positive

- We have learned a lot about interactive interfaces and the way this is perceived by African students and teachers through the research.
- Content owners are very much willing to give Viafrica the rights to use their materials.
- CLASSworksAcademy is set-up as a simple system without the overhead of a huge CMS (Content Management System), this seems to be the best choice at this point and supported relatively fast development.
- The CLASSworksAcademy is completely developed by volunteers.

4.3.2 Challenges

- We foresee a lot of efforts needed for the efficient integration into the learning and teaching reality of the schools. We will combine this effort with the circulation and support that accompanies the CLASSworks boxes.
- The contents are now available in categories per subject. The challenge is to develop real lesson plans based on the contents in cooperation with the teachers. This will be done in cooperation with students in The Netherlands and in the 2010 Viafrica Awards we will challenge the schools to come up with lesson plans based upon the CWA content.

5 CLASSworks boxes



The CLASSworks box is a physical box which contains a range of educational materials concerning a specific subject. Within this subject a set of learning tools, teacher manuals and student assignments is developed and distributed in a box among CLASSworks schools. The idea is to offer new and additional learning tools to the schools; to stimulate interactive learning and teaching and to make a connection between traditional learning and ICT tools.

5.1 Targets and results

The goal of the CLASSworks boxes is to improve education by introducing new teaching materials, by introducing interactive and explorative learning methods and by linking the computer to other subjects.

Target

Result

1. Develop two CLASSworks boxes.
2. Introduce boxes to the schools.
3. Develop a blue print for the boxes
4. Stimulate interactive learning and new didactical methods.
5. Develop a Multi Media box.
6. Acquire content for the boxes.
7. Establish partnerships

- a box on biodiversity have been developed
- a box on sports is ready in May 2010
- a box on HIV/AIDS is ready in July 2010

The biodiversity box will be piloted in March 2010 at three schools in Tanzania en in May 2010 in Kenya. Depending on the results the boxes will be distributed among all CLASSworks schools.

A blueprint to which all CLASSworks boxes will be developed is developed and procedures on the development process are available.

Result will be available in 2011 after at least one year of experience at the schools.

This result is unanticipated. During the development process the Multi Media Box appeared as a smart addition to the CLASSworks boxes. We anticipate that a lot of boxes need hardware like digital camera's, a beamer etc.. Instead of putting this in every CLASSworks box, we will distribute one Multi Media Box per school which contains these items. This lowers the prices per CLASSworks box and opens possibilities for the schools to also use the tools in other contexts.

Content has been donated from Dutch organisations, has been bought in The Netherlands and content for the Multi Media Box is bought and shipped from China.

For every box new partnerships are established. Linked to the box are local and international organisations offering environmental educational activities for secondary schools students.

Tanzania: Maajabu, Tanzania National Parks (TANAPA), the Jane Goodall Institute Tanzania (Roots and Shoots Clubs) and the Wildlife Conservation

Society of Tanzania (WCST) Arusha.

Kenya: Nature Kenya (Youth Committee & Nairobi Arboretum), Kenya Wildlife Service (Nairobi Safariwalk, Nairobi education centre - animal orphanage), Wildlife Clubs of Kenya (Mobile Education Unit).

Content: Wikipedia (Wikipedia for schools 2008/09), Bigelow Laboratory for Ocean Sciences (Game about food chains), Key to Nature / ETI Bioinformatics (species pages, TanBIF portal), Secretariat for the Convention on Biological Diversity (SCBD) and the International Union for Conservation of Nature and Natural Resources (IUCN) (Biodiversity Glossary), the Pan African Conservation Education Project (PACE) - a collaboration between Tusk Trust and Siren Conservation Education (movies and action sheets)

ILO, The Netherlands for the development of the sports box. WebFoundation for the development of the HIV/AIDS box.

5.2 Activities

Q2 (second quarter) and Q3 (third quarter) 2009

Development of the boxes by a new Tanzanian staff member. An important activity in this period was to develop a blue print to which all future boxes are being developed. During a Headmaster seminar in May the concept was presented to the schools again and further fine-tuning was achieved.

Q4 (fourth quarter) 2009 and Q1 (first quarter) 2010

Further development of the boxes. The work was transferred from the new staff member to one of the trainers and training developers in Kenya and is now being done in close cooperation with a staff member in The Netherlands and Dutch volunteers. In this period the partnerships have been established and contents have been bought in both The Netherlands and China.

March 2010

Execution of the implementation planning at three schools in Tanzania

May 2010

Execution of the implementation planning at three schools in Kenya.

5.3 Lessons learned

5.3.1 Positive

- Schools are eagerly waiting for the first CLASSworks boxes to arrive.
- The boxes fit neatly in the system of “clubs” that are present at most schools. Clubs are groups of students and teachers who further study certain subjects out of curiosity. The introduction of the box gives new stimulants to the clubs.
- There is a wide range of excellent learning and teaching materials available.
- Many local organisations offer educational activities for secondary school students and are willing to be linked to the boxes.
- Content organisations are enthusiastic to contribute to the boxes.
- The first partnership with a Dutch school has been established to create content for the sports box. Students from the ILO will develop this box.

5.3.2 Challenges

- The development of the boxes by African staff needs more guidance from The Netherlands than anticipated. We have a dedicated staff member in Amsterdam who monitors the process. In addition to this we will cooperate with universities and higher education institutes to assist us.
- The logistics for the contents of the boxes must be smoother. All contents comes from different sources which causes a logistical nightmare. More realistic deadlines will smoothen out this process.
- More pedagogic input is required. Cooperation with universities and higher education institutes will bring this needed knowledge and experience.

6 Viafrica Award



The Viafrica Award is an award for all secondary schools in the countries where Viafrica has projects; in 2009 Kenya and Tanzania, in 2010 also in Sierra Leone. Awards are rewarded for the best idea of ICT within education and for the best performing schools in the national curriculum. During an one day ceremony schools are invited to present their ideas to a jury. This can be done by both students and teachers.

The overall aim is to stimulate schools to use their ICT equipment for different purposes and to challenge the schools to contribute to the CLASSworks community. Another aim is to stimulate more schools to participate in the national ICT examinations.

6.1 Targets and results

Target	Result
1. Challenge schools to propose new ideas on the deployment of ICT in education.	Schools presented their vision on ICT in education during the ceremonies. A wide range of ideas was presented.
2. Raise the number of schools offering ICT examinations	Too early to tell, the effect can be measured in the coming years.
3. Develop a blue print for future award ceremonies.	Procedures, checklists, press lists, etc. are available.
4. Generate attention for Viafrica	In Tanzania the award ceremony was covered on radio and by national newspapers.
5. Two ceremonies in Tanzania and Kenya	One ceremony in both countries

6.2 Activities

Q2 (second quarter) and Q3 (third quarter) 2009

- Headmaster seminars were organised to announce the award and inform the schools about it.
- A blueprint for the organisation of the event was developed.
- Materials, prices, plaques were designed and materialized.
- Radio interviews were given in Tanzania to announce the event more widely.
- A jury was formed and an information afternoon for the jury was held. During this afternoon the principles for the jury reports were agreed upon and the idea behind the Viafrica Award was

further explained.

Q4 (fourth quarter) 2009

- Press releases were sent out.
- Location and day organised in Tanzania
- Installation of prizes (hardware) at the schools
- Determination of dates for the award ceremonies in 2010
- Reporting and internal evaluation

Q1 (first quarter) 2010

- Press releases were sent out in Kenya
- Location and day organised in Kenya
- Installation of prizes (hardware) at the schools
- Reporting and internal evaluation



6.3 Lessons learned

6.3.1 Positive

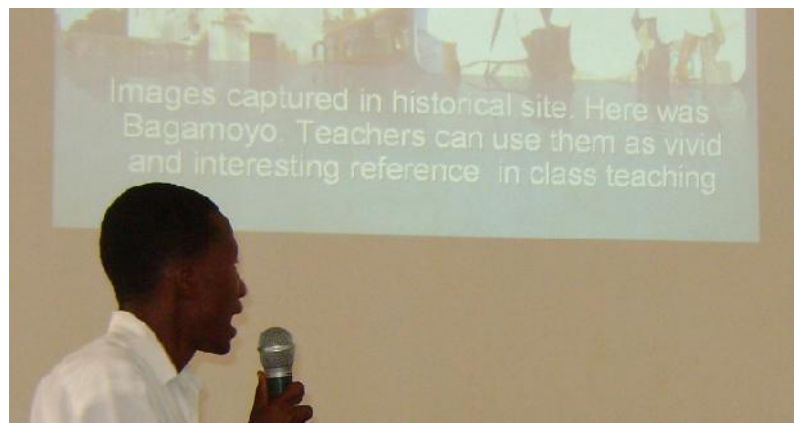
- Schools made serious preparations and presentations for the award session. The subjects presented were:

School	Idea
Agape Junior Seminary Sch.	Computers in the subject of Biology (The heart).
Ashira Girls Sec. Sch.	Pollution of the environment.
Langasani Sec. Sch.	Computers in the different sectors of secondary school education
Natiro Girls Sec.	History of Natiro & study of physics with computers
Olaleni Sec. Sch.	The digestion system of human beings.
Uru sec. Sch.	Advertisement of Uru Secondary school
Uroki Sec. Sch.	ICT in secondary schools

- The press was interested in this event and reported about it.
- Schools took it very serious and prepared well.
- Both students and teachers were involved in the preparation.

6.3.2 Challenges

- The budget was too tight.
- The planning was difficult due to school holidays and examination periods
- The jury did not fully understand the goal of the awards. When judging they moved away from the main purpose of the awards. They gave more points to the presentation than to the idea. The briefing needs to be even more clear.
- The amount of schools



applying for the awards were low compared to the expected number.

- More competition should improve the contributions of the schools

The tight budget and the difficult planning made us decide to integrate the award sessions into one award ceremony per year per country. This made it possible to professionally prepare the award ceremony and gives room for the schools to well prepare their contributions. In 2010 we will also organise one ceremony per country. This ceremony will have two major parts:

1. Best idea of ICT in education, presented by the schools
2. Student match in which the students from different classes and schools compete with each other in the field of ICT during a live event.



7 Public relations



7.1 Targets and results

Target	Result
1. Acquire attention for the mission and vision of Viafrica	In several media we managed to get coverage about our activities. Below a more detailed list.
2. Reach a larger audience	Through a documentary about our work in Tanzania and Computable website we reached more people than in previous years.
3. Reach the private sector in The Netherlands	The most important media in this respect was and is Computable. Through them we reach the ICT sector in The Netherlands.
4. Reach audiences in Tanzania and Kenya	In Tanzania we were able to reach a lot of schools, NGO's and the private sector. In Kenya this has proven more difficult.

7.2 Activities

- Beneficiary concert in Ahoy Rotterdam for Viafrica visited by 5000 people in April 2009

Tweede leven in Derde wereld

Vijftienhonderd pc's van de TU hebben een tweede leven gekregen in Afrika.

Op het bureau van Jack Maat van de dienst elektronische en mechanische ontwikkeling zwaart zachtjes een vier jaar oude Dell-desktop. "Een hartstikke mooie pc", zegt Maat die er dagelijks mee werkt. Peter Sibau, de directeur van Viafrica in Kenia die deze week op werkdag ook is op de TU, kijkt gunderend naar de machine. Honderden van zo'n gelijke computers werden vorige maand vervoerd bij de afdelingen van de TU naar resources en later in de maand voor scholen in Afrika. Viafrica zorgt er sinds enkele jaren voor dat deze computers een tweede leven krijgen op scholen in Tanzania en Kenia. De stichting werkt samen met Maat en een drietal studenten. Zij zorgen ervoor dat alleen de beste computers geschikt zijn voor de op zulke plaatsen, omdat ze goed zijn geweest, gestopt en staf-ving gemaakt. Ongeveer vierduizend pc's heeft de stichting sinds 2003 inmiddels verscheept, en verwacht over zo'n vijfentwintig jaar scholen. Tegenwoordig is zo'n tachtig procent daarvan afkomstig van de TU. Binnenkort zijn pc's met een TU-sticker ook te vinden in scholen

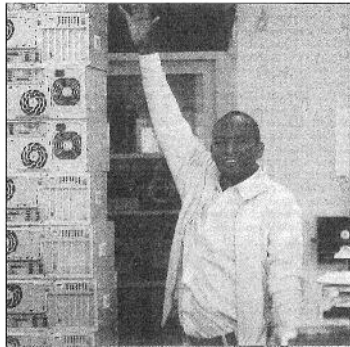
in Sierra Leone. Het idee om pc's naar Afrika te sturen is afkomstig van Karel Luyben, toenmalig rector en voormalig decaan van Technische Natuurwetenschappen. Hiermee wilde hij invulling geven aan de focus van de TU op duurzame ontwikkeling in Afrika, het thema van het Iustrum-jaar 2007.

Qua timing kwam het plan erg goed uit. "Sinds 2007 streeft de TU ernaar om al haar mensen met dezelfde computerstroom te laten werken", verzoekt Maat. "Dat maakt het

'Een hartstikke mooie pc'

ict-beheer met minder id-moederwerk mogelijk. Duizenden computers zijn al vervoerd.

"Veel computers zijn op de TU heringezet als meetcomputer", verzoekt Maat. "Maar er staan er nog veel in kelders. De machine en moos van Afrika sturen, gaat niet. Ter plukke moeten scholen een computerlokaal gronden en moeten docenten en schoolinstructoren opgeleid worden. Ze moeten de software leren kennen, maar ook hardware en de beheersprocedures van een computerlokaal. Viafrica zorgt voor die begeleiding. "Het is maar een milieubetere computer installeren dan hier",



Peter Sibau, de directeur van Viafrica in Kenia, bij de pc's die bestemd zijn voor scholen in Afrika. (Foto: Tomas van Dijk)

zegt Josse Dam, de oprichter van Viafrica. "De acties die we uitvoeren gaan makkelijk stuk door spanningsschakken, ik heb wel eens een draad door zware overbelasting zien breken door een muur heen. Het oorspronkelijke idee was om de computers terug te halen naar Nederland als ze ook in Afrika al geschreven zijn. "Maar", zegt Dam, "we hopen dat het tegen die

tijd mogelijk is om de apparaten op milieuvriendelijke wijze in de landen zelf te recyclen." Ook hierbij wil Dam het is onderzoekers betrekken. (VVD)

- Broadcasting of documentary made by TV Utrecht and presented by Henk Westbroek about the work of Viafrica in Tanzania. It was broadcasted several times at TV Utrecht and continuously (still) at Goed TV.
- Broadcasting of radio show in Tanzania. Viafrica regularly broadcasts one hour live shows about ICT and CLASSworks in Tanzania.
- Several articles in the Computable Magazine and on the Computable website. The audience are ICT decision makers and professionals.
- Two articles in the TOPdesk magazine that is distributed

among TOPdesk users.

- An article was written in Delta, the independent newspaper from the TU Delft.
- A few articles were written in Tanzania about the Viafrica Award.
- The national radio in Tanzania reported about the Viafrica Award.
- An article appeared in Global Inspiration.
- IS (Internationale Samenwerking) reported about "management on the Savannah" about consultants in Africa. One of them was an IT-Staffing consultant who visited Tanzania.
- Present at Afrika Dag in The Hague.
- Participant at Wereldz where we gave information and a workshop. The audience were organisations with an active Corporate Social Responsibility (CSR) programme.

7.3 Lessons learned

7.3.1 Positive

- The reputation of Viafrica is still rising.
- The visit of IT-Staffing and "Het Goede Doel" in 2008 still had a pay off in 2009.
- Media attention was achieved in a broad range of media.

7.3.2 Challenges

- In order to get media attention in Africa you have to pay the journalists to come to your venue.
- It remains difficult to get a complete and correct piece in the media.
- It is difficult to measure effect of the media attention.

8 Partners



8.1 Targets and results

Target	Result
1. Consolidate the existing partnerships	Almost all our existing partners continued their cooperation with Viafrica. Only PWC (our accountant) decided to stop their free services to Viafrica after four years. This was in line with what we agreed.
2. Consolidate the funding partnerships	The total programme is funded by existing and new partners.
3. Do more with existing partners	We can sell 25% of the donated hardware from partners to sustain the programme. A few other extensions are being discussed right now and hopefully conceptualized in 2010.
4. Find partners in NL and Africa for educational support	For every box new partnerships are established. Linked to the box are local and international organisations offering environmental educational activities for secondary schools students. Tanzania: Maajabu, Tanzania National Parks (TANAPA), the Jane Goodall Institute Tanzania (Roots and Shoots Clubs) and the Wildlife Conservation Society of Tanzania (WCST) Arusha. Kenya: Nature Kenya (Youth Committee & Nairobi Arboretum), Kenya Wildlife Service (Nairobi Safariwalk, Nairobi education centre - animal orphanage), Wildlife Clubs of Kenya (Mobile Education Unit). Content: Wikipedia (Wikipedia for schools 2008/09), Bigelow Laboratory for Ocean Sciences (Game about

food chains), Key to Nature / ETI BioInformatics (species pages, TanBIF portal), Secretariat for the Convention on Biological Diversity (SCBD) and the International Union for Conservation of Nature and Natural Resources (IUCN) (Biodiversity Glossary), the Pan African Conservation Education Project (PACE) - a collaboration between Tusk Trust and Siren Conservation Education (movies and action sheets)

ILO, The Netherlands for the development of the sports box.

Web Foundation for content for the HIV/AIDS box.

8.2 Activities

- Continuous fund-raising activities
- Active approach of potential partners
- Partnership request through our website and Computable website
- Visiting of fairs

8.2.1 Partner overview

The following organisations supported Viafrica in 2009.

Partners CLASSworks new schools 2009

- Accenture Foundation
- Eureka Achmea Foundation
- Stichting Heijmerink Reith
- Stichting Alle Beetjes
- Stichting Bas Geeft!
- Stichting Cura II
- Rommelmarkt Haren
- Stichting Van Veen
- Stichting Wilde Ganzen
- dr. Hofsteestichting
- Turing Foundation
- Impulsis
- Rabobank Share4More Fonds
- Stichting Winters van den Speulhof
- Stichting Janssensfonds
- Stichting Weeshuis der Doopsgezinden
- Stichting 't Arm Kinderhuys en het Arme Weeshuys der Kercken van Breda
- Stichting Protestants Steunfonds
- Synopsis
- Mitopics
- TU Delft
- Cosun
- HP
- Loders Croklaan
- Vrije Universiteit Amsterdam
- Christelijk College Schaersvoorde

Partners CLASSworks Boxes 2009

- SK Foundation
- Stichting Impulsis
- Stichting Du Gardijn
- ETI Bio Informatics

- Rabobank Share4More Fonds

Partners CLASSworks Awards 2009

- TU Delft
- Centrum voor Wiskunde en Informatica
- Stichting Van Veen

Besides Viafrica received in 2009 continued support in the field of technical issues, logistics and finances from the following partners:

Viafrica partners:

- Site4U
- SiSo Computers
- Lewiszong
- Lasaulec
- TOPdesk
- Verzeker Voordelig
- 1% Club
- All-in Logistics
- IT-Staffing
- Zarafa
- Durabilt
- Exact Software
- Device

8.3 Lessons learned**8.3.1 Positive**

- Our vision and approach is appreciated by private partners
- More and more companies take Corporate Social Responsibility really serious. Viafrica offers them a good vehicle to achieve results.
- Our concept is still appealing to existing partners.

8.3.2 Challenges

- Traditional funds are very trend sensitive and it is more difficult to convince them to continue their support for CLASSworks, despite the good results.
- Viafrica is too professional in the eyes of traditional funds. They rather support small and not-proven concepts, also because those are new.

9 Finances

For 2009 the following financial realisation was achieved.

	<i>Budget</i>	<i>Funded</i>	<i>Realised</i>
CLASSworks	€ 240.000	€ 304.088	€ 304.026
Viafrica Awards	€ 7.200	€ 7.200	€ 8.239
CLASSworks boxes	€ 20.000	€ 20.000	€ 23.320
Total	€ 267.200	€ 331.288	€ 335.585

CLASSworks was realised in line with what was anticipated at the time of budgeting (late 2008), however the cost reduction achieved on the 2008 CLASSworks implementations could not be continued in 2009. The main reasons are:

- difficulties that schools face to prepare in time and resulting in extra visits from Viafrica to the schools for support, checks and follow up. In Kenya this effect was strengthened by a large fraud case with secondary school money. Millions disappeared and left schools behind without the needed budgets for investments. Explaining the extra expenditure on the CLASSworks cost center (see below table).
- more expensive hardware donations. Viafrica for instance budgeted a switch for € 75,--, the switches that were donated were worth € 300,--. Resulting in a over-budget of 30 x € 225,--. Explaining the extra expenditure on hardware.
- the unforeseen need to buy two vans. Both the Viafrica cars in Kenya and Tanzania needed so much repairs and maintenance that it was no longer feasible to keep them. The decision was made to buy two used mini vans.
- the contribution of IT-Staffing is this year integrated in the CLASSworks funding and realisation. The reason being that their contributions favours the CLASSworks programme the most. In 2008 their contribution was treated separately.
- that due to regulations on reporting in 2008 we started to value donations in kind. In 2009 we completed this process resulting in both more funding and expenditure than budgetted.

The total costs per school come to € 10.134. After compensation for the switches, the cars and the IT-Staffing contribution, the costs per school are € 9200,--.

<i>CLASSworks new schools</i>	<i>budget</i>	<i>realisation</i>
Hardware	€ 60.450	€ 67.357
Transport & Storage	€ 21.750	€ 17.794
CLASSworks	€ 99.000	€ 108.500
CLASSworks Development	€ 118.800	€ 110.375
Total	€ 300.000	€ 304.026

The extra expenditure on the CLASSworks boxes are mainly caused by longer development. It proved difficult to find experienced and qualitative good developers in Africa.