SIEMENS | Stiftung

Siemens Stiftung Annual Report 2013/2014 Technology helps solve global challenges, and its full effectiveness is realized when it goes hand in hand with social innovation. In our working areas of basic services, education, and culture, we support ideas and approaches that strengthen and utilize the positive correlation between technological and social development. It is about finding solutions aimed at affecting the common good that can be used and shared by many people.



»I know musicians who wish the Internet had never existed. It has completely changed how music is consumed. *Music In Africa* wants to use the positive side of technology to strengthen Africa's music sector.«

Eddie Hatitye, director of the Music In Africa Foundation (Page 39)



»A filter that purifies contaminated water without using power – that is all you need. I know from experience that the technology must be as simple as possible. That makes it easy to explain, and there are no components involved that cannot be replaced.«

Paul Njuguna, coordinator of Safe Water Enterprises in Kenya (Page 17)



»With our biogas backpack, clean energy becomes a business for poorer people as well. That creates motivation to take control of one's situation using simple means without dependency on development programs.«

Katrin Pütz, founder and managing director of the social enterprise (B)energy (Page 13)

»Education is a necessary condition for all kinds of innovation. An education that emphasizes independence and creativity fosters better conditions for innovation than an education that is tightly prescriptive and dogmatically construed.«

Prof. Manfred Prenzel, educational researcher and chairman of the German Council of Science and Humanities (Page 29)







»I hope that for some of my students, it will be just like it was for me, and one day they will fall in love with natural sciences. If they pursue a career in the natural sciences after they finish school, they can escape poverty.«

George Tebogo Lebere, teacher in South Africa (Page 25)



◀

»My art project creates situations where people see their city and immediate surroundings from a different perspective. Letting them interact with people with whom they appear to have no common ground changes their way of thinking and perception.«

Julian Hetzel, artist participating in CHANGING PLACES (Page 36)

About us

Siemens Stiftung operates in the fields of basic services, education, and culture. As a hands-on foundation, we develop our own projects and implement them with a view to the long term. Together with our partners, we aim to help people improve their living conditions. By doing so, we try to empower functioning communities in which people can have a good life. We are committed to international, impact-oriented, and transparent project work. The geographical focus of our work is on regions in Africa and Latin America as well as Germany and other European countries.

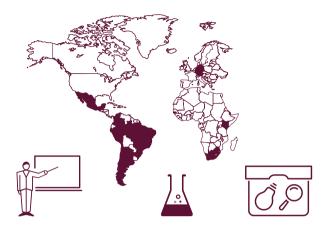
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Basic Services & Social Entrepreneurship

Siemens Stiftung empowers people to lead independent and dignified lives. Our goal is to reduce existential deficits in basic services and strengthen necessary social structures and entrepreneurial initiatives. Within the post-2015 Development Agenda of the United Nations, Siemens Stiftung focuses on projects in the areas of water, energy, and environment in Latin America and Africa.

We focus on the use of simple technical solutions that solve problems in basic services and empower people to improve conditions for their families and communities. In our projects, we combine technical innovations that are suited for existing conditions with training and social entrepreneurial solutions. The training programs equip people with skills they can use to shape their future and take responsibility. With entrepreneurial ideas, they can build self-supporting structures that allow them to permanently respond to social needs.

Our approach is to identify innovative and proven solutions that we can implement ourselves or together with partners. We seek to adapt these solutions to regional conditions and implement them, together with the people who live there, as broadly as possible. To facilitate this knowledge transfer, we analyze the methods and impact of our concepts. We offer research and exchange opportunities as well as partnership platforms for social entrepreneurs, application experts, and academic partners. Better water supply: Thanks to the Hippo Water Roller, water no longer needs to be balanced on someone's head. The Hippo Water Roller can be found in the *empowering people*. Network database.





Reducing existential deficits in basic services and strengthening social structures

empowering people. Award

The competition identifies simple and efficient technological solutions for development collaboration which help tackle urgent problems in basic services. The winners were announced in 2013.

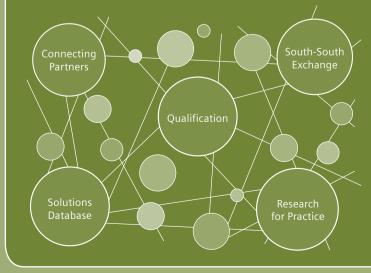
Evaluation criteria:

- Contribution toward
 improving basic services
- Technical functionality and reliability in local conditions
- Entrepreneurial approach

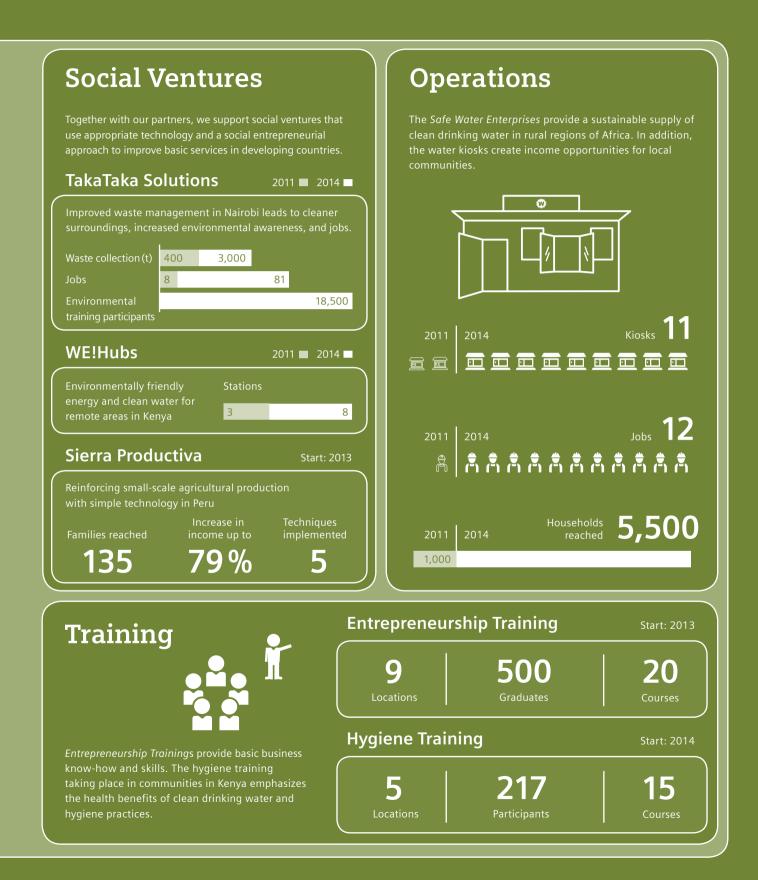
- Financial sustainability
- Environmental aspects



empowering people. Network



The *empowering people*. *Network* connects and supports inventors and entrepreneurs from around the world who develop technological solutions for improving basic services in developing regions and implement them based on entrepreneurial models. The basis of the network is a database of the best submissions to the *empowering people*. *Award*.



Spreading good ideas faster

The *empowering people*. *Network* connects inventors and entrepreneurs from around the world who work on technical solutions that are implemented using entrepreneurial models to improve basic services in developing regions. To support these promising solutions, the network aims to transfer knowledge and spread the word to potential supporters and users to effect better basic services for more people.

Hear what participants had to say about the workshop in Jinja: www.siemens-stiftung.org/ en/epOnsite

»In the start-up phase of a business, dialog with customers, business partners, and potential investors is an important factor for success. That is especially true for social enterprises that are faced with the challenge of addressing very different target groups, including non-profit sponsors. In every instance, communication has to be coherent, « says Rolf Huber, managing director of Siemens Stiftung, »but often the experience and the resources are lacking for a professional and effective communications concept.« In Jinja, Uganda, 16 representatives from organizations active in the basic services sector and based in various eastern African countries met for the first empowering people. Onsite workshop to learn methods and skills they can put to use for their business models, products, and services.

Practical workshops on important topics like these are part of what the *empowering people*. *Network* has to offer. With the network, Siemens Stiftung supports social enterprises with their internal organization and processes to establish an important foundation for financing and further growth.

The starting point for the network was the empowering people. Award. The award was given in 2013, recognizing appropriate and innovative technical solutions that enable people to improve their day-to-day lives using their own means. The winners of the contest, along with other meritorious submissions, were added to an online database which now contains around 70 innovative technical solutions tailored to meet local needs. Winning selections such as the OneDollar-Glasses or a small, floating hydro power plant are included in the database, as well as several additional solutions with great potential for improving basic services while providing people in developing regions with income opportunities.



The network develops innovative, practical instruments based on scientific analysis.

The empowering people. Network does not only offer the opportunity for exchange and mutual learning with the online platform - through articles from experts or webinars, for example. It also provides the chance for personal contact and interaction at workshops in Europe, Africa, and Latin America. Recently Siemens Stiftung put on a one-day empowering people. Workshop ahead of the Global Social Business Summit in Mexico City. The network members from Latin America, Asia, Africa, Europe, and the United States focused on the important topic of impact assessment, which is crucial for their organizations. As part of the network's

practice-oriented research activities, impact studies and a self-assessment approach were utilized to develop innovative hands-on instruments based on scientific analysis for the entrepreneurs involved.

It is one of the stated goals of the empowering people. Network to continue pursuing practical research and to make recommendations to stakeholders in this field. Interested in clever solutions from the database? www.empowering-peoplenetwork.org/en/shortlist







Scientific know-how for social entrepreneurs: The research network *IRENE* | *SEE* explores the effectiveness of social enterprises in Latin America and Africa. Aline Margaux Wachner at the introduction of the new study (left)

Detailed results of the study: www.siemens-stiftung.org/ en/IRENESEE-Study

Research study: Social enterprises in developing countries and their ecosystems

The International Research Network on Social Economic Empowerment (*IRENE* | *SEE*) was founded in 2011 by Siemens Stiftung and Zeppelin University in Friedrichshafen, Germany, to explore organizational approaches that contribute to social and economic self-empowerment. As part of the project, social enterprises and social investors in Colombia, Mexico, Kenya, and South Africa were evaluated over a two-year period to gain a deeper understanding of the potential synergies between the two groups.

Key findings:

• The public sector plays a greater role in financing in Colombia and Mexico than in Kenya and South Africa. Nearly half of the social enterprises operate without state support. Twelve percent of the

respondents noted that the government hinders their work.

- Consumers are the most important source of income for more than
 50 percent of the respondents. This revenue stream, however, is often difficult because paid offers in many cases exclude the poorest in society.
- Social enterprises that have both commercial and non-profit operations are increasing. Around 19 percent of the respondents have chosen this model.
- Management skills are extremely important because of the complex demands, as shown in the level of education of those launching a social enterprise: 76 percent have a university degree.

(Authors: Lisa M. Hanley, Aline Margaux Wachner, and Tim Weiss)

Biogas as a business model in developing countries

Katrin Pütz is the founder and managing director of the social enterprise (B)energy. She invented the (B)pack biogas backpack, which was among the solutions to receive the *empowering people*. *Award*, and is working on other plans with just as much ingenuity.

A year ago, I built my own biogas plant at my house in Addis Ababa. In the beginning, it was for testing purposes as we had just bought a goat for milking. Now I have three goats in my garden whose dung I collect to feed the biogas plant. The (B)pack is a type of plastic sack with an inlet for organic waste and an outlet for organic fertilizers and gas. With the help of my mother goat, "Goatie," and kitchen waste, I can produce between 200 and 500 liters of biogas per day. That is enough for cooking.

I first became aware of biogas during my agricultural engineering studies in Hohenheim and developed the biogas backpack during that time. It is a huge backpack designed to transport and store biogas securely. The system can replace firewood with biogas in rural households with no need to connect to a biogas plant. My backpack was among the winners of the Siemens Stiftung empowering people. Award. I have since established a social enterprise focused on biogas technology. The company, (B)energy, currently offers three products: the (B)pack, the mobile (B)plant and the (B)flame range of biogas cookers. The customers live in poor countries, have an entrepreneurial spirit, and want to sell the excess gas in their backpacks. To quickly reach as many potential customers as possible, I collaborate with local franchisees. My first franchisee in Ethiopia, for instance, is setting up the whole sales and service network as well as a local production. I also have another partner in Chile representing (B)energy in Latin America.

I was surprised that developing countries did not pick up on biogas as a business model sooner. Of course, a plant only becomes viable when the biogas is not just used for an individual household, but also sold as energy that is urgently needed for cooking. I am convinced that the (B)pack and our social enterprise concept can achieve that. In Western countries, no one builds biogas plants to produce gas for cooking dinner. They are built to make money. The same is true in developing countries. If you give people the opportunity to earn their own money, they will not need development aid programs, and you solve a social problem at the same time. Siemens Stiftung is helping me achieve this goal. Their strategy is in line with mine, and while their support is not financial – which I would not want because a social enterprise needs to be self-sustaining – they provide workshops, training programs, and international conferences where I can learn more and network with people from the target countries. That is a huge help.



Through my work, I have had many pleasant experiences because of the direct contact I have with people, the most recent example being a visit to the Nuer tribe in western Ethiopia. A man with 70 cows and six wives lives there. He said he could use a biogas plant. I sold him one for the price of a cow. We assembled it together, and he told his wives how it works. They could not fathom the idea. Previously, they dried cow dung and burned it. Now they were instructed to mix the dung with water and cook with it? They had no idea how that was supposed to work. Today, they are among the system's most consistent users.





TakaTaka Solutions Better living conditions through waste management

PROJECT PARTNERS

TakaTaka Solutions AT-Verband / TakaTaka Solutions

Sierra Productiva Instituto para una Alternativa Agraria In the Kenyan capital Nairobi, most of the residents do not have the opportunity to dispose of their waste in an environmentally responsible way. That is why a lot of trash ends up in illegal landfills or is burned. The social enterprise TakaTaka Solutions (»takataka« is the Swahili word for »waste«) collects waste in Kangemi, one of Nairobi's largest slums, so it can be separated and recycled. This is not only environmentally friendly; it also improves health conditions in the area. In addition, TakaTaka Solutions creates new jobs every year with its services. Employees of TakaTaka Solutions are also involved in Kangemi's schools, where they teach special classes about the importance of waste separation.

Sierra Productiva From subsistence farming to cooperative farming

Since 2011, Siemens Stiftung has been involved in the Sierra Productiva project, which provides small farmers in underdeveloped regions of Peru with support to increase their productivity. This is achieved by using simple technical solutions and application methods, in areas such as irrigation, alternative sources of energy, or secondary product processing. Often it is small changes that have a big impact: thanks to rain collection basins and irrigation systems, for example, farmers are able to cultivate their land year-round for the first time. In 2013, the DARS Institute of the Pontificia Universidad Católica del Perú conducted an evaluation of the project's impact. According to its findings, there was a significant increase in the standard of living for the participating families: their diet became more diverse, and their income grew due to an average yield increase of 30 percent in agricultural cultivation.



Entrepreneurship Training Achieving independence with practical knowledge

In many regions of Africa, the young population has few prospects for permanent employment. Together with Kenyatta University in Nairobi and the business mentoring network The Youth Banner, Siemens Stiftung established Entrepreneurship Training to make the path to selfemployment easier for micro-entrepreneurs and ambitious youths. As part of the practical training courses and regular mentoring, participants acquire not only basic business and technical skills, but are also encouraged to further develop their personal initiatives and an entrepreneurial mindset. Some 500 micro-entrepreneurs and youths have graduated from nine locations in Kenya since the program began.



Safe Water Enterprises Safe drinking water and hygiene training

Safe Water Enterprises provide people in communities in Kenya with clean drinking water. Additionally, a water kiosk was recently opened in the east of Kampala, in cooperation with The Hunger Project Uganda. With Safe Water Enterprises, water is purified with a membrane filter and sold at a small fee. This allows the operators, who come from the local communities, to generate an income for themselves and their families. Hygiene training was offered during the past year at five locations in order to make residents aware of the correlation between the consumption of contaminated water, poor hygiene, and illnesses.

PROJECT PARTNERS

Entrepreneurship Training Kenyatta University / The Youth Banner

Safe Water Enterprises AMREF Flying Doctors / The Hunger Project / Global Nature Fund / SkyJuice Foundation / SOS-Kinderdörfer weltweit

Hygiene Training Kenya Water for Health Organization (KWAHO)

Initiatives and current developments



▲ Agua para la Educación The Siemens Fundación Colombia program Agua para la Educación, which is also supported by the international Siemens Stiftung, has continued to grow. At the end of 2014, a total of 400 SkyHydrant water filters were installed in schools in rural regions of Colombia, benefiting more than 200,000 people.

🗕 Impact Hub

A network for good ideas: The *Africa Seed* program, supported by Siemens Stiftung together with the BMW Foundation Herbert Quandt and the Argidius Foundation, has laid the groundwork for ten new *Impact Hubs* in African cities. The *Impact Hubs* focus on social enterprise to tackle social challenges. Not only do the hubs provide start-ups and social entrepreneurs with office space and infrastructure, but they also offer an opportunity to interact, network, and attend training courses in a dynamic community.





A new Water-Energy Hub went into operation in the Kenyan village of Honge on Lake Victoria. The solar station delivers energy and water to people in the surrounding villages. The hub is also being considered as a center for Entrepreneurship Training. Kenya now has a total of eight stations.

United efforts for clean drinking water

Paul Njuguna supports the set-up and implementation of *Safe Water Enterprises* on the ground in Kenya. The water kiosks supply remote rural villages with clean drinking water.

Sometimes I am amazed at the great ideas that develop around our program. In a rural community near Kisumu, for example, the water kiosk that supplies the village with clean drinking water and the neighboring school are currently forming a partnership. In return for a small monthly charge, the kiosk will set up water dispensers in classrooms so the children are always able to drink clean water. The idea is not necessarily something that might occur to everyone. For example, I went to school in the capital Nairobi, where it is not as hot as in this region, which meant we did not have to drink as much. And most importantly, there is not the problem of dirty water in this form.

I have been involved with Safe Water Enterprises for more than a year now. Before this, one of my jobs was at the United Nations, where I was responsible for a project that worked on supplying electricity to rural areas. When I first heard of the Siemens Stiftung water kiosks, I was excited. Clean drinking water is such an urgent need – and most importantly, the technology behind it is immensely practical. A filter to clean river water – that is all you need. From experience, I know that the technology needs to be as simple as possible when working in rural regions. This means, firstly, that it is easy to explain. And best of all, there are no components that are difficult to replace if something breaks.

I travel a lot with my work. I am always visiting the communities where we have set up a water kiosk. Our principles include working closely with the communities so that the project receives broad support. Each water kiosk is operated by a kiosk manager appointed by the community organization. We encourage the community to identify a manager with an entrepreneurial mindset from the local area, who is then given appropriate training. This normally works very well, but occasionally there are disagreements between community members. Then it is my job to visit the scene, talk to everyone involved and help to resolve the dispute – at the end of the day, we all share the same objective and interests. We have had good experiences with the hygiene training sessions at the water kiosks. These educate people about the links between water and disease. I notice again and again that many villagers think it is completely normal to suffer from frequent diarrhea and other waterborne illnesses. Showing them that this can be prevented with clean water is an important task. It is often about things that might seem trivial – for example, washing hands regularly and making sure always to carry clean water in clean containers.

A great example for me of how our program can help is a project where a water kiosk was built at a hospital. The kiosk operator is now able to supply the entire hospital with drinking water. Not only the patients benefit from the station, but also the hospital's neighbors, who can also collect clean water there.



Education

Siemens Stiftung, together with its partners, is involved in projects from all areas of society to promote science and technology education along the entire educational chain. We are convinced that the future of our societies depends on young people who are able to meet local and global needs with courage and imagination. Knowledge of natural sciences and technical interrelationships is an important basis for being able to seize the opportunities of a technological world in a responsible manner.

We believe the key to providing motivating lessons is to offer teachers continuing educational opportunities. They are the ones who arouse students' curiosity and spark their fascination for scientific interrelationships. This is where Siemens Stiftung comes into play. Despite educational studies and recommendations for action that exist in theory, the link to a practical improvement in the quality of instruction is often missing.

Science and technology education makes an important contribution to the social permeability of a society, creating various opportunities for young people regardless of their gender or origin. We see this as an integral part of social innovation due to the chances for individual development. Basic knowledge of scientific and technological interrelationships is the basis for responsibly taking part in society's response to the fundamental questions of the future.



Science and technology education with modern methods and materials

Experimento

International engagement for individual future opportunities

The educational program *Experimento* is based on the principle of learning through discovery along the entire educational chain. It offers teachers and educators a practical and curriculum-oriented selection of topics in the areas of energy, environment, and health. Comprehensive seminars provide educators with the relevant expertise to use *Experimento* in the classroom.





2,554

trained

Start: 2011

136 Experiments



1,309 Material kits

985 financed by Siemens Stiftung, 324 from partners



* Assuming each educator shares the knowledge five times with a group or class and a specialist subject teacher five times with two classes

Student Competition

Supporting young talent

The Student Competition in Mathematics, Science, and Technology motivates talented students from the senior grades to address current social issues and come up with new solutions and strategies for tackling them. In eight years, the Student Competition lists:

3,569 $\tilde{\mathbb{P}}$ articipating students

> 1.741 Participating teachers

966 Submitted works

Years of supporting talent Media Portal

Start: 2009

Freely available teaching materials

The digital teaching materials in the Media Portal provide fresh ideas for science and technology instruction. The free, guality-controlled materials support teachers in elementary and secondary schools to prepare and implement their lessons.



KIKUS and KIKUS digital

Learning a language systematically

The main focus of *KIKUS* is teaching the spoken language. The method is aimed at children with an immigrant background and actively incorporates their first language. The interactive language learning software KIKUS digital expands upon that method for systematic language learning.

* Assuming a trained educator reaches an average of ten children per year and a children's course can reach an average of eight children



Experimenting without borders

Science and technology education is one of the keys worldwide to individual opportunities in life as well as social and economic inclusion. The international educational program *Experimento* seeks to get children and young people excited about science and technology questions and phenomena, thereby imparting knowledge that is geared to the future in countries in Africa and Latin America, as well as Germany.

PROJECT PARTNERS

South Africa

Deutsche Internationale Schule Johannesburg / Deutsche Internationale Schule Kapstadt / eThekwini Community Foundation / Radmaste Centre (University of the Witwatersrand, Johannesburg) / University of Cape Town / University of the Western Cape / Walter Sisulu University

Argentina

Siemens Fundación Argentina and local education partners

Chile

Deutsches Lehrerbildungsinstitut Wilhelm von Humboldt (LBI) / Efecto educativo / FCH Fundación Chile / Pontificia Universidad Católica de Chile (PUC) / SIP Red de Colegios *Experimento* has been implemented in three focus regions of Latin America, Africa, and Europe/Germany since 2012. More than 2,500 education experts and teachers have received training and around 190,000 school children from Argentina, Chile, Colombia, Germany, Peru, and South Africa are already taking part in the educational program. This year, the program expanded to include Brazil, Kenya, and Mexico. In all countries, local partners such as education ministries and universities are involved.

Experimento is based on the principle of learning through discovery, which sees children and youths actively shaping their individual learning process. They come up with questions, work out answers with the help of various methods, reflect upon the solutions, and prepare the results on their own. The young researchers from each country enthusiastically get to the bottom of fascinating questions, such as: What lights up a lamp, how does drinking water stay clean, and how much fat is in our food?

»A child's thirst for knowledge is endless – whether in a day care center in Germany or a school in South Africa.«

»We learn from the cooperation with our local partners and consider them a huge asset and motivator for developing new approaches and concepts. We have the same wonderful experience again and again: a child's thirst for knowledge is endless – whether in a day care center in Germany or a school in South Africa, « says Barbara Filtzinger, head of the education working area. Experimenting simply knows no boundaries.





Awakened curiosity: Children in Chile and Peru (left and below) with scientific experiments from the educational program *Experimento*. Nathalie von Siemens, managing director of Siemens Stiftung, speaks with students from the Musi High School in Soweto, South Africa (above right).

The curiosity of children is equally acute everywhere, but the educational demands are different in every country. Education experts can make methodic and contextual adjustments in line with their particular local requirements. This gives them the opportunity to tie in different cultural aspects and specific topics. One example is that of indigenous knowledge: Local, usually traditional knowledge about medicine, agriculture, religion, or rites plays a large role in many regions of Africa and Latin America to this day. With Experimento, this knowledge can be combined with modern teaching methods. Water filtration provides a good example: traditionally, a cut-off piece of sugar cane served not only as a drinking straw, but also as a method of water treatment. When drinking from pooling basins and streams, dirt particles and germs stick to the fibers of the sugar cane and are filtered out. A similar principle forms the basis of a scientific experiment from Experimento. By using sand, coal,

paper, or certain membrane filters, pupils can filter water. This kind of local adaption gives further momentum to the continual development of *Experimento*. At the core of *Experimento* is the idea that children and youths of varying ages can be specifically addressed. There are around 130 different experiments tailored for the age groups 4–7 years (Experimento | 4+), 8-12 years (Experimento | 8+), and 10-18 years (Experimento | 10+). These experiments address questions from the fields of energy, environment, and health starting from the simple construction of an electrical circuit, to the greenhouse effect and water filtration, and even the functionality of human tissue repair. The experiments in the different age groups build upon each other, meaning lessons from kindergarten can be continually expanded all the way through graduation.

PROJECT PARTNERS

Colombia Siemens Fundación Colombia and local education partners

Peru

Instituto Apoyo

Germany

Albert-Schweitzer-/ Geschwister-Scholl-Gymnasium, Marl / Franz Liszt Mittelschule, Waldkraiburg / Gymnasium Haus Overbach, Jülich / Landgraf-Ludwigs-Gymnasium, Gießen / Max-Planck-Gymnasium, Trier / MINT-EC (Verein mathematischnaturwissenschaftlicher Excellence-Center an Schulen e.V.) / MNU (Deutscher Verein zur Förderung des mathemathischen und naturwissenschaftlichen Unterrichts e.V.) / Staatliches Schulamt Mühldorf a. Inn / TUM School of Education



Different countries, same recipe for success: Experimento at a school in Germany (left) and Kenya (right)



PROJECT PARTNERS

Brazil Siemens Fundação Brasil and local education partners

Kenya Deutsche Schule Nairobi

Mexico INNOVEC

More on *Experimento* in each country: www.siemens-stiftung.org/ en/projects/experimento/ international *Experimento* receives positive feedback from education experts and of course the children and youths. »We are committed to an improvement of quality education in Chile,« says Patricia Angélica Fuenzalida. She is an education expert at Fundación Chile, a Chilean partner of Siemens Stiftung. *Experimento*, she says, came at the right time. »Getting the children excited at an early age is an important step in the right direction.« The experiences of the children and youths have a long-lasting effect and form a cornerstone of their positive development. It is the goal of Siemens Stiftung to contribute to social development in all the countries where *Experimento* has been implemented. »Supporting science and technology education is not only an economic necessity as a prerequisite for creating industrial value, but also an expression of a social and moral responsibility. Today, everyone needs basic knowledge of technology to do justice to their role as an empowered citizen,« says Nathalie von Siemens, managing director of Siemens Stiftung.

A concept for falling in love with natural sciences

George Tebogo Lebere is a teacher at the Thetha Secondary School in Johannesburg and has worked for nearly two years with *Experimento*.



The moment I told myself I was going to become a teacher and teach natural sciences, came during my own time in school. I was lucky enough to have a teacher through whom I fell completely in love with physics and chemistry. He just had a captivating personality – and he led wonderful classes under difficult conditions. We hardly had access to a lab, and when we did have the chance to work there, a lot of critical materials were missing. For example, I remember that many of the chemicals we were meant to use had expired long ago. In many international comparison tests, our school system in South Africa does not stack up particularly well. I think that has mostly to do with the fact that our curriculum is constantly changing. I have been a teacher now for 18 years and I have come across guite a few curricula. A further problem is that the elementary schools are really insufficiently equipped with materials to conduct experiments, and the teachers do not often know many

methods to get kids excited about natural sciences. Then, when the older pupils come to us, they have learned a lot of theory but they have never put that knowledge into practice.

When I first heard about *Experimento*, I thought the idea of introducing kids to science and technology was fantastic because they are able to do their own experiments. The chemical reaction that takes place in the zinc-copper cells of a battery, for example, is something we could previously only explain in theory, but no student really understood it well. We showed a video from the Internet, and that was a little bit better, but since the students have been able to actually try it out for themselves, they understand the entire context. That is a huge difference!

The teacher trainings are very important to me because we are shown methods that we can use for conducting interesting and engaging lessons. To pass these on, our staff does a sort of dress rehearsal. Before we conduct the experiments with the students, we discuss them with our colleagues. One colleague explains to the other what they should gain from a particular experiment. It serves as a trial run for us, but at the same time we are also explaining the concept to our colleagues who did not take part in one of the *Experimento* trainings. At the moment I teach two 10th grade classes with a total of 75 students and two 11th grade classes with 77 students. Every week we do one or two experiments. I am certain that the students' attitudes toward natural sciences has changed because of it. Since we have been doing the experiments, the students look forward to the next lesson every time.

I hope that for some of my students, it will be just like it was for me and one day they will fall in love with natural sciences. Our Thetha Secondary School is in a poor district in Johannesburg. A lot of students get free breakfast and lunch at school because their parents are often unemployed and the kids cannot be provided for at home. If they are able to start a career in the natural sciences after they finish school, they could escape poverty. Recently, I met a few of my former students that are about to write their dissertations; one has even received a doctorate. They were beaming when they told me how much the motivating lessons played a role in selecting their course of study. For me, that is the best validation I can imagine.





Media Portal Pursuing an open platform

PROJECT PARTNERS

Browse more than 4.800 teaching

www.medienportal.siemens-

Media Portal

materials online:

stiftung.org

Bayerisches Staatsministerium für Unterricht und Kultus / Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) / Education Group Oberösterreich / FWU Institut für Film und Bild in Wissenschaft und Unterricht / Landesmedienzentrum Baden-Württemberg (LMZ-BW) / Landesschulamt und Lehrkräfteakademie Hessen / LVR-Zentrum für Medien und Bildung Nordrhein-Westfalen / Niedersächsisches Landesinstitut für schulische Qualitätsentwicklung (NLQ) / Pädagogisches Landesinstitut (PL) Rheinland-Pfalz / Thüringer Institut für Lehrerfortbildung, Lehrplanentwicklung und Medien (Thillm) / Tiroler Bildungsinstitut - Medienzentrum des Landes Tirol

Approximately 4,800 digital materials for the classroom are currently available in the Media Portal. Educational professionals can retrieve German, English, and Spanish-language materials for free and use them in their lessons. More than 23,000 users from over 100 countries access the platform, and their numbers are increasing steadily. At the moment, Siemens Stiftung is developing the Media Portal into an interactive platform for Open Educational Resources (OER), a global initiative with the goal of providing free teaching and learning materials with as few restrictions as possible. The OER strategy, which is supported by organizations such as UNESCO and the OECD, is intended to contribute to high-quality instruction in developing and emerging nations.

Student Competition A strong record eight years on

With the theme »Rethinking energy – start shaping the future,« the Student Competition in Mathematics, Science, and Technology, launched into its final year. A top-class jury awarded the best submissions. In addition to prize money, the winners were given access to the alumni network, whose members keep in touch with each other on a regular basis. The eight years of Student Competitions were a big success for Siemens Stiftung: more than 3,500 students participated in total. In a recently completed evaluation of the program, 80 percent of the participants said that the competition had renewed their selfconfidence and 76 percent felt they had »advanced personally.«





кікиs Continuing a model of success

Over the past six years, the language learning program KIKUS (Children in Cultures and Languages) has reached more than 83,000 children in Germany. Vocabulary, grammar, and linguistic behavioral patterns are at the core of the language learning method, which is particularly aimed at multilingual children. In the six years that Siemens Stiftung has been involved as a partner, 841 educators in ten German cities have received training. Now, the cooperation with the Center for Multilingualism in Early Childhood (zkm) is set to come to an end. Zkm, which developed the teaching method, will continue to have access to the network it helped build. From now on, Siemens Stiftung will be supporting zkm, together with the Social Entrepreneurship Academy Munich, in the development of new scaling and financing strategies. Since 2011, KIKUS seminars have also been taking place in South Africa. The program reached 54 educators and more than 600 children there during the 2013/2014 fiscal year.

KIKUS digital Playfully learning vocabulary and grammar

The language-learning software KIKUS digital helps educators teach language with images. The program is based on pictures from the everyday world of children. It also incorporates other subjects for experimentation, which allow vocabulary and grammar exercises to be conducted in a playful way. In January 2014, the Spanish language version of the program was introduced alongside the German and English offerings. With KIKUS digital, Siemens Stiftung is taking up technologies that are forward-thinking with regard to the modern transmission of knowledge. They facilitate media competence for children, awaken curiosity, and foster networked thinking. Furthermore, the contents are available in the Media Portal for educators worldwide.

PROJECT PARTNERS

Student Competition Kultusministerkonferenz / Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen / Technische Universität (TU) Berlin / Technische Universität München (TUM)

KIKUS / KIKUS digital Zentrum für kindliche Mehrsprachigkeit e.V. (zkm)

Initiatives and networking activities



Wissensfabrik

The goal of the *Wissensfabrik* (Knowledge Factory) platform is to help the young generation meet the challenges of a knowledge-based society. The initiative includes 120 German educational institutions, businesses, and corporate foundations committed to science, technology, and business education. In 2014, Barbara Filtzinger, head of the education working area, was appointed to the board.



➡ MINT Forum

Siemens Stiftung is an active member of the *MINT Forum*, together with a number of organizations operating nationwide in Germany. The initiative is committed to promoting education in the areas of mathematics, information technology, natural sciences and technology (MINT). Working groups make recommendations on education policy, establish joint standards, and develop common goals on specific topics relevant to MINT education.



▲ MINT-EC

MINT-EC, the German Association of Math and Science Experience Centers in Schools, supports math and natural science secondary schools with a broad range of offerings for students and teachers. As a founding and board member, Siemens Stiftung works closely with MINT-EC, which includes incorporation of the educational program Experimento.

▲ Little Scientists' House

With the nationwide initiative *Little Scientists' House*, educational experts in Germany bring children into contact with scientific, mathematical, and technical issues from everyday life. As a founding and council member, Siemens Stiftung aims to expand child-friendly access to these subjects and sustainably improve children's educational opportunities within them.

»Education and social innovation are closely linked«

Educational researcher Manfred Prenzel talks about enthusiasm for the natural sciences and how education can succeed.

Mr. Prenzel, you have worked intensely with the pedagogy of the natural sciences. Was there an experience in your own time at school that had a long-lasting impact on you?

I was always really interested in the natural sciences, but the lessons were usually pretty mundane. I remember one time when the highlight of the lesson was dissecting a cockroach and then observing the left leg under the microscope. That was pretty exciting for us! (Laughs) But a key factor was missing in that example: no research questions were asked, by the teacher or by us. No one asked why we were doing that or what we were supposed to learn.

Given that context, how would you define a good classroom lesson?

That is best described by starting at the end. A lesson is »good« when the students learned what the lesson plan and the teacher had hoped to teach, when the students understood the materials, when they are excited, and when they can transfer the lessons and results to their dayto-day experiences and create a connection to their lives. The results are what matter, and there are almost always different ways to achieve them.

Is that what it comes down to?

Yes, absolutely. From my point of view, clearly defined goals are especially important. The students should be told at the beginning what a lesson will be about, why it is important, and what they will understand and be able to do at the end. Secondly, it is important that learning is continually accompanied. Teachers have to keep their eyes open to see when students are having problems with the subject matter. Accompanied learning is also tied to social conditions. The students should feel accepted and respected, even when they might not quite be able to do something. Finally, it is important that teachers support the initiative of their students to learn on their own so they are able to take matters into their own hands to some extent.

Education is said to be the key for innovation. Can innovation be encouraged through education?

Education is a necessary condition for all kinds of innovation, but not the only one. Education that emphasizes independence and creativity fosters better conditions for innovation than a tightly prescriptive and dogmatically construed version of education.

Can education itself be a social innovation? If everybody has access to the type of education I just described, I see that as a social innovation. Education should also take into account the people and their talents. In Germany, for example, children who thrive in handicrafts or creative fields tend to have a tough time in school because our schools strongly emphasize analysis. But schools should be open for varying talents. Most importantly, education should highlight the social dimension of learning. Discoveries are rarely made by some secluded scientists. Research builds on the knowledge of others and is a team effort to a large extent. The only way to answer questions, engage in controversial discussions, and create results is by working together. Once the power of collaborative effort is experienced, it creates a new perspective on the social side of things, on living and working together. That is really why education and social innovation are closely linked to one another.



About Manfred Prenzel

Manfred Prenzel is an educational researcher and professor at the Technische Universität München. He has been the chairman of the German Council of Science and Humanities since July 2014.

Culture

In Latin American and African cultural scenes, Siemens Stiftung fosters the encounter with one's own environment. Along with partners, we offer spaces where artists can actively shape their society and make a contribution toward a successful societal coexistence.

Societies worldwide face profound change, driven by political, economic, and social forces – and not least of all by technology. Technology enables the exchange of ideas and goods in an unprecedented scope and speed, creating huge opportunities but also formidable challenges.

One of the central questions arising from these processes of transformation is about societal identity in a world shaped by globalization. Especially in these times of tremendous change, cultural work sharpens our perception of social trends, traditions, and developments, even across national borders.

It is paramount to us that cultural work be able to develop freely and not be understood as a tool. Only then can uniquely inspiring and motivating artistic works emerge, allowing for a new perspective on our present times. »Laughing Hole« by La Ribot: a performance from CHANGING PLACES in Buenos Aires



New spaces for exchange, reflection, and collaboration



CHANGING PLACES / ESPACIOS REVELADOS

Highlighting social cohesion in an urban environment

The CHANGING PLACES project series transforms empty buildings and abandoned places through artistic interventions. The project started in March 2014 in Buenos Aires.



Academies for Performing Arts

Lively network for cultural dialog in Latin America

PANORAMA SUR, MOVIMIENTO SUR, and EXPERIMENTA SUR form a network of performing arts platforms in Latin America. Their goal is to promote exchange and collaboration on the continent. Through seminars, artists' labs, and live performances, art and culture are equally regarded as driving and expressive forces of social change.



Music In Africa

Online platform for a stronger music scene in Africa



Currently — Kenya, South Africa, Nigeria,

Senegal, DR Congo

Planned for 2014/2015 ECC Uganda, Ghana, Rwanda, Malawi, Tanzania, Namibia, Zimbabwe, Madagascar, Mali, Republic of Congo Ivory Coast, Burkina Faso



Since October 2014, the online platform *Music In Africa* has provided comprehensive information about making music in Africa. It serves as a guide for the curious and as a platform for exchange between different players in the music industry. Currently, information is available on five countries, with more to follow.

100

Participating experts from Africa: researchers, cultural managers, musicians, educators, journalists

5 Regional offices



3,000 Profiles with music samples

-	_	
_		U

News and reviews in the magazine



General texts and background information



80 Instructional videos for further lessons and training

PANORAMA SUR



MOVIMIENTO SUR



EXPERIMENTA SUR





Shedding light on the city's blind spots

CHANGING PLACES / ESPACIOS REVELADOS shifts perspectives in two ways. First, the project transforms unused places in Buenos Aires with artistic ideas. Second, it mobilizes residents and artists to depart from familiar places and look at the city from a new point of view.

PROJECT PARTNERS

Gobierno de la Ciudad Autónoma de Buenos Aires / Ministerio de Cultura / Subsecretaría de Desarrollo Urbano y Vivienda / El Cultural San Martín

In cooperation with Fundación M.I.R.A., Acumar, Edificio Tornquist, Palacio Reconquista, Galería Güemes, Edificio Bencich, Edificio Lanusse, Banco Hipotecario, Secretaría Legal y Técnica de la Nación, Estacionamiento Cuadras, Cine Teatro Dante, Museo de la Ciudad, Casa del Sur, Barraca Peña, IUNA, Centro Rural de Arte The first impression upon entering the former Tornquist Bank in Buenos Aires is stunning: It is a huge hall with stucco on the high ceilings, elaborate ornamentation on the walls, and shiny marble floors. The building has stood empty since the financial crisis of 2001. But Mariana Tirantte and Mariano Pensotti changed all that for CHANGING PLACES, turning the bank into a temporary model city with over 100 miniature houses. These were based on dreams and ideas gathered in interviews with the city's residents about living and coexistence. The similarity to advertisements seen all over the city is immediately noticeable; the ambivalence between dream and reality is all too real in the bank, which financed homes like these at one point in time.

»Hoy es el día« (Today is the day) is the name of the installation by the two Argentinian theater makers. It was one of 24 interventions that were on display in Buenos Aires between March 27 and April 26, 2014. For the project, artists from Argentina, other Latin American countries, and Europe cast their own perspectives on the Argentinian capital. They observed and they listened: how the people live, how they view the future, and where the past remains visible. They left the familiar confines of the theater and researched abandoned places and empty buildings, of which there are many in crisis-ridden Argentina. Former residential and trading houses, imposing bank buildings, a railroad bridge above the Riachuelo River, terraces high over the city as well as walls and facades in public spaces became the settings of their productions.



Recently this was all empty: Artists bring new life to abandoned buildings in crisis-plagued Buenos Aires – for example, the symbolic Palacio Reconquista (left), an empty building in La Boca quarter (above), or the former Tornquist Bank (below).



The interventions connected two parts of the city – the center and the periphery – and enabled the rediscovery of public spaces. »A society needs places that manifest cohesion, places where fears and hopes can be expressed,« says Nathalie von Siemens, managing director of Siemens Stiftung, about the purpose of the project series.

During all of the interventions, one thing was clear: spaces need people to perceive and use them. Two choreographic installations invited people to actively contribute to the creation of an experiential space: In William Forsythe's installation »Scattered Crowd, « the visitors were able to use balloons to bring the foyer of a bank into a breathtaking suspended state. »Garden State, « from the multinational collective MAMAZA, called on the residents of Buenos Aires to transform an abandoned building in La Boca into a green oasis. Throughout the entire city, people with plants of all varieties contributed to this giant choreography of sharing. A vibrant space was created in what is otherwise a deserted part of the city, and the neighborhood embraced a new feeling of responsibility. It was exactly these kinds of experienced spaces that attracted over 25,000 visitors from every age group and social class.

CHANGING PLACES got residents, artists, and public officials talking to each other. New usage concepts were even created for certain buildings. Artistic ideas changed concrete places, leaving behind a new feeling of social cohesion. CHANGING PLACES video:

en/changing-places

OUTLOOK In 2015, CHANGING PLACES will take place in Santiago Centro in Santiago de Chile. Once again, artists will open up new perspectives on empty spaces in a city.

»I want to confront people with their role in the world«

Julian Hetzel is an artist in Amsterdam. His intervention »I'M HERE« contributed to the CHANGING PLACES project in Buenos Aires.



The idea for my art project in Buenos Aires was a bit of an experimental arrangement: two people who have never seen each other before meet in an empty room – one homeless person, who receives guests in this room, and one visitor. My idea was to create an encounter with someone who had a completely different status, who came from the fringe of society. Nothing is on the agenda for this conversation; whatever they talk about or what happens in the room is completely open.

I have been grappling with the idea for some time to take two words, »waiting« and »working,« and look at them in relation to each other. By doing nothing, can you be a part of the economic system? It quickly became clear to me that beggars have a work ethic, too. They call it work when they go somewhere and beg. They sit in a public space and get paid, to some extent, to be there. For CHANGING PLACES, when I bring a homeless person from the street and put him in an empty building, he leaves behind a gap in the public space – that is a shift in context that I find immensely fascinating. In Buenos Aires, it did not take long to realize how much my perspective carries a European influence. Argentina is struggling with several economic crises. There are so many people living and sleeping on the streets – you even see families there. I did not expect poverty to this extent. At the same time, the subject is quite topical because everyone knows they are on very thin ice. Fear of breaking through is huge, even in the middle class.

There were people that tried to talk me out of my idea. One person told me that I was not solving the social problem but simply putting it on display. But for me it was about the interaction and rethinking the existing social norms.

That is why I was on the streets for weeks talking with homeless people. Four of them ended up taking part in the installation. I created a temporary art room in a huge building of a trading company that had been empty for years and invited the homeless people to spend some time there. Only one visitor was allowed inside the empty building. That was a pretty unique scene: a massive line formed in the lobby of this huge building of people who wanted to be let in, as if it was some kind of audience or a holy shrine. Some people stood there for hours, even though many did not even know what awaited them on the other side of the door. The youngest of the four homeless people was 21, the oldest was in his mid-60s, and there was one woman as well. They all had their own stories. Whatever they talked about is something only the participants know. The two people were meant to be there only for each other, the homeless person and the visitor. Some people were in there so long that we had to go get them out, some cried. For a lot of people it was an elementary experience, and that included the homeless people. They came out now and then for some fresh air, and one guy told me at the end: »And I always thought WE had a tough life!« He was guickly overwhelmed by the worries and fears of the people who did not live on the street.

I am convinced that the full effect of this installation will come gradually. For me it was about making certain things more visible and comprehendible, and confronting people with their own role in the world. Something like that needs time to resonate.





The principle of movement: Participants from the Latin American academies in action

A lively network for cultural dialog

Young artists from Latin American countries work together at PANORAMA SUR, MOVIMIENTO SUR, and EXPERIMENTA SUR to develop new perspectives on social relations.

PROJECT PARTNERS

MOVIMIENTO SUR

Biblioteca de Santiago / Centro Cultural Matucana 100 / Consejo Nacional de la Cultura y las Artes de Chile / Escenalborde / GAM – Centro Gabriela Mistral / Goethe-Institut Chile / MAC Quinta Normal / MilM2 / Parque Cultural de Valparaíso

EXPERIMENTA SUR

Goethe-Institut Colombia / Instituto Distrital de las Artes – IDARTES / Mapa Teatro / Teatro Jorge Eliécer Gaitán / Universidad Central, Colombia / Universidad de Bogotá Jorge Tadeo Lozano / Universidad Nacional de Colombia

PANORAMA SUR has been independent since 2014 and is being aligned with a strong network of partners by the supporting organization THE – Asociación para el Teatro Latinoamericano. »With their international reach, the three academies have created something unprecedented in Latin America,« says playwright and director Ariel Farace from Buenos Aires. »The opportunity for interaction is a significant contribution not only for the artists but for the entire society.« Labs and seminars provide the participants with a place for interdisciplinary collaboration and networking. Renowned theater makers from Europe and Latin America moderate production-oriented workshops to impact the realization of the participants' own ideas.

Since 2010, Argentina's PANORAMA SUR has focused its efforts on playwright seminars to promote the development of new theater pieces with societal relevance. The platform has been managed by a strong network of partners under the leadership of THE – Asociación para el Teatro Latinoamericano since 2013. MOVIMIENTO SUR took place for the second time in Chile in December 2013 and focused on interdisciplinary collaboration in contemporary dance. Choreographers, architects, sociologists, and artists from various disciplines worked together on topics relating to mobility in art and society.

At EXPERIMENTA SUR in Colombia, fundamental issues pertaining to art in a society that is influenced by violent experiences were at the heart of artists' labs in October 2013 and February 2014. In May/June 2014, new formats for cultural work were devised and discussed under the slogan »Expanded Dramaturgies.« A Goethe-Institut Excellence Initiative enabled talented youth artists from all over Latin America to take part in the academies. From the stage to the Internet: African musicians can now present themselves online.



The world of African music: just a click away

After three years of preparation, the online portal *Music In Africa* has been launched. It connects the cultural scenes of various African countries and offers an unparalleled wealth of information about music from the entire continent.

PROJECT PARTNERS

Goethe-Institut in sub-Saharan Africa

Discover music from Africa online: www.musicinafrica.net/ directory

Whether it is the latest on South African cultural policy, research on copyright law in Kenya, or a hip-hop band from Senegal it can all be found on musicinafrica.net. The online platform was initiated by Siemens Stiftung, Goethe-Institut, and a host of African partners and offers reliable and comprehensive information about the music scenes in Africa. It is meant to be used as a guide for anyone interested, to strengthen the music industry in Africa, and to encourage collaboration between artists on an international level. A further goal is qualification and professionalization: Musicians can pursue continuing education in cultural management, for example, while music teachers can access videos for use in lessons.

So far, information on five African countries is available on the platform, and in the coming years, many more countries are set to be added. *Music In Africa* is both a pan-African and a global project: More than 100 professional musicians, scientists, journalists, managers, and educators from Africa and many other countries around the world were involved in the website's design.

The Music In Africa Foundation, established in July 2013 and based in Johannesburg, South Africa, is building up the platform and will continue to operate it long-term. Currently, editors in five regional offices plan the content and ensure quality control. The platform is growing constantly thanks to its participatory nature, which motivates people worldwide to develop and maintain the website themselves. Innovative funding schemes aim to keep the website sustainable.

»We want to strengthen the visibility of the African music sector«

A conversation with Eddie Hatitye about the online platform *Music In Africa* – and how modern technology provides musicians with new opportunities to earn money.

Mr. Hatitye, many musicians lament that the Internet has completely changed the music business. Now, of all things, you are starting an Internet platform to support music. Is this not a contradiction?

You are right: I know musicians that wish the Internet had never existed. It completely changed the way we buy and listen to music. At the same time, we have to accept that the technology is now here – and make the best out of that.



Do you think that African musicians can benefit from the Internet?

Yes, of course. The Net has created a completely new kind of musician. That is exactly the reason we need this kind of platform: to support these artists and help them connect with new fans and reach a new audience. Money can be earned with events, live performances, and all these things – but without the necessary information, no one comes to the concerts. I think that is the reason many really see *Music In Africa* as a chance.

Why is a platform like this especially important in Africa? Music has a particular significance for us. But today, it is not just a cultural factor but also a new business opportunity. That being said, there are insufficient means for the preservation of music, for an exchange of experiences for professional musicians, and places where artists can promote their music. I think that is why many observers have the impression that Africa, in this sense, is lagging behind other continents: not because we do not have great music, but because there are so few media outlets that deal with African music. *Music In Africa* invites people to learn about and appreciate music from the entire continent. We want to strengthen the visibility of the African music sector and build up networks.

Your plan to bring together music from the entire continent on this platform sounds very ambitious. Is it even possible? No one has ever tried to bring it all together before. We are talking about over a billion people and extremely different music traditions. It is a very ambitious project for us. The way we have set it up is also very innovative, because we make it a point that the musicians create much of the content themselves.

How does that work in practice?

In principle, every user has the ability to create a profile or to write an article. If the article is well-informed, we publish it. We have our own editorial teams in southern Africa and also in eastern, western, and central Africa. We also commission pieces from researchers, music educators, and journalists. And we use the possibilities of the Internet to pay for the articles. For that we developed a tool that enables users to give articles financial recognition. For example, if they read an article in an online magazine, they see a button that allows them to donate »applause.« Readers can call attention to an article and give the writer a small fee.

The platform is still in its infancy. What are your hopes for its further development?

We do not want to be just a portal, but also make a sustainable contribution to the creative industry in Africa. *Music In Africa* allows many different networks based on music to be created. It brings stakeholders together, gets them excited, and stimulates collaborative activities.

About Eddie Hatitye

Eddie Hatitye is the director of the Music In Africa Foundation, which is responsible for the development of the online platform.

Global Alliance of Siemens Foundations

The Global Alliance of Siemens Foundations was founded in 2010 under the guidance of Siemens Stiftung. The alliance shares a common goal of empowering and engaging people to shape their own lives and contribute to social development. The seven non-profit foundations in Argentina, Brazil, Colombia, Denmark, France, Germany, and the United States are independent, but strive for close collaboration on strategy and content. Their work is based on responsible corporate governance. The foundations pursue synergies in their educational, social, and cultural initiatives at both the local and international level. The annual workshop of the Global Alliance took place in Buenos Aires in 2014. Siemens Foundations strengthen science and technology education together

Along with the local Siemens Foundations in Argentina, Brazil, and Colombia, Siemens Stiftung supports the development of science and technology education in Latin America. The international education program *Experimento* | 4+, for example, has now been set up in nearly all public preschools in Buenos Aires as part of a cooperation agreement with the city's education ministry and the implementing partner Ciencias para Todos (Science for Everyone). *Experimento* is based on the principle of learning through discovery. The materials for the experiments are produced locally at a shop for people with disabilities, Taller Parque Quirno, giving them the chance to earn their own income.



Creating modern training opportunities for educators: Along with the local corporate foundation Siemens Fundación Argentina, Siemens Stiftung supports the development of science and technology education in Argentina.

Siemens Stiftung Team



Lower row from left to right: Sabine Sailer, Caroline Weimann, Karolin Timm-Wachter, Julia Wachsmann, Daniela Hopf, Georg Bernwieser (CFO), Dr. Nathalie von Siemens (Managing Director/Spokesperson), Rolf Huber (Managing Director), Christine Koptisch, Christine Janezic, Joachim Gerstmeier, Gerhard Hütter, Dr. Beate Grotehans. On the staircase from left to right in ascending order: Werner Busch, Julia Rüter, Carola Schwank, Jens Cording, Dr. Barbara Filtzinger, Robert Balthasar, Rebecca Ottmann, Christa Mühlbauer, Maria Schumm-Tschauder, Karin Hagen, Franziska von Einem, Volker Fischer, Eva-Katharina Lang, Dr. Ute Hebestreit-Böhme, Margit Wiest, Kerstin Marchetti, Sabine Baumeister, David Hoffmann, Anja Funke, Ursula Gentili, Angela Clerc

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S.D. Georg Fürst Starhemberg, Member of the Board of Trustees until August 20, 2014

Transparency and responsibility

As a foundation started by the international technology company Siemens, we come from a long tradition of social responsibility. As an independent and non-profit organization, the legacy of our founder is part of who we are.

Siemens Stiftung strives to inform the public about its commitment in a transparent manner. We do so by publishing an annual report and continuously updating our website. Transparency is a guiding factor in how we use materials, implement projects, and assess results.

We see transparency as a key instrument for raising the effectiveness of our work, and this goes beyond accountability reporting. As an international foundation with numerous projects on three continents, we attach particular importance to working with international and local partners for whom integrity and transparency are paramount. In doing so, we also aim to help drive social development toward transparency and greater efficiency. We are open for feedback and encourage others to benefit from the knowledge gained through our work. We are also committed to supporting scientific research and strive to actively drive knowledge transfer in our areas of focus.

Through a systematic impact assessment, we aim to enable a continuous learning process, implement our programs and projects in a result-oriented manner, and thus make the best use of resources. We make every effort to keep the CO₂ emissions of our organization as low as possible. In our annual CO₂ report, we record all greenhouse gas emissions generated at our locations in Munich and Erlangen. In the current fiscal year, we have endeavored to implement long-term measures aimed at lowering emissions. CO₂ emissions that cannot be avoided are offset with CO₂ certificates from a climate protection project in Kenya, which has been given a gold standard certification from independent organizations.

Financial Report

Expenses

Expenses for the foundation's mandate

Total expenses of €3,034 thousand (previous year: €3,068 thousand) were reported in the »Basic Services & Social Entrepreneurship« working area. The goal of these projects is to reduce existential deficits in basic services in developing and emerging countries and to strengthen social structures. The focus is on supporting local and financially independent initiatives with technical solutions, training, and networks.

Total expenses of €4,582 thousand (previous year: €4,463 thousand) were reported for »Education« projects. With its international education program, Siemens Stiftung helps modernize classroom materials and methods to enable qualified science and technology education for children, especially in disadvantaged regions. The projects focus on training and continuing education of teachers and educators.

Total expenses of €1,171 thousand (previous year: €1,239 thousand) were reported for »Culture« projects. With projects from this working area, Siemens Stiftung aims to provide space for cultural stakeholder perspectives and experimental fields for contemporary discussion. The meaning of culture for social cohesion, the reflection on individual self-image, and the effectiveness of cultural activities in society are at the heart of these initiatives.

In addition, €1,158 thousand (previous year: €1,386 thousand) were spent on communications.

Other operating expenses

Administrative costs

This item includes expenses used solely for the administration of the foundation and not directly attributable to its individual mandates. A balance of \in 16 thousand (previous year: \in 48 thousand) from the expenses of discounted pension/anniversary and partial retirement obligations (\in 207 thousand; previous year: \in 157 thousand) and the gains from covering assets (\in 191 thousand; previous year: \in 109 thousand) is included in administrative costs.

Personnel costs

Total expenses include personnel costs of €3,252 thousand (previous year: €3,051 thousand); €2,806 thousand were spent on wages and salaries and €446 thousand on social contributions and expenditures for pensions and benefits. The workforce comprised 32 persons (previous year: 31) on average during the fiscal year.

ASS	ETS as of September 30, 2014	in €	09/30/2014	09/30/2013
Α.	Fixed assets			
١.	Intangible assets			
	Concessions, industrial and similar rights and assets, and licenses in such rights and assets		170,465.00	264,489.00
П.	Tangible assets			
	Other plant, factory, and office equipment		338,029.00	432,163.00
III.	Financial assets			
	Long-term investments		389,999,930.90	389,999,930.90
			390,508,424.90	390,696,582.90
Β.	Current assets			
١.	Accounts receivable and other assets			
	1. Prepayments and inventories		-	-
	2. Other assets (including $€0 > 1$ year)		15,599,970.24	14,040,190.72
Ш.	Cash at banks		19,027,355.12	14,147,894.06
			34,627,325.36	28,188,084.78
C.	Prepayments and deferred charges		58,610.33	56,969.73
D.	Active difference resulting from asset offsetting		88,211.34	112,134.81
			425,282,571.93	419,053,772.22
EQL	JITY AND LIABILITIES as of September 30, 2014	in €	09/30/2014	09/30/2013
Α.	Equity			
١.	Basic assets		300,000,000.00	300,000,000.00
П.	Other assets		90,000,000.00	90,000,000.00
III.	Free reserves (section 58 (7a) AO)		17,550,000.00	14,250,000.00
IV.	Retained profits brought forward		16,020,203.70	12,530,232.03
			423,570,203.70	416,780,232.03
В.	Accruals			
1.	Accruals for pensions and similar obligations		-	-
2.	Other accruals		865,033.00	1,144,204.99
			865,033.00	1,144,204.99
C.	Liabilities			
1.	Trade payables (including €768 thousand with a remainin term of up to one year)	g	768,080.13	1,063,458.53
2.	Other liabilities (including €59 thousand from taxes)		79,255.10	65,876.67
			847,335.23	1 1 20 225 20
			047,335.25	1,129,335.20

STATEMENT OF FINANCIAL POSITION

Siemens Stiftung was established by Siemens AG under the foundation charter of September 22, 2008 and recognized as a public foundation under private law having legal capacity. The foundation performs charitable work and is operationally active, which means it primarily funds its own projects and initiatives. The foundation's mandate is set forth in the most recent version of its charter, dated December 12, 2012. Siemens AG transferred the endowment (€300,000 thousand) and other assets (€90,000 thousand) in 2008. This makes Siemens Stiftung one of Germany's largest corporate foundations.

INC	OME AND EXPENSE STATEMENT for 2013/2014 in €	09/30/2014	09/30/2013
Inco	ome		
1.	Asset management income	15,668,926.43	14,045,037.89
2.	Income from donations	1,920,000.00	623,811.00
3.	Other operating income	93,441.85	39,083.81
		17,682,368.28	14,707,932.70
Exp	enses		
4.	Asset management expenses	1,256.86	1,610.70
5.	Expenses for the foundation's mandate		
	Basic Services & Social Entrepreneurship	3,034,473.81	3,068,119.46
	Education	4,581,522.23	4,462,713.70
	Culture	1,170,991.63	1,238,507.67
	Communication	1,158,282.75	1,386,120.23
		9,945,270.42	10,155,461.06
6.	Other operating expenses		
	Administrative costs	945,869.33	945,411.81
		10,892,396.61	11,102,483.57
7.	Annual net income	6,789,971.67	3,605,449.13
8.	Retained profits brought forward from previous year	12,530,232.03	12,674,782.90
9.	Transfer to free reserves (section 58 (7a) AO)	3,300,000.00	3,750,000.00
10.	Retained profits brought forward	16,020,203.70	12,530,232.03

INCOME/EXPENSE STATEMENT

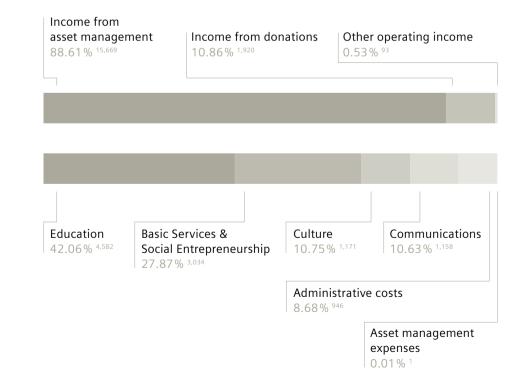
The income and expense statement for fiscal year 2013/2014 shows income from asset management of €15,669 thousand (previous year: €14,045 thousand), income from donations of €1,920 thousand (previous year: €624 thousand). Other operating income of €93 thousand (previous year: €39 thousand) consists primarily of offsetting remuneration in kind, return commission, and vouchers as well as redemptions and credits. There were also operating expenses for the foundation's mandate of €3,034 thousand (previous year: €3,068 thousand) for the »Basic Services and Social Entrepreneurship« programs, €4,582 thousand (previous year: €1,239 thousand) for »Education,« and €1,171 (previous year: €1,386 thousand) mas spent on communications. Administrative expenses of €946 thousand (previous year: €945 thousand) were incurred.

In accordance with section 5, paragraph 4 of the foundation's charter, Siemens Stiftung is required to establish capital reserves for purposes of inflationary adjustment. The foundation calculates this reserve based on a medium-term rate of inflation as part of its capital maintenance strategy. A total of €3,300 thousand (previous year: €3,750 thousand) were moved into free reserves in accordance with section 58 (7a) of the German Tax Code (AO).

CERTIFICATION

Ernst & Young GmbH auditors reviewed the annual financial statements and management report of Siemens Stiftung dated September 30, 2014, in accordance with the principles of the German Commercial Code (HGB) and Article 16 of the Bavarian Foundation Act (BayStG) in compliance with the German auditing standards defined by the Institute of Public Auditors in Germany, Incorporated Association (IDW) and issued its unqualified audit certificate. The effectiveness of the accounting-related internal control system was also evaluated as part of the review. The audit has not led to any reservations. The review of the preservation of the foundation assets and the compliant use of its returns for benefits meant for consumption in accordance with Article 16, Paragraph 3 of the BayStG also led to no reservations.

SOURCE OF FUNDS / USE OF FUNDS for 2013/2014	in €	09/30/2014	09/30/2013
Income			
Asset management income		15,668,926.43	14,045,037.89
Income from donations		1,920,000.00	623,811.00
Other operating income		93,441.85	39,083.81
Total		17,682,368.28	14,707,932.70
Expenses			
Asset management expenses		1,256.86	1,610.70
Basic Services & Social Entrepreneurship		3,034,473.81	3,068,119.46
Education		4,581,522.23	4,462,713.70
Culture		1,170,991.63	1,238,507.67
Communications		1,158,282.75	1,386,120.23
Administrative costs		945,869.33	945,411.81
Total		10,892,396.61	11,102,483.57
Annual net income		6,789,971.67	3,605,449.13



SOURCE OF FUNDS (in % and € thousand)

USE OF FUNDS (in % and € thousand)

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Projects 2013/2014 at a glance

Project	Description	Region/Country	Page
Agua para la Educación	The program from Siemens Fundación Colombia installs water filters in schools in rural regions of Colombia.	Colombia	16
CHANGING PLACES / ESPACIOS REVELADOS	Artistic interventions transform empty buildings and put social cohesion in the spotlight.	Argentina	34
empowering people. Network	The network fosters the use of technological solutions to improve basic services and connects social entrepreneurs.	global	10
Entrepreneurship Training	Practice-oriented training and mentoring gives local micro-entrepreneurs insight into how to start and run a small business.	Kenya	15
EXPERIMENTA SUR	The international platform <i>EXPERIMENTA SUR</i> focuses on the development of new interdiscip- linary forms of cultural activities.	Colombia	37
Experimento	The international educational program imparts science and technology education based on the principle of discovery-based learning.	Argentina, Brazil, Chile, Colombia, Germany, Kenya, Mexico, Peru, South Africa	22
Little Scientists' House	The initiative <i>Little Scientists' House</i> supports educational experts who guide the inquiring minds of preschool and elementary school children.	Germany	28
Hygiene Training	Practice-oriented training raises awareness about the connection between proper hygiene practices and good health.	Kenya	15
Impact Hub	A network for start-ups and social enterprises in African cities.	Africa, Europe	16
IRENE I SEE (International Research Network on Social Economic Empowerment)	The international research network examines the process of economic self-empowerment.	Colombia, Ethiopia, Germany, Kenya, Mexico, South Africa	12
кікus	The <i>KIKUS</i> method helps children three-years- old and up learn a second language.	Germany, South Africa	27

Project	Description	Region/Country	Page
KIKUS digital	KIKUS digital is a language-learning software for language instruction that is available online.	global	27
Media Portal	The <i>Media Portal</i> offers a broad spectrum of teaching materials online on topics relating to science and technology.	global	26
MINT-EC	Schools in the <i>MINT-EC</i> network promote the math and science education of their students.	Germany	28
MINT Forum	The forum is committed to promoting education in the areas of mathematics, information technology, natural sciences, and technology.	Germany	28
MOVIMIENTO SUR	The international platform <i>MOVIMIENTO SUR</i> in Chile is devoted to the interrelationships between movement, art, and society.	Chile	37
Music In Africa	The platform musicinafrica.net acts as a guide through African music landscapes and connects stakeholders in the industry.	Africa	38
Safe Water Enterprises	Water kiosks bring clean water to remote regions of Kenya and facilitate entrepreneurial activities.	Kenya, Uganda	15
Student Competition	The Student Competition deals with subjects that have global relevance and inspire young people.	Austria, Germany, Switzerland, and German international schools in Europe	26
Sierra Productiva	The project increases agricultural yields in underdeveloped areas.	Peru	14
TakaTaka Solutions	<i>TakaTaka Solutions</i> improves living conditions in the Kangemi slum with a socio-economic approach.	Kenya	14
WE!Hubs	Central hubs that improve social and economic infrastructure in rural and peri-urban areas.	Kenya	16
Wissensfabrik	The Wissensfabrik network is involved in educa- tional projects and campaigns for start-ups and young entrepreneurs across Germany.	Germany	28



Stay up to date! Our newsletter provides regular updates about the latest on our projects:

www.siemens-stiftung.org/en/newsletter

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