

Nairobi - St. Gallen

*"Boots on the ground" - local intelligence and global expertise shape effective solutions for development. Avallain E4D, expanding its network and presence in Africa, presents reality-proof concepts and products.*

### **Farmer Info Station with mobile Internet and solar power**

To make information on improving agriculture accessible for small scale farmers Avallain E4D is refining the "Info Station". It consists of the XO hardware, better known as the "\$100 laptop", enhanced with bandwidth-controlled mobile internet access, solar energy power and a custom software set based on the Ubuntu OS.

The pre-installed INFONET-BioVision software by the Swiss BioVision Foundation for Environment and Development is the core component and can be updated and supported remotely using bandwidth (= cost) saving custom software components. It offers information on socially, economically and ecologically sound technologies in crop and livestock production, environmental and human health. The Info Stations, which provide a rugged and sustainable solution for field work by extension farmers, are being piloted with farmer groups in rural Kenya. *"The stations have created wide interest due to their affordability and ease of use. After a recent workshop at the Ministry of Agriculture, the permanent secretary expressed support for a nation-wide deployment to all districts in Kenya."* says Ursula Suter, Managing Director of Avallain. The Solar Power solution has been locally sourced. The hardware has been tested in the field since 2008 and developers in Nairobi are being trained to provide the necessary support.



### **e-learning for kids on the "\$100 laptop"**

In cooperation with the global non-profit foundation *e-Learning for kids*, Avallain E4D makes interactive learning content for kids available on the XO, better known as the 100\$ laptop. More than 100 learning units cover a wide range of topics including: math, science, English as a second language and life/health skills. The content comes on a bootable OS image packed on a flash card (value ca 10\$): a simple solution to provide more interactive learning content via the XO, which has been suffering from a dearth of suitable content in spite of the unique ICT4D-proof hardware design. The conversion of the e-learning for kids content library is a first step, tests at the Gentiana Primary School in Nairobi will launch in Summer 2009 and provide insights for further steps in shaping locally suitable content packages for the OLPC hardware platform. The OS image also features a bandwidth-friendly remote update solution and supports connectivity for these updates via mobile networks.



It is based on the standard Ubuntu OS, an open source operating system, which is already being provided and championed by a growing community of XO users.

### **Google Maps and SMS for farmer support**

Currently under development are two Google-based extensions for farmer information. Using high resolution images and mapping data provided by Google Earth, farmer groups will be able to use Geo-information based on their location. Such information, including soil types and typical pests, is already being used widely in large scale commercial agriculture, and Google Earth will make it possible to provide similar information to small scale farmers. The data will be generated and pre-selected based on the known location of the farmer group

and will be provided through the Info Stations. Bi-directional SMS is already operative for the Info Station Farmer Groups based on the community driven Frontline SMS toolset, questions from farmers are being answered by the team of agricultural magazine "The Organic Farmer". The possibility of embedding the growing catalogue of standard answers as a dialogue service in the Google SMS Search is currently being researched. While access to computers and the internet is still limited, mobile phones are widely spread, creating a huge impact all across Africa. In Kenya alone, the number of mobiles has grown from one million to more than 6.5 million - while the number of landlines remains at about 300,000. Therefore, making information available on the most common infrastructure is a logical step.

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### **About Avallain**

With a passion for education, innovation and the potential of the internet, Avallain Education For Development (E4D) is your reliable partner for the demanding challenges in development activities related to education and information technology. With a track record of award-winning e-learning solutions for public and private clients and a unique stock of experience and software assets, Avallain's team has decided to apply its experience where the impact is greatest: Development. Our work so far includes on-line information systems for agricultural education in Kenya as well as integrated learning systems for literacy and basic skills currently operating in Germany and Ireland. Avallain operates all services carbon neutral through co-operation with *myClimate* and *Trees for the Future*. Avallain supports the Frankfurt Book Fair literacy campaign *LitCam* and the *Word Wildlife Fund*.

[www.avallain.com/e4d](http://www.avallain.com/e4d)

### **About e-Learning for Kids**

e-Learning for Kids is a global non-profit organization that is dedicated to opening doors to education worldwide. Established in 2004, e-Learning for Kids is dedicated to fun and FREE learning on the Internet (or via CD ROM) for children aged 5-12 with over 175 best-in-class courses in math, science, language arts, computers, English as a second language, health and life skills. The courseware is also available in Spanish, French, and Portuguese and other languages are in development. A volunteer staff consists of education and e-Learning experts and business professionals from around the world committed to making a difference

[www.e-learningforkids.org](http://www.e-learningforkids.org)

### **About "The Organic Farmer"**

The Organic Farmer (TOF) is an information magazine for Kenyan small-scale farmers who until recently have had only scarce access to information on sustainable agriculture. Funded by the Swiss BioVision Foundation for Environment and Development, the farmer magazine is distributed every month free of charge to interested farmers' groups in Kenya and selected neighbouring countries. TOF readers receive concrete guidance and practical tips on how they can increase their harvests using simple, environmentally friendly methods.

This information is disseminated via radio also (the weekly TOF radio feature in Swahili is received in Kenya and Tanzania and has up to 3 million listeners) as well as through fliers and brochures. Farmers particularly often use the opportunity to pose questions to the newspaper and receive feedback via SMS and readers' letters.

[www.theorganicfarmer.org](http://www.theorganicfarmer.org)

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