



VOIce-based Community-cEntric mobile Services for social development

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SUMMARY

The report presents a summary of the outcomes of two conferences that were organized to present the results of the VOICES project to stakeholders in Mali and Senegal, and to the general public through the media. The first conference was held on April 23rd 2013 in Bamako, Mali and on June 20th 2013 in Dakar, Senegal. The conference in Mali was related to the m-agro knowledge sharing pilot. The conference in Dakar targeted the health sector and related communities in Senegal.

The two conferences were special events for dissemination of the results and successes of the VOICES project. They were specially meant to encourage community building and social networking with local stakeholders and turned out to be a kick-off for further technology implementation activities. The conferences gathered a variety of local target groups.

INTRODUCTION

Dissemination and community building activities have represented an integral part of the VOICES project, throughout the project period. This overarching work package has functioned as the link between research and development activities with stakeholders and the general public. The two final conferences were special events, in which the successes of the project were shared with a broad target group, respectively in Mali and in Senegal. The conferences were well attended and offered opportunities for community building, social networking and served as a kick-off for further technology implementation plans.

Community-building actions

A key element of the VOICES dissemination strategy throughout the project was in its community-building activities, focused on the following areas:

- Creating an Open Source community related to the Voice mobile services toolbox.
- Community building related to African languages and standardization work as a further support (based on WP3 work).
- Community building related to rural development and greening in the Sahel countries (based on the WP5 pilot).
- Community building related to the health sector in Senegal. (based on WP4 pilot).
- Creating Open Access for educational communities to the mobile training content and tool support (based on WP6 work).

Dissemination events

In line with this, VOICES has established collaborative events and workshops during the project in different countries to promote awareness of the mobile service opportunities, create interest, enhance adoption, and transfer results. An important reason for VOICES to organize more than one pilot in Africa was in fact dissemination: the pilots did not just have the role of technical field tests of the VOICES developments, as on-the-ground African activities they served as a key channel to disseminate results and establish new partnerships beyond the VOICES project and consortium.

At the end of the project, two final conferences have been organized in which the project results were presented and promoted to specific target groups, each related to the areas listed above. A full-colour brochure was produced. A video in English and French presented the project experiences and results, as an alternative to traditional text-based dissemination materials.

One final conference took place in Bamako, one final conference took place in Bamako, Mali and was related to WP5, the m-agro knowledge sharing pilot. The second final conference took place in Dakar, Senegal and was related to the m-health knowledge sharing pilot.

FINAL CONFERENCE IN BAMAKO, 23 APRIL 2013

Voice technologies in support of agriculture in Mali – Hotel Salam Azalai, Bamako

Goals of the conference in Bamako

The conference in Bamako had three objectives, in line with work package 7:

- Dissemination: Present the results of the VOICES project to a local audience
- Community Building: bring potential users, developers and other stakeholders together to encourage exchange of knowledge and creation of new ideas for voice-based services
- Technology Implementation: contact interested parties that want to bring the results of VOICES into practice.

Venue of the conference

The final conference of the VOICES project for the m-Agro knowledge sharing pilot took place at the Azalai Hotel Salam, in Bamako, Mali, on 23 April 2013.

Target groups

This event gathered 69 representatives of local farmer organizations, local community radio stations, NGOs, international donor organizations, local Malian ICT businesses, two incumbent phone operators Orange and Malitel, the vice-Minister of Post and ICT, representatives from the Malian Ministry of Agriculture, national media such as ORTM, and various other journalists and media representatives and various others stakeholders. (See annex 1 for participants list)



The conference in Bamako was chaired by a high representative from the Ministry of Post and ICT. Left: Mary Allen (Sahel Eco) and right: Stephane Boyera (Web Foundation).

Program of the conference

9.00 Opening by Bianivo Mounkoro from Sahel Eco, followed by an address by the vice-Minister of Post and ICT.

9.25 Mary Allen from Sahel Eco introduced the VOICES project to the audience.

9.30 Stéphane Boyera from the Web Foundation introduced voice technologies for development, and the VOICES objectives. Questions & Answers

10.30 Amadou Tangara, *chef d'antenne* at Sahel Eco, and one of the key end-users of the services Radio Marché and Tabalé presented the operation and advantages of voice-based services in the field, and how his work of communicating and supporting farmers has improved by these innovations. Questions & Answers.

11.30 Mr. Lamine Togola from Radio Rurale, a local NGO, that works with farmers, and is interested in adoption of the VOICES services in their own network of radios. Q&A.



Figure 1: One of the participants giving her opinion during the Q&A session.

Afternoon: Workshop

After the lunch-break, all participants were placed in small groups of 6-8 people and had round table discussions on the use and needs of voice-services in their work and lives. The opportunities and constraints were discussed. The outcomes of the group sessions were collected, presented and discussed by each group leader in the plenary session.



Figure 2: Zakary Diarra. During the conference two Malian farmers Zakary Diarra and Naomi Dembélé addressed the audience in Bomu language and told about their increase of sales of honey and shea butter since the introduction of the RadioMarché service.

Outcomes and follow-up of the conference in Bamako

Shortly after the conference in Bamako, several follow-up actions took place by members of the VOICES team.

- Visits to marketing managers of Orange Mali and Malitel, to study their interest in adoption of the VOICES results and collaborating in joint activities.
- Visits to a local ICT entrepreneur in Mali: Yeleman. These contacts, initiated in the conference, have already led to narrow contacts with several VOICES partners (VUA, SE, WF and NWU) and further actions.
- Visit to the Dutch Embassy. This has led to a new proposal and a 50.000,- eur grant to do training of local Malian stakeholders and further local deployment of voice-technologies in 2013-2014. This grant, from development organization Nuffic for the Dutch government, has been awarded to the joint VUA & Sahel Eco team, based on meetings with embassy staff in Bamako.
- Visit to Radio Rurale. This NGO is very interested in joining the follow-up activities of VOICES, especially for the Foroba Blon service.

FINAL CONFERENCE IN DAKAR, 20 JUNE 2013

Voice technologies in support of health in Senegal - Hotel Savana
Pointe Bernard – Petite Corniche, Dakar

Goals of the conference in Dakar

The conference in Dakar had three objectives:

- Dissemination: Present the results of the VOICES project to a local audience, especially interested in the health sector, or local ICT entrepreneurs.
- Community Building: bring potential users, developers, health workers, and other stakeholders together to encourage exchange of knowledge and creation of new ideas for voice-based services for the health sector.
- Technology Implementation: contact interested parties that want to bring the results of VOICES into practice.

Venue of the conference

The final conference of the VOICES project was held in Hotel Savanna, Dakar, Senegal on 20 June 2013.

Target groups attending the conference

Representatives from the health sector as well as ICT-entrepreneurs from Dakar were present during this event. The results of the m-health pilot in Senegal were presented as examples of voice-based services that can benefit health workers and other stakeholders. The Open Source voice-platform Emerginov was presented as the central tool for development of voice-services for global development. Further target groups of this conference were: NGOs, projects and programs working in various sectors of social-economic development, Ministry of Health representatives, research institutes related to ICTs and social development in Senegal, VOICES project partners: ESMT, Web Foundation, Orange, VUA, Sahel Eco, NWU, CSIR, CRS4, W3C. International organizations invited were: the World Food Program and some development agencies: IAFD (the French development agency), and technology hub Jokkolabs and CTIC incubator.

Program of the conference

9.30 Opening of the conference by Stephane Boyera (WF)

9.45 Introduction to voice-based services for social development by Mousatafa Zouinar (FT)

10.45 Mobile voice-based services in support of the health sector in Senegal – Dr. Iyane Sow from Réseau National de Laboratoires (RNL)

11.00 Panel discussion chaired by a representative of the Ministry of Health, with contributions from Orange, and ESMT

14.00 Mobile voice-based services in support of rural communities in Mali, by Amadou Tangara (Sahel Eco)

15.00 Documentary of the pilot in Mali, demos of voice-based services

16.00 Technical session - Overview of the Emerginov Services Platform Capacity building and voice-based technologies in Senegal – Morgan Richomme (Orange)

17.00 Final words by Stephane Boyera, project manager of VOICES.

Outcomes and follow-up of the conference in Dakar

Many links have been established with the health sector in Senegal, and with ICT companies.

See also the media coverage in Annex 4. An example of a contact established during the conference is shown on this website, now investigating voice technologies, see

<http://www.humanitarianinnovation.org/projects/large/mvam>

This organization has linked with voices partner to have access to findings and tools.

CONCLUSION

The conferences that were held in Bamako, 23 April 2013 and in Dakar, in 20 June 2013 were successful dissemination events in which the results of the VOICES project were shown to various communities in these two African countries.

At the moment of writing this document, it is too early to measure the direct impact of the conferences. However, the links established during and after the conference are very promising, in particular with the ICT community in Mali and Senegal, that are now considering voice technologies as an important dimension.

Various other organizations are also interested in mainstreaming voice technologies and learn from the outcomes and experiences from VOICES.

ANNEXES

Annex 1 Participant list m-agro Conference

Annex 2 Participant list m-health Conference

Annex 3 VOICES m-agro pilot brochure that was handed out during the conference in Mali.

Annex 4 Media coverage

Annex 1 – List of participants of the conference in Bamako, 23 April 2013

	Name	Affiliation
1	Bianivo Mounkoro	Sahel Eco/Mali
2	Zakary Diarra	Cooperative Hirosin/Mali
3	Naomi Dembele	Cooperative Hirosin/Mali
4	Fousseini Diarra	ORTM Ségou/ Mali
5	Oudou Bengaly	KENETIC4DEV/Mali
6	Sékou Ibrahim Samaké	Réseau Senekunnafoniblon/Mali
7	Tienou Paul	UACT(l'Union des agriculteurs du cercle de Tominian)
8	Mohamed Sangaré	IICD/Netherlands
9	Anna Bon	VUA/ Netherlands
10	Wendelien Tuijp	VUA/Netherlands
11	Chris Van Aart	VUA/Netherlands
12	Amadou Tangara	Sahel Eco/Mali
13	Nana Baah Gyan	VUA/Netherlands
14	Alou Dolo	Djokolab/Mali
15	Mamadou Dia	URTEL/Mali
16	Stephane Boyera	Web Foundation/Switzerland
17	Hans Akkermans	VUA/Netherlands
18	Bakary Dembele	Radio Moutian/Mali
19	Victor de Boer	VUA/Netherlands
20	Fousseyni SANOGO	Mali-NTIC
21	Abdramane Ballo	CRCR Sikasso/Mali
22	Abdramane Bouare	CNOP/Netherlands
23	Maimounatou Touré	IICEM/International – USAID
24	Mary Allen	Sahel Eco/Mali
25	Samba Togola	3AG/International
26	Mme Thera Hawa Keita	Ministère de l'Agriculture/Mali
27	Karim Sanogo	IFDC (International fertilizer development centre)
28	Habouaré Sissoko	AOPP (Association des Organisations Professionnelles Paysannes)/Mali
29	Mme Diallo Fanta Kanté	Malitel/International
30	Yassine SADKI	Malitel Sotelma/International
31	Ismaila Cissé	ORTM Bamako/Mali
32	Yacouba BALLO	Afrique verte Amassa/International

33	Wilfried Yver	Orange Mali
34	Adama Tessougue	Radio Sikidolo/Mali
35	Sangaré Toumani	ARCOM (Alliance des radios communautaires au Mali)
36	Lamine Togola	Radio Rurale International
37	Dramane Diawarra	Orange Mali
38	Boukary Konate	Fasokan/Mali
39	Alassane SANOGO	CECI/Mali
40	Bakary Diarra	CRCC (Comité Régional de Concertation des Ruraux, Mali)
41	Christophe Oumar Coulibaly	AGETIC (Agence des TICs)
42	Franline OBURA	SNV/Netherlands
43	Victor Van de Linden	Fair & Sustainable West Africa SARL
44	Mamadou Samaké	ONG MARA/Mali
45	Mady Sidibé	AOPP - Forest connect/Mali
46	Abdoul Salam Cissé	Radio Bendé/Mali
47	Mariam Koné	Radio Rurale International
48	Ousmane Traoré	Radio Nieta/Mali

Support

1	Abdoulaye Sow	Sahel Eco
2	Lancen Ballo	Sahel Eco
3	Benjamin Traoré	Sahel Eco

Media

1	Abdoulaye Koné	Journaml Proces verbal
2	Bally Salif Sissoko	Journlaiste
3	Amadou T. Danoko	La Révélation
4	Lassana Coulibaly	Le Guido
5	Adama Bombu	Le Maxi Infos
6	Fousseyni Sissoko	le Monde
7	Ibrahim Sogoba	L'indicateur
8	Diakalia M. Dembele	L'Informateur
9	Seydou T. Kassambara	L'Observateur
10	Youssef Konate	Ma Patrie
11	Aliou M. Touré	Mali Demain
12	Toumani Coulibaly	Maliba Info
13	Diango Coulibaly	Nouvelle Liberation
14	Issa Camara	

Annex 2 – List of participants of the conference in Dakar, 20 June 2013

	Name	Affiliation
1.	PEYROL PASCALE	ERCIM / FRANCE
2.	WILLIAMSON TOM	ERCIM / FRANCE
3.	MURGIA FABRIZIO	CRS4 / ITALY
4.	MORGAN RICHOMME	ORANGE / FRANCE
5.	JEAN-MARIE PREIRA	ESMT / SENEGAL
6.	TAHIROU OUATTARA	ESMT / SENEGAL
7.	RALPH ANKRI	ORANGE / FRANCE
8.	AMADOU TANGARA	SAHEL ECO / MALI
9.	ETIENNE BARNARD	NWU / SOUTH AFRICA
10.	ANNA BON	VUA / NETHERLANDS
11.	HANS AKKERMANS	VUA / NETHERLANDS
12.	JAMES TAMGNO	ESMT / SENEGAL
13.	MOUSTAFA ZOUINAR	ORANGE LABS
14.	HOUNSOU S. HOSPICE	ESMT / SENEGAL
15.	PAPESCHI FRANCO	WEB FOUNDATION/SWITZERLAND
16.	PAPA MOUSSA DIALLO	RNL /SENEGAL
17.	MOUHAMADOU LAMINE DIA	RNL /SENEGAL
18.	Pr IYANE SOW	RNL /SENEGAL
19.	REFAAT CHAABOUNI	EUROPEAN COMMISSION/REVIEWER
20.	ARDIEL CABRERA	EUROPEAN COMMISSION/REVIEWER
21.	MASSIMO BUSUOLI	EUROPEAN COMMISSION/REVIEWER
22.	GOHAR SARGSYAN	EUROPEAN COMMISSION/REVIEWER
23.	CARMEN MOORS	CSIR / SOUTH AFRICA
24.	STEPHANE BOYERA	WEB FOUNDATION/SWITZERLAND
25.	SOULEYMANE THIONGANE	ESMT / SENEGAL

Annex 3: Brochure* that was handed out during the conference in Bamako

Knowledge sharing in rural Africa

The World Wide Web is a great source of information, and it should serve all people in the world. However, illiterate people cannot use the Web, which is mainly text-based. Moreover, the Web is written in English, French and other world languages but it hardly contains information in local African languages such as e.g. Bambara, Bomu, or Dogon.

The Web is only accessible with an internet connection. In rural areas in Mali, infrastructure is poor, and poor households do not have internet. The main channels for information here are *radio and mobile phone*. The VOICES-WARA initiative is aimed at supporting rural communities by extending the Web. It makes the Web accessible for people via voice, in local African languages using mobile phone and community radio as interfaces.

Regreening in Mali

In the 1970s and '80s, periods of drought severely deteriorated living conditions for the rural communities in the Sahel. Now, 30 years later, conditions have largely improved through the arduous work of innovative farmers using simple but effective farming techniques.

VOICES and W4RA aim to deploy web information services that allow local stakeholders to more efficiently *share information* about Non-Timber Forest Products (NTFPs) and innovative farming techniques. The RadioMarché and Foroba Blon services are two examples of knowledge sharing platforms, deployed in the context of regreening in Mali.

Local language support

Illiteracy and language can be barriers to communication and knowledge sharing. To make our services relevant for local stakeholders, we developed *specific language packs* for Bambara and Bomu, enabling voice-based services for these two languages.

In addition, a methodology has been developed to create language packs for other African languages. This enables deployment of voice-based services for other regions of Africa, in a cost-effective way. On request of the local communities, our current services use familiar local voices, that were recorded in the region.

A platform for voice-based mobile communication

Emerginov is a platform that can host voice-based mobile services. It enables local ICT entrepreneurs and web developers to create new knowledge sharing solutions or to develop content in fields such as health, agriculture or trade. It enables development of voice-based applications using web or mobile phone. Emerginov is *Open Source software*, and has been produced by *Orange Labs*.

RadioMarché

RadioMarché is a mobile voice *Service for Market Information (MIS)* supporting farmers in Tominian region in Mali. RadioMarché was developed in close collaboration with local farmers and is designed to serve local needs. RadioMarché can be accessed via voice or web, using either simple mobile phone or internet. It interacts with community radio stations that broadcast the farmer's product offerings.

Currently, RadioMarché distributes market information in *three languages*: French, Bambara and Bomu. Text-to-speech (TTS) technologies were developed to this end by the project partners. The service uses locally recorded Malian voices.

Foroba Blon

'Foroba Blon' in Bambara means a space where everyone has the right to speak, and the truth must be told respectfully. For people in rural Africa *Community Radio* is an essential, and often exclusive, source of information. Radio stations serve as information hubs, relay news, and share knowledge in the community.

The Foroba Blon system -winner of the 2011 IPI News Contest- shares technologies with RadioMarché. In this system, the voice platform is used to *improve radio journalism* in Mali. It allows radio staff as well as citizen journalists to call in and leave spoken reports from the field for the radio stations. The reports can then be accessed, broadcast and shared through both a web- and a voice-based interface.

Tabale

Tabale in Mali is the King's drum beaten by a messenger to gather people for important occasions in the village. Our Tabale service is also used for gatherings. If Sahel Eco wants to *organize a meeting*, participants are notified by the Tabale voice message about the event, its time and venue. Each person receives the message in his or her own language. The service is very efficient and saves a lot of work and time.

Tabale can be used to *send group messages* to 50 phone numbers simultaneously. It enables the participants to reply and leave a voice message, that is stored and can be accessed later.

Mali: Mme Mary Allen Ballo sahelco@afribone.net + (223) 20 29 30 04 Netherlands: Anna Bon a_bon@vu.nl France: Stephane Boyera stephane@bovera.net

* This brochure only covers the Mali pilot WP5. A final brochure has been handed out during the conference in Dakar, covering the whole VOICES project and all work packages and results. This is delivered as VOICES D 7.5 to the European Commission.

Annex 4: Media coverage conferences



Related to m-agro pilot in Mali



Related to m-health pilot in Senegal