

**“Empowering people through ICTs
for development”**

IICD’s approach and experience in Telemedicine

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François Laureys
flaureys@iicd.org

www.iicd.org



IICD's mission is to assist developing countries to realise **locally owned sustainable development** by **harnessing** the potential of information and communication technologies

CONNECT 4 CHANGE

Partners in Health : Cordaid
and Text2Change

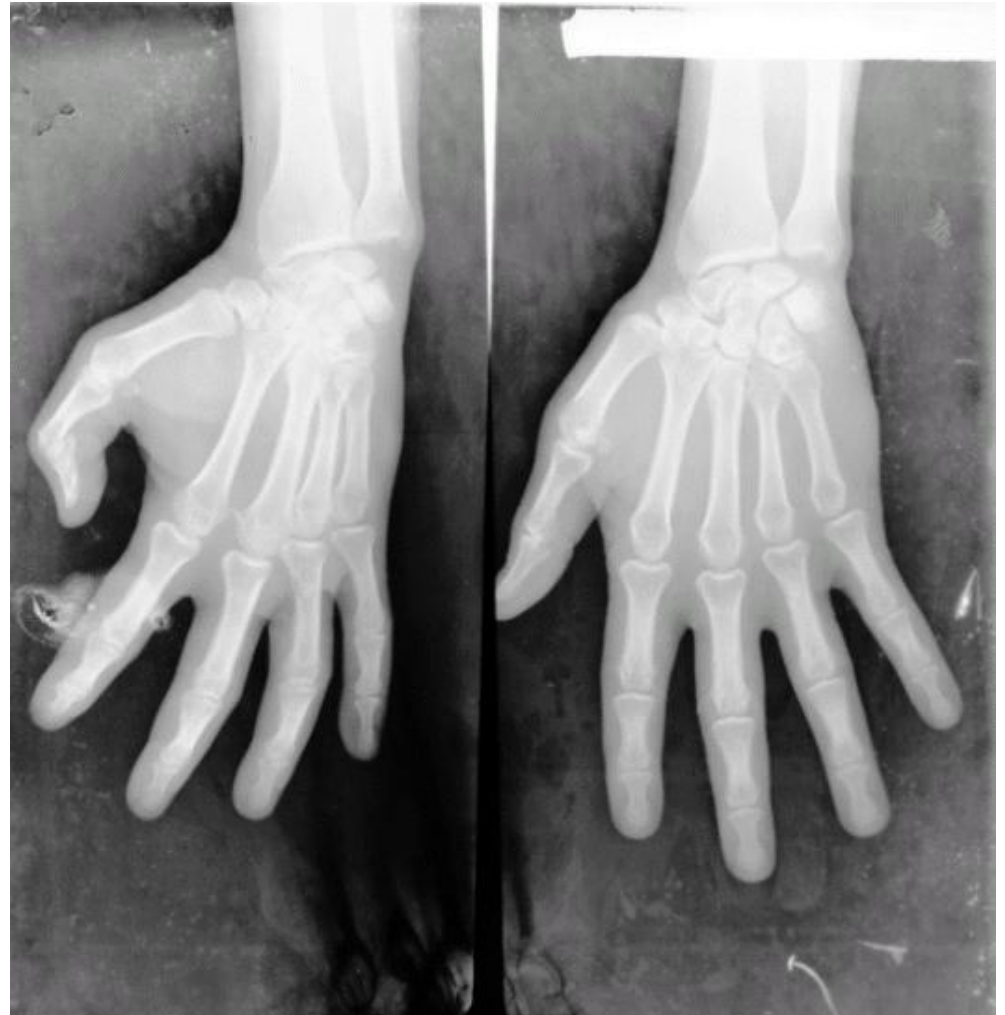


Where are we active?

- **Twelve countries**
Bolivia, Peru, Ethiopia, Burkina Faso, Ghana, Mali, Tanzania, Uganda, Kenya, Zimbabwe, Malawi and Zambia
- **Three sectors**
Education, Economic Development, Health
- **Portfolio**
220 projects – including policy processes - and generally combined in sector programmes
- **Health Programmes**
Uganda, Tanzania, Malawi, Mali, Ghana, Zimbabwe



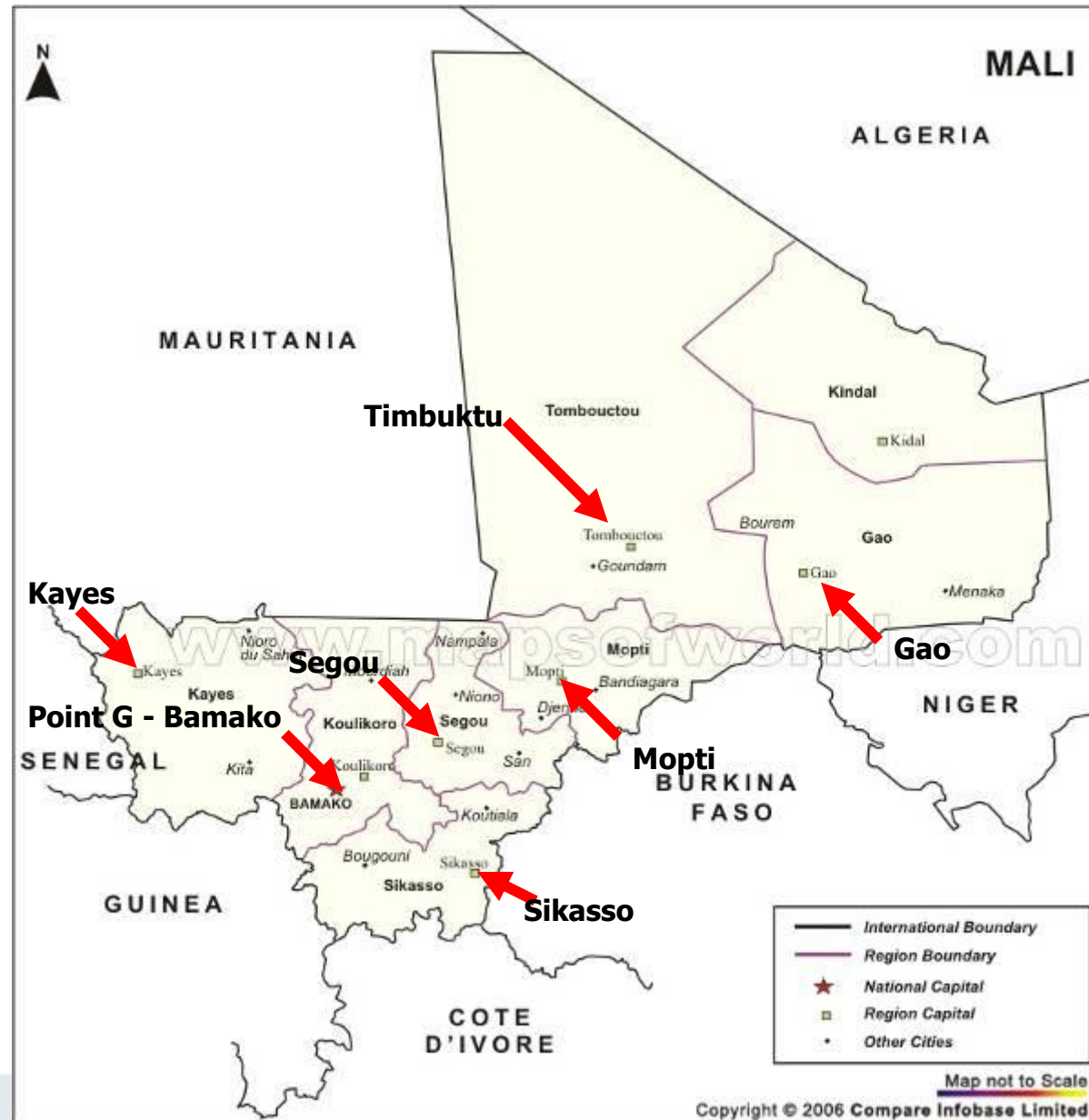
The IKON Teleradiology Project (Mali)

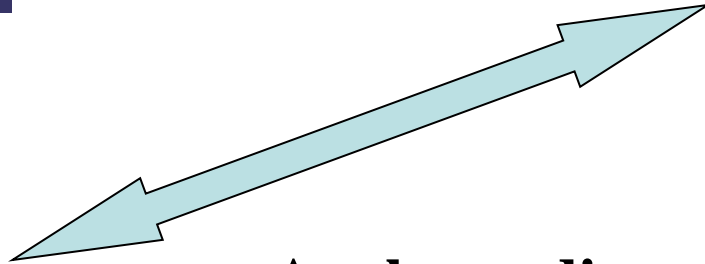


<http://www.teleradiologieikon.org>

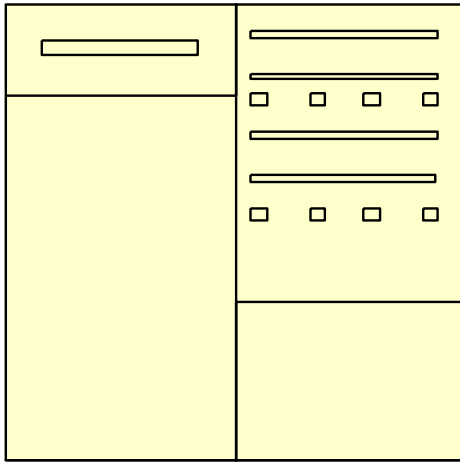
Mali

- ✓ 1 204 000 km²
- ✓ Population: 12,5 million
- ✓ Radiology: 11 specialists
 - 10 in Bamako
 - 1 in Sikasso
- ✓ Project IKON: Sikasso, Mopti, Timbuktu, Segou, Gao, Kayes and Bamako

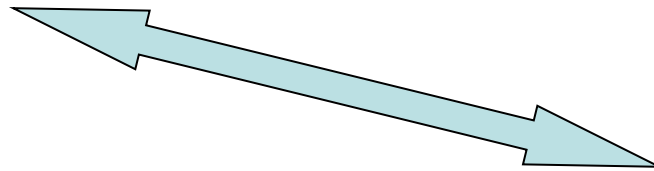




**Analog radio scanned and digitized
and sent to platform via Internet**



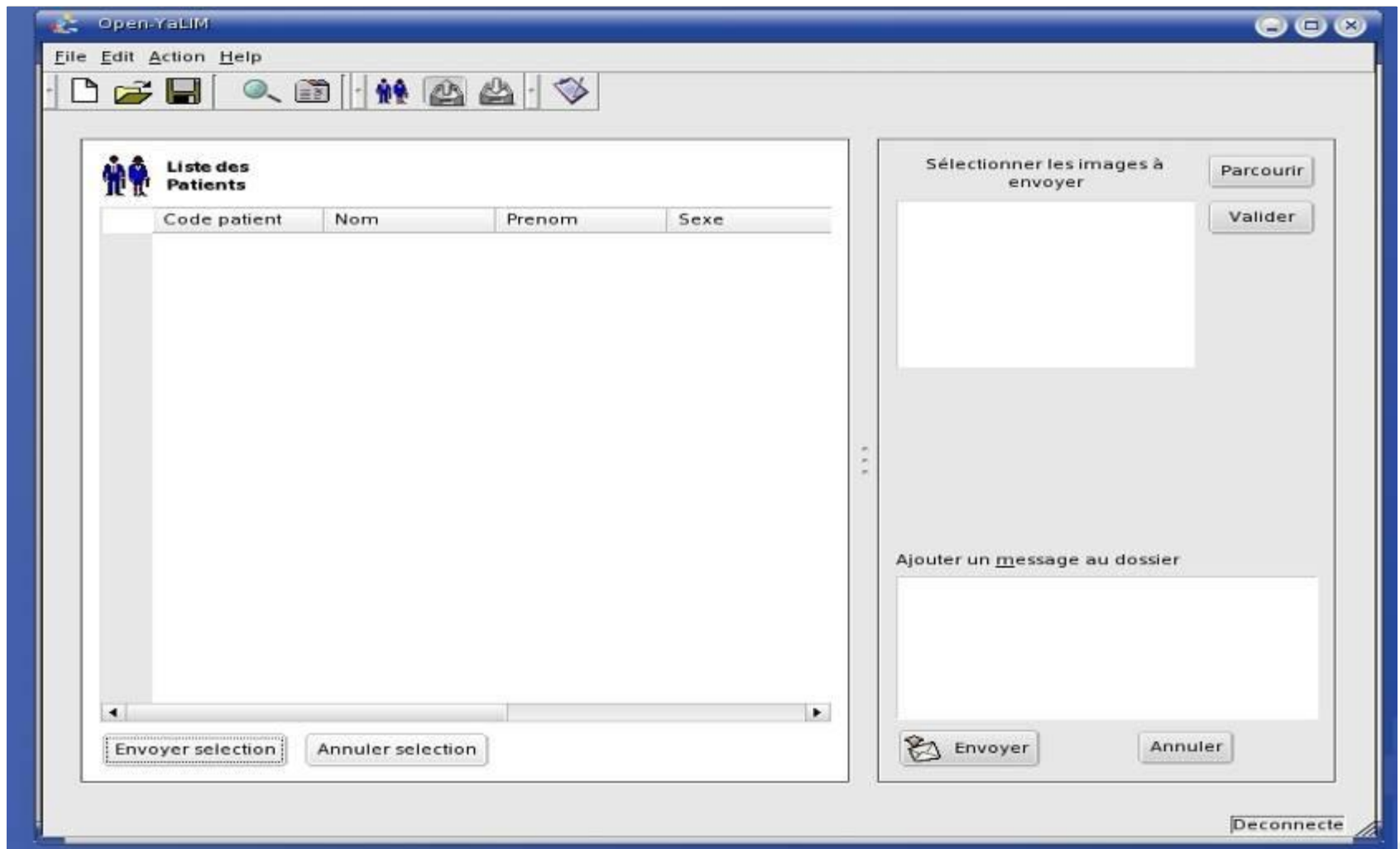
Server



**Specialist diagnoses and sends his
diagnosis back to platform**



User Interface for sending files






Le reseau de l'imagerie medicale

Les dossiers
Mes reponses
Mes etats

Identification correcte

[Déconnexion](#)

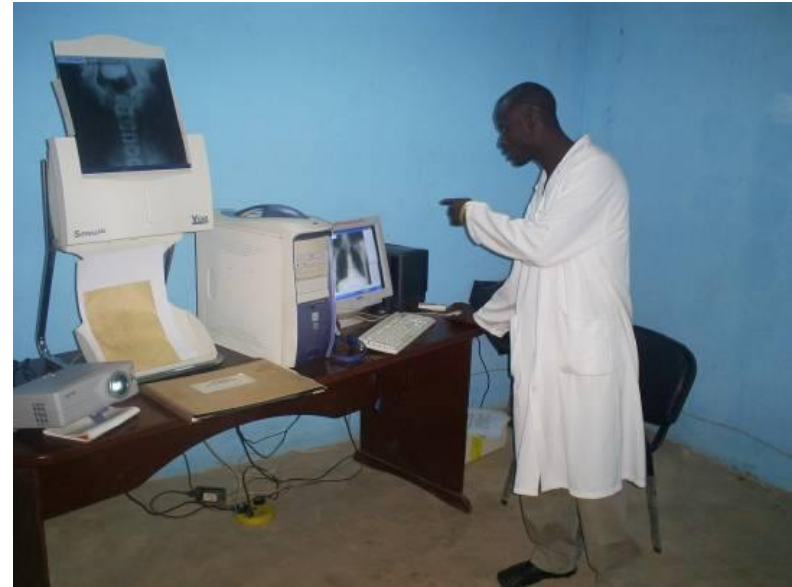
Les dossiers en attente de lecture.

Mention	Code dossier	Renseignement clinique	Hôpital	Date d'envoi	Action
ordinaire	213213	age:23, sexe: Masculin, profession: cultivateur. Ictere, toux productive, fièvre	kayes	20041104100132	<input type="radio"/>
ordinaire	1234	age:39, sexe: Masculin, profession: chauffeur. Toux chronique	kayes	20041104123807	<input type="radio"/>

Répondre

Terminé

- **Project financing ended mid-2010 – telemedicine practice still operational**
- **4246 x-rays diagnosed via IKON**
- **167 urgent cases**
- **946 avoided referrals/evacuations (= huge gain in time and money for patients)**
- **400 mammographies from Mopti diagnosed (breast cancer prevention)**
- **2011: 760 files sent and diagnosed**



Findings

- Responds to need for specialist peer assistance in remote hospitals
- High satisfaction by both staff and patients
- Enhances quality of services of remote hospitals
- Helps diminish number of evacuations
- Generates gains for both patients and staff
- Problems mainly of technical order
- Service fee of ~4 euro is affordable
- Embedding in Centre d'Expertise et de Recherche en Telemedecine et E-Santé (CERTES): other telemedicine applications (telecardiology, e-education), institutional embedding, political influence, awareness creation

- **Owner: Evangelical Lutheran Church Tanzania (ELCT)**
- **2007-2009**
- **39 health facilities**
- **I-Path, basic budget**
- **100 health staff involved**
- **333 consultations: radiology, cytology and dermatology.**
- **43% use less than 10 minutes to make the case**
- **High satisfaction with response time and quality**
- **It is rather a limited group that uses telemedicine actively.**
- **Most respondents consider telemedicine useful.**
- **Only half of the hospitals adopted some form of telemedicine in the regular practices.**

Telemedicine is of tremendous importance in a world with a scarcity of health workers and increasing demands on the health care system.

Three major problems are barriers to its wider use:

- 1) the integration of telemedicine in current practices - access, technology and capacity (organisational and technical) are key here**
- 2) the development of an appropriate business case - who pays, and how to organize**
- 3) scalability, i.e. the integration of telemedicine in the wider health system - awareness, lobbying, inclusion in health curriculum, development e-health policy/strategy**

Recommendations

- **Entry point for E-Health can be HMIS or Telemedicine, important to see both as part of a E-Health package (HMIS, HIS, Telemedicine, E-Learning, Research)**
- **Avoid techno-centered approach – focus on staff, procedures and standards**
 - **user-friendly software and equipment**
 - **training and coaching**
- **Business model should be sustainable = low-cost, multiple use of same technology for different purposes (telemedicine, data, management, tele-education)**
- **Standardize telemedicine within hospital procedures**
- **Bottom-up with helicopter-view: think nationally, act locally**
- **Create both 'Expert' teams (with academia) in provincial or national capitals, and 'local' teams in hospitals. Incentives are not only financial!**

