AISIS4Social

Vezo Telemedicine Project Madagascar

Vezo Telemedicine Project

The Vezo Telemedicine Project aims to promote collaboration and sharing of clinical expertise between Italian and Malgasy professionals using robust and reliable telemedicine infrastructure and services, integrating the know-how and capabilities of 3 partners.

The 3 Partners

A.I.S.I.S. - Italian Association of Healthcare Information Systems Professionals - Founded in 2003 with the aim of promoting the growth of ICT professionals in Italian health organizations, public or private, and to foster a growing attention on ICT in healthcare as a strategic lever for change. Currently AISIS has around 500 members and from March 2019 is the Italian Chapter of CHIME INTERNATIONAL (www.chimecentral.org).

www.aisis.it

A non-profit organization born from the *Community of Sant'Egidio - DREAM* program for the treatment of HIV. It offers a teleconsultation service, free, multidisciplinary that uses a pool of Italian and European specialists.
About 30 Health Centres in African countries and 18 specialized branches with about 140 volunteers (Medical Specialists) .

www.ghtelemedicine.org

The Association "Amici di Ampasilava - Madagascar" is an Italian O.N.L.U.S. Independent and non-partisan organization that works in the voluntary sector. It is mainly involved in Health Care in a remote location in the southwest of Madagascar where it manages the *Vezo Hospital* in Andavadoaka, inaugurated on October 20th 2008.

www.amicidiampasilavaonlus.com

Project

A teleconsultation service delivered by a team of Medical Specialists and IT Professionals who offer their skills on a voluntary base to answer medical needs in rural and remote areas (e.g. Vezo)

Main Project Activities

a) Support **Vezo Hospital** in **Andavadoaka** with second opinion from European Medical Specialists
b) Extension of the services and support of the ***Vezo Hospital*** for other IT needs
c) Explore other opportunities connected with Teleconsultation Services for rural areas in Madagascar territories

Strengths

Partnership

- AISIS, GHT and Vezo Hospital offer the complementary capabilities and know-how
- AISIS role: project coordinator and system integrator, ensuring the synergy between local and remote organization and technology, the pillars of the project
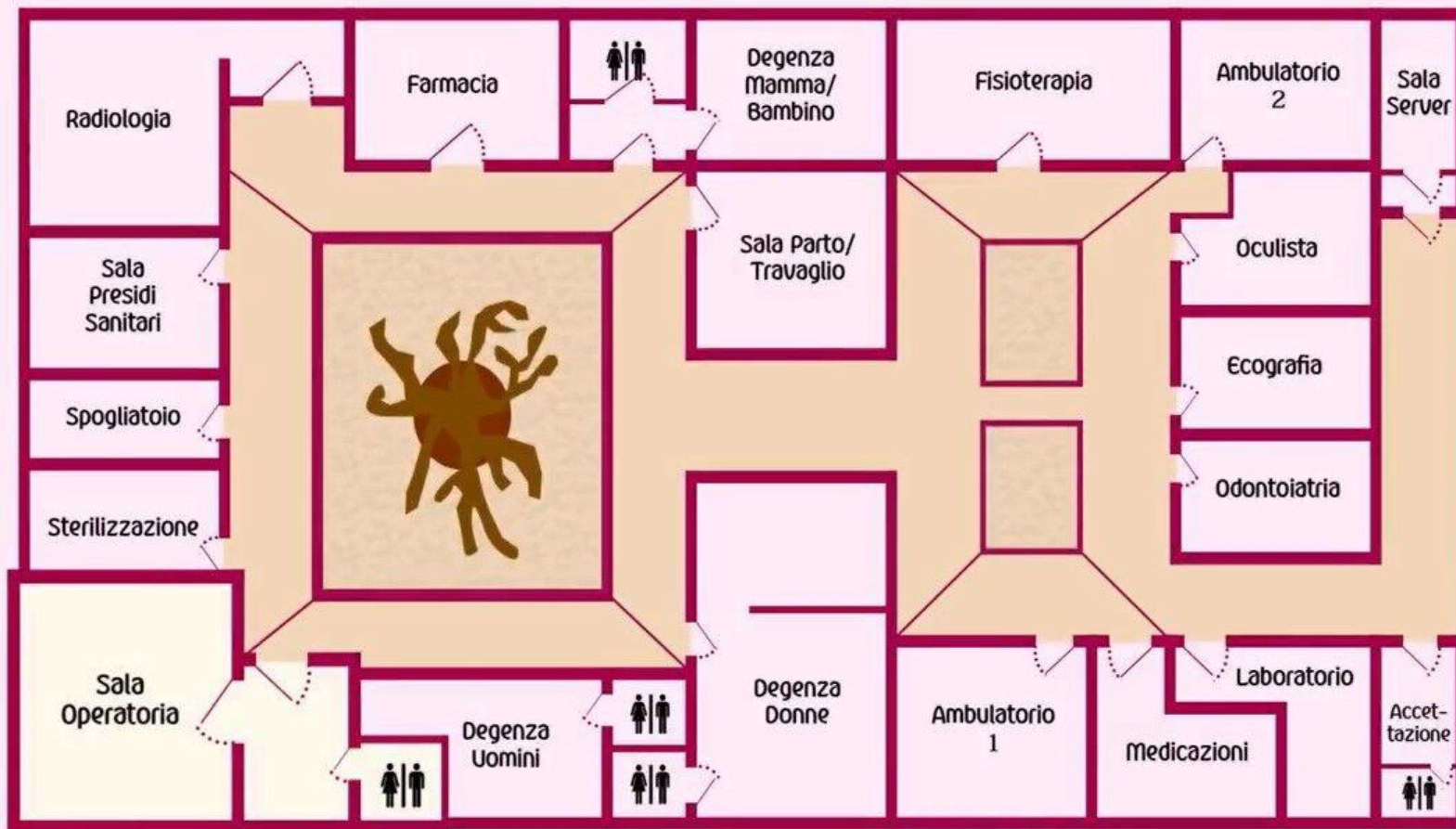
Existing Teleconsultation Multi-disciplinary Service

- Currently about 30 Health Centres, in 12 countries (extra-Europe): Mozambique, Tanzania, Malawi, Kenya, Cameron, Congo, Central Africa, Togo, Swaziland, Egypt, Guinea Conakry
- A community of about **140 European Medical Specialist** responds to requests, depending on the medical specialty
- **18 specialized branches**: Cardiology, radiology, infectious diseases, surgery, haematology, dermatology, ophthalmology, neurology, internal medicine, endocrinology, orthopaedics, urology, angiology, gastroenterology, antalgic medicine, oncology, nephrology, burns centre
- More than 300,000 patients in Africa and more than **5.600 teleconsultations** from the beginning. The geographical area includes **12 African countries** and 4 European countries.

Technology platform

- The telemedicine platform is open, fully modular and web based
- The system works – a mandatory feature for developing countries - off-line in case of temporary absence of connectivity

Vezo Hospital MAP

Vezo Hospital Facilities

- 800 square meters of covered area
- 14 Hospital beds
- 8 Clinics (2 internists, 1 ophthalmologist, 1 dentist, 1 physiotherapist, 1 medical surgery, 2 ultrasound)
- 1 Labor-Delivery Room
- 1 X-Ray Room
- 1 Laboratory
- 1 Operating Theater and Sterilization Room
- 1 Pharmacy with Galenic Laboratory

Latest news from the Vezo Hospital in Andavadoaka

https://youtu.be/CcjwiMVp63E

Vezo Hospital Staff

- **Personnel on permanent service:**
  - 1 Italian pharmacist,
  - 1 Malagasy nurse,
  - 1 Italian nurse,
  - 4 local staff serving as cultural mediator and technical-health activities.

- **Over 100 units of Italian health personnel voluntary, each year involved: medical, surgical and health professions;**

- **Local staff - support functions: 7 staff units for general functions (catering, cleaning, maintenance, etc.).**

1 Malagasy surgeon and 1 unit of health professions by the Malagasy government will be assigned to the hospital in the next future

Vezo Hospital

- Agreement with the Malagasy Government: "Accorde de Siège" (District Hospital with surgery);

- Provides completely free Diagnostic and Therapy Services;

- Accreditation as Center for Diagnosis and Treatment of TB;

- Catchment area extends along a strip of the southwest coast for about 180 km;

- Every year:

  o about 25,000 outpatient accesses (malaria, TB, pneumopathy, parasitosis, diabetes, hypertension, epilepsy, etc.) ;

  o about 400 general and specialized surgery operations are performed.

Project Phase 1

Project activities

– Telemedicine solution Set-up Mission (Technical Support, Training, Networking, Teleconsultation set-up) -> **Completed**

– Assessment of Vezo Hospital needs   -> **Completed**

– Project monitoring (with on-site follow-up mission in July/August)

– Activation of local contacts (Ministry, Companies…);   -> **WIP**

Timing and Schedule

– Between April and August 2019

Project Budget: 12K Euros

1. Mission costs

2. Scholarships for project follow-up (July-August 2019)

3. Telemedicine Information System (hardware and software)

CURRENT SPONSORS: AISIS, AME, PGMDConsulting&Dott.Pedranzini, ELMEC

Follow-up needs (Vezo Hospital)

- **Bandwith extension**
- Hardware evolution (servers/back-up and PCs, networking, wi-fi…)
- **New hospital information system and integration with telemedicine solution**
- e-Learning (in connection with Italian and international universities) for medical doctors and nurses

More Follow-up needs

- Open up **new applicant Health Care Centres in different and rural Areas in Madagascar**;
- Other opportunities for a **Teleconsultation Service in Madagascar**;
- Teleconsultation Platform **Evolution**
- New resilient and user friendly **medical devices**

Grazie !
Misaotra !!
Thank You !!!
Asante Sana !!!!

Start by doing what is necessary and then do what is possible. And suddenly you are doing the impossible.

FdA

Appendix

AISIS

Italian Association of Healthcare Information Systems Professionals (AISIS)

The Italian Association of Healthcare Information Systems Professionals (AISIS) was founded in 2003 to promote the development of IT professionals and the strategic role of Information Technology in healthcare. It currently has over 500 members ranging from CIOs to non-technical e-Leaders. AISIS organizes events, training courses (AISIS eHealth Academy), research programs (eHealthLab) and is also active in the promotion of a social and philanthropic approach to healthcare IT (AISIS4Social). AISIS operates in association with other national and international organizations and from March 2019 is the Italian Chapter of CHIME INTERNATIONAL (www.chimecentral.org). For more information, please visit www.aisis.it.

Contacts

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Project Team:

- Project Coordinator: Piero Sanna (sannapiero@gmail.com)

- Project team members: Debora Angeletti (debora.angeletti@gmail.com) and Giorgio Cau (giorgio.cau@sistemaict.it)

Infrastructure Needs (details)

1. **Workstations:** the hospital has around 10-15 Laptops in strong need of a technology refresh;

   Requirements: PCs Desktop or Laptop - optimum 8GB RAM (minimum 4GB) and i5 processor; **Office suite** to be installed locally on the laptops;

2. **Network:** Local Network answers the basic needs.

   Requirements: 4 wi-fi Access Point outdoor + switch 16 ports;

3. **Internet connection:** the existing bandwith supports only basic connectivity.

   Requirements: Strong need of an upgrade (local contacts activated);

4. **Server/back-up:** the small server room is conditioned but the servers are PCs (switched off every night) and the back-up is made daily on a Pen Drive; *Requirements*: HW server for 2 Virtual machines + small NAS for storage and automated backup

5. **Medical devices:** Ultrasound. The current device is broken. Laboratory analyzer needed as well. Requirements to be defined with Vezo Hospital.

6. **6. Alternative energy sources:** the hospital is powered by solar panel. This source affords the basics but is expensive and insufficient. No others green sources are in use. Requirements to be defined with Vezo Hospital.