



ICT in Madagascar

e-Inclusion (2)



1 – Government

PNEG

- The National Program of e-Governance (PNEG) is a document defining the strategic main trunk roads of implementation of e-Governance in Madagascar – 2005
- e-Governance must be a sustainable tool allowing the Administration to know and to meet the needs of citizens
- Malagasy e-Governance have 3 objectives
 - Strengthen Administration efficiency (e-Administration)
 - Improve public services performances (e-Service)
 - Revitalize citizen participation and administration/citizens interaction (e-Participation)

Structures Implementation

e-Governance implementation is performed by 2 structures

- The **Agence Nationale de Réalisation de l'e-Governance (ANRE)**, National Agency of e-governance Realization, executive organ bound to the Prime Minister's Office
- Direction of Information Systems in every sector-based ministry to implement e-Governance at these level
- Both structures work strictly together

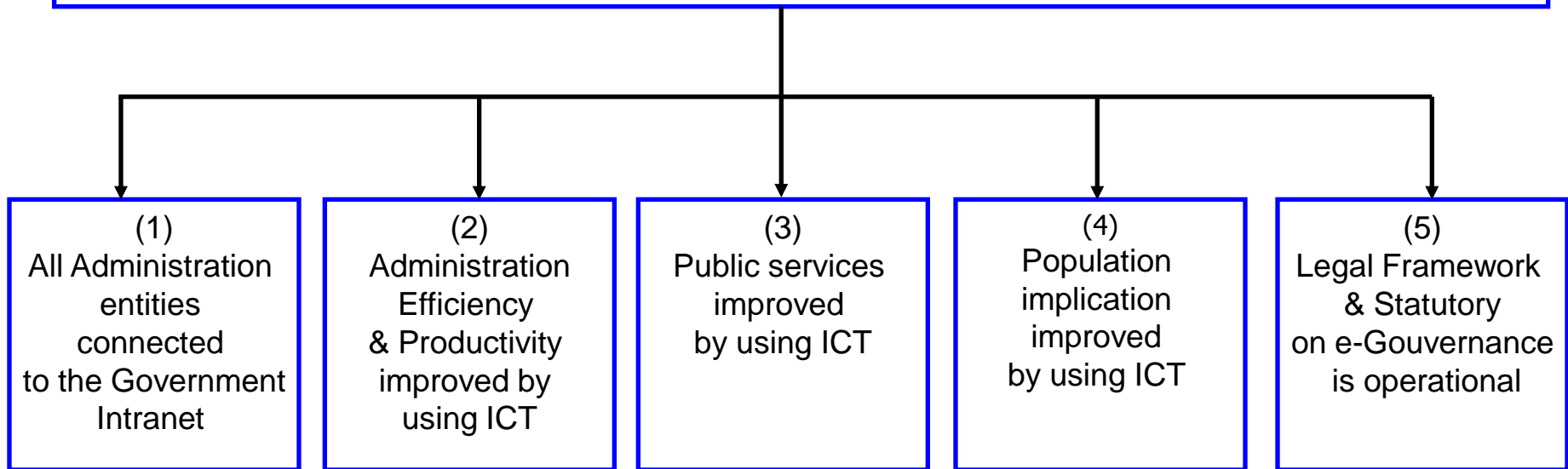
ANRE

- Created in June 2007
- **ANRE main missions** to realize e-Governance objectives
 - Deploy and make operational e-Governance common tools
 - Support all the Administration to deploy specific sector-based applications
 - Set up and manage the Government Intranet infrastructures which convey information to the Administration and e-Governance tools
 - Make effective and optimize e-Governance tools (legal framework adaptation, promoting tools, strengthen capacities and performances)

ANRE BUSINESS PLAN 2008 – 2012

Results Oriented Management

Supporting Administration with e-Gouvernance tools



ANRE - Main Realizations

■ Infrastructures

- DATACENTER for the Government Intranet
- Connection to Internet - 20Mbps
- Connection of 148 Administration offices to the Government Intranet
- Training Center in e-Governance for 20 persons

■ Tools and services

- Managing the sub-domain “.gov.mg”
- Supporting sector-based Ministries in e-Governance
- Web sites for Institutions, Ministries...
- Training in ICT



2 – Internet Governance

NIC-MG

Network Information Center - Madagascar

- **NIC-MG the ccTLD .mg**

- **Objectives**

- Works to an effective and coherent development of the Internet network in Madagascar
- Respects international standards, guarantees a total impartiality between ISP's
- Supports networking in education and research
- Offers a neutral forum with consensus positions based on bylaws and mutual interest

NIC-MG

Network Information Center - Madagascar

■ Among Activities

- Popularize Internet documents and tools
- Facilitate back bone implementation
- Support setting-up of Internet services and tools at the Universities and Research Institutes

■ Actions

- **Free charge** for Government, Education & Research and non-for-profit Association
- High communication costs : Projects for setting up of a **Local IxP** with ISPs partnership and a **Regional IxP** with ccTLDs in the African region
- **Workshop and training for users and Universities** with AFNIC, ISOC, OIF/INTIF and AfriNIC on efficiency governing in Internet, on TCP/IP network management and on LIR & Ipv6



3 – ICT Services

Wire, Mobile & Internet Operators

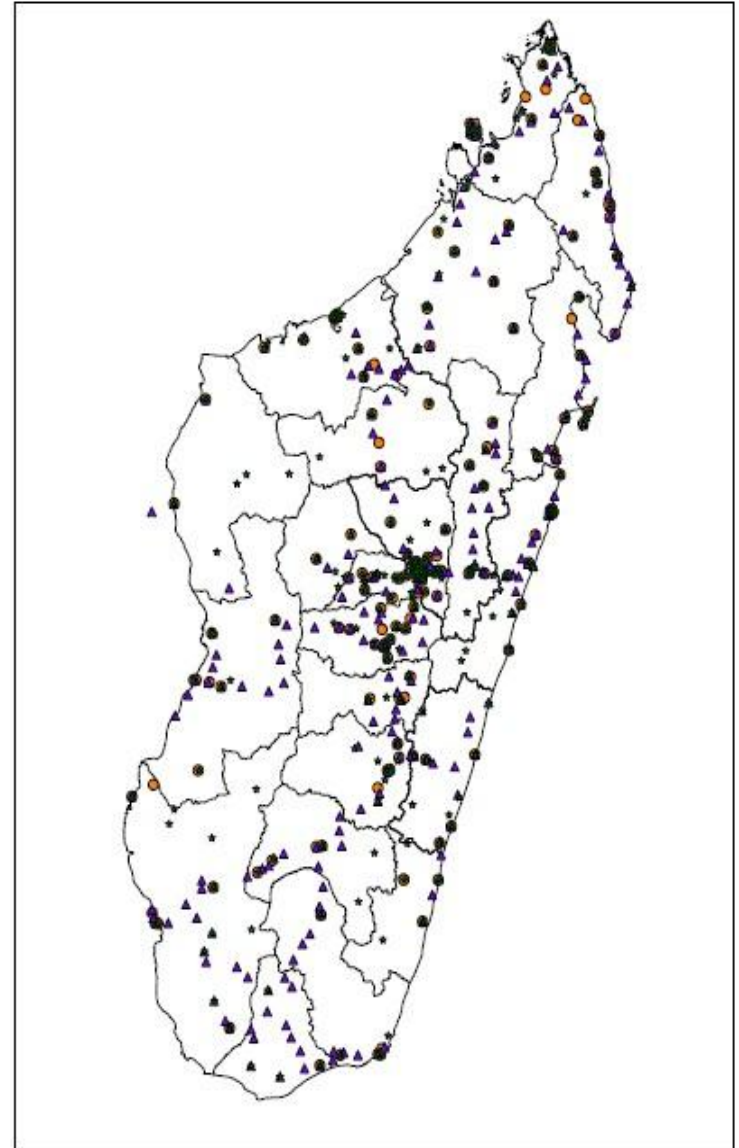
- **Telma** (Wire & Mobile 3G)
- **Airtel** (Mobile)
- **Orange**/France Telecom (Mobile 3G)
- **Moov**/DTS - Telma Group
- **Blueline**/Gulfsat (Mobile in 11 villages)
- **Life**/Madamobil (Mobile, just start)

Mobile Network

6.3 millions users

31.5% penetration rate

- **Telma** 3.4 m m-Banking
- **Airtel** 1.75 m m-Banking
- **Orange** 1.15 m m-Banking
- **Blueline**
- **Life**



Using Mobile

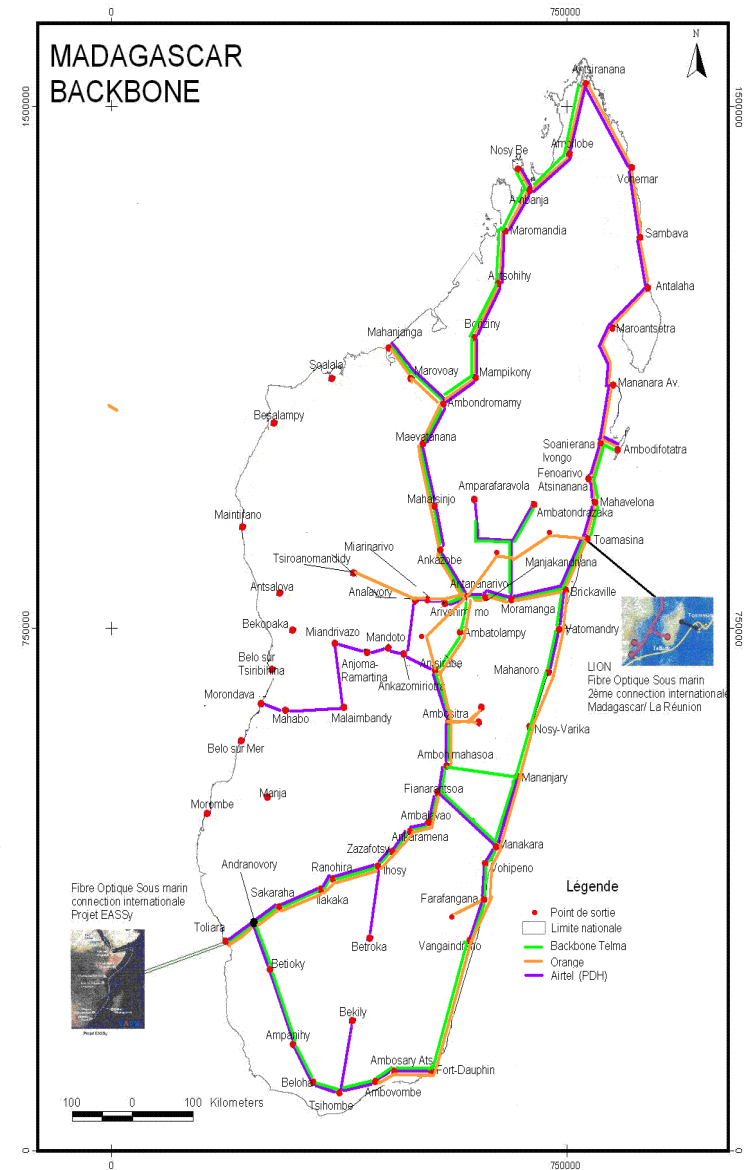
- m-Banking
- Free SMS Call me
- Mobile credit transfert
- Exam results by SMS
- Taxi-phone

<http://ariniaina.mondoblog.org/>



BACK BONE

- 120000 Internet users
6% penetration rate
- 36000 Internet subscriptions
1.8% penetration rate
- **Telma**
 - Optical fiber between Antananarivo (center), Mahajanga (west), Toamasina (east) & Toliara (south)
 - Connected to EASSY cable at Toliara
- **Airtel** (new owner of Zain, in purple)
- **Orange** Connected to LION–SAFE cable at Toamasina
- **Blueline** (Antananarivo)



Optical Fiber Link Projects

- LION II (2011)
 - Connecting Toamasina (east), Antsiranana (north) and Mayotte-Comores to Mombasa-Kenya
 - Linked to SEACOM, TEAMS and EASSY
- SEACOM Stand by - Branching-unit at 200Km from Toliara
- RAVENAL
 - 1st Step of SEGANET project between Indian Ocean Isles
 - Connecting Manakara (east) and Toliara (south)
 - Cultural, Education and Health Public Services

Thank You!

Lala Andriamampianina

Professor at the University of Antananarivo, Madagascar
Board Member of LIRIMA/INRIA Research Lab, Africa/France
Founding Chair of NIC-MG, ccTLD .mg, Madagascar
Board member of AfriNIC, RIR of Africa
Member of AFNIC International College, ccTLD .fr, France

lala.andriamampianina@nic.mg