



**APEC TEL 30**  
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## **APEC Telecenter Workshop**

# **Telecenters: PERU's experience**

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**OSIPTEL**

**PERU**



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## **Content**

- ✓ OSIPTEL – Regulatory Authority in Peru
- ✓ The Fund for Investment in Telecommunication (Fitel)
- ✓ Activities executed by OSIPTEL
- ✓ Experiences in the implementation of Telecenters
- ✓ New Project: “Internet access in district capitals”
- ✓ New vision for rural projects.



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# OSIPTEL

## Regulatory Authority in Peru

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## General Data

- ✓ Technical institution in charge of regulating public telecommunications services in Peru.
- ✓ **Mission:**
  - To promote the development of more and better public telecommunications services, in a free and fair competition framework.
- ✓ **Objectives:**
  - To increase **competition** in telecommunication markets.
  - To promote Universal Access to telecommunications services.
  - To advise users and to protect their rights.
  - Efficiency and transparency in their functions and processes.
- ✓ **Functions:**
  - To regulate, supervise, penalize and solve controversies of operators.
- ✓ OSIPTEL administers Fitel.





## The Fund for Investment in Telecommunication (Fitel)



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## PERU Map



25 Regions  
194 provinces  
1828 districts  
Minor towns

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## Rural Towns

- ✓ According to Universal Access Policies “Rural towns” are:
  - Towns denominated as “rural” by the National Institute of Statistics and Data Processing (INEI).
  - District capitals with 3000 inhabitants, even if they are considered “urban” by INEI.
- ✓ Without telecommunications services.
- ✓ Low demographic density. Isolated villages. High level of poverty.
- ✓ A lot of investment required for implementing telecom services.
- ✓ Towns Selection Methodology maximizing social impact.



## What is FITEL?

- ✓ **Fitel** was created to finance telecommunications services in rural areas and areas considered as preferential social interest places.
- ✓ **Fitel** was created as a mechanism to enhance equity and development in a growing telecommunication market.
- ✓ **OSIPTEL manages Fitel** and selects projects.
- ✓ **Ministry of Transportation and Communications (MTC) approves projects.**
- ✓ Contributions to Fitel are one percent (1%) of gross incomes received by final service suppliers and carriers.





## Kind of projects

- ✓ **Telecom services** can be...
  - ...requested by authorities or people in rural towns.
  - ...promoted by Fitel to reduce poverty and increase the well-being of the rural population.
- ✓ **Projects** can be elaborated by:
  - Telecom operators, and presented to Fitel for financing.
  - Fitel (service requirements, pilot projects, telecom projects)
- ✓ Projects selected are presented by OSIPTEL to MTC for their approval.



## Allocation of economical resources

- ✓ After MTC's approval, OSIPTEL determines the modality to allocate economical resources.
- ✓ Three modalities:
  - **Public biddings** (financing > US\$ 1 M).
  - **Auction by invitation:**
    - For financing  $\leq$  US\$ 1 M, or
    - There are not bidders for the public bidding.
    - Only telecom operator with concession for the required services can participate.
  - **Direct awarding:**
    - For pilot projects, and
    - Referential amount is:  $\leq$  US\$ 75 000 for training, management and other services and  $\leq$  US\$ 220 000 for equipment and infrastructure



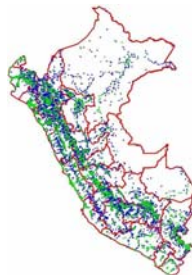


## What does FITEL finance?

- ✓ Project investment
- ✓ O&M activities
- ✓ Complementary activities such as:
  - Previous studies
  - Equipment and materials purchase
  - Construction works
  - Transport
  - Installation
  - Equipment tests
  - Both access to and preparation of Internet contents.
- ✓ Resources are paid by parts, according to goals fulfilment established by auction basis.
- ✓ Payment total time: 5 years.



## Activities executed by OSIPTTEL





# Universal Access Stages

## ✓ First Stage

- Promoting telecom coverage in rural towns with population under 3000 inhabitants
  - 5000 towns in total
  - 500 rural district capitals with one Internet Kiosk
  - 3,9 million of rural inhabitants

## ✓ Second Stage

- Adding a public telephone in towns with insufficient telephone Service
  - 1600 towns with population between 1000 and 5000 inhabitants
  - 1,8 million inhabitants

## ✓ Third Stage (future)

- Furthering Telephony Service
- Internet Access in district capitals
  - 800 district capitals
  - 1 million of inhabitants



# Rural projects awarded

Rural Towns

213



**FITEL I**

Pilot Project: North Frontier

673  
1158  
414



**FITEL II**

Projects: South, Middle South and North Jungle

1039  
638  
847



**FITEL III**

Projects: North, Middle North and Middle East



4982

Population benefited: 3,9 M rural inhabitants





## Projects to increase public telephones

Rural Towns

FITEL IV

1391



Areas: **Middle East, Middle South, North, North Jungle and South**

225



Area: **Middle North**



1616

Population benefited: 1,8 M rural inhabitants



## Projects Summary

ITEM	FITEL I	FITEL II	FITEL III	FITEL IV	TOTAL
Awarded Sum (US\$ million)	1,83	10,99	27,85	11,39	52,07
Towns selected	193	1937	2290	1616	6036
US\$ per town	8592	4895	11034	7048	7957(**)
Towns with telephone installation	213	2245	2524	1616	6598
Internet Kiosks installations (*)	-	272	267	-	539
Distance to nearest telephone before projects (km)	90	54	24	-	60
Distance to nearest telephone after projects (km)	5	8	4	-	6

Source: OSIPTEL - FITEL

(\*) These kiosks were installed in those district capitals which are part of the public telephone installation list.

(\*\*) Average







## Internet access installations

### FITEL II

- ✓ Project: **Middle South**
  - Kiosks installed: 177
- ✓ Project: **North Jungle**
  - Kiosks installed: 25
- ✓ Project: **South**
  - Kiosks installed: 70

### FITEL III

- ✓ Project: **Middle North**
  - Kiosks installed: 64
- ✓ Project: **Middle East**
  - Kiosks installed: 103
- ✓ Project: **North**
  - Kiosks installed: 100

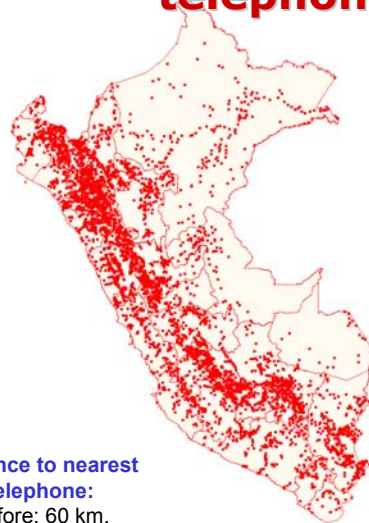
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## Results: Rural towns with telephone



Towns: 7047



Distance to nearest telephone:  
Before: 60 km.  
Now: 6 km.

Towns with Telefonica del Peru's Service = 2097

FITEL Projects = 4950





## Experiences in the implementation of TELECENTERS



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## Telecenters

- ✓ **Internet kiosks** are used by people without PC or internet connection at their home.
  - In urban areas: 5700 approx.
  - In rural areas: 539
  
- ✓ **Telecenters:** users can get or exchange important information with other users for their daily activities. They can access to Internet too.
  - 3 main projects:
    - “Information System for Rural Development”
    - “EHAS Alto Amazonas”
    - “Agricultural Information Service”

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## "Information System for Rural Development"

- ✓ Presented by *Intermediate Technology Development Group* (ITDG). Cajamarca – Peru.
- ✓ Objective:  
*To create Information Centres (Infocentros) to provide access to important information (agriculture, livestock, local management) using ICT and telephone service*
- ✓ Training Program:
  - **Courses:** Use and maintenance of PCs, office software, service management and marketing.
  - **Stages:** 1. Training in province capital, 2. On-site training, 3. Training reinforcement. *Training to future trainers.*
  - **Methodology:** meetings, both theoretical and practical sessions.
  - **Participants:** 5 people per town



## "Information System for Rural Development"

...continuation

- ✓ Management Model:
  - **Management:** Manager, supervisory committee and legal owner or equipment.
  - **Manager selection:** by bid (management experience, technical knowledge, to reside in the town, etc.)
  - **Model advantages:**
    - Participation of local residents in the Telecenter.
    - Community assumes obligations for suitable operating of Telecenter.
    - Promotion of the job of town representatives.
    - Model permits user participating in the system to receive quality service.





## "EHAS Alto Amazonas"

- ✓ Presented by *Polytechnic University of Madrid* and local partners. Loreto – Peru.
- ✓ Objective:  
*Implementing an Information and Communication System for personnel of rural health centres*
- ✓ Technology:
  - Mixed network: Radio (VHF) and satellite.
    - Reduction of the cost of calls and messages traffic.
- ✓ Training:
  - Training courses by emails.
  - Reduction to half the training meetings.



## "EHAS Alto Amazonas"

...continuation

- ✓ Requests and reports:
  - Medicine orders (orders attended: 98%, before only 54%)
  - Medical checks (before: 3 per month, now 23 per month)
  - Reports sent by email (reports delayed many days to get their destination).
- ✓ Evacuation and transferences coordination:
  - 237 cases. 60 were very important to save patients.
- ✓ Isolation reduced:
  - 17 communications by radio and email compared to 2,13 before system implementation.





## "Agricultural Information Service"

- ✓ Presented by *Peruvian Center for Economical and Social Studies*. Huaral, Chancay – Peru.
- ✓ Objective:

*Implementation of Telecenters to provide agricultural information to inhabitants of Chancay – Huaral, in order to improvement the management of their farming units*
- ✓ Information:
  - Production in the valley
  - Prices of the agricultural products
  - Agricultural legislation
  - Local and international agricultural news
  - Connection via Internet with other farmers associations
  - Internet access
  - Water for irrigation availability



## "Agricultural Information Service"

- ✓ Number of telecenters:
  - 14
- ✓ Technology:
  - Radio and wire.
- ✓ Population benefited:
  - 280 farmers
    - use of Internet and agricultural information for an efficient management of their units.
  - 6000 farmers of 17 commissions.
  - 49 rural schools (900 teachers and 18000 students)





## New project: "Internet access in district capitals"



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## Objectives

- ✓ To continue with Universal Access Policy providing Internet access to all district capitals without this service.
- ✓ To provide rural towns with the means required to take advantage of the Information and Communication Technologies (ICTs) as tool for both local and national development.

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## Infrastructure, Operation and Maintenance

- ✓ Design, implementation, operation and maintenance of a telecom network to provide Internet access to 818 district capitals.
  
- ✓ In each capital:
  - 3 ports with a speed of 64kbps (1 active port, 2 in standby for future demand).
  - 1 web site
  - 1 home page
  - 5 email addresses



## Training, Monitoring and Implementation

### Training:

- ✓ Providing the population with the information about the existence, advantages and benefits of Internet and public kiosks.
- ✓ Training for kiosk managers.
- ✓ Training for preparing local contents.
- ✓ Drafting of training manuals for Internet usage and PCs.

### Project Monitoring and Implementation:

- ✓ Responsible entity: OSIPTTEL





## Public Kiosks for Internet Access

- ✓ Operator: responsible for promoting and training tasks.
- ✓ Both natural and legal persons could be interested in investing in the kiosk implementation and management.
- ✓ Operator will select the kiosk manager (local resident).
- ✓ The manager will:
  - select the place to install the data ports
  - invest for the place adjustment.
  - buy PCs and furniture, etc.
- ✓ The manager can provide additional services for the support of the public kiosk.
- ✓ OSIPTEL will establish parameters for the services provided by the operator.



## Implementation Plan

- ✓ 2004:
  - First stage: 68 district capitals
- ✓ 2005 / 2006:
  - Second stage: 750 remaining district capitals







## New Vision for Rural Projects

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## Old Paradigm

- ✓ Up to now there were 3 variations applied:
  - Installation of public telephones in towns without telecom services;
  - Adding one public telephone in towns with insufficient telephone services, and
  - Installation of Internet access with one Telecenter.
  
- ✓ The work of improving telecom in rural areas has been done using classical definitions and innovations proposed by Fitel.

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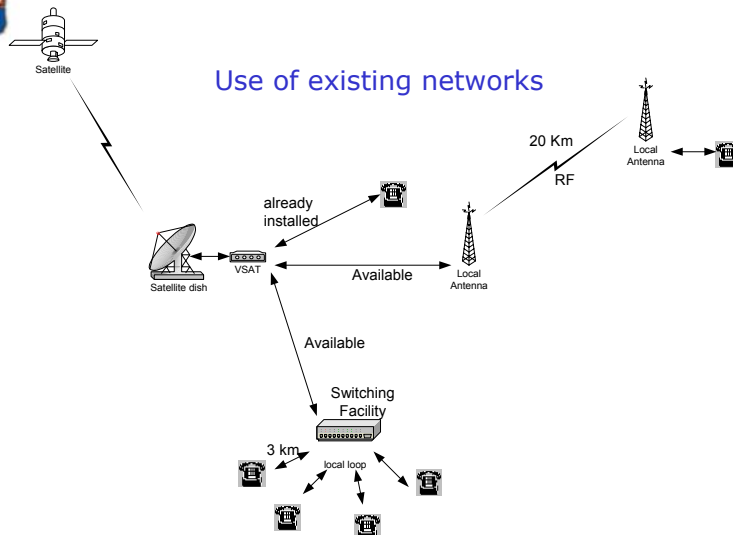


## Strategies for future projects

- ✓ **Strategic N° 1.- Areas within operators coverage.**
  - Intensive and optimal use of existing infrastructure (fixed-line, cellular, VSAT, etc.)
  - Promoting application of new, flexible and cost effective technologies.
  - Information to operators about potential markets.
  - Promoting of strategic alliances between operators and small local companies (franchises, concessions, licenses, etc.)
  - Training Programs for potential local entrepreneurs.
  - Broadcasting of new business models of association among operators and small local companies.
  - Alliances with rural micro-finance networks.



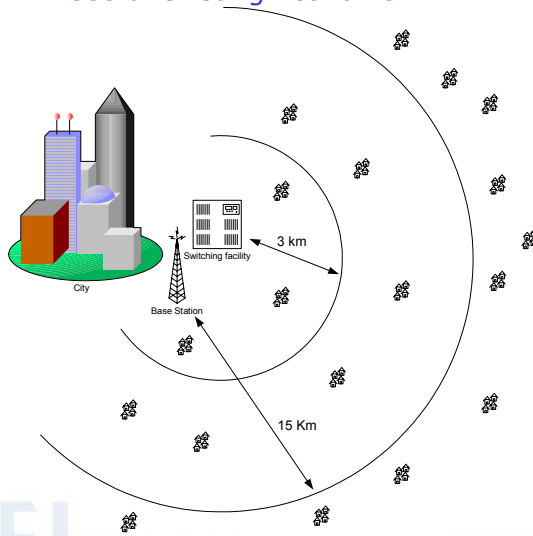
## Strategies for future projects





## Strategies for future projects

### Use of existing networks



## Strategies for future projects

- ✓ **Strategic N° 2.- Rural towns with potential market for expansion**
  - Subsidy for transmission (OSIPTEL - Fitel)
  - Flexible regulatory policies (OSIPTEL - Fitel)
  - Encourage participation of local people (committees, cooperatives, interested groups)
  
- ✓ **Strategic N° 3.- Rural towns without any telecom service**
  - New telecom projects
  - Sensitivity and training programs for users
  - Direct focused subsidy (OSIPTEL – Fitel)
  - Coordination with local and regional authorities.





**Thank you !**

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