MEDIGRAF - Medical Teleconsulting and Telediagnosis system
PT was considered by Citigroup Bank as one of the 18 global companies identified as World Champions in the areas of Internet, Media and Telecommunication.

1 year until June 30th, 2012
1 1S2012
2 152012
INNOVATION AT THE CORE OF PORTUGAL TELECOM

<table>
<thead>
<tr>
<th>Investment in RDI*</th>
<th>Percentage of revenues (%), 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1</td>
<td>0.4</td>
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<tr>
<td>0.4</td>
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<td>0.7</td>
<td>0.8</td>
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<td>1.7</td>
<td>1.9</td>
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<td>2.0</td>
<td>2.6</td>
</tr>
<tr>
<td>3.0</td>
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</tr>
</tbody>
</table>

- 4th country with 100% broadband coverage
- Meo, an IPTV case-study
- Best European fibre optic network
- 1st prepaid card with unlimited communications
- 90% coverage by YE2012
- Innovative convergent offer

* Research, Development and Innovation
BUSINESS DEVELOPMENT UNITS

- **eHealth & Seniors**
  - Telemedicine, telemonitoring, health deslocalization

- **Transports**
  - Localization, ticketing as a service

- **BPO**
  - Management of shared services, collections, fleet management

- **Wallet**
  - Mobile parking, ticketing, traffic generators and loyalty

- **Contextual Advertising**
  - Interactive advertising and location services

- **Cloud**
  - Virtualization, cloud computing, rationalization

- **M2M**
  - Water metering and street light management

- **e Education**
  - School management platforms, virtualization, and new paradigms of education

- **APIs Marketplace**
  - APIs, market developers, service bus

*Not exhaustive*
Survey of 4000 European physicians

88%
Use Internet to search professional information

49%
Physicians recommended a website to their patients

- Pathology oriented education: 80%
- Support: 62%
- Change of lifestyle: 56%
- Medication: 37%
- Patient Unions: 22%

48%
Use Wikipedia 1x per week

16%
Use BMJ online (British Medical Journal)

From:
Google - Our Mobile Planet: Understanding the mobile consumer
Bareme Internet do Marktes in os Portuguesas nas Redes Sociais - How People Spend Their Time Online [Infographic]
TECHNOLOGY AS NEW PARADIGM IN HEALTH

50%
Of patients discuss searched internet data with their physician

44%
Prescribe searched drugs

41%
Confirm searched diagnosis

4.9 Million
Of patient will use telemonitoring devices

142 Million
medical app downloads
(33 million in 2012)

From:
Google - Our Mobile Planet: Understanding the mobile consumer
Bareme Internet do Marktes in os Portugueses nas Redes Sociais - How People Spend Their Time Online [Infographic]
**TECHNOLOGY AS NEW PARADIGM IN HEALTH**

New Services in Health Sector
Mobility next 2 years
UK

*Source: PwC analysis based on EIU research, 2012*

59%

Consider that the **massive adoption** of health services based on **mobile devices** is inevitable.

Appointments by Phone
Telemonitoring

Services that health **professionals want to provide**
and **payers want to finance**
E-HEALTH FRAMEWORK

**PROCESSES**
- PACS
- MOBILE HEALTH UNITS
- PATIENT NOTIFICATION SYSTEM
- CHRONIC DISEASE MANAGEMENT SYSTEM

**TELEMEDICINE**
- TELEMEDICINE PLATFORM
  - Medigraf
- TELEMONITORING PLATFORM
  - SmartHealth
- COGNITIVE TELEREHABILITATION

**WELLBEING**
- MAGIC EYE
- TELECARE
- BABY CARE

**INTEROPERABILITY**

**INFRASTRUCTURE AND DATACENTER**
HEALTH
ANYTIME, ANYWHERE
TELEMEDICINE: MEDIGRAF

Integration
Scheduling Clinical File and patient diagnostic and treatment procedures, (clinical file)

Internet
Low speed Access

3 Appointment types
Urgency/Emergency
Remote (consultancy/2nd opinion)
Scheduled

PC and Tablet*
Used in ordinary computers
Reduces Initial Investment

Professional Colaboration
Interaction allows simultaneous and shared appointments with various experts (Multipoint)
Distance training in multiple locations

High Definition
View imaging safely

Security and Privacy
Redundancy and Robustness

* iOS and Android
Integrated solution for communication and collaboration, supporting remote medical consultation distance/ telemedicine

| Low initial investment
| Integrated transmission of clinical information
| Provides a single clinical process
MEDITGRAF CHANGING LIVES IN SÃO TOMÉ E PRINCIPE

61% Reduction of medical evacuations

€390 000 Saving (just in ophthalmology)

6300 exams
4823 Appointments
882 Surgeries
107 Medical Missions

São Tome and Principe
Consumer habits: **digital, mobility and virtualization** is changing the relationship between the actors in health sector

Financial sustainability, improvement in care, transparency of information, and proximity to health professionals are leveraged in **Mobility and Information Technologies**
Thank you

Filipa Fixe
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