



European Technology Assessment Conference

**TECHNOLOGY ASSESSMENT  
AND POLICY AREAS OF GREAT  
TRANSITIONS**

March 13th – 15th, 2013



**Equity in access to MRI equipment in an ageing Society :  
Portuguese Case**

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# Content

## 1. Introduction

## 2. Methods

## 3. Results

## 4. Conclusions

## 5. Remarks

- Medical Devices - MRI
- Access - Equity
- Portugal NHS
- Portugal thought indicators
- Number and distribution of MRI equipment
- Limitations

## 1. Introduction

# Why MRI?

- Does not use x-ray
- Relevance in diagnose
  - cardiovascular disease
  - high sensitivity to fluids
  - accuracy
- Diagnostic possibilities
  - 3T...7T ....



# 1. Introduction

## Access



Geographic  
distribution  
of MRI  
equipment



# Portuguese NHS

## 1. Introduction

**Portuguese Constitution** - Article 64.º - Health

2. The right to health protection is performed:

- a) Through a **national health service and general and universal**, taking into account the economic and social conditions of citizens, **tend free**;
3. a) Ensure **access for all citizens**;  
b) ensure a rational and **efficient coverage nationwide** in human resources and health facilities;  
e) To **regulate and control** the production, **distribution**, marketing and use of chemical, biological and pharmaceutical and **other means of diagnosis and treatment**;

## The use of MRI by the Portuguese population

- Are performed 21.6 MRI exams per 1,000 inhabitants in Portuguese hospitals.
- There is no Convention agreement between the public and private HS for this types of exams.

**CONVENTION** is an adhesion contract signed between the Ministry of Health, through the Directorate General of Health (DGS) or Regional Health Administrations (ARS) and private persons, single or collective persons, that have the object Their provision of the health care, in Conjunction with the National Health Service, Integrating the national network of health care delivery.

## 2. Baseline Information

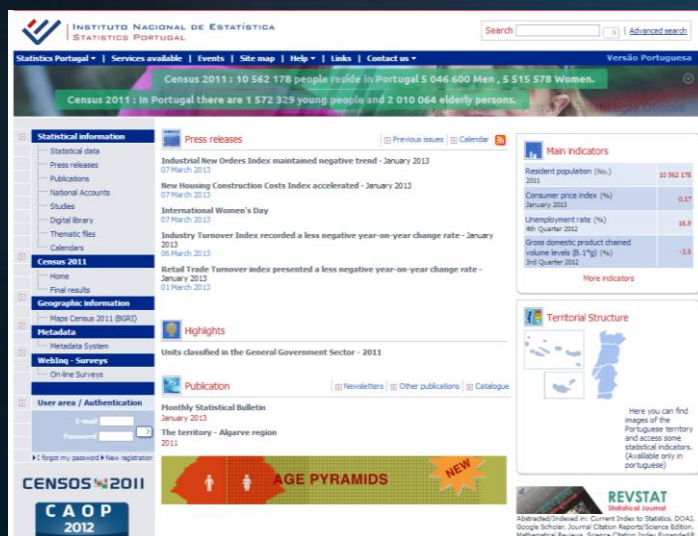
1. Portuguese Population

2. MRI installed capacity

## 2. Baseline Information



# 1. Statistical Information on Portuguese Population



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STATISTICS PORTUGAL

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Statistics Portugal - Services available | Events | Site map | Help - | Links | Contact us - Versão Portuguesa

Census 2011 - 10 562 178 people reside in Portugal 5 046 600 Men , 5 515 578 Women.  
Census 2011 : in Portugal there are 1 572 329 young people and 2 010 064 elderly persons.

**Statistical information**

- Statistical data
- Press releases
- Publications
- National Accounts
- Studies
- Digital library
- Thematic files
- Calendars

**Census 2011**

- Name
- Final results

**Geographic information**

- Maps Census 2011 (BGR)

**Metadata**

- Metadata System

**Weblog - Surveys**

- On-line Surveys

**User area / Authentication**

E-mail: [ ] Password: [ ]

Forgot my password? New registration

**CAOP 2012**

**AGE PYRAMIDS** NEW

**Press releases** [ ] Previous issues [ ] Calendar

Industrial New Orders Index maintained negative trend - January 2013  
07 March 2013

New Housing Construction Costs Index accelerated - January 2013  
07 March 2013

International Women's Day  
07 March 2013

Industry Turnover Index recorded a less negative year-on-year change rate - January 2013  
05 March 2013

Retail Trade Turnover index presented a less negative year-on-year change rate - January 2013  
03 March 2013

**Main indicators**

Resident population (No.) 2011	10 562 178
Consumer price index (%) January 2013	0.17
Unemployment rate (%) 4th Quarter 2012	16.9
Gross domestic product chained volume levels (B. 2 <sup>o</sup> q) (%) 3rd Quarter 2012	-3.8

More indicators

**Terrestrial Structure**

here you can find images of the Portuguese territory and access some statistical indicators. (Available only in portuguese)

**Highlights**

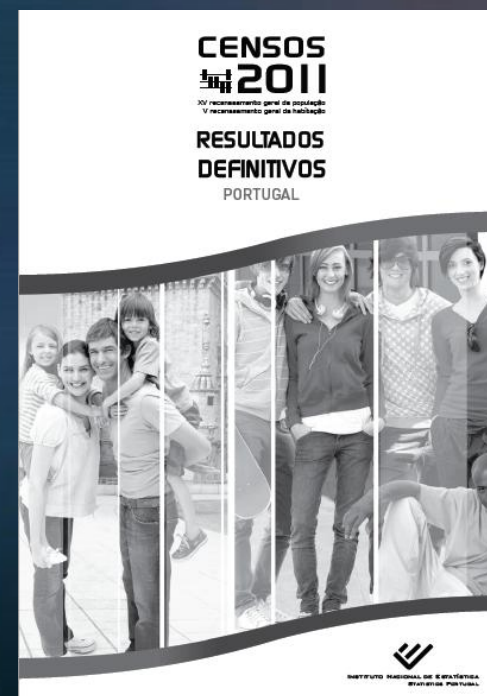
Units classified in the General Government Sector - 2011

**Publication** [ ] Newsletter [ ] Other publications [ ] Catalogue

Monthly Statistical Bulletin  
January 2013  
The territory - Algarve region  
2011

**REVSTAT**  
Statistical Journal  
Abstracted/Indexed in: Current Index to Statistics, COA, Google Scholar, Journal Citation Reports/Source Edition, Mathematical Reviews, Science Citation Index, Expanded

www.ine.pt



**CENSOS 2011**  
XX recenseamento geral da população  
V recenseamento geral da habitação

**RESULTADOS DEFINITIVOS PORTUGAL**

Here you can find images of the Portuguese territory and access some statistical indicators. (Available only in portuguese)

**REVSTAT**  
Statistical Journal  
Abstracted/Indexed in: Current Index to Statistics, COA, Google Scholar, Journal Citation Reports/Source Edition, Mathematical Reviews, Science Citation Index, Expanded

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ESTATÍSTICA PORTUGAL



## 2. Baseline Information



### Sources

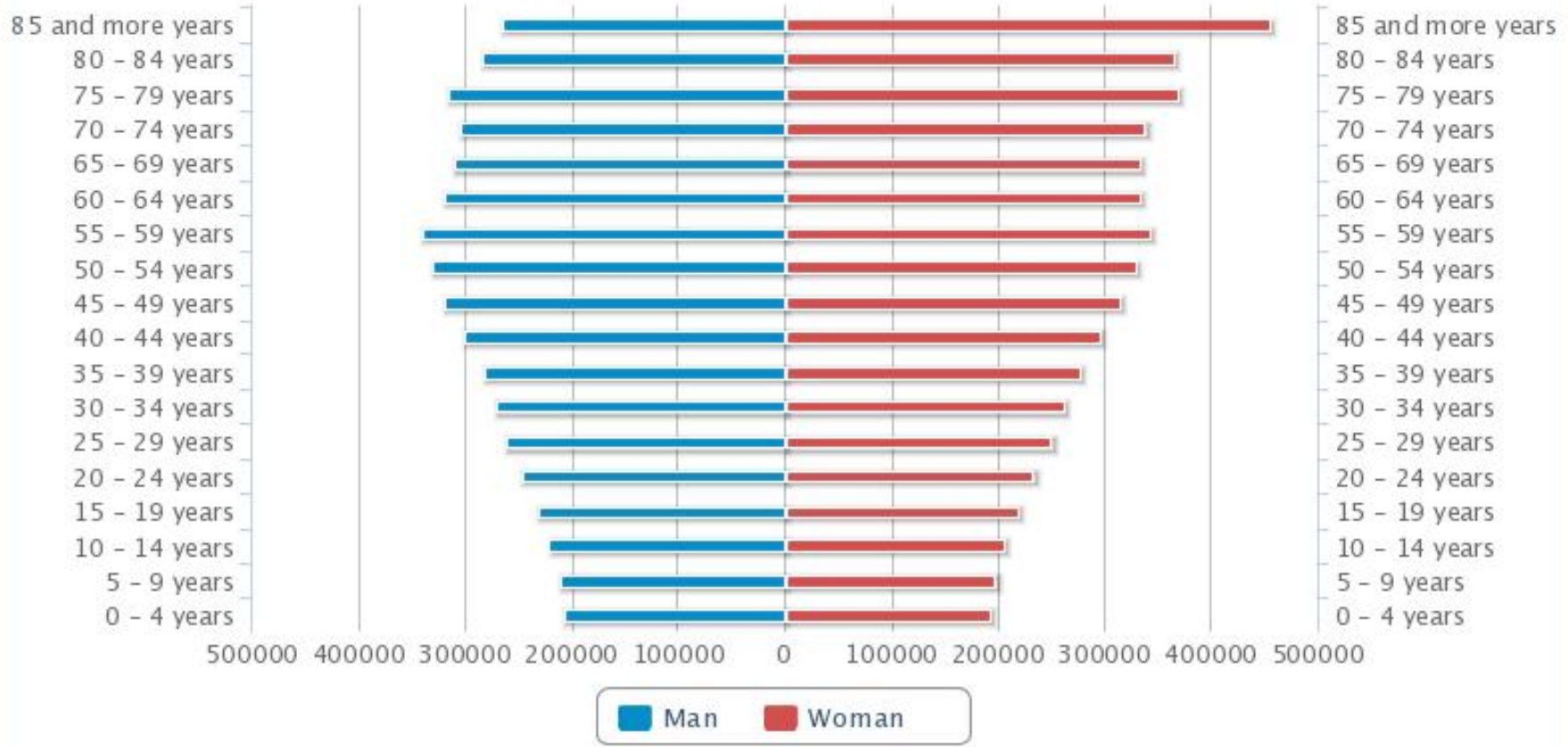
## 2. Baseline Information on MRI installed capacity

- ✓ Data collection (Maia, 2011)
- ✓ Contact with companies
- ✓ Document research
  - Web pages from Hospitals, Clinics...
  - International agencies reports (HTA)  
WHO, OECD, EUnetHTA...
  - National agencies reports  
DGS, ACSS, ERS...

# 3. Results

## Age Structure

Resident population projections (No.)  
Portugal, 2060



## 3. Results

# Number and distribution of MRI equipment

**A. Number and Characterization of MRI Units**

**B. Geographic Distribution**

### 3. Results

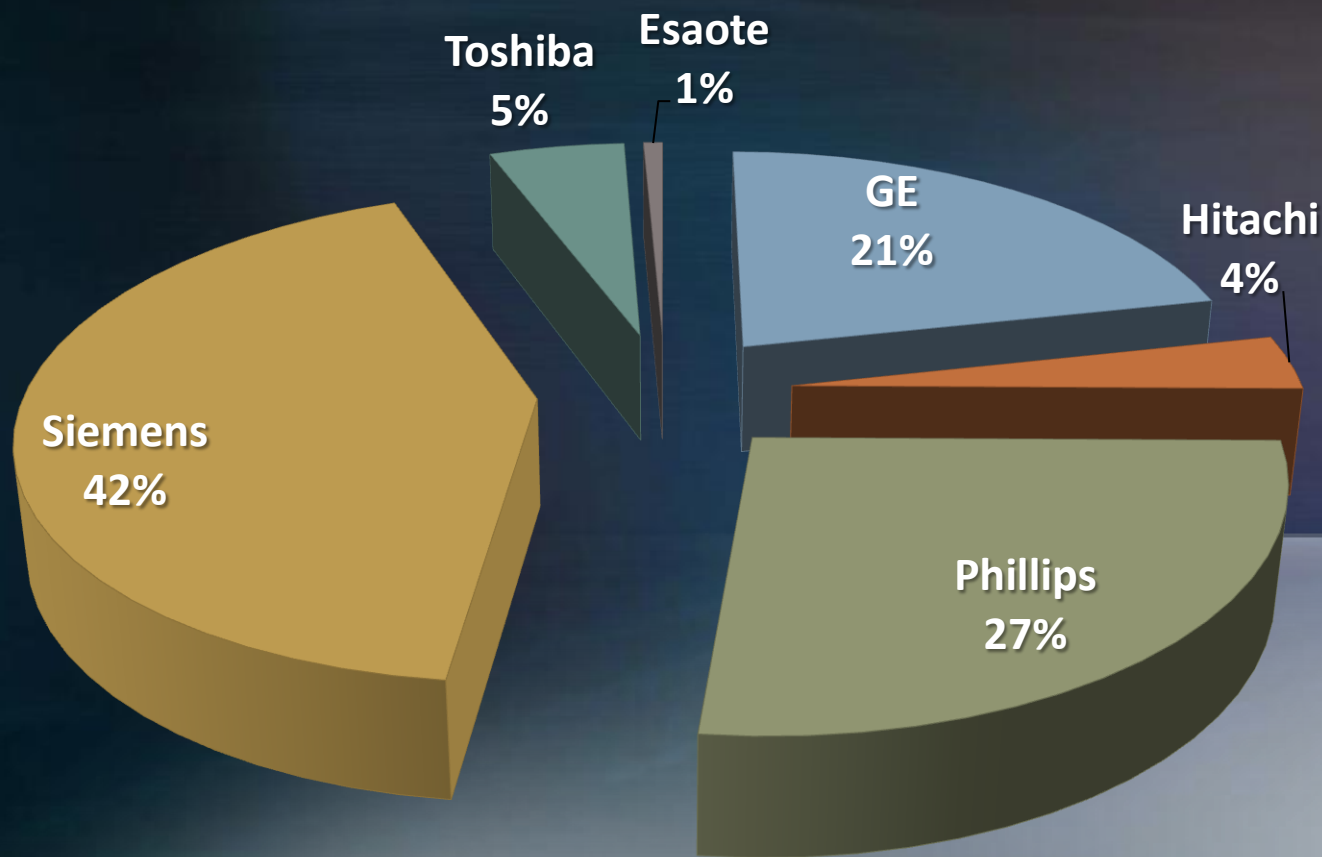
## A. Number and Characterization of MRI Units

Firm	Sector					
	Public		Private		Total	
	nº	%	nº	%	nº	%
GE	?	?	?	?	30	22
Hitachi	1	4	4	5	5	4
Phillips	11	42	26	31	37	27
Siemens	13	50	46	55	59	42
Toshiba	1	4	6	7	7	5
Esaote	0	0	1	1	1	1
TOTAL	26	100	83	100	139	100



### 3. Results

# Number and Characterization of MRI Units

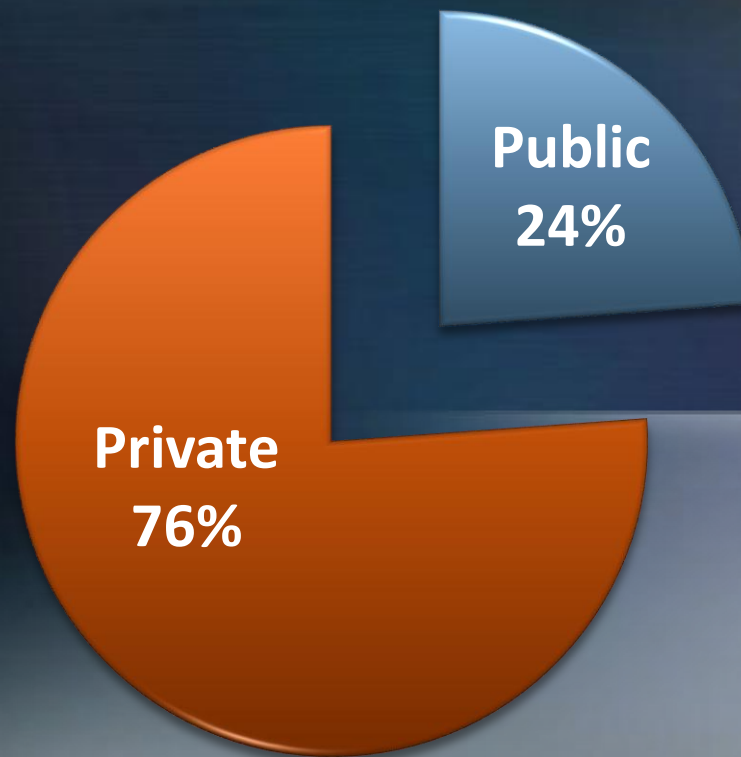


MRI equipment distribution in Portugal, by firm

## 3. Results

# Number and Characterization of MRI Units

- *Institutional Distribution*

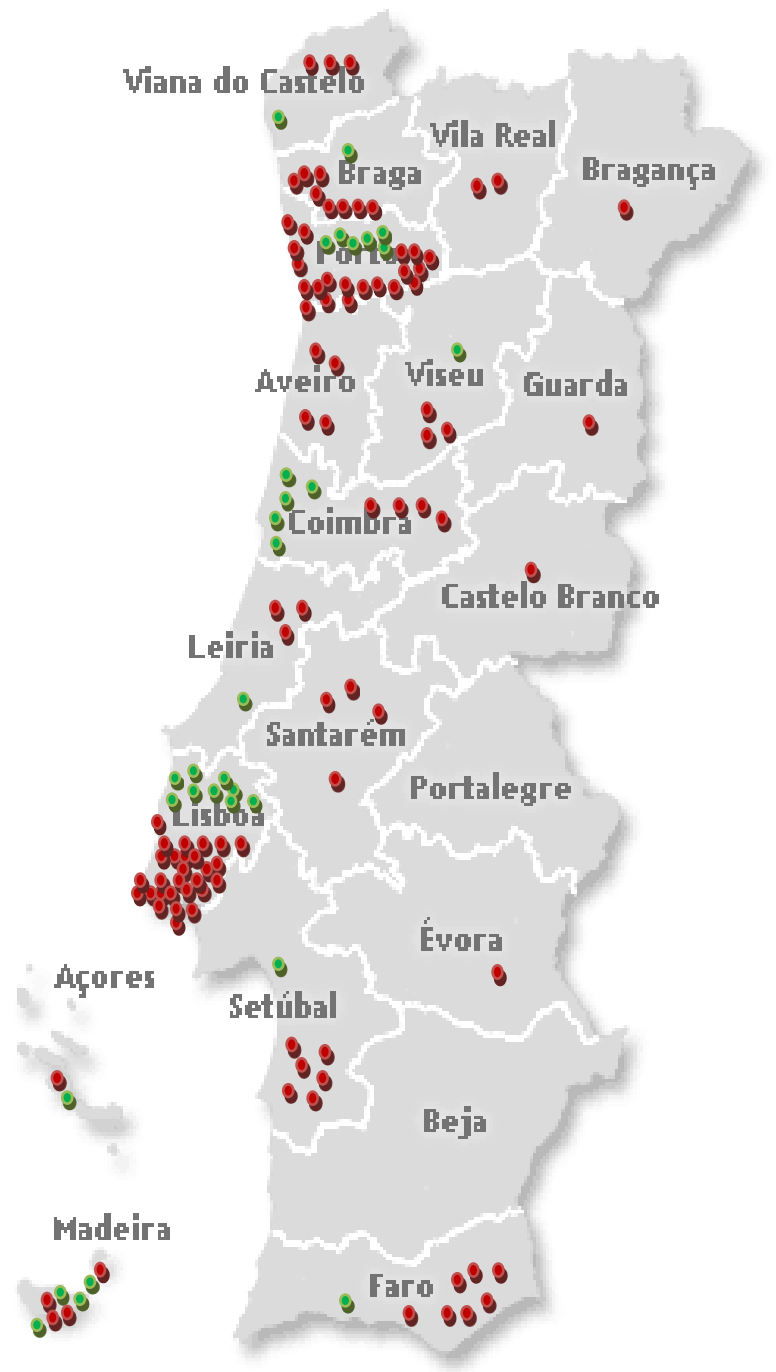


MRI equipment distribution in Portugal, by sector

### 3. Results

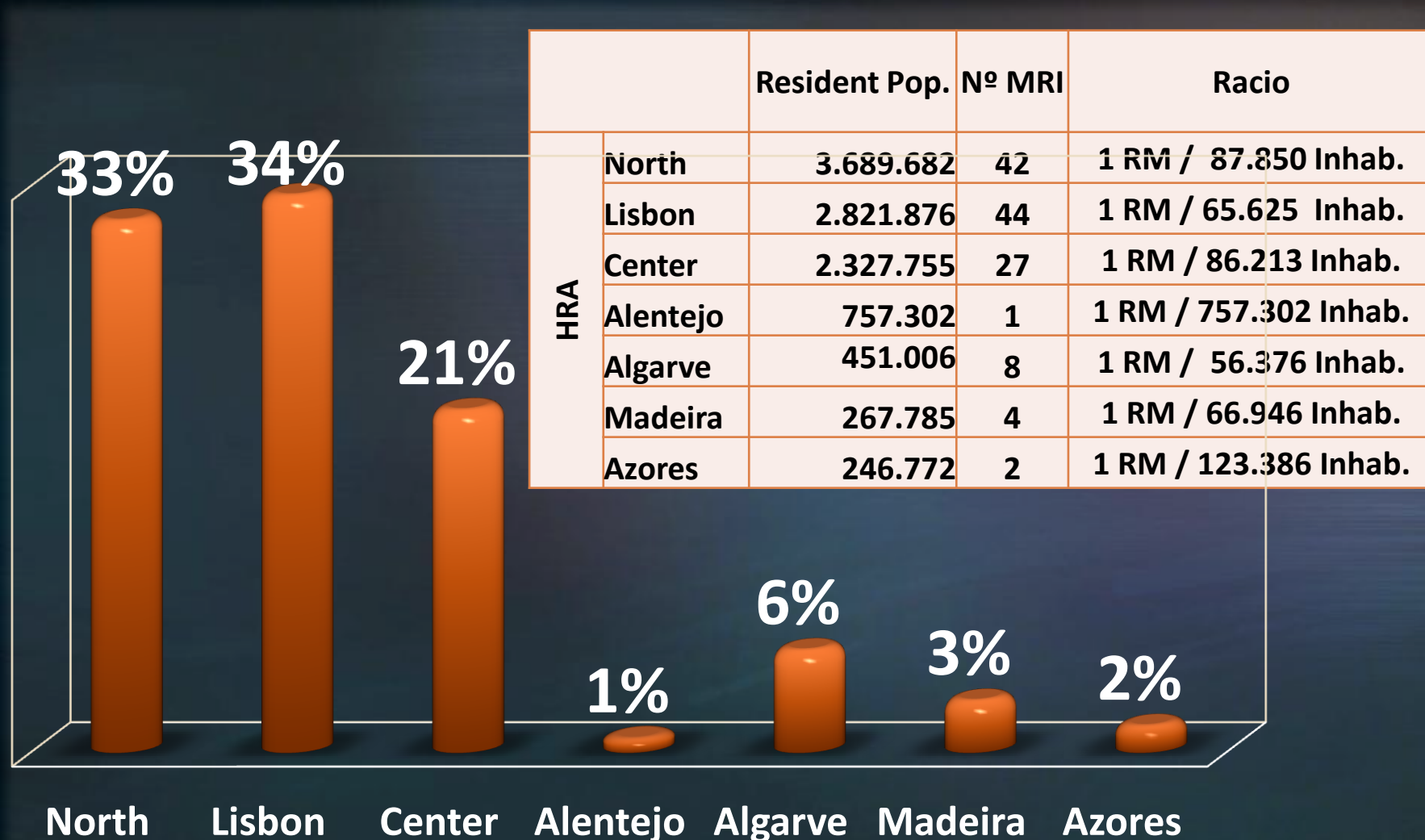
## B. Geographic distribution

- Public Sector
- Private Sector



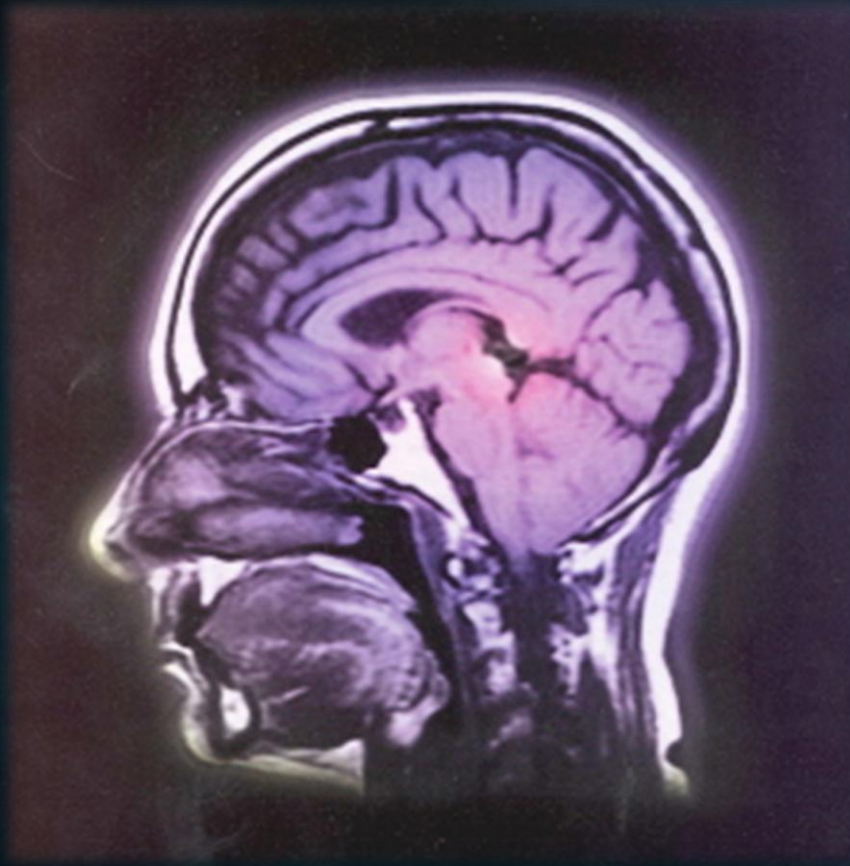
### 3. Results

# Distribution of MRI Units





### 3. Results



- MRI is a neurodevice with high diagnosis potential
- Portuguese NHS does not fulfil the aim of national constitution
- Portugal is an ageing society

- There are not yet independent, relevant, in-depth and usable TA studies on this issues
- There are still too many questions be answered, as:
  - Will the technologies - identified as necessary for the general population - generate the expected benefits?
  - What are the health gains for the population, with the implementation of the technology?
  - Do social and ethical issues have been taken into account, when technological resources are being allocated?
- Portugal does not have (yet) institutionalized TA

# GrEAT-Avaliação de Tecnologia (Portugal)

INÍCIO ACTIVIDADES ▾ DOCUMENTOS AT ▾ FORUM GRUPOS DE TRABALHO ▾ NOTÍCIAS REDE ▾

## O QUE É O GREAT

GrEAT é o acrónimo de Grupo de Estudo sobre Avaliação de seu campo de actuação localizado em Portugal.

Este Grupo de Estudos nasceu da articulação de actividades de colaboração do Programa Doutoral em Avaliação de Tecnologia iniciado em 2009 na Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa e do ITAS, Instituto de Avaliação de Tecnologia e Análise de Sistemas do Karlsruhe Institute of Technology (Alemanha). Este instituto começou a colaborar com o Programa Doutoral desde o seu início.

Pretende ser uma plataforma para a promoção da reflexão em torno do conceito de “Avaliação de Tecnologia” e agregar todos os interessados na temática.

Classificar isto: ★★★★★ 5 Votes



Gostar disto:

★ Like



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## DEIXA UMA RESPOSTA

Escreva o seu comentário aqui...

GT1 – Avaliação de Tecnologia em Saúde ▶

GT2 – Indicadores de Avaliação de Tecnologia ▶

GT3 – Transportes 0 em 2010 e tem o

GT4 – Análise Prospectiva ▶

## POSTS RECENTES

Parliamentary Technology Assessment in Europe

2012 in review

3ª Escola de Inverno do Programa Doutoral em Avaliação de Tecnologia – Programa

1st Practitioners' meeting – “Selecting the theme”, Setembro 2012

4S/EASST Conference “Design and Displacement – Social Studies of Science and Technology”, Outubro 2012

## ARTIGOS ANTERIORES

Seleccionar Mês ▾

## FACEBOOK



GrEAT - Grupo de Estudos de Avaliação de Tecnologia

Gosto 116



GrEAT - Grupo de Estudos de Avaliação de Tecnologia

Projecto TASTI no centro SPIRAL da Universidade de Liège: Technology

# Recommendations

- A support network between different agencies to avoid duplication of resources and information
- In Health TA different disciplinary knowledge and methods should be taken into consideration
- HTA can create bridges between policy and research field





# Questions?

## Thank you....



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