Molecular Imaging

PET/CT and PET/MR

Europe

MEDICAL Options

www.medicaloptions.co.uk

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Included within this document :-

- *Background to the study*
- *What subscribers to the study will receive*
- *Cost of the study to subscribers*
- *Table of contents of the report*

Markets Reviewed

Western Europe:

- *Benelux*
- *Central*
- *France*
- *Germany*
- *Iberia*
- *Italy*
- *Nordics*
- *UK and Eire*

Eastern Europe:

- *Central: Czech Republic, Hungary, Poland, Slovak Republic*
- *Balkans: Croatia, Romania, Serbia, Slovenia, Bulgaria, Romania, Greece*

Introduction

Europe was in the first wave of development of molecular imaging. The market took off ten years ago with the siting of systems in clinical settings and later the arrival of PET/CT and more recently PET/MR.

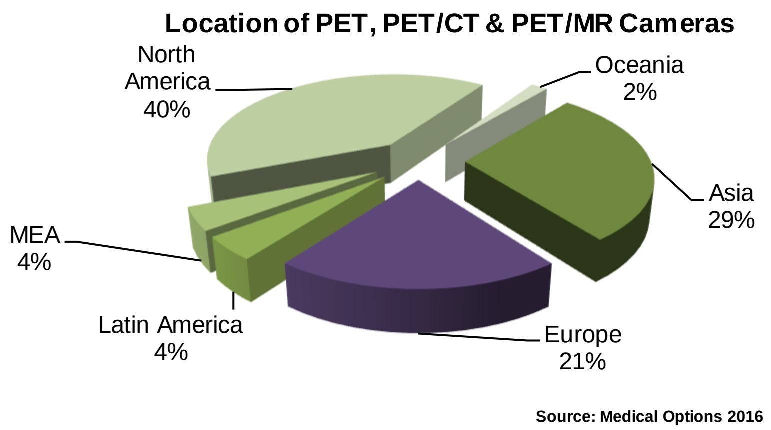
Medical Options began surveying centres in Western Europe in 2004 and subsequently every two years. 2016 marks the seventh occasion on which we have undertaken the study. The study provides an up-to-date picture of the status of European Markets and the historical background of how these markets have developed.

European markets have developed at differing rates which in many cases reflects the speed which they have adopted earlier modalities such as CT and MRI. Today in most countries PET/CT is an established technique. However PET/CT is still mainly used for staging oncology patients and access affects the extent to which it is used.

Europe's experienced PET/CT users either have or will be looking to take on new challenges. Widening the basis of ^{18}FDG use and adding other tracers to their repertoire. Understanding how sites intend to take on new applications is a key part of the study.

Differing reimbursement regimes and a wide variety of suppliers of tracers has led to different priorities in different markets. Suppliers in single markets can see what works and what has been successful in other markets.

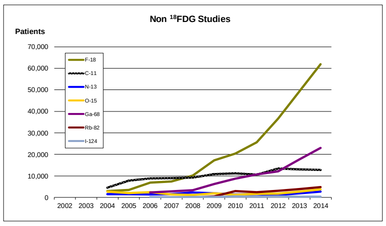
Location of PET systems



Source: Medical Options 2016

European sites taking on a wider mix of tracers

Fluorine and gallium tracers are showing the strongest growth.



The development of new sites in Europe has slowed but scan numbers continue to rise with the increasing use made of compounds other than ^{18}FDG.

Background

Around 20% of the worldwide PET/CT installed base is located in Europe. In 2016 ~750 sites operated dedicated static PET, PET/CT and PET/MR cameras.

Additionally ~220 cyclotrons operate in the region. The report provides information on the market share and revenues for each provider of PET radiopharmaceuticals.

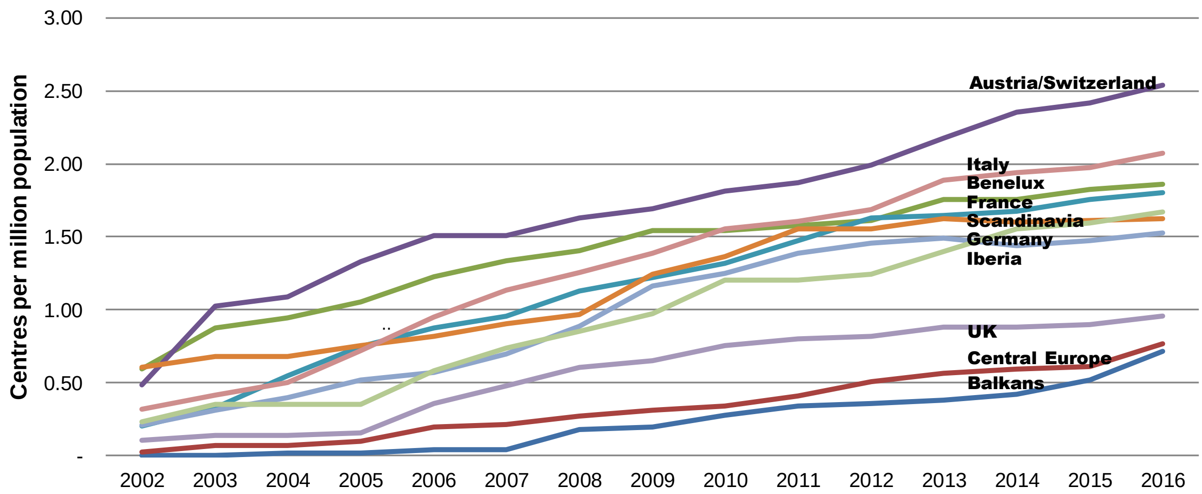
2002-2012 mapped the rise and rise of ^{18}FDG oncology applications. Now we see other applications and other compounds featuring more frequently. Notably 'prostate diagnostics' and those identifying Alzheimer's.

The study reviews for each country/region:-

- provision of equipment - PET, PET/CT, PET/MR, cyclotrons
- patient studies - segmented by provider
    - applications
    - radiopharmaceuticals
    - referral
- isotope supply
    - pricing and market share
- reimbursement and payment

providing a detailed insight into the activities at sites and providing a valuable reference tool for companies seeking to do business in these growth markets.

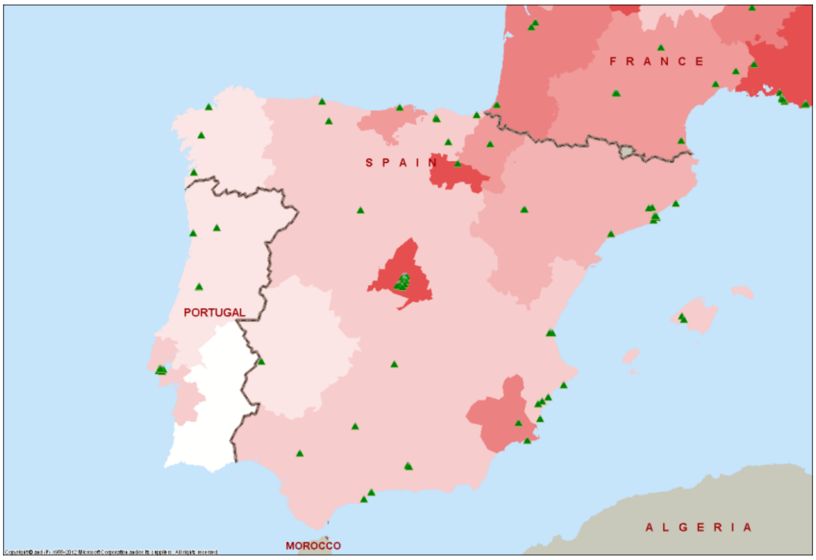
Growth of PET and PET/CT centres



Source: Medical Options 2016

The study is based on interviews with cross section of centres operating PET and or PET/CT.

Location of PET and PET/CT centres



Source: Medical Options 2014

Sites are interviewed by telephone and have the opportunity to make electronic returns.

The response rate calculated from centres providing patient data is:

2014 = 66%
2013 = 61%
2012 = 79%
2011 = 75%
2010 = 82%
2009 = 68%
2008 = 80%
2007 = 70%
2006 = 76%
2005 = 76%
2004 = 81%

Our target response was two thirds of sites.

Sites entering data electronically are provided with feedback on for example how their average throughput per scanner compares with others in their country and with similar providers in their region.

Average throughput at comparable sites

Source: Medical Options 2016

Report

A consolidated report based on tabulation of the survey responses which reviews the individual countries and country combinations and places them in the context of Europe as a single market. Associated commentary will analyse the results with respect to clinical developments.

Country/regions analysed:-

- Benelux
- Austria and Switzerland
- France
- Germany
- Iberia
- Italy
- Nordics
- UK and Eire
- Balkans
- Central Europe

The complete study:-

- tracks the growth of PET cameras
- provides an accurate track of the sales of radiopharmaceuticals
- identifies the suppliers of radiopharmaceuticals
- describes the use of products by application and the use of generic and proprietary products.
- monitors market share by product and by application
- tracks the growth in examination numbers
- looks in depth at the types of study being performed and examines how case mix will change in the future.
- Projects the growth in centres, cameras and applications over the next five years (2017 – 2021).

The report is over 320 pages and contains over 300 tables and charts

What will be the price of the report?

Please contact

Reports
We have tried to cover the same subject headings in each of the countries regions so comparisons are easy to make

Typical country chapter

Database

A site database of over 700 providers including:-

- Full address and contact details
- PET/CT, PET/MR, PET Mammo
  - make, model, date of installation, replacement date
- Cyclotron
  - make, model, date of installation, replacement date
- Radiopharmacy
  - Hot cells, synthesis units
  - Generator (^{82}Rb, ^{68}Ga)
  - PET Injector
- Isotope supply
  - Provider, deliveries #
  - Price #, typical dose #
- Patient throughput in 2014 and 2015 and 2016 #
  - routine ^{18}FDG
  - ^{18}F (^{18}FNa, ^{18}FCho#, ^{18}F DOPA, ^{18}F Amy#, ^{18}F Other)
  - ^{11}C (^{11}C Acetate, ^{11}C Choline, ^{11}C PIB, ^{11}C Other)
  - ^{68}Ga (^{68}Ga-*Oc, ^{68}Ga-PSMA, ^{68}Ga Other)
  - ^{13}N, ^{15}O, ^{18}F, ^{82}Rb, ^{131}I
- Studies performed #
  - ^{18}FDG Oncology, Neurology, Cardiology, Other
    - Detailed breakdown
  - Other tracers

 # ^{18}F methyl choline, ^{18}F ethyl choline, ^{18}FACBC; Amyvid, Vizamyl, Neuraceq

Database
Includes details of activity, cameras and radiopharmacy where present

Zone	Western
SupRegion	Iberia
Country	Spain
Region	C. Valenciana
Hospital	Hospital 9 De Octubre
Lat	39.470239
Long	-0.376805
Town	Valencia
Addr2	Calle Valle de la Ballestera, 59
Code	46015
Facilitytype	General Hospital
Operation	Clinical 3456789012
Public/Private	Publico
FDGmake	No
FDGbuyin	Yes
FDGsupply	No
Cyclotron	External Supply
FDGSupplier	Commercial
(s) 1ry Location	IBA - Madrid
(s) 2ry Location	IBA - Barcelona
FDG Suppliers	2
No. of Cameras	2
% Oncology	100
% Cardiology	0
% Neurology	0
tion/Inflamation	0
Head/Neck Ca	10
Lung Ca	25
Colorectal Ca	20
Lymphoma Ca	20

This extract is not the full information set for the site

Sites were given the opportunity to restrict the commercially sensitive information which we make available. For this reason, throughput and study pricing is banded as per 500 patients and per €50 respectively.

dependent on the response rate

What will be the price of the database?

The total number of records held for these markets is 748.

- Western Europe 658
- Eastern Europe 90

A detailed breakdown of numbers per country and a sample of the information is available on request.

How will this benefit your business?

- Enable better use of resources through identifying those segments which are growing, those which are stable and those which are falling.
- Provides a comprehensive competitive picture.
- Allows you to address these important markets based on an accurate picture of where it is now and where it is likely to be going in the future.

Availability

3rd quarter 2017

About Medical Options

We consult in the UK and Europe

Primarily for companies supplying to the acute secondary and tertiary healthcare sectors

Providing a range of information and solutions:-

- **Market research**
    - Sampling the views of customers and patients
        - Their degree of satisfaction
        - Their levels of activity
        - Their future intentions

- **Economic evaluation**
    - Presenting the costs and highlighting the benefits of technologies

- **Heath Technology Assessment**
    - Showing value

- **Market modeling**
    - Refining the present

- **Market dynamics**
    - Forecasting the future

- **Market strategies**
    - Developing markets
    - Improving share through better targeting of potential clients

A more detailed description of our services can be found at www.medicaloptions.co.uk