



**EFOMP**

European Federation of Organizations for Medical Physics

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**EFOMP**

## **Εξελίξεις 2015 και Προοπτικές 2016**

**Καθ. Γιάννης Δαμηλάκης**  
**Πρόεδρος EFOMP**

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**‘Applying physics to healthcare for the benefit of patients, staff and public’**



**EFOMP**

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## HOW DOES EFOMP RELATE TO EUROPEAN SOCIETIES REPRESENTING MEDICAL SPECIALTIES ?

ESR

EANM

ESTRO

Sign Memorandum of Agreement

Involve them in EFOMP activities

Support the medical physics groups in these societies



## Relationship with other societies

We have signed Memoranda of Understanding:

EANM

ESTRO

ESMRMB

**MELODI (2014)**

**EFRS (2015)**

**AAPM (2015)**


**ESR (2015)**



# EFOMP

## RELATIONSHIP WITH IAEA

Main contribution to the IAEA high-level meeting  
'Regional meeting on Medical Physics in Europe:  
Current status and future perspectives' (2015)

  
**International Atomic Energy Agency**  
**Questionnaire on Medical Physics Status in Europe**

This questionnaire was designed in preparation to the "Regional Meeting on Medical Physics in Europe: Current Status and Future Perspectives" that will be organized on 7-8 May 2015 in Vienna, Austria within the RER/6/031 IAEA Technical Co-operation Project "Strengthening Medical Physics in Radiation Medicine". The meeting will gather high level officials representing Ministries of Health and other relevant national authorities of European Member States of the IAEA. The objectives are to raise awareness of national authorities of medical physics, medical physicists' roles, status, education, training, recognition, accreditation, certification and staff shortages in the region.

Please return the filled-in questionnaire by the deadline of 20 March 2015. Your timely reply is essential. Please do not forget to add your comments in the Section F of the questionnaire.

A. Contact information			
<b>National Medical Physics Society/Association</b>			
Name			
Country			
E-mail			
Telephone			
<b>Form completed by</b>			
Family name			
Given name			
E-mail			
Telephone			
Name of institution			
Address	Street		ZIP
	P.O. Box		Province / State
	City		
	Country		

B. Qualification framework for medical physics in the country			
<b>B1. Education (<i>minimum level to start work</i>)</b>			
BSc in physics or equivalent	<input type="radio"/> Yes	<input type="radio"/> No	
MSc in medical physics	<input type="radio"/> Yes	<input type="radio"/> No	
PhD	<input type="radio"/> Yes	<input type="radio"/> No	
Other: _____			
How was the minimum level to start work established?			
Required by law	<input type="checkbox"/>	Determined by MP society	<input type="checkbox"/>
		Determined by the hospital	<input type="checkbox"/>
Other: _____			

Page 1 of 4



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## RELATIONSHIP WITH IAEA

Active participation in IAEA conferences:

- Int. Conf. on Clinical PET and Molecular Imaging  
(5-9 Oct 2015)
- Meeting to discuss the current status of dosimetry in NM and  
assess the need and possible content of a publication  
(2-6 Nov 2015)



# EFOMP

## RELATIONSHIP WITH WHO

### WORKSHOP ON RADIOLOGICAL PROTECTION CULTURE IN MEDICINE



ESTABLISHING A SUSTAINABLE SAFETY CULTURE PROGRAM IN MEDICINE

→ GENEVA, 30 NOV-2 DECEMBER 2015

World Health Organization (WHO) Headquarters

20, ave Appia, 1211 Geneva-27, Switzerland



# EFOMP

## RELATIONSHIP WITH HERCA



**Addendum to HERCA CT Position paper  
The process of CT dose optimisation through education and training and the  
role of the Manufacturers**

**Feedback from the European Coordination Committee of the Radiological,  
Electromedical and Healthcare IT Industry (COCIR), the European Society of  
Radiology (ESR), the European Association of Nuclear Medicine (EANM), the  
European Federation of Radiographer Societies (EFRS) and the European  
Federation of Organisations ~~in~~for Medical Physics (EFOMP) on the HERCA CT  
position paper**

06.08.2015

On 1<sup>st</sup> April, HERCA (Heads of the European Radiological protection Competent Authorities) organised a multi-stakeholder meeting kindly hosted by the French Nuclear Safety Authority (ASN) in its premises in Paris. The stakeholders included:

COCIR, supported by the main manufacturers of CT equipment (GE, Philips, Siemens and Toshiba),

- The professional organisations: ESR, ESPR, EFRS, EANM, ESTRO and EFOMP,



## EFOMP COMMITTEES

Education & Training

Projects

EU Matters

Scientific

Communications & Publications

Professional Matters

## EUROPEAN BOARD FOR ACCREDITATION IN MEDICAL PHYSICS (EBAMP)

The EBAMP will accredit medical physics education and training events. Initially its work will be limited to allocating CPD credits depending on the number of hours of education and hands-on training required of participants.

## EFOMP EXAMINATION BOARD (EEB)

The EEB will have the responsibility for two types of assessment:

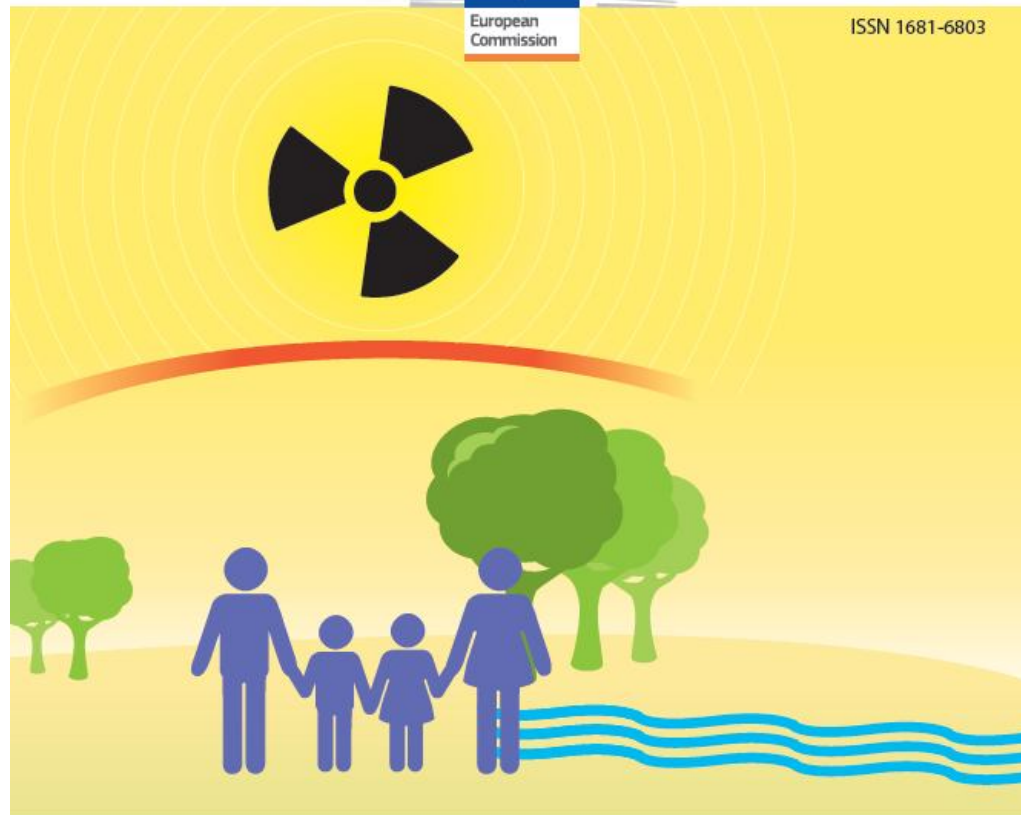
It will award a European Diploma of Medical Physics (EDMP) as recognition that that the holder is qualified to Master's degree level and has at least 2 years equivalent clinical training in the field of medical physics.

## EFOMP EXAMINATION BOARD (EEB)

It will also examine candidates against the criteria set by RP 174 and award the European Attestation Certificate to those who have reached the level of the Medical Physics Expert (EACMPE).



ISSN 1681-6803



# Radiation Protection

N° 174

*European Guidelines on Medical Physics Expert*

Energy

EUROPEAN COMMISSION

**RADIATION PROTECTION N° 174**

**EUROPEAN GUIDELINES ON MEDICAL PHYSICS  
EXPERT**

**ANNEX 2**

**Medical Physics Expert Staffing Levels in Europe**

Table 1: MPE Staffing Factors for Radiotherapy

Equipment Dependent Factors		Item	MPE WTE	MPS WTE
	Linear Accelerator	Multi-mode	0.6	1.2
	Linear Accelerator	Single-mode	0.2	0.9
	IGRT	Unit	0.1	0.2
	HDR	Unit	0.2	0.4
	CT Simulator	Unit	0.2	0.4
	Planning	System	0.1	0.4
	IMRT	Unit	0.2	0.4
	RT Data/Imaging	Data Network	0.1	0.4
	Simulator	Unit	0.1	0.4
	MLC	Unit	0.05	0.2
	EPID	Unit	0.05	0.2
	Advanced/Brachy TPS	Unit	0.1	0.2
	300 kV	Unit	0.05	0.2
	150 kV	Unit	0.05	0.2
	Low Dose After-loading	Unit	0.1	0.4
	Block Cutter	Unit	0.05	0.2
	Automatic Outlining	Unit	0.05	0.2
	SBRT (new)	Unit	0.2	0.2
	SBRT (established)	Unit	0.1	0.2
Patient Dependent Factors		No. of Courses	MPE WTE	MPS WTE
New patients	External	1000	0.5	1.8
	3D Conformal	100	0.1	0.4
	TBI	100	0.4	0.8
	SBRT/SABR	100	0.4	0.8
	IMRT	100	0.4	0.8
	Total Skin Electrons	100	0.4	0.8
New patients	Brachytherapy	100	0.4	0.8
	I-125	100	0.4	0.8
Service Dependent Factors		Notes	MPE WTE	MPS WTE
Practical Radiation Protection Support		Per centre	0.1	0.1
Quality System		Per centre	0.2	0.5
Research and Training Dependent Factors		Notes	MPE WTE	MPS WTE
Research and Development including clinical research		Per department	0.2	0.3
Delivering training – internal		Per trainee	0.2	0.3
Education and training within service		Per department	0.04	0.05
Clinical Trials with trial specific QA requirements		Per trial	0.1	0.125



Czech Association  
of  
Medical Physicists



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## EFOMP School for Medical Physics Experts

Advanced Kinetic Modelling and Parametric Methods  
Advanced SPECT and PET Applications in Cardiology, Neurology  
and Oncology

July 10 – July 12, 2014

Prague, Czech Republic



Czech Association  
of  
Medical Physicists



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## **EFOMP School for Medical Physics Experts**

Digital mammography and quality control

January, 22-24, 2015

Prague, Czech Republic



Czech Association  
of  
Medical Physicists



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This event is under the auspices of the EANM

## EFOMP School for Medical Physics Experts – Prague, July 2015

### Radiopharmaceutical dosimetry

July 2 – July 4, 2015  
Prague, Czech Republic

The Czech Association of Medical Physicists in collaboration with EFOMP and Department of Dosimetry and Application of Ionizing Radiation of the Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University in Prague would like to invite you to the **EFOMP School for Medical Physics Experts (Nuclear Medicine) - Prague Summer 2015**. The school will be aimed at advanced tasks connected to **Radiopharmaceutical dosimetry**. This two-and-half day event will be an EFOMP accredited one and is intended for practising clinical Medical Physicists who are at the level of a Medical Physics Expert (MPE) in Nuclear Medicine or working towards becoming an MPE. As in last year's school, there will be an optional examination at the end for those seeking a higher level of certification beyond attendance.

### Content

First day of school will be aimed at theoretical aspects of radiopharmaceutical dosimetry. On second day, theoretical background will be used and clinical studies will be presented. The last day will be devoted to general discussion with participants, discussion on available software tools etc.

### Theoretical aspects of radiopharmaceutical dosimetry

**Introduction to radiopharmaceutical dosimetry** (Indications: Diagnostics and therapy, common formalism for dosimetry), **Quantitative SPECT imaging** (Specificities of quantitative imaging for dosimetry), **Quantitative PET imaging** (Specificities of quantitative imaging for dosimetry), **Pharmacokinetics modelling** (TAC assessment, sampling, fitting, introduction to compartmental modelling), **Absorbed dose computing** (Radiation transport and absorbed dose computation, local deposition, convolution, Monte Carlo simulations), **Diagnostic dosimetry** - ICRP 103 (ICRP reports and evolution, implementing present and future ICRP recommendations, hybrid imaging and impact on dosimetry), **Therapy dosimetry** - absorbed dose / effect relationship (status of dosimetry in therapy, how/when to implement dosimetry, absorbed dose effect relationship: toxicity and/or efficacy).



Czech Association  
of  
Medical Physicists



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## EFOMP School for Medical Physics Experts

Computed Tomography: Dosimetry, optimization and  
advanced applications

January, 28-30, 2016  
Prague, Czech Republic



## EFOMP involvement in EU projects

PiDRL

EUTEMPE-RX

ENETRAP III

# Radiation dose management of pregnant patients, pregnant staff and paediatric patients in diagnostic and interventional radiology

EUTEMPE•RX



**Teaching method:**  
**Blended learning**  
(online and face-to-face learning).

Module duration: approx. 10 working days online teaching + 5 working days face-to-face teaching

Venue (face-to-face teaching): University of Crete, Faculty of Medicine, Heraklion, Crete, Greece

**Teaching objectives: By the end of this module the participants would be able to:**

1. Assess and evaluate conceptus doses and radiogenic risks associated with diagnostic and interventional examinations performed on the mother
2. Assess, evaluate and minimize conceptus dose for pregnant staff working in an interventional suite
3. Assess and evaluate paediatric patient doses and radiogenic risks from diagnostic and interventional radiology procedures
4. Manage exposure of pregnant patients requiring diagnostic and interventional procedures
5. Develop new optimized diagnostic and interventional radiology protocols for pregnant patients
6. Develop new optimized diagnostic and interventional radiology protocols for paediatric patients
7. Develop research protocols focused on conceptus and paediatric dosimetry using TLDs and anthropomorphic physical phantoms or Monte Carlo simulation and mathematical phantoms

**Teaching staff:** John Damilakis, Kostas Perisinakis, John Stratakis, Antonios Papadakis, Virginia Tsapaki, Georgia Solomou, invited speakers (tba)

LEADER OF THE MODULE



**John Damilakis**, A full professor and chairman in the Department of Medical Physics of the University of Crete, Greece. John Damilakis has focused his research interests on radiation protection in diagnostic and interventional radiology. He has published more than 200 publications in leading peer-reviewed journals and conference proceedings. He is a leader in the application of medical radiation protection in clinical everyday practice with about 30 years of clinical experience. John Damilakis is vice president and president elect of EFOMP and chairman of the Education and Training Committee of IOMP



**John Stratakis**, received his BSc in Physics from the University of Crete in 1997, his MSc in Medical Physics from the University of Surrey, UK, in 1998 and his PhD in Medical Physics from the Medical School of the University of Crete. He is a research associate of the Laboratory of Medical Physics at University of Crete. His research interests include Monte Carlo dosimetry applied to radiographic and interventional procedures.



**Kostas Perisinakis**, BSc, MSc, PhD joined the Medical Physics Department, Medical School, University of Crete in 1996 where he serves ever since. He is author in more than 85 scientific papers published in peer-review journals, which have received more than 1350 citations. He was invited speaker in more than 50 international and domestic congresses. His main research interests relate to quantification of radiogenic risks from medical radiation procedures.



**Antonios Papadakis** has been a medical physicist and radiation protection consultant with the Medical Physics Department of the University Hospital of Heraklion, Greece, since 2004. He received the PhD degree in medical physics in 2003 from the University of Patras, Greece. From 2003 to 2004 he had been a research fellow with the Massachusetts General Hospital, Boston, USA. He has published several articles in peer-reviewed scientific journals and conference proceedings.



**Georgia Solomou** received her B.Sc. in Applied Mathematics and Physics from National Technical University of Athens and M.Sc in Medical Physics from the Aristotle University of Thessaloniki. Since 2012 she has been a PhD candidate in Medical Physics with the University of Crete and has been working as a Medical Physicist in the research project entitled "Conceptus Radiation Doses and Risks from Imaging with Ionizing Radiation".



**Virginia Tsapaki**, more than 25 years experience in Diagnostic and Interventional Radiology, Computed Tomography and Nuclear Medicine. Involved in several missions organised by the IAEA and in multiple European and IAEA research projects. More than 100 publications in various national and international journals and conference proceedings and more than 150 presentations and posters in national and international conferences. President of the Hellenic Association of Medical Physicists. Actively involved in the board of EFOMP and IOMP.



Course enrollment is FREE

Minimum entrance requirements are:

EQF level 7 = master + 2 years of  
experience in medical physics for  
radiological applications

[www.eutempe-rx.eu](http://www.eutempe-rx.eu)

THE EU FRAMEWORK PROGRAMME  
FOR RESEARCH AND INNOVATION

# HORIZON 2020



EXCELLENT SCIENCE  
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BETTER SOCIETY

**The New European Union Framework Programme for all  
Research and Innovation-related activities (2014-2020)**



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## EUTEMPE - RO

- ESTRO and EFOMP have formed a joint working party to consider and develop a suitable application for Europe – wide funding
- Two t-cons. There will be a call from Erasmus + in October 2015 which might be suitable. There was much discussion about the criteria for partners for the Erasmus+ call.
- Other calls are anticipated from Horizon2020 and from Euratom which may also be suitable.



**MELODI** Multidisciplinary European  
Low Dose Initiative

### Latest NEWS

- Radiation Protection Week (RPW2016) **NEW**
- EURADOS\_AM 2016\_1st-announcement
- MELODI Statement and SRA
- MoU with Medical Associations
- 7th MELODI WS 9-11 Nov 2015, MUNICH, GERMANY
- Registration is **CLOSED**
- SEMI-NUC programme available

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## Multidisciplinary European Low Dose Initiative

MELODI is an European Platform dedicated to low dose radiation risk research. In 2010 MELODI was founded as a registered association with 15 members.

The purpose of MELODI is:

- MELODI will propose R&T priorities for Europe in its field of competence  
- EUROPE 2020 Strategy.
- MELODI will seek the views of stakeholders on the priorities for research, keep them informed on progress made, and contribute to the dissemination of knowledge.
- MELODI will interface with international partners like WHO and IAEA.

### MELODI Partners

### Membership

[How to join MELODI?](#)

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### Contact

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**EFOMP**

## MELODI

- MoU
- Development of the 'Medical SRA'
- Establishment a medical WG
- Consideration to create a platform for medical RP



## EFOMP JOURNAL



Physica Medica,  
The European Journal of Medical Physics

Impact factor: 2.403

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*Draft for Review*

Mammo Protocol



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**Latest News**

- ECMP 2014 Invitation 30-03-2014
- Monte Carlo software for clinical linacs and dose distribution simulation 12-03-2014
- Guidelines on Radiation Protection Education and Training of Medical Professionals in the European Union 04-03-2014
- Call for Abstracts for the Joint Conference of (SGSMP), DGMP and OGMP 26-02-2014
- Guidelines on the Medical Physics Expert Published 12-03-2014

[More news...](#)

**Latest Documents**

- ESR white paper on teleradiology: an update from the teleradiology subgroup 19-03-2014
- EMP News Winter 2013 12-03-2014
- 8th ECMP Athens 28-02-2014
- DAP Display Recommendation 26-02-2014
- QA in Digital Mammography (Gisella Gennaro) 12-09-2013

**Login Form**



11-13 September, 2014


## 8th European Conference on Medical Physics

11-13 September 2014  
Athens, Greece

[Call For Abstracts](#)

[www.efomp-2014.gr](http://www.efomp-2014.gr)

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**About Us**

- What do we do ?**  
EFOMP founded in 1980 serves as an umbrella organisation to national medical physics organisations in Europe. [Read More](#)
- Who are we ?**  
Currently EFOMP has 35 members . [Read More](#). We also recognise the contribution that individuals have made to European Medical Physics either by the award of the EFOMP Medal or of Honorary Membership.
- How do we work ?**  
EFOMP is run by a Board of Officers on behalf of Council. The Board is advised by a number of committees. [Read More](#).
- What is Medical Physics ?**  
Medical Physics is the application of physics to healthcare. [Read More](#).
- Contact Us**  
We will be happy to answer any query that you might have.

**News**

See what is going on in the European MP community.



Here, you can read all news about Medical Physics in Europe.

- [Read Latest News ...](#)
- [Read the biannual European Medical Physics News ...](#)
- [Read our frequent EFOMP Newsletters ...](#)
- [Links to our Members' Publications](#)

**Professional Issues**

Medical Physics Profession in the European Union.



- [Malaga Declaration](#)  
EFOMP's position on Medical Physics in Europe. [Read More ...](#)
- [Policy Statements](#)  
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The work of EFOMP is carried out by a number of committees. Get an update on their activities.

Education & Training

Events

Jobs

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www.efomp.org



# EFOMP

## 1<sup>st</sup> European Congress of Medical Physics

Athens  
September 1-4  
2016

**1<sup>ST</sup> EUROPEAN  
CONGRESS OF  
MEDICAL  
PHYSICS**

SEPTEMBER 1-4, 2016  
Eugenides Foundation  
Athens-Greece

CONNECTING  
MEDICAL PHYSICISTS  
IN EUROPE AND BEYOND

Organized by  
EFOMP

HOSTED BY  
THE HELLENIC ASSOCIATION  
OF MEDICAL PHYSICISTS  
(HAMP)

PRC.  
Congress & Travel  
...Building Sustainable Knowledge

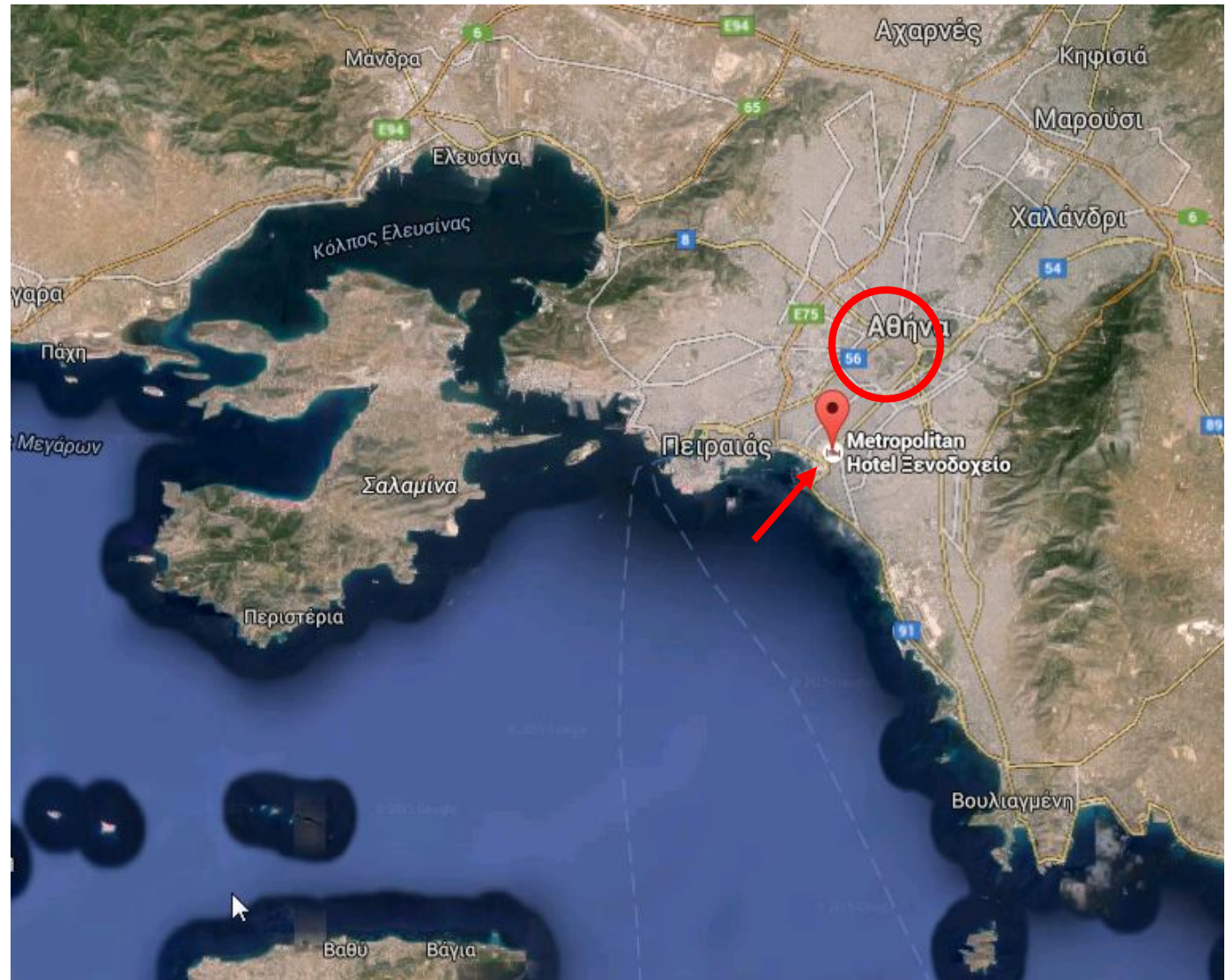
Athens



# ΕΦΟΠΡ

1<sup>st</sup> European  
Congress  
of Medical  
Physics

Athens  
September 1-4  
2016





# EFOMP

**1<sup>st</sup> European  
Congress  
of Medical  
Physics**

**Athens  
September 1-4  
2016**





# EFOMP

ECMP 2016

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**1<sup>st</sup>** EUROPEAN CONGRESS OF MEDICAL PHYSICS

Connecting  
Medical Physicists  
in Europe and Beyond

September 1-4, 2016  
Eugenides Foundation, Athens-Greece

<http://www.ecmp2016.org/>



**ΕΦΟΜΡ**

**ΕΥΧΑΡΙΣΤΩ**

**ΚΑΛΗ ΧΡΟΝΙΑ !**