

56<sup>th</sup> Annual meeting AAPM, Austin, 20-24 July 2014

EFOMP and European projects  
on medical radiation protection

Dr Virginia Tsapaki  
EFOMP Communication and Publications Past Chair  
*virginia@otenet.gr*



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Current members of EFOMP

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Eire
- Estonia
- Finland
- France
- FYRO Macedonia
- Germany
- Greece
- Hungary
- Italy
- Latvia
- Malta
- Moldova
- Netherlands



- Norway
- Poland
- Portugal
- Romania
- Russia
- Serbia and Montenegro
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- Ukraine
- United Kingdom

35 NMOs



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Missing some European Union  
Countries

➢ **Luxembourg – currently has only 8 Medical Physicists**

EFOMP is the vehicle for harmonising Medical  
Physics in the European Union Member States.



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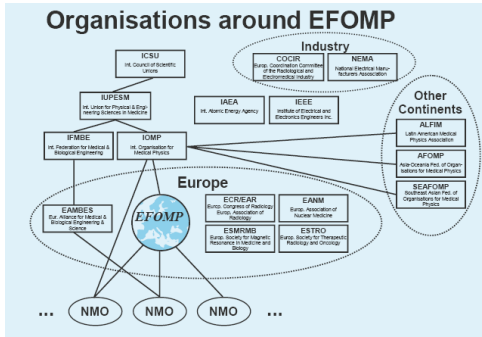
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#### European Union Matters Committee

The European Union Matters Committee is for the representation of the interest of the Federation to the various bodies of the European Union.

#### Projects Committee

The Projects Committee is responsible for participating in the implementation of projects and supporting the participation of Medical Physics institutions for improving research in Medical Physics and the professional status of Medical Physicists in Europe and Internationally.

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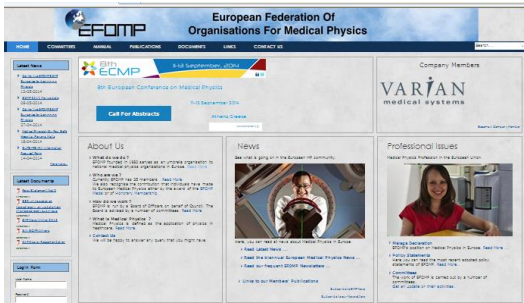
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The results of the work of these Committees can be found on the EFOMP website.

[www.efomp.org](http://www.efomp.org)




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### EFOMP PUBLICATIONS




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The official journal of EFOMP:  
European Journal of Medical Physics (Physica Medica)




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**European Conference of Medical Physics  
11-13 September 2014**

**Athens, Greece**  
**[www.efomp-2014.gr](http://www.efomp-2014.gr)**




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### ECMP 2014 Scientific program summary

- 66 invited speakers
- Scientific symposium of EFOMP with:
  - 1) AAPM
  - 2)MEFOMP (Middle East)
  - 3) ICRP
  - 4) IAEA
  - 5) European Commission



<http://ec.europa.eu>



<http://ec.europa.eu/programmes/horizon2020/>




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### EFOMP involvement in various projects

Either in the final stage or finished: <ul style="list-style-type: none"> <li>• EMAN</li> <li>• MEDRAPET</li> <li>• MPE</li> <li>• DOSEDATAMED</li> <li>• ACCIRAD</li> </ul>	Just starting or ongoing: <ul style="list-style-type: none"> <li>• EUTEMPE-RX</li> <li>• PiDRL</li> <li>• ENETRAP</li> </ul>
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### Guidelines on Medical Physics Expert TENDER NO. TREN/H4/167-2009




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#### Contract Objective:

The objective of this contract was to provide for improved implementation of the Medical Exposures Directive (MED) provisions related to the Medical Physics Expert (MPE) and to facilitate the harmonization of the MPE among Member States aiming at their cross-border mobility. In order to achieve this objective the contractor shall carry out three major tasks:

- > Conduct an EU-wide study on the MPE
- > Organize a European Workshop on MPE
- > Develop EU Guidance on MPE




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### Duration of Contract

The contract was signed on the 30<sup>th</sup> of December 2009 and its duration is 24 months. The project is now finished.

#### ➤ Conduct an EU-wide study on the MPE

- ✓ Status of MPE
- ✓ Education and training arrangements
- ✓ Recognition arrangements, including mutual recognition between MS
- ✓ Responsibilities of MPE, e.g. in relation to patient, staff and public radiation protection
- ✓ Needed number of MPE, depending on medical practice
- ✓ Inventory of MPE



<http://www.eman-network.eu/>

## European ALARA Network



### EMAN partners:

- Strålsäkerhetsmyndigheten (Swedish Radiation Safety Authority, SSM, Sweden), Coordinator
- European Federation of Medical Physicist (EFOMP)
- European Society of Radiology (ESR)
- European Federation of Radiographer Societies (EFRS)
- European Radiation Dosimetry Group (EURADOS )
- Bundesamt für Strahlenschutz (Federal Office of Radiation Protection, BfS, Germany)
- Centre d'étude sur l'Evaluation de la Protection dans le domaine Nucléaire (Nuclear Protection Evaluation Center, CEPN, France)





## MEDRAPET PROJECT

[www.medrapet.eu](http://www.medrapet.eu)

### Project ENER/D4/212-2010

- Study on the Implementation of the Medical Exposure Directive's Requirements on
- Radiation Protection Training of Medical Professionals in the European Union

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### Partners

- ESR coordinator
- EFOMP
- EFRS
- ESTRO
- EANM
- CIRSE

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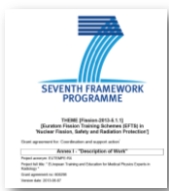
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The MEDRAPET Guidance document was published by the European Commission (Radiation Protection Series, No 175) in February 2014



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



- Call identifier: FP7-FISSION-2013 (EURATOM)
- Activity code: Euratom Fission Training Schemes (EFTS) in 'Nuclear Fission, Safety and Radiation Protection'
- Project/Grant agreement no: 605298
- EU contribution: € 1,658,000
- Aug. 1, 2013 – Jul 31, 2016

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## Objectives

- (1) to create a network of excellent teaching centers in diagnostic and interventional RX to prepare courses at a sufficiently high level to bring the MP ----- > MPE
- (2) to set up a multicampus Educational and Training platform (for course material, on-line teaching activities, ...)
- (3) to get the course either accredited or serve as an example in as many as possible Member States (sustainability of the network)

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## Learners

- The MP in radiology and interventional radiology (in hospitals)
- The MP or scientist in medical device industry
- The MP in regulatory authorities
- (PhD students)

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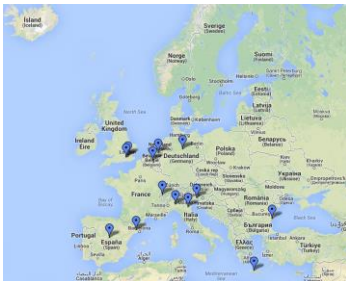
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## Partners



EFOMP & its professional & educational matters

Teaching hospitals

Universities  
 - Med. physics  
 - Radiobiology  
 - Physics

Screening organisations

(Industry) (Authorities)

Via the Scientific Advisory Board, even more of Europe is covered




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## Modules



Number	Title	Lead
1	Developments of the profession and the challenges of the MPE: Legal aspects, professional matters, communication and risk assessment, incidents and accidents, today and tomorrow. Raising the public profile of the profession. Basics of teaching RX users, including the RPE	Dr. C. Caruana & Prof. E. Vano
2	Radiation biology for MPEs	Prof. A. Ottolenghi
3	Monte Carlo simulation of the complete X-ray imaging chain	Dr. J. Sempau
4	Fundamental physics of X-rays: energy, absorption and their phase	Prof. M. Gambaccini
5	Antropomorphic phantoms	Dr. K. Bliznakova
6	From routine QA to advanced QA and performance testing	Prof. H. Bosmans, Prof. F. Zanca, Dr. N. Marshall & Prof. E. Vano

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## Modules



Number	Title	Lead
7	Advanced measurements of the performance of X-ray imaging systems	Prof. K. Young & A. McKenzie
8	CT imaging and dose optimized with objective means	Prof. F. Verdun
9	Achieving quality in the medical physics aspect of breast cancer screening	R. van Engen, W. Veltkamp
10	High dose X-ray procedures in Interventional radiology and cardiology	Dr. R. Padovani & Prof. E. Vano
11	Dosimetry, from conceptus to the adolescent	Prof. J. Damlakis
12	Personnel dosimetry, including techniques to communicate practical results to the users (RPE)	Dr. M. Borowski, prof. Fiebich

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EUROPEAN DIAGNOSTIC REFERENCE LEVELS FOR PAEDIATRIC IMAGING

European Society of Radiology (ESR) - Coordinator  
 European Society of Paediatric Radiology (ESPR)  
 European Federation of Radiographer Societies (EFRS)  
 European Federation of Organisations for Medical Physics (EFOMP)  
 French Radiation and Nuclear Safety Authority (STUK) - Subcontractor:  
 Public Research Centre Henri Tudor (CRP-HT)

EUROPEAN DIAGNOSTIC REFERENCE LEVELS FOR PAEDIATRIC IMAGING

[www.pidrl.eu](http://www.pidrl.eu)

The project has received funding from the European Commission under grant no. 603193/9-2013

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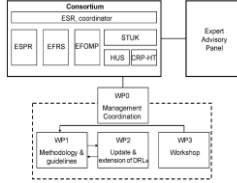
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### PiDRL Project

The project is intended to provide European DRLs for children and to promote their use so as to advance optimisation of radiation protection of paediatric patients, with a focus on CT, interventional procedures using fluoroscopy and digital radiographic imaging.

This 27-month project is aiming at:

- Agreeing on a methodology for establishing and using DRLs for paediatric imaging
- Updating and extending the European DRLs to cover more procedures and a wider patient age/weight range based on current knowledge.



The project has received funding from the European Commission under contract no. 602676-01-001.



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### PiDRL Workshop

October 15-17, 2015  
Lisbon School of Health Technology, Lisbon/Portugal

FREE registration

- The aims of the PiDRL Workshop are to
- present and discuss the project's results,
  - submit the draft European Guidelines for comments and critical review by a larger audience and
  - identify the needs for further action on DRLs and optimisation of radiation protection of paediatric patients.

The workshop is aimed at key stakeholders in paediatric imaging. In particular, the workshop will bring together radiologists, radiographers and medical physicists by giving them a forum to participate actively in discussions.

Abstract submission will open in early 2015.

Contact and Pre-Registration: [eu-affairs@myesr.org](mailto:eu-affairs@myesr.org)

The project has received funding from the European Commission under contract no. 602676-01-001.



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## FUTURE PLANS FOR PROJECTS

- Eutempe –RT
- Eutempe-NM
- On going discussions within EFOMP board in collaboration with the Projects Committee



Horizon EU Research and Innovation programme

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**Thank you for your attention**

**We are looking forward to seeing you in next ECMP in Greece**

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