Update on the professional status of the Medical Physicists in Europe

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HAMP Side Event – ECMP2016
ACADEMIC AND PROFESSIONAL MOBILITY OF YOUNG MEDICAL PHYSICISTS

- **EFOMP** has **32 NMOs** (National Members Organizations) representing more than **7500 Medical Physicists** all over Europe**.**

- Among the **aims and purposes of EFOMP** are:
  - To encourage exchange and dissemination of professional and scientific information, and exchange of medical physicists between countries.
  - To work for Europe-wide recognition of medical physics as a regulated profession in all member states as well as medical physics as a healthcare profession.

www.efomp.org

- Other **EFOMP aims** include:
  - Proposing and developing guidelines for education, training and accreditation programmes;
  - Making recommendations on the appropriate general responsibilities, organisational relationships and roles of workers in the field of Medical Physics

One way in which this is done is by the publication of **Policy Statements**.

- What / Who defines the current professional status of Medical Physicists in Europe?
- Do we know what is happening in each individual country?
- How far are we from the desired harmonization and regulation of the profession in Europe, essential condition to the free movement of professionals across countries?

- The professional status of Medical Physicists is/will be determined by the **European BSS Directive 2013/59/Euratom** and the way different countries will transpose it to national laws.

COUNCIL DIRECTIVE 2013/59/EURATOM

of 5 December 2013

laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom

PROFESSIONAL STATUS OF MEDICAL PHYSICISTS

This revised BSS Directive includes:

✓New definition of Medical Physics Expert (MPE)

✓ The roles, responsibilities and the need for continuous education and training

✓ The need for the MPE to be recognised by the relevant competent authorities of the European Union Member States

✓….

Look at articles: 14, 22, 57, 59, 79, 82, 83

- In parallel with the publication of the EU BSS Directive, EFOMP was closely involved and acted as main partner in the European Project **"Guidelines on Medical Physics Expert"** that led to the publication in 2014 of the European Commission document:

Radiation Protection 174
European Guidelines on the Medical Physics Expert

EC EUROPEAN GUIDELINES ON MEDICAL PHYSICS EXPERT RP174

EUROPEAN COMMISSION

RADIATION PROTECTION NO 174

EUROPEAN GUIDELINES ON MEDICAL PHYSICS EXPERT

Directorate-General for Energy
Directorate D — Nuclear Safety & Fuel Cycle
Unit D.3 — Radiation Protection
2014

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The purpose of this European Guidance on Medical Physics Expert (MPE) is to provide for improved implementation of the Medical Exposure Directive and revised BSS provisions related to the MPE and to facilitate the harmonisation of the education and training of medical physicists to MPE level among the Member States aiming at an improvement in cross-border mobility.

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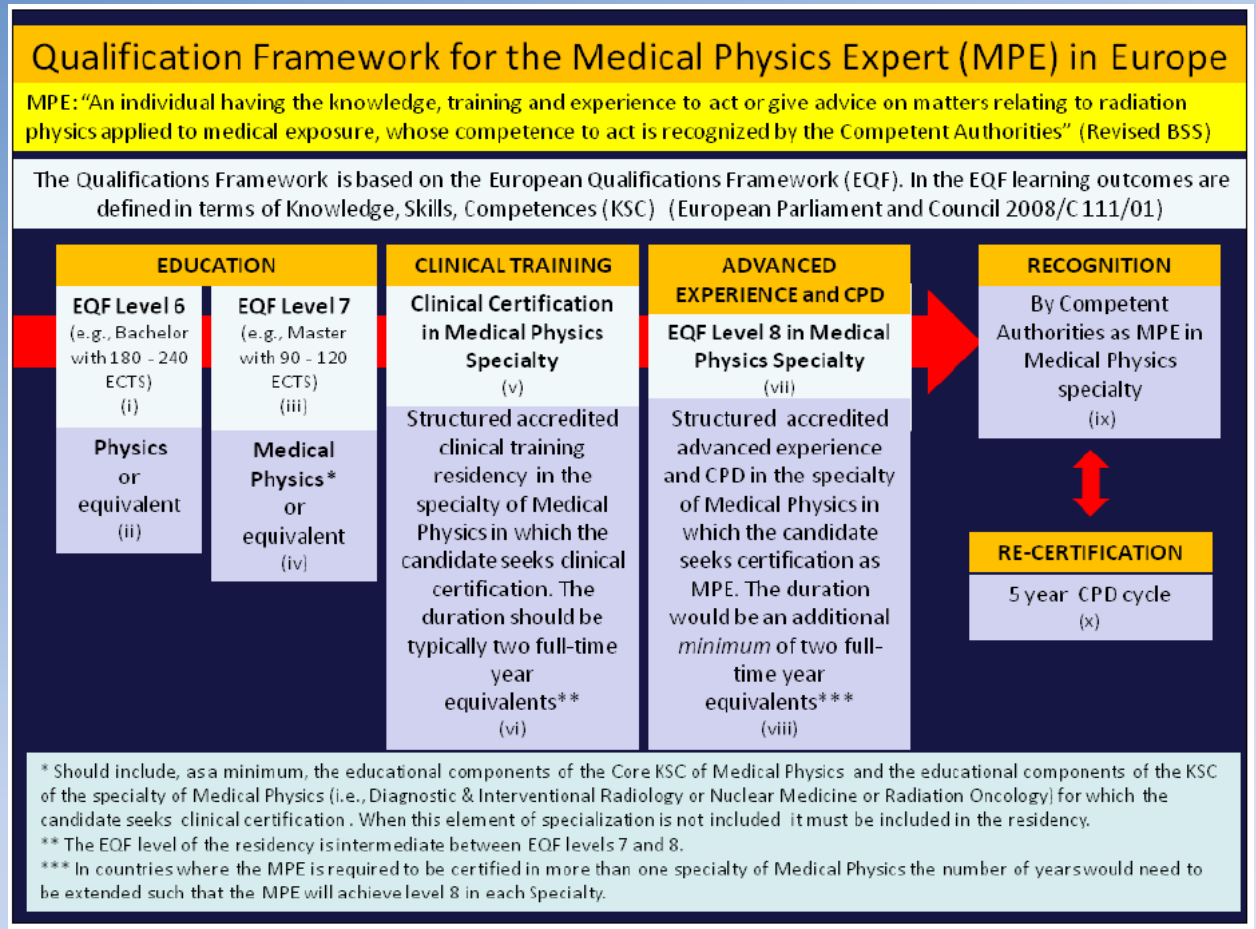

- Since the publication of both the EU BSS directive and RP174, EFOMP made an effort to update Policy Statement affected by them, namely:

  - ✓ Policy Statement 12.1
  - ✓ Policy Statement 6.1
  - ✓ Policy Statement 7.1
  - ✓ Policy Statement 10.1

Physica Medica 30 (2014) 598–603

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journal homepage: http://www.physicamedica.com

EFOMP policy statement

European Federation of Organisations for Medical Physics (EFOMP) Policy Statement 12.1: Recommendations on Medical Physics Education and Training in Europe 2014

C.J. Caruana [a,*], S. Christofides [b], G.H. Hartmann [c]

Physica Medica 30 (2014) 598–603

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Physica Medica 32 (2016) 1–6

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EFOMP Policy Statement

The European Federation of Organisations for Medical Physics Policy Statement No. 6.1: Recommended Guidelines on National Registration Schemes for Medical Physicists ☆

Stelios Christofides [a,*], Jorge Isidoro [b], Csilla Pesznyak [c], Lada Bumbure [d], Florian Cremers [e], Werner F.O. Schmidt [f]

Physica Medica 30 (2014) 598–603

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journal homepage: http://www.physicamedica.com

ELSEVIER

EFOMP Policy Statement

The European Federation of Organisations for Medical Physics Policy Statement No. 10.1: Recommended Guidelines on National Schemes for Continuing Professional Development of Medical Physicists [1]

Stelios Christofides [a,*], Jorge Isidoro [b], Csilla Pesznyak [c], Florian Cremers [d], Rita Figueira [e], Christiaan van Swol [f], Stephen Evans [g], Alberto Torresin [h]

Physica Medica 30 (2014) 598–603

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Physica Medica 32 (2016) 7–11

Contents lists available at ScienceDirect

Physica Medica 32 (2016) 533–540

Contents lists available at ScienceDirect

Physica Medica

journal homepage: http://www.physicamedica.com

EFOMP Policy Statement

The European Federation of Organisations for Medical Physics. Policy Statement No. 7.1: The roles, responsibilities and status of the medical physicist including the criteria for the staffing levels in a Medical Physics Department approved by EFOMP Council on 5th February 2016 ☆

Stephen Evans [a], Stelios Christofides [b], Marco Brambilla [c]

- Also important to the definition of the profession is the **EFOMP Declaration** of 6th June 2015.

EFOMP DECLARATION

of 6th of June 2015

regarding the role of the Medical Physics Expert as the Radiation Protection Expert in the Hospital Environment

On this document the Council of EFOMP declared that:

"The Medical Physics Expert as defined in the directive 2013/59/Euratom must be the professional to supervise and assume the responsibilities of the radiation protection activities in hospitals, including patients, working staff, members of the public and visitors to the hospitals".

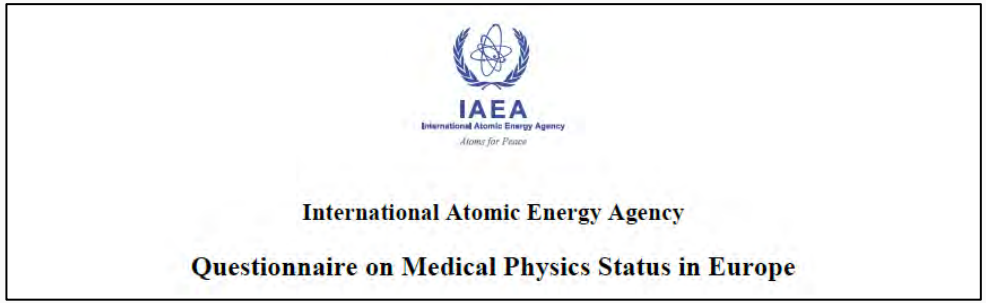
So, **a "Medical Physics Expert" should be the "Radiation Protection Expert" in the hospital environment.**

IAEA
International Atomic Energy Agency

The professional status of the Medical Physicists in Europe was/is also a matter of concern for **IAEA** that last year promoted a Regional Meeting on "**Medical Physics in Europe: Current Status and Future Prespectives**", held in Vienna 7-8th May 2015.

Representatives from more than 30 european countries attended the meeting.

- As a preparation for this meeting, a **"Questionnaire On Medical Physics Status in Europe"** was sent, with the collaboration of EFOMP, to all European countries.



- The answers from more than 30 countries constitute now an important source of information for the characterization of the current situation in Europe.

PROFESSIONAL STATUS OF MEDICAL PHYSICISTS

The Regional Meeting on Medical Physics in Europe: Current Status and Future Perspectives, held at IAEA headquarters, Vienna, from 7 to 8 May 2015, noted the following:

1. The important contributions of ionising radiation in diagnostic and therapeutic applications in healthcare;
2. The key role of clinically qualified medical physicists (CQMPs)[1] in the safe and effective use of ionizing radiation in medicine (diagnostic and interventional radiology, radiation oncology, and nuclear medicine);
3. The continuous innovations in medical radiation technologies and techniques for imaging and therapy that require comprehensive quality assurance (QA) programmes conducted by CQMPs in order to ensure the quality of diagnostic imaging and radiation treatment of patients;
4. The importance of the role of CQMPs in optimizing radiation protection and safety (of patients, staff and general public) in medical uses of radiation;
5. The shortage of CQMPs in the majority of Member States in the Europe Region;
6. An insufficient harmonization of medical physics education and training among the Member States in the Europe Region;
7. A lack of accredited clinical training programmes and corresponding continuous professional development (CPD) schemes in the majority of Member States in the Europe Region;
8. The efforts carried out by the IAEA, the European Commission and professional organizations to harmonize the core curriculum for medical physics education and clinical training.

- As an outcome from this meeting and based on these notes, IAEA issued a list of recommendations addressed to all European Member States.

IAEA
International Atomic Energy Agency
Atoms for Peace

Recommendations of the Regional Meeting on Medical Physics in Europe: Current Status and Future Perspectives

7 – 8 May 2015, IAEA, Vienna, Austria

PROFESSIONAL STATUS OF MEDICAL PHYSICISTS

https://rpop.iaea.org/RPOP/RPoP/Content/Documents/Whitepapers/Recommendations_RER6031_7-8May2015.pdf

The Meeting also recommended that Member States of the Europe Region should, in particular:

1. **Recognize** medical physics as an independent profession in health care with radiation protection responsibilities, as given in the *Joint position statement by the IAEA and WHO – Bonn Call for Action*;
2. **Ensure** that medical physics aspects of therapeutic and diagnostic procedures, including patient and equipment related tasks and activities, are performed by CQMPs or under their supervision;
3. **Establish** an appropriate qualification framework for CQMPs including education, specialized clinical training, certification, registration and continuing professional development in the specialization of medical physics, i.e. diagnostic and interventional radiology, radiation oncology, and nuclear medicine;
4. **Follow and fulfil** international recommendations regarding staffing levels in the field of medical physics;
5. **Establish** mechanisms for the integration of medical physics services in all centres practising radiation medicine, and establish, where appropriate, independent Medical Physics Departments in which accredited clinical training can take place;
6. **Promote** involvement of CQMPs in hospital governance boards and relevant national health committees;
7. **Establish and enforce** the legislative and regulatory requirements related to radiation safety in medical imaging and therapy where medical physics is concerned, in accordance with international and, where applicable, European basic safety standards.

- What / Who defines the current professional status of Medical Physicist in Europe?
- Do we know what is happening in each individual country?
- How far are we from the desired harmonization of the profession in Europe, essential condition to the free movement of professionals across countries?

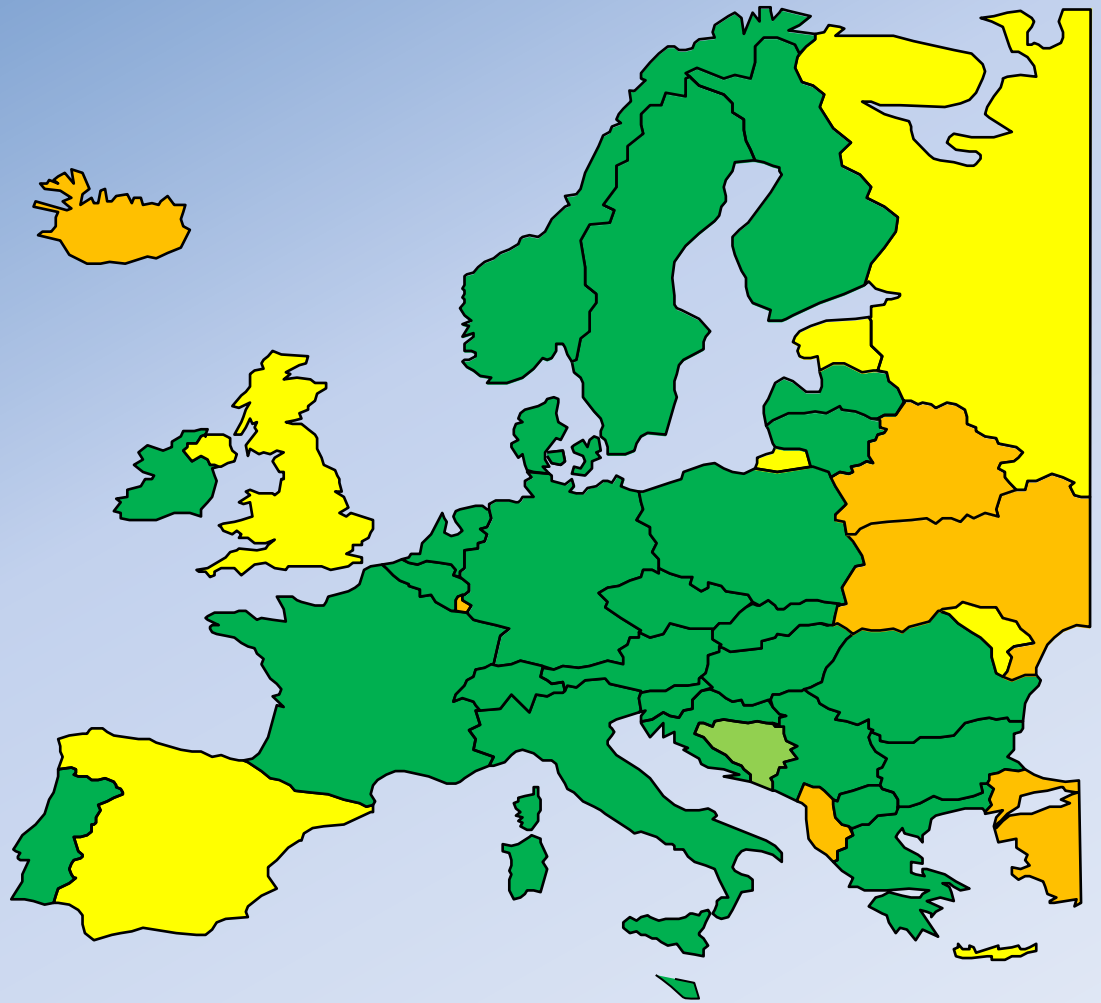
IAEA/FOMP 2015 Questionnaire

EFOMP Countries Responders

Countries not part of EFOMP Responders
BOSNIA HERZEGOVINA
MONTENEGRO

EFOMP Countries Non Responders
CYPRUS
ESTONIA
RUSSIAN FEDERATION
SPAIN
UK

Countries not part of EFOMP Non Responders
ALBANIA
BELARUS
ICELAND
KOSOVO
LUXEMBOURG
TURKEY
MOLDOVA
UKRAINE



Questionnaire On Medical Physics Status in Europe

Qualification framework for medical physics in the country

- Education (minimum level to start work)
- How was the minimum level to start work established?
- Clinical training (minimum level to start work independently)
- Subsequent clinical training (additional/higher level)
- How was the minimum level to start work independently established?
- Continuous professional development (CPD)

Professional status of medical physicists in the country

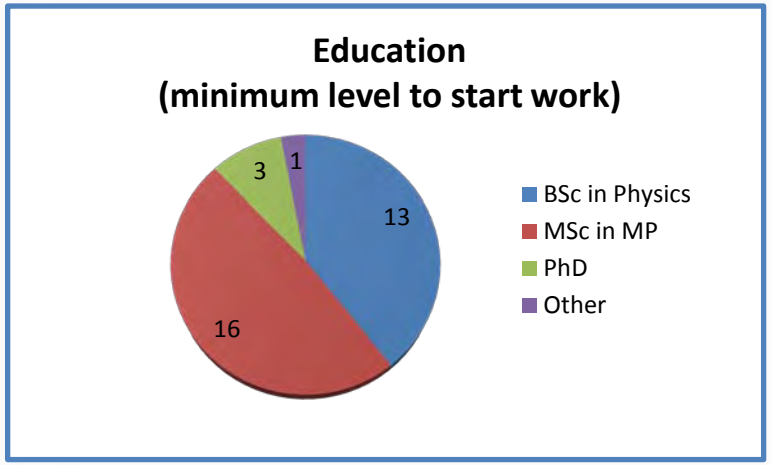
- Certification
- Registration
- Recognition
- Medical physics staffing levels

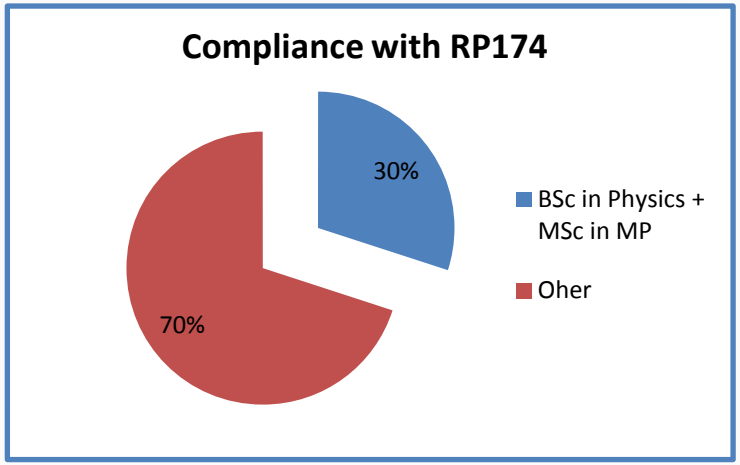
IAEA International Atomic Energy Agency

Questionnaire On Medical Physics Status in Europe

Qualification framework for medical physics in the country

Education (minimum level to start work)





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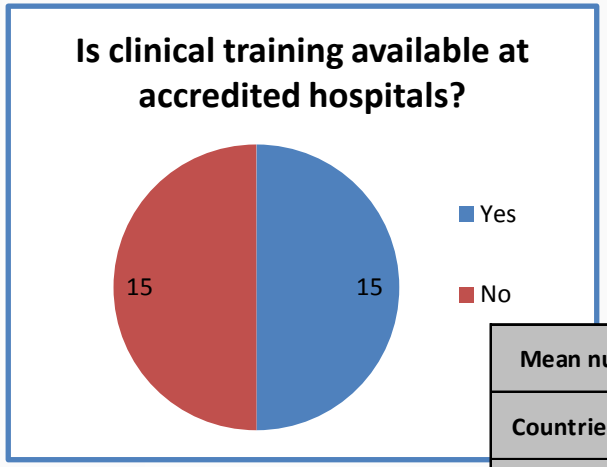
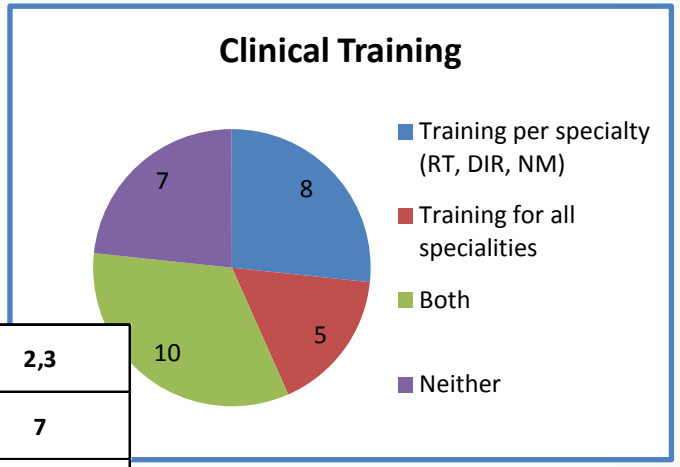
Questionnaire On Medical Physics Status in Europe

Qualification framework for medical physics in the country

Clinical training (minimum level to start work independently)





Mean number of years	2,3
Countries with > 3 years	7
Countries where it is mandatory	21

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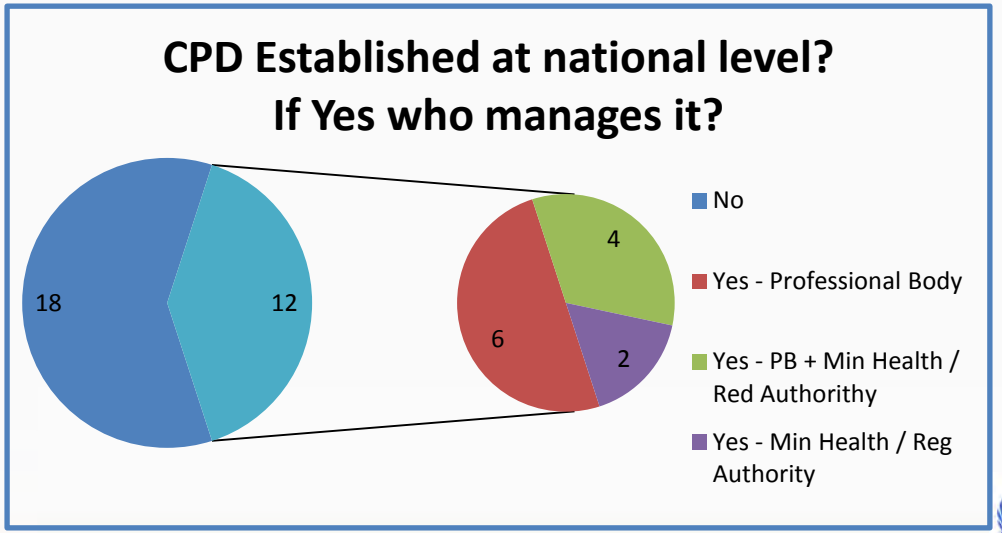
Questionnaire On Medical Physics Status in Europe

Qualification framework for medical physics in the country

Continuous professional development (CPD)



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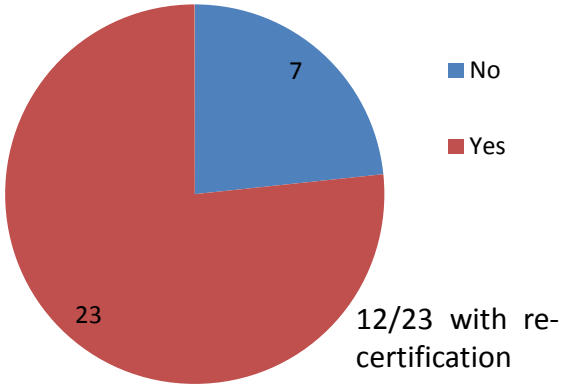
Questionnaire On Medical Physics Status in Europe

Professional status of medical physicists in the country

Certification

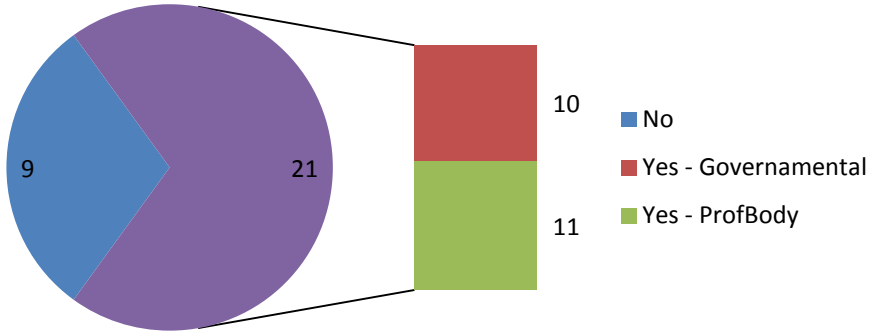
Does the qualification framework lead to certification?



12/23 with re-certification process

Registration

Is there a national registry for medical physicist? Who runs it?



Questionnaire On Medical Physics Status in Europe

Professional status of medical physicists in the country

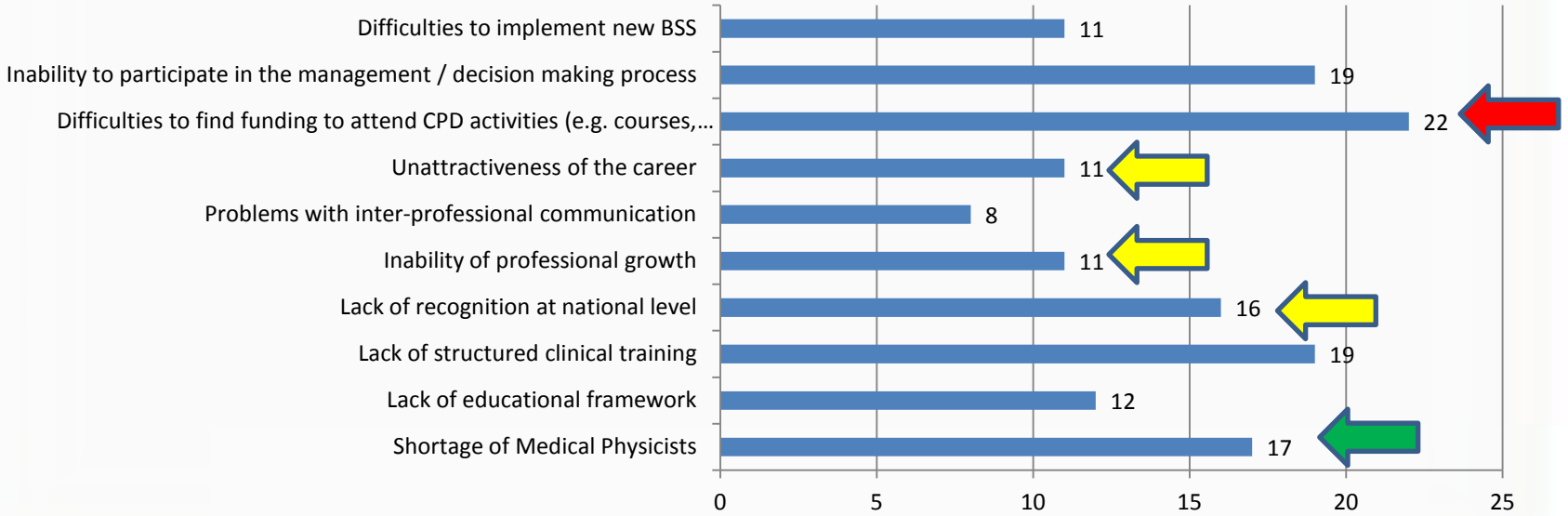
Recognition	Y	N
Is there a designated competent authority for medical physics recognition? (Y/N)	17	13
Is medical physics considered a health care profession? (Y/N)	20	10

Medical physics staffing levels	Y	N
Are there different levels of Medical Physics staff (e.g. Medical Physicist, Medical Physics Expert/Medical Physics Specialist/Qualified Medical Physicist)	18	12
Is there any supporting staff within MP departments (e.g. MP assistants, dosimetrists, etc.) (Y/N)	18	12

IAEA International Atomic Energy Agency

Questionnaire On Medical Physics Status in Europe

Major issues in medical physics



IAEA International Atomic Energy Agency

- What / Who defines the current professional status of Medical Physicist in Europe?
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MEDICAL PHYSICS – A REGULATED PROFESSION?

- The presented results show that the situation is far from being uniform across European countries.
- For some countries small changes will be enough to reach the “ideal” cenario of the European recommendations but others will need a bigger effort.
- Only by the recognition by the European Union of the Medical Physics as a regulated profession we can have an automatic recognition of professionals between countries and the possibility of moving across Member States.

MEDICAL PHYSICS – A REGULATED PROFESSION?

- To became a regulated profession we must meet the requirements of the European Union Directives on the recognition of professional qualifications (Directives 2005/36/EC and 2013/55/EU), which include having a common training framework in at least on third of the Member States.

- EFOMP can play an important role in guiding and following individual NMOs countries in their path towards the required standards of education, training and performance of Medical Physicists.

EFOMP **Motto**

"Applying physics to healthcare for the benefit of patients, staff and public".