

## INTRODUCTION:

Since the publication of the last survey, the introduction of new technologies in the field of Radiography has led to great changes in radiography education and practice. Additionally, there continues to be an ever increasing demand upon diagnostic and therapeutic radiography services which are themselves economically, time and personnel limited. In response, skill mix, new and extended roles have been introduced and greater responsibilities for radiographers have been willingly accepted. Wherever this has happened, careful research has shown that radiographers if properly trained have provided a safe, effective and economic service. However, the role of radiography and radiographers varies from country to country depending on a wide variety of factors including the roles and numbers of other professionals as well as the culture of the country. Thus the profession and the education in the European countries tend to differ. These pressures and differences have made the full implementation of the Harmonisation and Free Movement European Directive difficult. The European Radioprotection Directives (MED/97/43 Euratom) also makes further demand on radiographers. The sub-regional branch ECRRT (European Committee of Radiographers and Radiological Technologists) of the ISRRT (International Society of Radiographers and Radiological Technologists) is preparing a survey on the implementation of this directive which will be circulated shortly.

One of the aims of the ISRRT is to promote and encourage improved standards of radiography. The Professional Standards for the Education of Radiographers document, published 12 years ago has been a great help to many professional societies developing formal education programmes to meet modern needs. The previous editions of this survey have also helped the process providing a source of information and comparison.

There have been so many changes to education programmes in recent times, that this fourth edition of the "Conditions for the Education of radiographers within Europe" is most timely and will be an information source to European educational bodies, officials within government and at the European Union and all those responsible for ensuring that those exposing their populations to hazardous radiations are properly trained and competent. In the very near future, the European Union will be enlarged. We would wish to welcome these new countries with their professional, radiographic societies to our family. We welcome all those who have already made contact with us and who have felt able to participate in this project and to attend our meetings. Hopefully, those whom are still unknown to us will make contact and participate with us in our activities.

Perhaps within the lifetime of this publication the Universities in our diverse continent will have been able to co-operate sufficiently to acknowledge each other's courses as meeting the requirements of the safe delivery of radiation to the public and the desire of professionals that their qualification allows them to develop their careers. This would certainly aid free movement.

This fourth edition provides an updated survey of answers from 25 European countries of the ECRRT. The questions used were formulated so as to ensure clear understanding and thus is hopefully accurate. The survey does not provide detailed curricula but should provide necessary information and contact addresses to help to facilitate the free movement of professionals.

As regional Vice-President and Regional Director for Europe and Africa, it is a great pleasure to see this updated survey published and put on the web-site of our International Society. We would like to thank Adrienne Finch, past Education Director ISRRT Europe-Africa, for her patience and hard work hard in driving the publication forward.

Niru Kolmannskog Vice-President ISRRT Europe-Africa  
Alain Hembise Regional Director ISRRT Europe- Africa

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## Country Codes

COUNTRY	CODE
Austria	AT
Belgium-francophone	BE-F
Belgium-Flemish	BE-FI
Croatia	HR
Czech Republic	CZ
Denmark	DK
Estonia	EE
Finland	FI
France	FR
Germany	DE
Greece	GR
Iceland	IS
Ireland	IE

COUNTRY	CODE
Latvia	LV
Luxembourg	LU
Macedonia	MK
Malta	MT
Netherlands	NL
Norway	NO
Portugal	PT
Slovenia	SI
Spain	ES
Sweden	SE
Switzerland	CH
United Kingdom	GB
Yugoslavia	YU

✓

means YES

### Grandfather legislation

means people who have in the past performed radiography legally with less or no training, who are not actually qualified under current legislation, but who are allowed to continue to practice for the time being.

1. **Requirements for entering basic radiography education leading to a radiographer qualification which certifies competence.**

- 1.1 What is the required number of years in primary and secondary education before entry is allowed?  
 1.2 At what age does primary school education start?  
 1.3 Is the entrant required to have a school leaving certificate or other before entry?  
 1.6 Minimum age at entry

Country	1.1	1.2	1.3	Requirements	Specific subjects required	1.6
<b>AT</b>	12/13	6/7	Yes	School leaving cert. or nursing diploma		18
<b>BE-F</b>	12	6	Yes	Secondary School Diploma		18
<b>BE-FI</b>	12	6	Yes	Certificate Secondary School		18
<b>CH</b>	10-12**	7	Yes		Natural sciences or job specific subjects	18
<b>CZ</b>	13	6-7	Yes	Leaving examination (maturita)	Czech language	18
<b>DE</b>	10	6	Yes	Secondary school leaving cert. or equiv.	English, mathematics, physics, biology, chem...	17
<b>DK</b>	12/13	5-7	Yes	Upper-secondary examination	Primary English, physics, mathematics	18
<b>ES</b>	10	3	No			18
<b>EE</b>	12	6/7	Yes	Diploma of secondary education	No	18
<b>FI</b>	12	7	Yes	Matriculation or Graduate from Sec School for social & health related studies	Finnish, Swedish, 1 foreign language, maths general knowledge	18
<b>FR</b>	12	6	Yes	Bachelor	Mathematics, physics, biology	18
<b>GB</b>	14	5	Yes	General Certificate of secondary education + 'A' level	Engl, Maths, science @ GCSE: University entrance-pref for science subjects.	No* (18)

Country	1.1	1.2	1.3	Requirements	Specific subjects required	1.6
<b>GR</b>	12	6.5	Yes	National Examination System (Pan Hellenic)	Chemistry, Biology, Physics	16*
<b>HR</b>	12	7	Yes	Qualification exam	<2002-Sciences 2002-General knowledge & education	17
<b>IE</b>	12	5	Yes	Leaving Certificate	English, Irish, 1 foreign language, Maths, 1 laboratory science	17
<b>IS</b>	14	6	Yes	Matriculation	No	No
<b>LU</b>	11	6	Yes	Passed 11 <sup>th</sup> year, tech/class High school	No	18
<b>LV</b>	12	7	Yes	School leaving Diploma	No-average mark	18
<b>MK</b>	12	6/7	Yes	Secondary School Certificate	Macedonian, Maths, Science	18/19
<b>MT</b>	13	5	Yes	2 'A' levels + 1 intermediate	Physics at 'A' level	No
<b>NL</b>	13/14	4	Yes	Secondary school diploma-HAVO/VWO	Mathematics & biology	17
<b>NO</b>	13	6	Yes	'Gymnasium'. Cert. of Further Education	Mathematics, sciences	No
<b>PT</b>	12	6	Yes		Biology &/or physics, chemistry	No* (18)
<b>SE</b>	12	6/7		Gymnasium exam. University entrance	Mathematics B, sociology, NaB	18
<b>SI</b>	12	6/7	Yes	Certificate of secondary education	No	17
<b>YU</b>	12	7	??			18

Comment:

\*Age limit set in effect by ionising radiation regulations

\*\*or lower level plus a 3 year vocational, but not necessarily medical programme

- 2 **Combined courses for basic radiographer education**  
 2.2 Which professional fields are incorporated in a combined programme  
 2.3 Are radiographers expected to be competent at the basic level in each professional field after qualification on this combined course?  
 2.4 If no what more do they have to do?  
 2.5 What is the length of the combined course in years?

	Diagnostic Imaging		Radiotherapy		Nuclear Medicine		Ultrasound		Years
	2.2	2.3	2.2	2.3	2.2	2.3	2.2	2.3	2.5
<b>AT</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3
<b>BE-F</b>	Yes	Yes	No	No	Yes	Yes	No	No	3
<b>BE-FI</b>	Yes	Yes	No	No	Yes	Yes	Yes	Yes	3
<b>CH**</b>	Yes	Yes	Yes	Yes	Yes	Yes	No	No	3 or 4**
<b>CZ+</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3
<b>DE</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	3***
<b>EE</b>	Yes	Yes	Yes	Yes	Yes	Yes	No	No	3.5*
<b>ES</b>	Yes	No	Sep see below	No	Yes	No	Yes	No	2 years
<b>FI</b>	Yes	Yes	Yes	Yes	Yes	Yes			3.5
<b>FR</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	3
<b>GR</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	4
<b>HR</b>	Yes	Yes	Yes	Yes	Yes	Yes	No	No	3
<b>IS</b>	Yes	Yes	No	No	Yes	Yes	No	No	4
<b>LU</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3
<b>LV++</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.5
<b>MK</b>	Yes	Yes	Yes	No	Yes	No	No	No	4
<b>NL<sup>+</sup></b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	4
<b>NO</b>	Yes	Yes	Yes	Yes	Yes	Yes	No	No	3
<b>SI</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	4
<b>YU</b>	Yes	Yes	Yes	Yes	Yes	Yes	No	No	3

\*the programme changed significantly in 1999

\*\*1. The course comprises 24 months in Diagnostic 4 months in Radiotherapy, 4 months in Nuclear Medicine, plus an additional 4 months in whichever field is the major: 2. 3 yrs in German part, 4 yrs in French part of Switzerland

\*\*\*Doctors' receptionists can receive 120 hours of training and are then allowed to perform examinations under the responsibility of the doctor. A radiographer's training is 4,400 hours

It can lead to a combined qualification or choose for Radiodiagnostic, Therapy or Nuclear medicine only  
+ Also MR

++3 years is spent gaining an Associate degree at medical school, followed by 6 months specialist training

### 3. Separate courses for basic radiographer education

3.1 What is the length of each separate course?

3.2 Is it possible to qualify in the field without a basic qualification in diagnostic radiography?

	Diagnostic Imaging	Radio-therapy	3.2	Nuclear Medicine	3.2	Ultrasound	3.2
<b>DK</b>	3.5	see right	1 Year after DI	No	No	No	No
<b>ES</b>	2	2	Yes				
<b>GB</b>	3	3	Yes	1-2 yrs post graduate	No*	1-2 yrs post graduate	No*
<b>IE</b>	4	4	Yes	No		No	
<b>MT</b>	4	None	N/A	None	N/A	2 years post graduate	Yes
<b>NL+</b>	3	3	Yes	1.5 yrs	Yes	1-2 yrs post graduate	Yes
<b>PT</b>	4	4	Yes	4	Yes		
<b>SE</b>	3	Courses are separate		None		Post qualification	

+Note that both separate and combined course are available. If people qualify in NM or US without a basic RD or RT qualification they cannot call themselves 'radiographer'. For ultrasound qualifications in the field of cardiac, gynaecology/obstetry, vascular it is possible to qualify without a basic qualification in diagnostic radiography

\*Nuclear medicine and ultrasound qualifications are not state registered. It may be possible for suitably qualified persons from other professions to take this qualification. Each person is individually assessed on their merits.

**4. Content of syllabus**

**4.1 Are the following topics included in the basic education (BE) programme and/or in specialised post qualification (PQ) courses?**

- |                                     |                                      |                                      |
|-------------------------------------|--------------------------------------|--------------------------------------|
| 1. Digital image processing         | 2. Computed tomography               | 3. Radiation protection (diagnostic) |
| 4. Technical quality control (diag) | 5. Nuclear medicine                  | 6. Ultrasound                        |
| 7. Magnetic resonance imaging       | 12. Training for conducting research |                                      |

4	DIAGNOSTIC IMAGING or COMBINED COURSES															
	1		2		3		4		5		6		7		12	
	BE	PQ	BE	PQ	BE	PQ	BE	PQ	BE	PQ	BE	PQ	BE	PQ	BE	PQ
AT	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO
BE-Fr	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO
BE-FI	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO
CH	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO
CZ	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO
DE	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	✓
DK	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO	✓	NO	✓	NO	✓	NO
EE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NO	NO
ES	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO
FI	✓	NO	✓	NO	✓	✓	✓	NO	✓	NO	✓*	✓*	✓	NO	✓	NO
FR	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO
GB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GR	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO
HR	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO
IE	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO
IS	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	NO+	NO	✓	NO	✓	NO
LU	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓*	NO	✓	NO	NO	NO
LV	✓	NO	✓	NO	✓	NO	✓	NO	✓	✓	✓	✓	✓	✓	NO	NO

4	DIAGNOSTIC IMAGING or COMBINED COURSES (continued)															
	1		2		3		4		5		6		7		12	
	BE	PQ	BE	PQ	BE	PQ	BE	PQ	BE	PQ	BE	PQ	BE	PQ	BE	PQ
<b>MK</b>	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO	✓	NO	NO	NO
<b>MT</b>	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO
<b>NL</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>NO</b>	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	✓	✓
<b>PT</b>	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO	✓	NO	✓	NO	✓	NO
<b>SE</b>	✓	NO	✓	NO	✓	NO	✓	NO	✓*	NO	✓*	NO	✓	NO	✓	NO
<b>SI</b>	✓	NO	✓	NO	✓	NO	✓	NO	✓	✓	✓	NO	✓	NO	✓	NO
<b>YU</b>	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO	✓	NO	✓	NO

\*theory only +short courses provided in these areas

**4.1 Are the following topics included in the basic education (BE) programme and/or in specialised post qualification (PQ) courses?**

4.1.8 Brachytherapy

4.1.9 Radiation protection (therapy)

4.1.10 Technical quality control (therapy)

4.1.11 3-D planning

4.1.12 Training for conducting research

4	RADIOTHERAPY OR COMBINED COURSES									
	8		9		10		11		12	
	BE	PQ	BE	PQ	BE	PQ	BE	PQ	BE	PQ
AT	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO
BE-Fr	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
BE-Fl	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
CH	✓	NO	NO	NO	✓	NO	✓	NO	NO	NO
CZ	✓	NO	✓	NO	✓	NO	✓	NO	NO	NO
DE	✓	NO	✓	NO	✓	NO	✓	NO	✓	✓
DK	NO	NO	NO	✓	NO	✓	✓	✓	✓	NO
EE	✓	✓	✓	✓	✓	✓	NO	NO	NO	NO
ES	✓	NO	✓	NO	✓	NO	NO	NO	✓	NO
FR	✓	NO	✓	NO	✓	NO	NO	NO	NO	NO
GB	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GR	✓	NO	✓	NO	✓	NO	NO	NO	✓	NO
HR	NO	NO	NO	NO	✓	NO	NO	NO	NO	NO
IE	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO
IS	NO*	NO	NO	NO	NO	NO	NO	NO	NO*	NO
LU	✓*	NO	✓*	NO	✓*	NO	NO	NO	NO	NO
LV	NO	NO	✓	✓	NO	NO	NO	NO	NO	NO

4	RADIOTHERAPY OR COMBINED COURSES (continued)									
	8		9		10		11		12	
	BE	PQ	BE	PQ	BE	PQ	BE	PQ	BE	PQ
<b>MK</b>	NO	NO	✓	NO	✓	NO	✓	NO	NO	NO
<b>MT</b>	NO	NO	NO	NO	NO	NO	NO	NO	✓	NO
<b>NL</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>NO</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>PT</b>	NO	NO	NO	NO	NO	NO	NO	NO	✓	NO
<b>SE</b>	NO	NO	NO	NO	NO	NO	NO	NO	✓	NO
<b>SI</b>	✓	✓	✓	NO	✓	NO	✓	✓	✓	NO
<b>YU</b>	✓	NO	✓	NO	✓	NO	✓	NO	✓	NO

\*short courses provided

## 5.0 Assessment of basic radiography education

- 5.1 Does the assessment of the academic elements of the course contain unseen written examination(s)? (Unseen means that questions are not known to the candidates beforehand).
- 5.2 Is the test of knowledge primarily by use of standard multichoice questions?

	5.1	5.2
<b>AT</b>	✓	NO
<b>BE-Fr</b>	✓	NO
<b>BE-FI</b>	NO	NO
<b>CH</b>	NO	NO
<b>CZ</b>	✓	✓
<b>DE</b>	✓	✓
<b>DK</b>	✓	NO
<b>EE</b>	✓	✓
<b>ES</b>	✓	✓
<b>FI</b>	✓	NO
<b>FR</b>	✓	✓
<b>GB</b>	✓	NO
<b>GR</b>	✓	NO

	5.1	5.2
<b>HR</b>	NO	✓
<b>IE</b>	✓	NO
<b>IS</b>	✓	NO
<b>LU</b>	✓	NO
<b>LV</b>	NO	✓
<b>MK</b>	✓	NO
<b>MT</b>	✓	NO
<b>NL</b>	✓	NO
<b>NO</b>	✓	NO
<b>PT</b>	✓	NO
<b>SE</b>	✓	NO
<b>SI</b>	✓	YES
<b>YU</b>	✓	✓

**5.3 Does the assessment of the practical elements of the course contain any of the following?**

**5.3.1** Observation without mark by a qualified radiographer

**5.3.2** Practical marked test by a qualified radiographer

**5.3.3** Oral examination

**5.3.4** OSCE

**5.3.5** Minimum number of examinations performed with no specification of areas

**5.3.6** Minimum number of examinations performed with definition of areas

	5.3.1	5.3.2	5.3.3	5.3.4	5.3.5	5.3.6
<b>AT</b>	NO	NO	✓	✓	NO	✓
<b>BE-Fr</b>	✓	✓	✓	✓	✓	✓
<b>BE-FI</b>	✓	✓	✓	✓	✓	✓
<b>CH</b>	✓	✓	✓	✓	NO	✓ *
<b>CZ</b>	NO	✓	✓	NO	NO	NO
<b>DE</b>	✓	✓	✓	✓	NO	✓
<b>DK</b>	✓	✓	✓	✓	✓	✓
<b>EE</b>	✓	✓	✓	✓	✓	✓
<b>ES</b>	NO	✓	✓	✓	✓	✓
<b>FI</b>	✓	✓	✓	✓	NO	NO
<b>FR</b>	✓	✓	✓	✓	✓	✓
<b>GB</b>	✓	✓ **	✓	✓	✓ ***	✓
<b>GR</b>	✓	NO	✓	NO	NO	NO
<b>HR</b>	✓	✓	✓	✓	✓	✓
<b>IE</b>	✓	✓	✓	NO	✓	✓
<b>IS</b>	✓	✓	✓	✓	✓	✓
<b>LU</b>	✓	✓	✓	NO	NO	NO
<b>LV</b>	✓	✓	NO	✓	NO	NO
<b>MK</b>	✓	✓	✓	✓	✓	✓
<b>MT</b>	✓	✓	?	?	NO	✓
<b>NL</b>	✓	✓	✓	✓	NO	NO
<b>NO</b>	✓	NO	✓	✓	NO	NO
<b>PT</b>	✓	✓	✓	✓	NO	NO
<b>SE</b>	✓	✓	✓	✓	NO	✓
<b>SI</b>	✓	✓	✓	✓	✓	✓
<b>YU</b>	NO	✓	✓	✓	NO	NO

\*For orientation, not qualification \*\*More usually \*\*\* Not usually

**6 Organisation and regulation**  
**6.1 Under whose responsibility is the basic education programme organized?**

6	Ministry of Education	Ministry of Health	Individual hospitals	Educational Institutes	Professional bodies	Other
AT		✓				
BE-Fr	✓			✓		
BE-Fl	✓			✓		
CH	*	✓		✓	✓	
CZ	✓	✓				
DE		✓ (Federal)		✓		
DK	✓	✓		✓		
EE	✓		✓	✓	✓	
ES	✓ **			✓ **		
FI	✓			✓		
FR	✓	✓		✓		
GB				✓		
GR	✓					
HR	✓			✓		
IE	✓			✓		
IS	✓					
LU	✓					
LV	✓					Medical School-professional education center
MK	✓	✓			Yes & No	
MT	✓	✓	✓	✓		
NL	✓	✓	✓	✓		
NO	✓	✓		✓		
PT	✓					
SE	✓					
SI	✓	✓			Yes	
YU	✓	✓		✓		

\*Current responsibility is with Ministry of Health. From 2003 a new federal agency, BBT, Ministry of professions and technology will be in charge with new rules

\*\*Educational institutions do not necessarily follow Ministry guidelines. They have reduced the total theory and practice hours from the 2,000 demanded to 1700

**6.2 Which organisation/Ministry etc authorises the education programme as leading to competency**

<b>6.2</b>	<b>Ministry of Education</b>	<b>Ministry of Health</b>	<b>Other</b>
AT		✓	
BE-Fr	✓		
BE-Fl	✓		
CH			SRK-Swiss Red Cross
CZ	✓	✓	
DE		✓ *	
DK	✓		
EE	✓		Estonian Soc of Radiologists Estonian Soc of Radiographers
ES	✓		
FI		✓	Ministry of Social & Health Matters
FR	✓	✓	
GB			Health Professions Council-Statutory College of Radiographers-Professional
GR	✓		
HR			Ministry of Science & Technology
IE	✓		
IS	✓	✓	
LU	✓		
LV			Ministry of Welfare
MK	✓		University
MT			University
NL	✓	✓	
NO	✓	✓	
PT	✓	✓	
SE			National Agency for Higher Education
SI	✓	✓	
YU	✓		

\*Federal Minister of Health

**6.3 On which educational level is your basic education programme regulated?**

<b>6.3</b>	<b>Higher Education University</b>	<b>Higher Education Poly, Hogesch etc</b>	<b>Vocational training, hospital/work based</b>
AT		✓	
BE-Fr		✓	
BE-Fl		✓	
CH		✓	
CZ*	✓	✓	
DE			✓
DK		✓	
EE	✓ After 1999	✓ After 1999	✓ Prior to 1999
ES			✓
FI		✓	
FR			
GB	✓		
GR	✓		
HR		✓	
IE	✓		
IS	✓		
LU			
LV	✓	✓	
MK	✓		
MT	✓		
NL	✓	✓	✓
NO	✓		
PT	✓	✓	
SE	✓		
SI	✓		
YU	✓		

\*The two levels are currently under review

#### 6.4-6.9 Organisation and regulation continued

- 6.4 Are radiographers allowed to teach radiography students in the educational institutes?  
 6.5 If 'YES', are they limited as to which subjects can they teach?  
 6.6 If 'YES', which ones can they teach  
 6.7 Are radiography teachers required to have a higher education level than their regular radiographer's qualification.?  
 6.8 If 'YES' what are those qualifications?  
 6.9 Are teaching radiographers required to have a teaching qualification?

6	6.4	6.5	6.6	6.7	6.8	6.9
AT	✓	✓	Subjects in which they are qualified-professional	✓	Execution of special tasks, teaching and management	✓
BE-Fr	✓	✓	Only those for which no University degree is needed	NO		✓
BE-Fl	✓	✓	Only those for which no University degree is required	NO	'Enseignement'	✓
CH	✓	✓	Practical experience in the subject taught	✓	Didactic competence for practical course instructors	NO
CZ	✓	✓	Practical subjects only	✓ <sup>^^^</sup>	Master's degree	NO
DE	✓	✓	Clinical education Field of practical experience (technical, positioning etc)	NO		✓
DK	✓	NO		✓	Master's degree/candidate	✓
EE	✓	✓	Practical training in health care school, with no degree radiographers cannot teach in higher education centres	NO*		NO
ES^^	NO			NO		NO
FI	✓	✓	Only subjects for which their special expertise is needed	✓	Academic degree-Master's in radiography +3 years clinical experience	✓ -Master's degree in teaching
FR	✓	NO		✓	Ch. radiographer+ pedagogy competencies for teacher f/t. P/t diploma for practical work	✓
GB	✓	NO		NO**	Progression through PgCert-PgD-Masters	Not at present, but likely in the future
GR	✓	✓	Principles of Imaging, Positioning	✓	Master's in Science	At least Master's degree
HR	✓	✓	Practical only	NO		✓
IE	✓	NO <sup>+++</sup>			sHigher degree in the specialist area	NO
IS	✓	NO		✓	Master's/radiographers with basic qual. can have short term posts	NO

6	6.4	6.5	6.6	6.7	6.8	6.9
LU	✓	✓	Professional subjects and practical radiography	NO		✓
LV	✓	✓	Bio-medical & technical	✓	Master's degree	✓
MK	NO			NO	PhD in relevant subject	Not answered
MT	✓	NO		✓ ***	Post graduate cert in education & minimum Master's level	PGCE only required for theoretical lectures
NL	✓	NO	All	✓	Post graduate cert in education or Master's in Health Care Sciences	✓
NO	✓	NO		✓	Either Master's in Education or in Health Care Science	✓
PT	✓	NO		✓	At least a Master's degree	NO
SE	✓	NO		✓	Master's of Science	✓
SI	✓	✓	Technical & practical only	YES	3/5 already have Master's degree. University encourages.	✓
YU	NO					

\*to be included in the Radiographers' Development Programme by 2015

\*\* not an absolute requirement but preferred on appointment and expected as part of their contractual obligation

\*\*\* Those previously practicing without advanced qualification are still teaching

+++ Depending on competencies

^^ Everybody can teach radiographers, pharmacists, physicists, nurses, doctors, radiologists, engineers etc, except radiographers or technologists.

^^^ Yes if they teach in the University, but NO if they teach at the polytechnic level

**6.10 Are the following topics regulated by national law(s)**

- 6.10.1 Programme content      6.10.2 Exam content      6.10.3 Course duration  
 6.10.4 Quality assessment-int      6.10.5 Quality assessment-ext      6.10.6 Exclusive competence  
 6.10.7 Professional title      6.10.8 Registration-state.

<b>6.10</b>	Programme Content	Exam content	Course duration	Quality assessment-internal	Quality assessment-external	Exclusive competence	Professional title	State registration
<b>AT</b>	✓	✓	✓	✓	No	✓	✓	No
<b>BE-Fr</b>	✓	✓	✓	No	No	No	✓	No
<b>BE-FI</b>	***		✓				✓	
<b>CH+++</b>	✓	✓	✓	✓	No	✓	✓	✓
<b>CZ</b>	No	No	No	✓	✓	No	No	No
<b>DE</b>	✓	✓	✓	✓	No	✓	✓	✓
<b>DK</b>	✓	✓	✓	✓	✓	✓	✓	✓
<b>EE</b>	✓	✓	✓	✓	✓	✓	✓	* ✓
<b>ES</b>	✓	No	✓	?	?	✓	✓	No
<b>FI</b>	✓	No	✓	No	No	No	✓	✓
<b>FR</b>	✓	✓	✓	✓	✓	No	✓	✓
<b>GB</b>	No	No	No	No	No	** ✓	✓	✓
<b>GR</b>	✓	✓	✓	No	No	No	✓	No+
<b>HR</b>	✓	✓	✓	✓	✓	✓	✓	✓
<b>IE</b>	No	No	No	No	No	✓	✓	✓
<b>IS</b>	✓	No	✓	✓	No	✓	✓	✓
<b>LU</b>	✓	✓	✓	No	No	No	✓	✓
<b>LV</b>	✓	✓	✓	No	No	✓	✓	✓
<b>MK</b>	✓	✓	✓	✓	No	✓	✓	Expected soon

<b>6.10</b>	Programme Content	Exam content	Course duration	Quality assessment-internal	Quality assessment-external	Exclusive competence	Professional .title	State registration
<b>MT</b>	✓	✓	✓	✓	✓	✓	✓	✓
<b>NL</b>	No	No	✓	✓	✓	No	✓	No
<b>NO</b>	✓	✓	✓	No	✓	No	✓	✓
<b>PT</b>	No	No	✓	✓	✓	✓	✓	✓
<b>SE</b>	✓	✓	✓	✓	✓	✓ ++	✓	✓
<b>SI</b>	✓	✓	✓	✓	✓	No	✓	✓
<b>YU</b>	?	?	?	?	?	?	?	?

\* since 2002    \*\*only radiographers who are state registered are expected to practice

\*\*\*Because we have just started, some topics are still to be regulated. All will be within 1-2 years

+ expected soon

++ except for radiotherapy

+++ In German part the regulations are being revised, to be finalized 2004

## Those who perform radiography

- 7.1 Are there those, other than radiographers and radiologists who are officially allowed to perform radiography.  
 7.2 If YES a definition of who those are and when it occurs  
 7.3 Are there those who perform radiography without official permission  
 7.4 If YES, a definition of who those are and when it might occur

	7.1	7.2	7.3	7.4
<b>AT</b>	✓	Medically skilled employees (MTF)	NO	
<b>BE-Fr</b>	✓	Nurses & Technicians-under Grandfather legislation*		
<b>BE-FI</b>				
<b>CH</b>	✓	Doctor (not radiologist), with a brief training, supervises a medical assistant with a basic 150 hour course-extremities and thorax only	✓	Medical assistants under Grandfather legislation +clinics with severe staff shortages do employ medical assistants with the 150 hour training
<b>CZ</b>	✓	The law is changing. Old one 'anyone who is qualified' without defining 'qualified'.	✓	Dentist and interventional cardiologists
<b>DE</b>	✓	Doctors receptionists, helpers, with no responsibility, and no self assessment. Limited range	✓	
<b>DK</b>	✓	Nurses-'Grandfather', but it will continue whilst there is a shortage of radiographers	NO	
<b>EE</b>	NO		NO	
<b>ES</b>	✓	Nurses with the speciality 'Electroradiology'	✓	Stretcher bearers, personal auxiliaries, doctors, nurses, dentists, veterinary workers etc
<b>FI</b>	✓	Apprentice trained radiographers under Grandfather legislation, only to 2005	NO	
<b>FR</b>	NO		NO	
<b>GB</b>	NO**		NO	
<b>GR</b>	✓	x-ray machine users	NO	

	7.1	7.2	7.3	7.4
<b>HR</b>	NO		✓	Mostly 'grandfathers', + illegally
<b>IE</b>	NO		NO	
<b>IS</b>	✓	Nurses-Grandfather legislation	✓	Local nurses & other staff in small Primary Care Stations in remote areas. Only of extremities
<b>LU</b>	NO		✓	Nurses in outpatients and nuclear medicine
<b>LV</b>	NO		NO	
<b>MK</b>	NO		NO	
<b>MT</b>	NO		NO	
<b>NL</b>	✓	Government allows new training programmes as they see fit	NO	
<b>NO</b>	NO		NO	
<b>PT</b>	NO		✓	Illegal in places with no assessment
<b>SE</b>	NO		NO	
<b>SI</b>	✓	Nurses, grandfather legis. dental x-rays-oral hygienists	NO	
<b>YU</b>	NO		NO	

\*\* Pilot schemes to test the development of an assistant level are in progress

**8. Movement of Professionals within Europe**

- 8.1 If your profession is regulated by law, please give the name and address of the authority to whom radiographers should apply for recognition.  
 8.2 List the documents to be submitted  
 8.3 State the language in which the documents should be presented

<b>8</b>	<b>NAME &amp; ADDRESS OF AUTHORITY</b>	<b>DOCUMENTS REQUIRED</b>	<b>LANGUAGE ALLOWED</b>
<b>AT</b>	BMSG, Bundesministerium für Soziale Sicherheit und Generationen, Stubenring 1, 1010 Wien, Büro Dr Meinhold Hausreither. <a href="http://www.bmsg/qv/at">http://www.bmsg/qv/at</a> <a href="http://www.socrates.at">www.socrates.at</a> or <a href="http://www.oead.at">www.oead.at</a>	National professional diploma	Certified copy of original document + certified translation into GERMAN
<b>BE-Fr</b>	Cabinet du Ministre de l'Enseignement de la Communauté Française, Avenue Louise 65 bte 9, B-1050, Bruxelles		FRENCH
<b>BE-Fl</b>	NOT YET FUNCTIONAL		DUTCH FRENCH
<b>CH</b>	Schweizerisches Rotes Kreuz (SRK), Abteilung Berufsbildung, Werkstrasse 18, Postfach, CH-3984 Wabern. Tel 41 31 960 7575 <a href="mailto:registry@berufsbildung-srk.ch">registry@berufsbildung-srk.ch</a>	Recognized diploma-if OK then Swiss residence permit, Proof of 1 year recent full time post diploma employment abroad as a radiographer Proficiency in local language	ENGLISH GERMAN FRENCH ITALIAN
<b>CZ</b>	Ministry of Health of the Czech Republic, Palackeho nam.4, 120 00 Prague 2, Czech Republic	Not known	ENGLISH CZECH
<b>DE</b>	Regional Government (16)-best to ask the German Society. <a href="http://www.dvta.de">www.dvta.de</a> Permanent residence required	Application form Certified diploma List of examined topics	GERMAN ENGLISH
<b>DK</b>	Appointed by Ministry of Health: Radiografskolen Kobenhavns Amt, Turkisvej 14, 2730 Herlev. Tel 45884100	Contact school	No demand

<b>8</b>	<b>NAME &amp; ADDRESS OF AUTHORITY</b>	<b>DOCUMENTS REQUIRED</b>	<b>LANGUAGE ALLOWED</b>
<b>EE</b>	1.Ministry of Social Affairs, The National Register of Health Care Professionals, TallinnHiiu 42 2.Medical School Tartu, Nooruse 9, Tallin Kannu 26 3.Estonian Society of Radiographers, Sillutise 6, Parnu, Estonia	Diploma Professional Certificate Certificate of accreditation (since 2002)	ESTONIAN
<b>ES</b>	Ministerio de Educacion, Cultura & Deporte, Calle Alcala 34, 28071 Madrid, Spain	Education diploma	Spanish
<b>FI</b>	TEO, Terveysturvallus oikeusturva teskus, Finland		
<b>FR</b>	Ministère de l'emploi et de la solidarité, Direction générale de la santé, Sous direction des professions de santé, Bureau des professions paramédicales, 1, Place de Fontenoy, 75350 Paris 07, France	Handwritten request for authorization to work stating profession. Copy of passport with certification of conformity, Copy of education programme with certification of conformity, Certification of work in the country of origin.	FRENCH (sworn translation)
<b>GB</b>	Health Professions Council Park House, 184, Kennington Park Road, London SE11 4BU	Refer to HPC	ENGLISH
<b>GR</b>	Dimitris Katsifarakis 67 Panepistimiou str 105 64 Athens, Greece	Qualification Certificate	GREEK
<b>HR</b>	Ministry of Health ??	Different for each country, usually diploma or certificate	CROATIAN
<b>IE</b>	Ministry of Health has appointed the Irish Institute of Radiography until state registration is implemented. Address below	Application forms Birth certificate Qualification certificate	ENGLISH
<b>IS</b>	Ministry of Health & Social Security, Laugavegur 116, IS-150 Reykjavik. Iceland <a href="http://ministryofhealth.is">http://ministryofhealth.is</a> postur@htr.stjr.is	Education Diploma Detailed course descriptions	NORDIC languages ENGLISH

<b>8</b>	<b>NAME &amp; ADDRESS OF AUTHORITY</b>	<b>DOCUMENTS REQUIRED</b>	<b>LANGUAGE ALLOWED</b>
<b>LU</b>	Ministère de la Santé Villa Louvigny Allée Marconi L-2120 Luxembourg Ministère de l'Education Nationale.	Professional Diploma de la Formation professionnelle et des Sports rue Aldringen Luxembourg	FRENCH GERMAN ENGLISH
<b>LV</b>	Ministry of Welfare, Centre of professional Education for Medicine 23, Kapselu Street, Riga, LV1046, Latvia Mrs Kristine Sproge <a href="mailto:Kristine@mpic.apollo.lv">Kristine@mpic.apollo.lv</a>	Professional Diploma	LATVIAN
<b>MT</b>	The Registrar, Board of Professions Supplementary to Medicine, Dept of Health, 15, Merchants Street, Valletta, Malta	Work Permit (if required) Original & Copy of Certificate Course transcript	ENGLISH
<b>NL</b>	Verwijspunt Buitenslands Gediplomeerden Volksgezondheid P.O. Box 16114 2500 BC Den Haag Tel: +31(0)70 3406200 Fax: +31(0)70 3405966 <a href="mailto:info@verwijspunt.nl">info@verwijspunt.nl</a> <a href="http://www.verwijspunt.nl">www.verwijspunt.nl</a>	Application form; certified copy of passport; diploma with academic and clinical placement marks; proof of registration in home country; proof of professional experience	ENGLISH
<b>NO</b>	National Committee for Recognition of Health Personnel, Postbox 8053 Dep.0031 OSLO, Norway. WWW:safh.no	Proof of nationality Original certificate from college Course content-inc no. of hours Content of clinical practice	ENGLISH
<b>PT</b>	Ministerio da Saude Departamento da Modernizacao dos Recursos da Saude, Av. Joao Crisostomo, Lisboa, Portugal	Diploma, Curriculum	PORTUGUESE
<b>SE</b>	National Board of Health & Welfare <a href="http://www.sos.se">www.sos.se</a> : <a href="http://www.sos.se/sosmenye.htm">http://www.sos.se/sosmenye.htm</a>		SWEDISH ENGLISH
<b>SI</b>	Ministry of Education, Zupanciceva ulica 6, 1000 Ljubijana,Slovenia Tel: 386 1 1795211	Diploma Curriculum	ENGLISH SLOVENE
<b>YU</b>	Information not given		

## ADDRESSES OF PROFESSIONAL SOCIETIES

Country	ADDRESS	TELEPHONE & FAX	e mail:web site etc
<b>AT</b>	Radiological Association of Austria, Simmeringer Hauptstrasse 34/1/1/6, 1110 Wien, Austria	Tel:351(0) 1 749 83 67 Fax:351 (0)1 749 14 81	rta-verband@chello.at
<b>BE-Fr</b>	Medical Radiological Technicians Belgium (MRTB), Residence Bois de Courriere, 7, B-7100 La Louviere, Belgium	Tel/Fax: 32 64 54 04 77	guyadam@skynet.be
<b>BE-FI</b>	Vereniging voor Medisch Beeldvormers, (Van Laer Philippe), Beukendreef 96, 9080 Lochristi, Belgium	Tel: 32 9337.03.48	Doorkijkvmbv@hotmail. com
<b>CH</b>	SVMTRA, Zentralsekretariat Parking City West, Postfach CH-3601, Thun, Switzerland	Tel: 33 223 5233 Fax: 33 222 6239	<a href="mailto:info@svmtra.ch">info@svmtra.ch</a> <a href="http://www.svmtra.ch">www.svmtra.ch</a>
<b>CZ</b>	Society of Radiographers & Radiological Assistants, ZRIR, IKEM, Videnska, 1958/9, 140 21 Prague 4, Czech Republic	Tel: 420 261364143 Fax: 420 241723251	dahn@medicon.cz
<b>DE</b>	DVTA, Spalding Str. 110 B, D-20097 Hamburg, Germany	Tel/:(0)49 40 23 14 36 Fax	<a href="mailto:frd@radiograf.dk">frd@radiograf.dk</a> <a href="http://www.radiograf.dk">www.radiograf.dk</a>
<b>DK</b>	Danish Society of Radiographers, (FRD), HCOOrstedvej 70 2 tv, 1879 Frederiksberg C. Denmark	Tel: 4535374339 Fax 4535374342	info@dvta.de
<b>EE</b>	Estonian Society of Radiographers, Sillutise 6, Parnu, 80010, Estonia	Fax: 372 4473102	piret.vahtramae.002@ma il.ee
<b>FI</b>	Society of Radiographers in Finland, PL 140, 00060 Tehy, Finland	Tel: 358 9 155 2779 Fax: 358 9 155 2778	paivi.wood@sci.fi
<b>ES</b>	AETR, Asociacion Espanola de Técnicos en Radiología. C/Reyes Magos 18 bajos, Madrid 2800, Spain		martasoto@menta.net

<b>Country code</b>	<b>ADDRESS</b>	<b>TELEPHONE &amp; FAX</b>	<b>e mail:web site etc</b>
<b>FR</b>	AFPPE, 47, avenue De Verdier, 92129 Montrouge, France	Tel: (0)1 49 12 13 20 Fax: (0)1 49 12 12 25	c2i@afppe.com
<b>GB</b>	The Society & College of Radiographers, 207, Providence Square, Mill Street, London SE1 2EW United Kingdom	Tel: 44 20 7740 7200 Fax: 44 20 7740 7204	info@sor.org
<b>GR</b>	Pan-Hellenic society of Radiological Technologists, 73, Socratous str,Athens, Greece	Tel/fax 210 5228081,	<a href="mailto:pastagz@mailbox.gr">pastagz@mailbox.gr</a>  <a href="http://www.get.to/pasta">www.get.to/pasta</a>
<b>HR</b>	Croatian Society of Engineers of Medical Radiology, Mlinarska Cesta 38, 10,000 Zagreb,., Croatia		
<b>IE</b>	Irish Institute of Radiography, 28, Milbrook Court, Kilmainhan, Dublin 8, Ireland	Tel: 353 1 679 0433	Info@iir.ie
<b>IS</b>	Icelandic Society of Radiographers, Sudurhlid 35, IS-105 Reykjavik, Iceland		fg@geislar.net
<b>LU</b>	Association luxembourgoise des assistants techniques médicaux de radiologie, 13, rue A. Reding L-5874 Hesperange	Tel: 00352 36 90 81	senny.quintus@ education.lu
<b>LV</b>	Latvian Society of Radiographers 13, Pilsonu Str, Riga, LV-1002, Latvia.	Fax: 371 7144635	<a href="mailto:nms@parks.lv">nms@parks.lv</a>
<b>MK</b>	Macedonian Society of Radiographers Institute of Radiology Clinical Centre Skopje Vodnjanska 17, 1000 Skopje Republic of Macedonia		<a href="mailto:makradiographer@hotmail.com">makradiographer@hotmail.com</a>
<b>MT</b>	Society for Medical Radiographers, 197 Triq Il-Merill, Dingli RBT 14, Malta		

<b>Country code</b>	<b>ADDRESS</b>	<b>TELEPHONE &amp; FAX</b>	<b>e mail:web site etc</b>
<b>NL</b>	Dutch Society Medical Imaging and Radiotherapy, NVMBR, Catharijnesingel 73, 3511 GM Utrecht, The Netherlands	Tel: 31 30 2318842 Fax: 31 30 2321362	<a href="mailto:info@nvmb.nl">info@nvmb.nl</a> <a href="http://www.nvmb.nl">www.nvmb.nl</a>
<b>NO</b>	Norsk Radiografforbund, Lakkegt. 19-21, 0187 Oslo, Norway	Tel 47 22 05 99 23 Fax 47 22 99 21	<a href="mailto:nrf@radiograf.no">nrf@radiograf.no</a>
<b>PT</b>	ATARP Av Miguel Bobarda, n.º 36 9º H 1050-165 LISBOA, Portugal	Tel: 351 21 7959539/2	<a href="mailto:geral@atarp.pt">geral@atarp.pt</a>
<b>SE</b>	Society of Medical Radiology, Stensakervagen 448, 238 33 Oxie, Sweden	Tel 46 40 54 60 88	
<b>SI</b>	Slovenian Society of Radiological Engineers, Zaloska Cesta 7, 1000 Ljubljana, Slovenia	Fax; 386 522 2342	<a href="mailto:dean.pekarovic@kclj.si">dean.pekarovic@kclj.si</a>
<b>YU</b>	Society of Radiological Technicians & Technicians in Nuclear Medicine, VMA Belgrade Street- CRNOTRAUSKA 17, Yugoslavia	Tel/Fax: 38111663481	

## STATISTICS

- 9.1 Population of country
- 9.2 Number of diagnostic students qualifying per year  
Number of radiotherapy students qualifying per year (if separate)
- 9.3 Number of radiographers (diagnostic) registered and in practice  
Number of radiographers (radiotherapy), registered and in practice
- 9.4 Number of radiologists
- 9.5 Number of radiation oncologists
- 9.6 Number of medical physicists

	9.1	9.2	9.3	9.4	9.5	9.6
<b>AT</b>	8 million					
<b>BE-Fr</b>	10 million**		25-30			
<b>BE-FI</b>	10 million	20	40			
<b>CH</b>	7.25 million	120-130	3,000 guestionnaire	470	37	
<b>CZ</b>	10 million	110-110	3165 (85% Diagnostic)	1186	217	
<b>DE</b>	80 million	1000	25,000:4500	8000:	2,000	1,000
<b>DK</b>	5 million	80:no info	1200:40	330		
<b>EE</b>	1.3 million	10	312	173		
<b>ES</b>	41 million	400:100	8500:300	6000	2500	300
<b>FI</b>	5.1 million	50-60	3,000	700		
<b>FR</b>	60 million	840	21,000	6,900		
<b>GB</b>	57 million	550:140	17,000:1700	*		
<b>GR</b>	10 million	120	1,500:80	1,000	60	250
<b>HR</b>						
<b>IE</b>	4 million	20:12	800	100		10
<b>IS</b>	287,275	5-10	120: 0	36	10	5
<b>LU</b>	450,000	6-8	150	130-150		
<b>LV</b>	2.4 million	10:5	315:123	438	36	5
<b>MT</b>	370,000	5-15	57 : 4	7	2	2
<b>MK</b>	2 million					
<b>NL</b>	16.5 million		4,000 : 954	724	160	40-70 imaging 53 in RT
<b>NO</b>	4.5 million	100	2,000	500		
<b>PT</b>	10 million	150: 30	2,200: 200	700		
<b>SE</b>	9 million	150	2,500 diag	1350		200
<b>SI</b>	2 million	30	400			
<b>YU</b>						

\*Numbers for the United Kingdom as a whole are not available.

\*\*Population for Belgium as a whole, of these 4.5 million are French speaking

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