Any views expressed in this document are the preliminary views of Spark Legal Network based on desk research and consultation with stakeholders. They may not in any circumstances be regarded as stating a position of the European Commission.

Workshop Discussion Paper

EU minimum harmonised training for general care nurses – time for an update?

1. Introduction

This paper is developed within the framework of the study 'Mapping and assessment of developments for one of the sectoral professions under Directive 2005/36/EC[1] – nurse responsible for general care' (the 'Study'). It serves as a background document for the Workshop - **EU minimum harmonised training for general care nurses – time for an update?,** aiding the discussion on whether to update the knowledge, skills and training subjects set out in Directive 2005/36/EC; and if so to what extent.

The main objective of the Study is to assist the European Commission (the 'Commission') in its assessment of whether to propose an adaptation of the minimum knowledge, skills and training subjects for the profession of nurse responsible for general care under Directive 2005/36/EC. Importantly, such an assessment needs to take account of scientific and technical progress, within the limits of the delegated power granted to the Commission under the Directive. The objective of the Study is pursued through four main tasks:

1. Collection and presentation of data

   During the Study, relevant data was collected via: 1) Desk research by a network of national experts (The information was collected via desk research questionnaires, which were verified by national registration authorities); 2) Consultation of EU/EFTA-level stakeholders, via a questionnaire in order to identify the main scientific and technical advancements affecting the training of nurses responsible for general care across the EU and EFTA Member States; and 3) Consultation of national stakeholders via questionnaires. Two different questionnaires were sent to relevant stakeholders across the Member States. The first questionnaire was tailored to regulatory bodies and national associations, and the second questionnaire to training institutions.[2]

[1] Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications (OJ L 255 30.9.2005, p. 22), as amended, consolidated version, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1570010172459&uri=CELEX:02005L0036-20190415

[2] For more information about the input received from stakeholders, please see Annex I.

2. Comparative assessment of data

   Comparative assessment of data collected through desk research and stakeholder consultation.

3. The organisation of a stakeholder workshop

   The main objectives of this workshop are: 1) to present the findings of the Study to relevant EU/EFTA and national stakeholders with the aim of verifying the correctness of the research outcomes; 2) to discuss the main scientific and technical advancements affecting the profession of nurses responsible for general care; 3) to assess whether an adaptation of the minimum knowledge, skills and training subjects under Directive 2005/36/EC seems necessary; and, if so 4) to provide suggestions on the priorities to be taken into account when adapting the Directive.

4. Drafting of final Study

   On the basis of the feedback received from stakeholders during the workshop, the Study will be tailored and finalised.

The information presented[3] in this paper covers all EU and EFTA Member States and is based on desk research conducted by national experts and input from EU/EFTA-level stakeholders and national stakeholders. Specifically, this paper provides an overview of:

- The legal and policy context;
- The definitions and categorisation elaborated for the purpose of the Study;
- The generally acknowledged scientific and technical advancements in the past 5-10 years;
- The knowledge, skills and training subjects reflecting generally acknowledged scientific and technical advancements;
- The assessment of the identified generally acknowledged advancements under the current provisions of the Directive; and
- Subsequently, on the basis of the research results of this Study, a first draft of potential updates to Directive 2005/36/EC.

2. Legal and policy context

2.1. Directive 2005/36/EC

Directive 2005/36/EC sets out rules for the recognition of qualifications as well as EU-level harmonised minimum training requirements for seven sectoral professions (nurses responsible for general care,

[3] Please note that the data presented in this document are based on desk research and stakeholder engagement conducted during the Study. While they reflect the Study Team's best understanding of the regulation and development of education and training of nurses responsible for general care across the Member States, the Study Team does not guarantee 100% the accuracy of all the data contained herein.

midwives, doctors, pharmacists, architects, veterinary surgeons, and dental practitioners). The present Study is concerned with the profession of nurse responsible for general care.

In this context, Article 31 in combination with Annex V of the Directive sets out the minimum training requirements for nurses responsible for general care. These minimum requirements include the conditions for the admission to training of nurses (Article 31(1)); the minimum length and number of hours to be covered by the training, as well as the ratio of the clinical to the theoretical part of the training (Article 31(3)-(5)); the minimum knowledge and skills that the nurses should have acquired during the training (Article 31(6)); and the minimum competences that nurses shall be able to apply following the training (Article 31(7)). Furthermore, Article 31(2) provides for a reference to point 5.2.1. of Annex V where the minimum training programme is set out.[4]

Among the above-mentioned minimum training requirements for nurses responsible for general care, the Commission only has the delegated power to amend the minimum training requirements related to knowledge, skills and training subjects (i.e. Article 31(6) and point 5.2.1. of Annex V to Directive 2005/36/EC). Thus, only these requirements are covered by the present Study.[5]

2.2. Directive 2013/55/EU[6]

Directive 2013/55/EU, amending Directive 2005/36/EC, empowers the Commission to amend the knowledge, skills and training subjects listed under the Directive in order to take account of scientific and technical progress. The following delegated power is of interest for the Study:

1. Delegated power based on Article 21(6) to amend Article 31(6) on knowledge and skill: in order to take account of generally acknowledged scientific and technical progress, the Commission is empowered to update the requisite knowledge and skills to reflect the evolution of Union law directly affecting nurses responsible for general care.

2. Delegated power based on Article 31(2) to amend the list of training subjects in point 5.2.1 of Annex V: the Commission is empowered to adopt delegated acts concerning amendments to the list provided in point 5.2.1 of Annex V of the Directive, with a view to adapting it to scientific and technical progress.

Both delegated powers are subject to the following limitation:

[4] The wording of Article 31 is provided for in Annex VI.
[5] The knowledge, skills and training subjects listed under Directive 2005/36/EC can be found in Annex VI to this discussion paper (Article 31(6) and point 5.2.1. of Annex V to Directive 2005/36/EC).
[6] Directive 2013/55/EU of the European Parliament and of the Council of 20 November 2013 amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU) No 1024/2012 on administrative cooperation through the Internal Market Information System ('the IMI Regulation') OJ L 354, 28.12.2013, p. 132–170.

Such updates shall not entail an amendment of existing essential legislative principles in Member States regarding the structure of professions as regards training and conditions of access by natural persons. Such updates shall respect the responsibility of the Member States for the organisation of education systems, as set out in Article 165(1) of the Treaty on the Functioning of the European Union (TFEU).

3. Definitions and categorisation elaborated for the purpose of the Study

3.1. Definition of generally acknowledged scientific and technical progress

The wording of Directive 2013/55/EU differs with regard to the description of the Commission's delegated power to adapt the knowledge, skills (generally acknowledged scientific and technical progress) and training subjects (scientific and technical progress). Nevertheless, it could be contended that the intention of the legislator is to allow the Commission to adapt the knowledge, skills and training subjects applying the same criteria. Although there is no compelling evidence that this is the case, it could be said that scientific and technical progress in the field of nursing would affect knowledge, skills and training subjects in a similar manner. What is more, the training subjects that students follow during the general nursing training allow them to acquire specific knowledge and skills. Therefore, it would seem artificial to only apply the "generally acknowledged" criterion to knowledge and skills, and not to training subjects.

For those reasons, and for the purpose of this Study, a working definition of 'generally acknowledged scientific and technical progress', which has been applied in a harmonised way to the findings of the present Study, has been developed:

> *Scientific and technical advancements are considered to be 'generally acknowledged' when these advancements have had an impact on the practice, laws, teaching standards, administrative rules and/or curricula in a majority of Member States. Taking into account that the present Study covers 32 Member States (28 EU Member States and 4 EFTA States), a majority is considered to be obtained when relevant advancements have been noted in at least 16 Member States.*[7]

3.2. Definition of scientific and technical progress

Furthermore, Directive 2005/36/EC itself does not provide a definition of scientific and technical progress. Therefore, for the purpose of the Study, the following definitions have been elaborated:

- Scientific progress, in relation to the healthcare profession and consequently to nursing, refers to recent, current, and future scientific developments which enhance the knowledge acquired

[7] Please note that Liechtenstein does not offer theoretical training for nurses responsible for general care. Nevertheless, students from Liechtenstein have the possibility to undertake their practical training in internship companies in Liechtenstein

through research aiming at testing theories, explaining phenomena, providing understanding and predictions with the ultimate goal of enhancing healthcare and consequently nursing care.

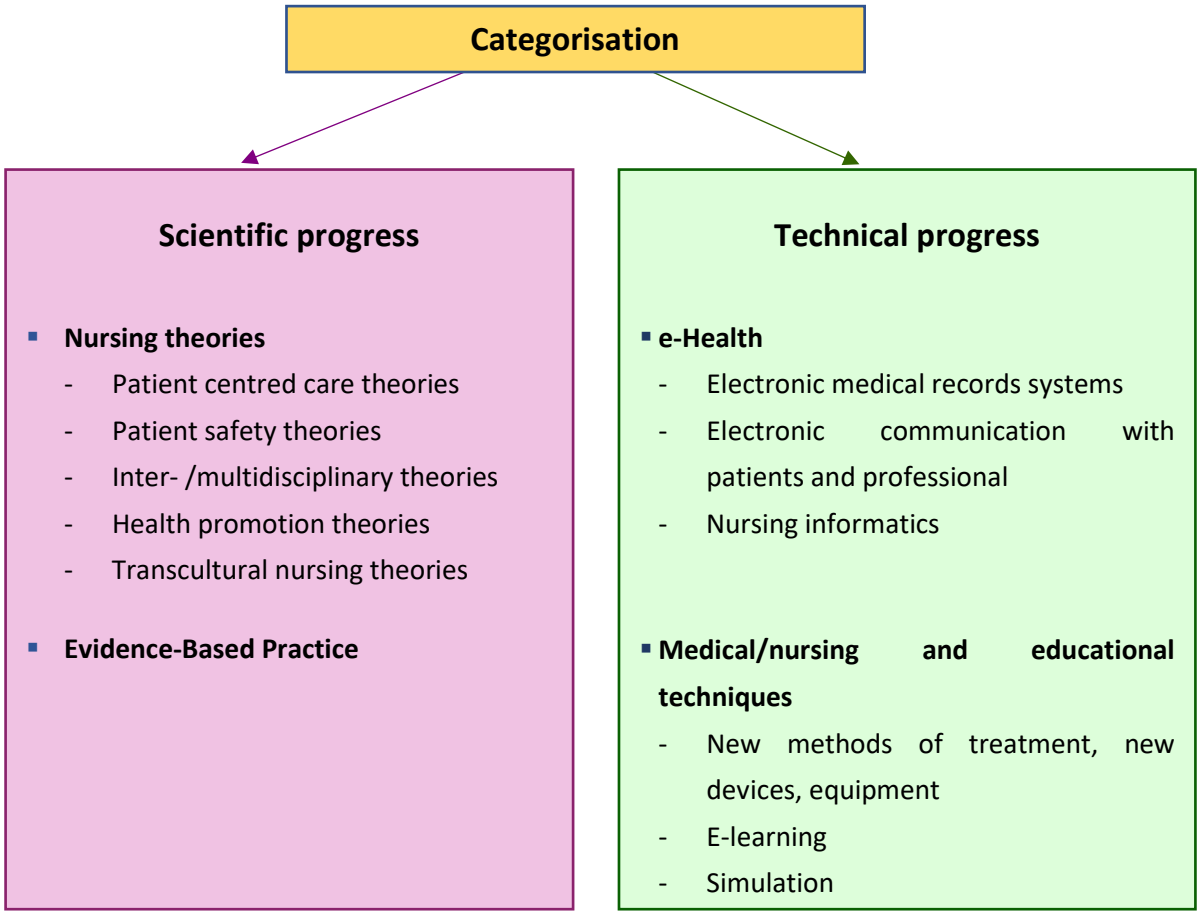
- Technical progress, in relation to the healthcare profession and consequently to nursing, refers to technology and medical techniques which have been/ are being implemented/ developed in order to help enhance the care of patients.

3.3. Categorisation of scientific progress and technical progress

A categorisation model has been elaborated for the purposes of the Study. Specifically, the categories elaborated are framed quite broadly, aiming at giving a comprehensive picture of scientific and technical progress in health care and consequently in nursing care, and allowing the classification of the findings of the Study.

As can be seen in the figure below, scientific and technical progress has been divided into two different categories: scientific progress (which is further classified into nursing theory and Evidence-Based Practice); and technical progress (which is further classified into e-Health and medical/nursing and educational techniques).

Figure 1: Categorisation of scientific progress and technical progress



4. Generally acknowledged scientific and technical advancements in the past 5-10 years

In order to assess whether there are grounds to adapt the knowledge, skills and training subjects required for nurses responsible for general care under Directive 2005/36/EC, it was crucial to identify the main scientific and technical advancements affecting the profession of nurse responsible for general care. Hence, during the consultation with stakeholders, they were asked to identify the main scientific and technical advancements affecting the profession of nurse responsible for general care in the last 5-10 years.[8] The advancements noted by stakeholders have been ranked in order to identify those that – for the purposes of this Study – can be considered to reflect generally acknowledged scientific and technical progress. The table below presents the advancements identified in at least 16 Member States:

Table 1: Generally acknowledged scientific and technical advancements in the past 5-10 years

SCIENTIFIC PROGRESS	
Nursing theories	
Patient centred care theories	
Patient centred approach	**16 Member States**
- Patient centred approach with regard to elderly people, chronic diseases, multipharmacology/ multimorbidity	**13:** DK, NL, NO, BE, CH, DE, EL, ES, FR, HR, IE, LU, PL
- Patient approach including well-being, humanisation of care and empathy	**2:** EE, ES
- Personalised care	**5:** NO, FR, BE, SE, SI
Evidence-Based Practice	
Evidence-Based Nursing	**19 Member States** BE, HR, PT, SK, DE, DK, FI, FR, IS, NO, CH, CY, CZ, HU, IT, LV, NL, SE, SI, 2 EU/EFTA-level stakeholders[9]
TECHNICAL PROGRESS	
e-Health	
E-Health	**21 Member States**
- E-Health in general	**10**: EL, FI, NL, BE, DK, EE, FR, LT, NO, SE, 2 EU/EFTA-level stakeholders[10]
- Digitalisation in Nursing documentation	**13**: BE, LV, NO, UK, CY, DK, ES, IE, LT, LU, PL, PT, RO, 1 EU/EFTA-level stakeholder[11]
- Smartphone/ computer applications; smart technology, smart devices	**5:** AT, ES, PT, IE, IS

[8] To see all the advancements identified by stakeholders, please see Annex II.
[9] European Federation of Educators in Nursing Science, European Federation of Nurses Associations.
[10] European Federation of Educators in Nursing Science, European Federation of Nurses Associations.
[11] European Nursing Council.

5. Knowledge, skills and training subjects reflecting generally acknowledged scientific and technical advancements

During the Study, knowledge, skills and training subjects introduced in the laws, teaching standards, administrative rules and/or curricula of the Member States as result of scientific and technical progress have been identified through desk research and consultation with stakeholders.[12] Furthermore, the knowledge, skills and training subjects identified have been ranked with the aim of identifying which of them have been noted in at least 16 Member States and therefore, can – for the purposes of this Study - be considered to reflect generally acknowledged scientific and technical progress.

The table below presents the knowledge and skills noted in at least 16 Member States:

Table 2: Knowledge and skills reflecting generally acknowledged scientific and technical advancements

SCIENTIFIC PROGRESS	
Advancements	**Knowledge and skills introduced in Member States**
Nursing theories	
Inter- /multidisciplinary theories	
Communication and teamwork	**20 Member States** ▪ Communication and teamwork (UK, SI) ▪ Communication skills/ Interprofessional communication/ Socio-communicative skills/ situational communication / in cross professional communications and coordination (AT, DK, FI, LU, LV, RO, SE, SK, LT, HR, CH, FR, IS, PT, SI, BG, 2 EU/EFTA-level stakeholders[13]) ▪ Team-based care in emergency and critical areas (HU) ▪ Solving interpersonal conflicts (CZ) ▪ Situation, Background, Assessment, recommendation (SBAR) - communication (communication model) (SK) ▪ Working together effectively with other actors in the health sector (DE, FI)
Nursing management theories	
Decision-making process, entrepreneurship, leadership	**17 Member States** ▪ Maintain competence to develop and enhance the capacity for leadership (IE)

[12]To see all the identified knowledge and skills introduced as a result of scientific and technical progress, please see Annex III. To see all the identified training subjects introduced as a result of scientific and technical progress, please see Annex IV

[13] EU Network of Nurse Regulators, European Federation of Nurses Associations.

	▪ Leading teams / delegating tasks / improved competences in clinical leadership (CH, CZ, DK, FR, IS, LT, LV, NO, PT, SE) ▪ Recognize one's own professional and personal possibilities and limits, and to apply personally-effective coping strategies (AT) ▪ Be aware of their own role in the context of professional development and actively contribute to the further development of the profession (AT) ▪ Professional identity and visibility / autonomy and independent nurse role (LU) ▪ Emergency management / carrying out measures in crises and disaster situations (AT, DE, EL, FI, PT, RO, 2 EU/EFTA-level stakeholders[14])
Evidence-Based Practice	
No sub-category identified in more than 16 Member States.	
TECHNICAL PROGRESS	
e-Health	
No sub-category identified in more than 16 Member States.	
Medical/nursing and educational techniques	
No sub-category identified in more than 16 Member States.	

The table below presents the training subjects noted in at least 16 Member States:

Table 3: Training subjects reflecting generally acknowledged scientific and technical advancements

SCIENTIFC PROGRESS	
Advancements	**Training subjects included in the Member Sates**
Nursing theories	
Patient centred care theories	
Nursing care in non-hospital settings (including community care) - Home care - Primary healthcare	**17 Member States** ▪ Community care (CZ, ES, IE, SE) ▪ Nursing in the community/primary healthcare (EL, MT) ▪ Community health approach (FR) ▪ Community nursing theory (HU) ▪ Community health nursing, including School nursing (IS)

[14] European Nurses Directors Association, European Federation of Educators in Nursing Science.

	▪ Community nursing (IT, SK, SI) ▪ Home care and therapeutic education (CH) ▪ Nursing care in patient's home (1 EU/EFTA-level stakeholder[15]) ▪ Home care (AT) ▪ Nursing home care (BE, CH) ▪ Home nursing (HR, RO) ▪ Home and family care (SE)
Evidence-Based Practice	
Nursing research/ science	**20 Member States** ▪ Research methodology (CH, DK, EL, FR, HU, IE, MT, PL, SK) ▪ Research methodology (BE, CH, DK, EL, IE, LT, LU, NO) ▪ Methodology and use of the scientific research results (BE) ▪ Research inquiry (CY) ▪ Introduction to the research process / initiation to research (FR) ▪ Research work basics (HR) ▪ Basic research skills (NL) ▪ Scientific research in nursing (PL) ▪ Research Process (PT) ▪ Health research (PT) ▪ Nursing research (ES, SK) ▪ Research and leadership (SE, 1 EU/EFTA-level stakeholder[16]) ▪ Research and Informatics in Nursing (SI) ▪ Stages of the research process to enable evidence-based practice (MT)
TECHNICAL PROGRESS	
Advancements	**Training subjects included in the Member States**
e-Health	
Nursing informatics	
IT in Nursing, ICT and health informatic	**17 Member States** ▪ IT in nursing (DK, EE, HR, IT, MT)

[15] European Nursing Council.
[16] European Federation of Educators in Nursing Science.

	▪ Specific Computer Science (AT) ▪ IT (AT, MT) ▪ IT solutions used in hospitals (EE) ▪ IT in medicine (LT) ▪ IT systems in nursing (PL) ▪ Nursing informatics (FI, 1 EU/EFTA-level stakeholder[17]) ▪ Research and informatics in nursing (SI) ▪ Picture Archiving and Communication System (CY) ▪ Health information systems and ICT (PT) ▪ ICT (ES) ▪ Informatics (BG, CY, EL, IE, MT, IT) ▪ Principles of informatics (SE)
Medical/nursing and educational techniques	
No sub-category identified in more than 16 Member States.	

Finally, it should be mentioned that certain knowledge, skills and training subjects did not reach the minimum threshold of 16 Member States. Nevertheless, they deserve recognition. These are knowledge, skills and training subjects that were identified in at least 10 Member States and therefore represent advancements that are close to be regarded as generally acknowledged.[18]

6. Assessment of the identified generally acknowledged advancements under the current provisions of the Directive

The following table summarises the advancements, knowledge, skills and training subjects which have been noted in at least 16 Member States and, therefore, can be considered – for the purposes of this Study - to reflect generally acknowledged scientific and technical progress:

Table 4: Advancements, knowledge, skills and training subjects identified in at least 16 Member States

	Advancements	**Knowledge and skills**	**Training subjects**
Scientific topics	**Nursing theories**		
	▪ Patient centred approach - 16 Member States	▪ Communication and teamwork – 20 Member States	▪ Nursing care in non-hospital settings (including community care, home care and

[17] European Nursing Council.
[18] To see the knowledge, skills and training subjects noted in at least 10 Member States, please see Annex V.

		▪ Decision-making process, entrepreneurship, leadership - 17 Member States	primary health) – 17 Member States
	Evidence-Based practice		
	▪ Evidence-Based Nursing - 19 Member States	▪ N/A	▪ Nursing research/ science – 20 Member States
Technical topics	**E-Health**		
	▪ E-Health - 21 Member States	▪ N/A	▪ IT in Nursing, ICT and health informatics – 17 Member States
	Medical/nursing and educational techniques		
	▪ N/A	▪ N/A	▪ N/A

Having identified the main knowledge, skills and training subjects reflecting generally acknowledged scientific and technical progress, the next step is to analyse whether these knowledge and skills and/or training subjects are already provided for by the current text of the Directive. A close look at the Directive shows that certain knowledge, skills and training subjects are already mentioned, while others are not:

1. Knowledge, skills and training subjects mentioned in the Directive:

Scientific advancements

- **Nursing care in non-hospital settings and home care – Sufficiently covered**

  The Directive states that training shall take place in hospitals and other health institutions and in the community, under the responsibility of nursing teachers, in cooperation with and assisted by other qualified nurses. Other qualified personnel may also take part in the teaching process.[19] Furthermore, the Directive specifically mentions "Nursing in relation to home nursing" when listing the minimum training subjects that should be part of the training programmes of nurses responsible for general care.[20] Hence, it seems that care outside hospitals is already taken into account in the Directive.

- **Decision-making process, entrepreneurship, leadership – More emphasis needed**

[19] Article 31(5)of Directive 2005/36/EC, as amended.
[20] Annex V, Point 5.2.1 of Directive 2005/36/EC, as amended.

The Directive specifies that trainee nurses shall learn not only how to work in a team, but also how to lead a team and organise overall nursing care, including health education for individuals and small groups, within the health institute or in the community. [21] However, it is recommended to include (a) training subject(s) dealing with specific knowledge and skills related to leadership in the nursing profession.

In addition, the Directive establishes that nurses responsible for general care shall provide evidence that the professional is able to apply the competence to independently diagnose the nursing care required using current theoretical and clinical knowledge and to plan, organise and implement nursing care when treating patients on the basis of the knowledge and skills acquired.[22] Although, this could be linked to decision making, no specific mention is made of the decision-making process and the knowledge and skills related to it. Therefore, the Directive could emphasise the decision-making process by adding (a) training subject(s) where the relevant knowledge and skills could be taught.

- **Communication and teamwork and interprofessional collaboration – More emphasis needed**

  The Directive sets out that training for nurses responsible for general care shall provide the assurance that experience of working together with members of other professions in the health sector is acquired.[23] This can include several aspects such as: Interprofessional collaboration (CH, SI), Interprofessional work organization (FR), etc. In addition, the Directive establishes that nurses responsible for general care shall provide evidence that the professional is able to apply the competence to work together effectively with other actors in the health sector[24] and comprehensively communicate professionally and to cooperate with members of other professions in the health sector.[25] Similarly, this could also cover other aspects, as for example: Communication and teamwork (UK, SI); Communication skills, Interprofessional communication, Socio-communicative skills, situational communication in cross professional communications and coordination (AT, DK, FI, LU, LV, RO, SE, SK, LT, HR, CH, FR, IS, PT, SI, BG); Communication in Nursing (CZ), etc. Nevertheless, it is recommended to include (a) training subject(s) dealing with specific verbal and written communication skills.

Technical advancements

- N/A

[21] Article 31(5) Directive 2005/36/EC, as amended.
[22] Article 31(7)(a) Directive 2005/36/EC, as amended.
[23] Article 31(6)(e) of Directive 2005/36/EC, as amended.
[24] Article 31(7)(b) Directive 2005/36/EC, as amended.
[25] Article 31(7) g) Directive 2005/36/EC, as amended.

2. Knowledge, skills and training subjects not mentioned in the Directive:

Scientific advancements

- Nursing research/ science – 20 Member States

Technical advancements

- IT in Nursing, ICT and health informatics – 17 Member States

7. Suggestions for additions to the Directive

Some of the knowledge, skills and training subjects that have been introduced in the laws, administrative rules, training standards and/or training programmes of the Member States as a result of scientific and technical progress seem to be sufficiently covered under the Directive (nursing care in non-hospital settings and home care) or partially covered (decision-making process, entrepreneurship, leadership; communication, teamwork and interprofessional collaboration), while others appear not to be covered (nursing research/ science; IT in Nursing, ICT and health informatics).

Therefore, in order to adapt the training programme of nurses responsible for general care to the evolution of the nursing profession in the scientific and technical field, considering the results of the Study, it seems appropriate to update the Directive. In particular, on the basis of the outcomes of the desk research and stakeholder consultations, the following knowledge, skills and training subjects could be added to the Directive:

Table 5: Suggestions on how to update the Directive

Knowledge and skills	Training subjects
SCIENTIFIC PROGRESS	
Nursing theories - *Patient centred care theories*	
To be added to Article 31(6): Ability to provide individualised nursing care and to empower patients and relatives in relation to self-care and leading a healthy lifestyle.	**To be added to Annex V, V.2., 5.2.1., under A. a:** ▪ Patient-centred care theories
Nursing theories - *Inter- /multidisciplinary theories*	
Communication and teamwork	
To be added to Article 31(6):	**To be added to Annex V, V.2., 5.2.1., under A. c:** ▪ Communication theory

Ability to demonstrate a range of skills and strategies for effective verbal and written communication with colleagues, patients and their families.	**To be added, potentially under category B ("Clinical Instruction") or under a new category C. "Practical Instruction":** ▪ Practice in communication skills and teamwork
Nursing theories - *Nursing management theories*	
Decision-making process, entrepreneurship, leadership	
To be added to Article 31(6): Ability to develop an effective leadership approach; decision-making skills.	
Evidence-Based Practice - *Nursing research/ science*	
	To be added to Annex V, V.2., 5.2.1., under A. a: ▪ Research methodology in nursing.
TECHNICAL PROGRESS	
E-health - *Nursing informatics*	
	To be added to Annex V, V.2., 5.2.1., under A. (under a new category d.) and B. (as a separate indent): "Science and Technology": ▪ E-health ▪ Information and communications technology (ICT)
Medical/nursing and educational techniques - *New methods of treatment, new devices, equipment*	
To be added to Article 31(6): Knowledge and skills in Information and communications technology (ICT) and technical innovation related to nursing care.	

Annex I: Input received from stakeholders

Table 6: Input received from EU/EFTA-level stakeholders during the stakeholder consultation

Completed questionnaires received from EU/EFTA-level stakeholders
- European Federation of Nurses Associations (EFN)
- EU Network of Nurse Regulators
- European Nurse Directors Association (ENDA)
- European Federation of Educators in Nursing Sciences (FINE)
- European Specialist Nurses (ESNO)
- European Nursing Council (ENC)
- European Nursing Student Association (ENSA)

Table 7: Input received from national stakeholders during the stakeholder consultation

Completed questionnaires received from national stakeholders				
Member State	**Regulatory body**	**National association**	**Training institution[26]**	**Total**
Austria	2[27]	1	1 (out of 2 training institutions contacted)	**4**
Belgium	1	1	13 (out of 16 training institutions contacted)	**15**
Bulgaria	1	The registration authority and national association are vested in a single national authority. The authority has been contacted in its capacity of registration authority.	1 (out of 3 training institutions contacted)	**2**
Croatia	1	1	2 (out of 8 training institutions contacted)	**4**
Cyprus	No input received.	1	1 (out of 2 training institutions contacted)	**2**

[26] Please note that the number of training institutions contacted in each Member State has been decided taking into account the following factors: 1) Different levels of education; 2) Regional differences; and 3) Autonomy of training institutions to set the knowledge, skills and training subjects included in the curricula. Furthermore, when no input was received from certain training institutions, other training institutions from the same Member State were contacted with the aim of obtaining at least 1 questionnaire per Member State.

[27] Please note that the national authority from AT provided input through a letter and completed a questionnaire in coordination with the University of Vienna, also attached to this report (see Annex IV).

Czech Republic	2[28]	1	1 (out of 4 training institutions contacted)	**4**
Denmark	1	1	1 (out of 2 training institutions contacted)	**3**
Estonia	1	1	1 (out of 2 training institutions contacted)	**3**
Finland	1	1	1 (out of 3 training institutions contacted)	**3**
France	No input received.	1	1 (out of 5 training institutions contacted)	**2**
Germany	No input received.	1	1 (out of 1 training institutions contacted)	**2**
Greece	No input received.	1	1 (out of 2 training institutions contacted)	**2**
Hungary	The registration authority and the regulatory body are vested in a single national authority. The authority has been contacted in its capacity of registration authority.	1	2 (out of 6 training institutions contacted)	**3**
Iceland	1	1	1 (out of 2 training institutions contacted)	**3**
Ireland	The registration authority and the regulatory body are vested in a single national authority. The authority has been contacted in its capacity of registration authority.	1	1 (out of 5 training institutions contacted)	**2**
Italy	No input received.	1	1 (out of 4 training institutions contacted)	**2**
Latvia	1	1	1 (out of 2 training institutions contacted)	**3**

[28] Please note that two questionnaires have been received from the Czech Ministry of Ministry of Education, Youth and Sports: one questionnaire from the Higher Education Department and a second questionnaire from the Accreditation Commission for Tertiary Education.

Liechtenstein	1	No input received.	There is no training institution.	**1**
Lithuania	1	1	2 (out of 4 training institutions contacted)	**4**
Luxembourg	1	No input received.	1 (out of 1 training institutions contacted)	**2**
Malta	The registration authority and the regulatory body are vested in a single national authority. The authority has been contacted in its capacity of registration authority.	1	1 (out of 2 training institutions contacted)	**2**
Netherlands	1	1	1 (out of 4 training institutions contacted)	**3**
Norway	1	1	1 (out of 4 training institutions contacted)	**3**
Poland	No input received.	No input received.	2 (out of 2 training institutions contacted)	**2**
Portugal	1	1 The registration authority and national association are vested in a single national authority. The authority has been contacted in its capacity of registration authority.	1 (out of 4 training institutions contacted)	**3**
Romania	No input received.	No input received.	2 (out of 6 training institutions contacted)	**2**
Slovakia	1	The registration authority and national association are vested in a single national authority. The authority has been contacted in its capacity of registration authority.	1 (out of 7 training institutions contacted)	**2**
Slovenia	1	The registration authority and national	2 (out of 2 training institutions contacted)	**2**

		association are vested in a single national authority. The authority has been contacted in its capacity of registration authority.		
Spain	No input received.	The registration authority and national association are vested in a single national authority. The authority has been contacted in its capacity of registration authority.	2 (out of 4 training institutions contacted)	**2**
Sweden	1	1	2 (out of 4 training institutions contacted)	**4**
Switzerland	1	1	1 (out of 6 training institutions contacted)	**3**
United Kingdom	The registration authority and the regulatory body are vested in a single national authority. The authority has been contacted in its capacity of registration authority.	1	No input received. (8 training institutions contacted)	**1**
Total	**22**	**24**	**50**	**96**

Annex II: Scientific and technical advancements

Table 8: Main scientific and technical advancements according to their prominence

SCIENTIFIC PROGRESS	
Nursing theories	
Patient centred care theories	
Patient centred approach - Patient centred approach with regard to elderly people, chronic diseases, multipharmacology/ multimorbidity - Patient approach including well-being, humanisation of care and empathy - Personalised care	**16 Member States** **13:** DK, NL, NO, BE, CH, DE, EL, ES, FR, HR, IE, LU, PL **2:** EE, ES **5:** NO, FR, BE, SE, SI
Patient empowerment - Patient empowerment - Patient autonomy - Self-care - Therapeutic education of patients	**9 Member States** **6:** BE, NL, DE, FI, FR, IE **3:** DE, BE, NO **4:** PT, CH, NL, IE **1:** BE
Nursing care in non-hospital settings - Nursing care in non-hospital settings in general (including community care) - Home care - Primary healthcare	**11 Member States** **11**: BE, DK, DE, FI, BG, HR, IE, LU, NL, SE, PT **3**: BE, FI, IE **1:** BE
Genetics and Genomics	**3 Member States** PT, ES, SI
Pharmacogenomics	**1 Member State** PT
Patient safety theories	
Safety and quality issues	**9 Member States** LT, SK, DE, LV, BE, DK, IE, IS, SI, 2 EU/EFTA-level stakeholders[29]
Risk management	**2 Member States** IT, IE
New methods of monitoring the patient´s clinical condition	**2 Member States** LV, RO
Safe management of medicines and prescription	**1 Member State**

[29] European Federation of Nurses Associations, European Nurse Directors Associations.

	BE
Inter- /multidisciplinary theories	
Communication and teamwork	**3 Member States** IE, PT, SI, 2 EU/EFTA-level stakeholders[30]
Multidisciplinary practice and science	**6 Member States** LT, BE, FI, NL, BE, NO
Interprofessional collaboration	**2 Member States** CH, DK
Health promotion theories	
Health Promotion and Prevention	**8 Member States** BE, CH, DE, FI, NL, UK, BG, SI, 2 EU/EFTA-level stakeholders[31]
Nursing management theories	
Decision-making process, entrepreneurship, leadership	**5 Member States** BE, CH, DK, ES, SI, 3 EU/EFTA-level stakeholders[32]
New methods of care management	**1 Member State** CH
New methods of medicine management	**1 Member State** DK
Dealing with violence	**1 Member State** IS
Transcultural nursing theories	
Multi-cultural care Intercultural approach	**6 Member States** BE, IE, IS, SI, SK LT, BE
Evidence-Based Practice	
Evidence-Based Nursing	**19 Member States** BE, HR, PT, SK, DE, DK, FI, FR, IS, NO, CH, CY, CZ, HU, IT, LV, NL, SE, SI, 2 EU/EFTA-level stakeholders[33]
Nursing Research/ Science	**14 Member States**

[30] EU Network of Nurse Regulators, European Federation of Nurses Associations.
[31] EU Network of Nurse Regulators, European Federation of Nurses Associations.
[32] EU Network of Nurse Regulators, European Federation of Nurses Associations, European Nursing Council.
[33] European Federation of Educators in Nursing Science, European Federation of Nurses Associations.

	HR, LT, PT, BE, CZ, DE, FI, IS, MT, SE, CH, CY, DK, NL, 1 EU/EFTA-level stakeholder[34]
Nursing documentation	**2 Member States** SK, ES
Clinical reasoning	**1 Member State** BE
Decision-making support systems	**1 Member State** PT
Systematised and approved routines and procedures	**1 Member State** NO
Standardised nursing terminology	**1 Member State** RO
TECHNICAL PROGRESS	
e-Health	
E-Health - E-Health in general - Digitalisation in Nursing documentation - Smartphone/ computer applications; smart technology, smart devices	**21 Member States** **10**: EL, FI, NL, BE, DK, EE, FR, LT, NO, SE, 2 EU/EFTA-level stakeholders[35] **13**: BE, LV, NO, UK, CY, DK, ES, IE, LT, LU, PL, PT, RO, 1 EU/EFTA-level stakeholder[36] **5:** AT, ES, PT, IE, IS
Electronic communication with patients and professionals	
Telehealth/ telecare	**9 Member States** LV, CH, DK, FR, IT, PT, NO, IE, PL
Remote healthcare support	**1 Member State** PT
Nursing informatics	
Information Technology - Information Technology (IT) in Nursing - Information Communications Technology (ICT) - Nursing information systems	**12 Member States** **6**: LT, CZ, MT, PL, SE, EL **7:** NL, BE, LV, PT, UK, HR, PL, 2 EU/EFTA-level stakeholders[37] **2:** BE, PT
Information governance	

[34] European Federation of Educators in Nursing Science.
[35] European Federation of Educators in Nursing Science, European Federation of Nurses Associations.
[36] European Nursing Council.
[37] European Federation of Nurses Associations, European Nursing Council.

N/A	
Biometrics	
N/A	
Medical/nursing and educational techniques	
Internet of things	
N/A	
New methods of treatment, new devices, equipment	
Care equipment in hospitals and other nursing settings	**8 Member States** BE, DK, NL, MT, HU, NO, PL, PT
Nursing care/ healthcare digital technologies	**7 Member States** NO, PT, FR, BE, EE, ES, SI
Diagnostics technologies	**6 Member States** PT, UK, IE, IT, PL, RO, 1 EU/EFTA-level stakeholder[38]
Less invasive and non-invasive procedures	**5 Member States** NO, FR, LT, HR, IE, 1 EU/EFTA-level stakeholder[39]
Wound treatment	**4 Member States** PT, SK, BE, HU
Nurse prescribing tools	**3 Member States** DE, IE, PL, 2 EU/EFTA-level stakeholders[40]
Surgical techniques	**3 Member States** PT, LT, IE, 1 EU/EFTA-level stakeholder[41]
Artificial intelligence	**3 Member States** LT, PT, BE
Robotics	**3 Member States** PT, BE, IT
Medical treatments	**3 Member States** LU, PL, IS
Technology in medical treatment	**1 Member State** IS
New tools for work ergonomics and safety at work	**1 Member State** DE

[38] European Specialist Nurses Organisations.
[39] European Specialist Nurses Organisations.
[40] EU Network of Nurse Regulators, European Federation of Nurses Associations.
[41] European Specialist Nurses Organisations.

Monitoring based on technological advancements	**1 Member State** IS
Care related devices	**1 Member State** LV
Numeric devices	**1 Member State** BE
e-learning	
Independent and continuing learning	**1 Member State** CY
Health education methodologies	**1 Member State** PT
Simulation	
Simulation scenarios	**6 Member States** BE, PT, SE, EE, LU, NO, 1 EU/EFTA-level stakeholder[42]
Skill laboratories	**1 Member State** DE
Inter-/ multi-disciplinarity in training	
Co-teaching with students from other health sciences	**2 Member States** EL, SE
Teaching	**1 Member State** FR
Peer-teaching between professions	**1 Member State** SE

[42] European Federation of Educators in Nursing Science.

Annex III: Knowledge and skills introduced as a result of scientific and technical progress

Table 9: Knowledge and skills according to their prominence

SCIENTIFIC PROGRESS	
Advancements	**Knowledge and skills introduced in Member States**
Nursing theories	
Patient centred care theories	
Patient centred approach - Patient centred approach with regard to elderly people, chronic diseases, multipharmacology/ multimorbidity - Whole patient approach including well-being, humanization of care, empathy - Personalised care	**5 Member States** ▪ Person-centred care (SE, IE) ▪ Implementation of individual approach (BG) ▪ Demonstrate the ability to accurately process all information gathered during the assessment process to identify needs for individualised nursing care (UK) ▪ Management of patients with multiple chronic conditions and integrated care models (IT)
Patient empowerment - Patient autonomy - Self-care/ Self-management - Therapeutic education of patients	**8 Member States** ▪ Patient education / counselling / skills in relation to empowering individuals, families and groups towards healthy lifestyles / self-care (DE, FI, PT, RO, 2 EU/EFTA-level stakeholders[43]) ▪ Independently providing advice, instructing and supporting persons needing care / patient coaching / guidance / teaching (DE, FI, FR, PT, RO, SE, SI, 2 EU/EFTA-level stakeholders[44]) ▪ Create Nursing plan and Educational program for a patient (LT)
Nursing care in non-hospital settings - Nursing care in non-hospital settings (including community care) - Home care - Primary healthcare	**7 Member States** ▪ Nursing in other settings (including community care) (BE, SK, DE, PT, EL, SI, LT) ▪ Primary healthcare (BE, DE, PT, EL)
Genetics and Genomics	**1 Member State** ▪ Demonstrate knowledge of genomics (UK)
Patient safety theories	

[43] EU Network of Nurse Regulators, European Federation of Nurses Associations.
[44] EU Network of Nurse Regulators, European Federation of Nurses Associations.

Safety and quality issues	**12 Member States** ▪ Act and react quickly, safely and flexibly in routine situations (AT) ▪ Ability to initiate methodological improvements and quality assurance (IE) ▪ Patient safety / safe care / risk assessment in relation to the patient safety (DK, FI, IS, LT, LV, SE, SK, IE) ▪ Insuring quality of nursing care / evaluating and analysing in view to improve the professional practice (BE, DE, FI, LT, RO, SE, 1 EU/EFTA-level stakeholders[45])
Inter- /multidisciplinary theories	
Communication and teamwork	**20 Member States** ▪ Communication and teamwork (UK, SI) ▪ Communication skills/ Interprofessional communication/ Socio-communicative skills/ situational communication / in cross professional communications and coordination (AT, DK, FI, LU, LV, RO, SE, SK, LT, HR, CH, FR, IS, PT, SI, BG, 2 EU/EFTA-level stakeholders[46]) ▪ Team-based care in emergency and critical areas (HU) ▪ Solving interpersonal conflicts (CZ) ▪ Situation, Background, Assessment, recommendation (SBAR) - communication (communication model) (SK) ▪ Working together effectively with other actors in the health sector (DE, FI)
Multidisciplinary practice and science	**1 Member State** ▪ Have an integrative attitude and an integrative understanding and can think and act across disciplines, linking various elements (AT)
Health promotion theories	
Health Promotion and Prevention	**4 Member States** ▪ Demonstrate knowledge of epidemiology (UK) ▪ Health promotion / prevention (NL, SE, SI)

[45] European Nursing Student Association.
[46] EU Network of Nurse Regulators, European Federation of Nurses Associations.

Nursing management theories	
Decision-making process, entrepreneurship, leadership	**17 Member States** ▪ Maintain competence to develop and enhance the capacity for leadership (IE) ▪ Leading teams / delegating tasks / improved competences in clinical leadership (CH, CZ, DK, FR, IS, LT, LV, NO, PT, SE) ▪ Recognize one's own professional and personal possibilities and limits, and to apply personally-effective coping strategies when strained (AT) ▪ Be aware of their own role in the context of professional development and actively contribute to the further development of the profession (AT) ▪ Professional identity and visibility / autonomy and independent nurse role (LU) ▪ Emergency management / carrying out measures in crises and disaster situations (AT, DE, EL, FI, PT, RO, 2 EU/EFTA-level stakeholders[47])
Transcultural nursing theories	
Multi-cultural care	**5 Member States** ▪ Care provision in the multicultural environment / sensibilisation to cultural environment / transcultural nursing (EL, ES, LT, PT, SE, 1 EU/EFTA-level stakeholders[48])
Evidence-Based Practice	
Nursing Research/ Science	**7 Member States** ▪ Nursing science (1 EU/EFTA-level stakeholder [49]) ▪ Scientific theory / research methodology (DK, EL, LT, PT, SE) ▪ Research in nursing science (ES, LU)
Evidence-Based Nursing	**13 member States** ▪ Apply evidence from an appraisal of research studies relevant to the division of nursing to the practice of nursing (IE)

[47] European Nurses Directors Association, European Federation of Educators in Nursing Science.
[48] European Nurse Directors Association.
[49] European Federation of Educators in Nursing Science.

	▪ Evidence-Based Practice/ Evidence-Based Nursing (BE, DK, IS, LT, LU, SE, SI, SK, 2 EU/EFTA-level stakeholders[50]) ▪ Skills-based and scientific data-based approach (CH) ▪ Use of validated scales (BE) ▪ Evidence-Based Nursing, searching in databases (IT) ▪ To contribute to the social development and profiling of the profession through vision development, substantiation and implementation of nursing practice on the basis of Evidence Based Practice (NL) ▪ Develop person-centred evidence-based plans for nursing interventions with agreed goals (UK) ▪ Use of evidence-based data (CH)
Clinical reasoning	**8 Member States** ▪ Critical questioning and decision-making skills (IE) ▪ Personally-effective learning and work strategies using different problem solving, decision making and creativity techniques (AT) ▪ Reflect on occupational and care situations conceptually and theoretically, draw conclusions for further professional action; independently make informed decisions and responsibly represent their own decisions externally (AT) ▪ Critical thinking (LT, LU, LV) ▪ Apply Nursing model for real clinical case (LT) ▪ Problem-solving ability (PT) ▪ Reorganisation of clinical practice to reflect population needs (e.g. healthy ageing, palliative care, additional clinical placement as an elective subject) (EL) ▪ Assess the psychosocial requirements of the respective field of action and thus handle it constructively (AT) ▪ Demonstrate knowledge of the wider determinants of health, illness and wellbeing

[50] European Nurses Directors Association, European Nursing Council.

	and apply this to an understanding of global patterns of health and wellbeing outcomes (UK)
TECHNICAL PROGRESS	
Advancements	**Knowledge and skills introduced in Member States**
e-Health	
E-Health in general	**3 Member States** ▪ e-Health in general (EE, LT, IE, 1 EU/EFTA-level stakeholder[51])
Electronic medical records systems	
Digitalisation in Nursing documentation	**6 Member States** ▪ Use of the computerized patient file (CH) ▪ Electronic report (DK, FI) ▪ Management of the patient's folder (FR) ▪ Use of database / knowledge management and databases (ES, FI, SE)
Electronic communication with patients and professionals	
Telehealth/ telecare	**2 Member States** ▪ Telemedicine / telenursing (IT, SK)
Nursing informatics	
IT in Nursing, ICT and health informatics	**6 Member States** ▪ Informatic technologies (IT) ▪ Nursing informatics (FI, 1 EU/EFTA-level stakeholder[52]) ▪ New information techniques (FR) ▪ Project to digitalise care procedures (BE) ▪ Effectively and responsibly use a range of digital technologies to access, input, share and apply information and data within teams and between agencies (UK) ▪ Knowledge about the e-Health information system (i.e. to know the safety regulations of devices used in learning and professional environment; to know the necessary medical equipment used in professional work; and to be

[51] European Federation of Educators in Nursing Science.
[52] European Nursing Council.

	familiar with different e-Health information systems) (EE)
Medical/nursing and educational techniques	
New methods of treatment, new devices, equipment	
Wound treatment	*N/A*
Less invasive and non-invasive procedures	**1 Member State** ▪ Technical advancement in surgical techniques including advancement of less invasive techniques and procedures (IE)
Surgical techniques	**1 Member State** ▪ Technical advancement in surgical techniques including advancement of less invasive techniques and procedures (IE)
Artificial intelligence	*N/A*
Robotics	*N/A*
Nursing care/ healthcare digital technologies	**14 Member States** ▪ Information and communication technology (ES) ▪ Technology in the patient care (HU) ▪ Digitalisation/ Digital skills in healthcare (SI, LV, CH) ▪ Innovation and service development and technology (NO, DK, ES, IS, IT, LU, LV, PT, SK) ▪ Knowledge about the technological tools used in healthcare (EE) ▪ Development of technology and different digital tools (CH, NL)
Medical treatments	**1 Member State** ▪ Independently handle technologies in the execution and development of care and treatment (DK)
Care equipment in hospitals and other nursing settings	*N/A*
Diagnostics technologies	**1 Member State** ▪ Technical advancement in diagnostic techniques (IE)
New techniques for elderly care and dementia	*N/A*
Nurse prescribing tools	*N/A*

e-learning	
Online learning techniques	**2 Member States** ▪ Learning platform (AT) ▪ Interactive learning and testing methods (EE)
Simulation	
Simulation scenarios	**12 Member States** ▪ Use of simulation techniques (CH) ▪ Simulation training/ Acquisition of practical skills is held in modern simulation centres equipped with high-technology tools/ Scenario training / Simulations in the nursing education/ Simulation used as a strategic tool for improving clinical and technical skills/ Training with high-fidelity manikin (BE, ES, FR, IS, LV, NO, SE, SI, EE, LU, HU)

Annex IV: Training subjects introduced as a result of scientific and technical progress

Table 10: Training subjects according to their prominence

SCIENTIFC PROGRESS	
Advancements	**Training subjects included in the Member Sates**
Nursing theories	
Nursing theories and concepts in general	**2 Member States** ▪ Development of nursing theory (PT) ▪ Nursing models (LT)
Patient centred care theories	
Patient centred approach - Patient centred approach with regard to elderly people, chronic diseases, multipharmacology/ multimorbidity - Whole patient approach including well-being, humanization of care, empathy - Personalised care	**12 Member States** ▪ Patient-centred care (UK) ▪ Person-centred care (IE, SE) ▪ Family-centred care (CH) ▪ Patient´s needs and the nursing process (SK) ▪ Nursing process and human needs (CZ) ▪ Medical humanities (IT) ▪ Nursing care with persons and children with disabilities (HR) ▪ Aging (PT) ▪ Obesity (PT) ▪ Addictology (HU) ▪ Drug addiction (PT) ▪ HIV/AIDS (PT) ▪ Rehabilitation and nursing of the disabled (PL) ▪ Special nursing care for people with long term illness (IS) ▪ Chronicity and long-term care planning (CH) ▪ Chronic illness trajectory (IE) ▪ Chronic diseases (PT) ▪ Gender issues (PT)
Patient empowerment - Patient autonomy	**6 Member States** ▪ Empower individuals, families and groups towards health lifestyles (2 EU/EFTA-level stakeholders[53])

[53] European Network of Nurses Regulators and European Federation of Nurses Associations.

- Self-care/ Self-management - Therapeutic education of patients	▪ Empowerment (IE) ▪ Empowering patients and relatives in relation to self-care (MT) ▪ Independently give advice to, instruct and support persons needing care (coaching) (2 EU/EFTA-level stakeholders[54]) ▪ Clinical education of patients and their relatives (LT) ▪ Guidance and teaching (SE) ▪ Community and Family Nursing Clinical training (LT) ▪ Health, Family and Community (PT) ▪ Self-care (2 EU/EFTA-level stakeholders[55]) ▪ Guidance and teaching skills and support for self-care (FI) ▪ Self-management (IE) ▪ Self-care deficit and family carers (PT) ▪ Self-efficacy (SE) ▪ Self-management of chronic illness and therapeutic regimens (PT) ▪ Management of therapeutic self-care (PT)
Nursing care in non-hospital settings (including community care) - Home care - Primary healthcare	**17 Member States** ▪ Community care (CZ, ES, IE, SE) ▪ Nursing in the community/primary healthcare (EL, MT) ▪ Community health approach (FR) ▪ Community nursing theory (HU) ▪ Community health nursing, including School nursing (IS) ▪ Community nursing (IT, SK, SI) ▪ Home care and therapeutic education (CH) ▪ Nursing care in patient's home (1 EU/EFTA-level stakeholder[56]) ▪ Home care (AT) ▪ Nursing home care (BE, CH) ▪ Home nursing (HR, RO)

[54] European Network of Nurses Regulators and European Federation of Nurses Associations.
[55] European Network of Nurses Regulators and European Federation of Nurses Associations.
[56] European Nursing Council.

	▪ Home and family care (SE)
Genetics and Genomics	**5 Member States** ▪ Genetics (BE, EL, IE, IT, UK)
Patient safety theories	
Safety and quality issues	**11 Member States** ▪ Risk management / patient safety (DK) ▪ Patient and Consumer safety (FI) ▪ Culture of safety (IE) ▪ Patient safety (IS, SK) ▪ Patient safety and nursing quality (LT) ▪ Safe care (patient safety) (SE) ▪ Analyse the care quality to improve the own professional practice (2 EU/EFTA-level stakeholders[57]) ▪ Independently assure quality of nursing care (2 EU/EFTA-level stakeholders[58]) ▪ Quality (BE, CH) ▪ Quality assurance (FI, NL) ▪ Quality, entrepreneurial and innovation methods (DK) ▪ Risk management and quality (FR) ▪ Quality improvement (IE, SE) ▪ Quality and safety of nursing care (SK) ▪ Nursing tools for patient safety and clinical nursing (FI)
Inter- /multidisciplinary theories	
Communication and teamwork	**10 Member States** ▪ Team & collaboration (SE) ▪ Communication skills (EL, HR, 1 EU/EFTA-level stakeholder[59]) ▪ Communication (AT, FI, SE, SK) ▪ Professional communication (BE) ▪ Communication in Nursing (CZ) ▪ Collaboration and communication (IS)

[57] European Network of Nurses Regulators and European Federation of Nurses Associations.
[58] European Network of Nurses Regulators and European Federation of Nurses Associations.
[59] European Nursing Council.

	▪ Therapeutic Communication and Helping Relations in Nursing (PT) ▪ Comprehensively communicate professionally (2 EU/EFTA-level stakeholders[60])
Multidisciplinary practice and science	**10 Member States** ▪ Multi-professionalism (FI) ▪ Interdisciplinary cooperation in health sciences (IS) ▪ Health ecology (LT) ▪ Climate changes (PT) ▪ Sustainable development (SE) ▪ Inter-professionality (CZ) ▪ Work effectively with other actors/professionals in the health sector (2 EU/EFTA-level stakeholders[61]) ▪ Interprofessional collaboration (CH, SI) ▪ Inter-professional elements (DK) ▪ Interprofessionalism / work organisation and interprofessional cooperation (FR) ▪ Delegation to other healthcare professionals (1 EU/EFTA-level stakeholder[62])
Health promotion theories	
Health promotion and prevention	**12 Member States** ▪ Health promotion (AT, BE, EL, FI, IE, IT, 1 EU/EFTA-level stakeholder[63]) ▪ Methods of health education and promotion (HR) ▪ Public health, health promotion and education (LU) ▪ Promotion of mental health (PL) ▪ Health promotion and prevention (SE) ▪ Didactics of health education (SI) ▪ Methodology of health education and health promotion (SI) ▪ Infection prevention and control (1 EU/EFTA-level stakeholder[64])

[60] European Network of Nurses Regulators and European Federation of Nurses Associations.
[61] European Network of Nurses Regulators and European Federation of Nurses Associations.
[62] European Nurse Directors Association.
[63] European Nursing Student Association.
[64] European Nursing Student Association.

	▪ Epidemiology (IT) ▪ Fundamental Epidemiology and Preventive Medicine (LT) ▪ Nosocomial infections (PL)
Nursing management theories	
Decision-making process, entrepreneurship, leadership	**8 Member States** ▪ Decision-making and documentation in nursing (FI) ▪ Decision-making (1 EU/EFTA-level stakeholder[65]) ▪ Clinical decision making in nursing simulation (LT) ▪ Clinical decision-making (SE) ▪ Leadership (BE, IE, NO, SE) ▪ Organisation and leadership (CH) ▪ Leadership and employee competence (FI) ▪ Leadership in nursing (LT)
Transcultural nursing theories	
Multi-cultural care	**10 Member States** ▪ Interculturality (1 EU/EFTA-level stakeholder[66]) ▪ Dealing with cultural issues (1 EU/EFTA-level stakeholder[67]) ▪ Identity and otherness in professional practice (CH) ▪ Transcultural nursing (CZ, PT) ▪ Cultural diversity (IS) ▪ Culture (SE) ▪ Religion in nursing (LT) ▪ Transcultural healthcare (EL) ▪ Cross-cultural care provision (MT) ▪ Multicultural nursing (ES, SK)
Evidence-Based Practice	
Nursing research/ science	**20 Member States** ▪ Research methodology (CH, DK, EL, FR, HU, IE, MT, PL, SK) ▪ Research methodology (BE, CH, DK, EL, IE, LT, LU, NO,)

[65] European Federation of Educators in Nursing Science.
[66] European Federation of Educators in Nursing Science.
[67] European Nurse Directors Association.

	▪ Methodology and use of the scientific research results (BE) ▪ Research inquiry (CY) ▪ Introduction to the research process / initiation to research (FR) ▪ Research work basics (HR) ▪ Basic research skills (NL) ▪ Scientific research in nursing (PL) ▪ Research Process (PT) ▪ Health research (PT) ▪ Nursing research (ES, SK) ▪ Research and leadership (SE, 1 EU/EFTA-level stakeholder[68]) ▪ Research and Informatics in Nursing (SI) ▪ Stages of the research process to enable evidence-based practice (MT)
Evidence-Based Nursing	**13 Member States** ▪ Evidence-Based Nursing (CH, EL, NO, IT, LT, 1 EU/EFTA-level stakeholder[69]) ▪ Appraising and evaluating scientific evidence (MT) ▪ Evidence based and cost-effective care (IE) ▪ Concept of evidence in nursing (BE) ▪ Evidence-based practice (FI, NL, SE, 1 EU/EFTA-level stakeholder [70]) ▪ Stages of the research process to enable evidence-based practice (MT) ▪ Biostatistics (EL, LT) ▪ Statistics (IT, LV, PT)
Clinical reasoning	**3 Member States** ▪ Clinical judgment (CY) ▪ Clinical approach (BE) ▪ Reflexive approach and goal setting (BE) ▪ Solving complex care problems (CH)

[68] European Federation of Educators in Nursing Science.
[69] European Federation of Educators in Nursing Science.
[70] European Nursing Council.

TECHNICAL PROGRESS	
Advancements	**Training subjects included in the Member States**
e-Health	
E-Health in general	**6 Member States** ▪ e-Health (BE, DK, LT, PT, CH, EE)
Electronic medical records systems	
Digitalisation in Nursing documentation	**5 Member States** ▪ Electronic Data Processing (AT, BG) ▪ Electronic patient records (CY) ▪ Use of database (FI) ▪ Computerisation of patient folders (FR)
Electronic communication with patients and professionals	
Telehealth/ telecare	*N/A*
Nursing informatics	
IT in Nursing, ICT and health informatic	**17 Member States** ▪ IT in nursing (DK, EE, HR, IT, MT) ▪ Specific Computer Science (AT) ▪ IT (AT, MT) ▪ IT solutions used in hospitals (EE) ▪ IT in medicine (LT) ▪ IT systems in nursing (PL) ▪ Nursing informatics (FI, 1 EU/EFTA-level stakeholder[71]) ▪ Research and informatics in nursing (SI) ▪ Picture Archiving and Communication System (CY) ▪ Health information systems and ICT (PT) ▪ ICT (ES) ▪ Informatics (BG, CY, EL, IE, MT, IT) ▪ Principles of informatics (SE)

[71] European Nursing Council.

▪ ***Medical/nursing and educational techniques***	
New methods of treatment, new devices, equipment	
Wound treatment	**2 Member States** ▪ Modern wound care (LU, PT)
Less invasive and non-invasive procedures	**2 Member States** ▪ Innovative practices in nursing (BG, PL)
Surgical techniques	*N/A*
Artificial intelligence	*N/A*
Robotics	*N/A*
Nursing care/ healthcare digital technologies	**4 Member States** ▪ Digital health (IE) ▪ Digital skills in healthcare (LV) ▪ Health technology (NO) ▪ Digital technology (1 EU/EFTA-level stakeholder[72]) ▪ Nursing techniques (SK)
Medical treatments	**2 Member States** ▪ Complementary and alternative therapies (EL) ▪ Aromatherapy, music-therapy, phytotherapy, traditional Chinese medicine, yoga, Ayurveda, tropical medicine, kinaesthetic (LU)
Care equipment in hospitals and other nursing settings	*N/A*
Diagnostics technologies	**1 Member State** ▪ Laboratory and Diagnostic tests (HU)
New techniques for elderly care and dementia	**1 Member State** ▪ Gerontechnology (FI)
Nurse prescribing tools	▪ *N/A*
e-learning	
Online learning techniques	*N/A*
Simulation	
Simulation scenarios	**9 Member States**

[72] European Federation of Educators in Nursing Science.

	▪ Simulation training (CH, EE, ES, FI, LV, SE, SI) ▪ Simulation technology (LU) ▪ Learning in Simulated Setting (PT)

Annex V: Knowledge, skills and training subjects noted in at least 10 Member States

Table 11: Knowledge, skills and training subjects noted in at least 10 Member States

	Knowledge and skills	Training subjects
Scientific topics	**Nursing theories**	
	▪ Safety and quality issues - 12 Member States	▪ Patient centred approach – 12 Member States ▪ Safety and quality issues – 11 Member States ▪ Communication and teamwork - 10 Member States ▪ Multidisciplinary practice and science - 10 Member States ▪ Health promotion and prevention - 12 Member States ▪ Multi-cultural care - 10 Member States
	Evidence-Based practice	
	▪ Evidence-Based Nursing - 13 member States	▪ Evidence-Based Nursing - 13 Member States
Technical topics	**E-Health**	
	▪ N/A	▪ N/A
	Medical/nursing and educational techniques	
	▪ Nursing care/ healthcare digital technologies – 15 Member States ▪ Simulation scenarios - 12 Member States	▪ N/A

Annex VI: Article 31 and point 5.2.1. of Annex V to Directive 2005/36/EC

Article 31 - Training of nurses responsible for general care

1. Admission to training for nurses responsible for general care shall be contingent upon either:

(a) completion of general education of 12 years, as attested by a diploma, certificate or other evidence issued by the competent authorities or bodies in a Member State or a certificate attesting success in an examination of an equivalent level and giving access to universities or to higher education institutions of a level recognised as equivalent; or

(b) completion of general education of at least 10 years, as attested by a diploma, certificate or other evidence issued by the competent authorities or bodies in a Member State or a certificate attesting success in an examination of an equivalent level and giving access to a vocational school or vocational training programme for nursing.

2. Training of nurses responsible for general care shall be given on a full-time basis and shall include at least the programme described in Annex V, point 5.2.1.

The Commission shall be empowered to adopt delegated acts in accordance with Article 57c concerning amendments to the list set out in point 5.2.1 of Annex V with a view to adapting it to scientific and technical progress.

The amendments referred to in the second subparagraph shall not entail an amendment of existing essential legislative principles in Member States regarding the structure of professions as regards training and conditions of access by natural persons. Such amendments shall respect the responsibility of the Member States for the organisation of education systems, as set out in Article 165(1) TFEU.

3. The training of nurses responsible for general care shall comprise a total of at least three years of study, which may in addition be expressed with the equivalent ECTS credits, and shall consist of at least 4 600 hours of theoretical and clinical training, the duration of the theoretical training representing at least one third and the duration of the clinical training at least one half of the minimum duration of the training. Member States may grant partial exemptions to professionals who have received part of their training on courses which are of at least an equivalent level.

The Member States shall ensure that institutions providing nursing training are responsible for the coordination of theoretical and clinical training throughout the entire study programme.

4. Theoretical education is that part of nurse training from which trainee nurses acquire the professional knowledge, skills and competences required under paragraphs 6 and 7. The training shall be given by teachers of nursing care and by other competent persons, at universities, higher education institutions of a level recognised as equivalent or at vocational schools or through vocational training programmes for nursing.

5. Clinical training is that part of nurse training in which trainee nurses learn, as part of a team and in direct contact with a healthy or sick individual and/or community, to organise, dispense and evaluate the required comprehensive nursing care, on the basis of the knowledge, skills and competences which they have acquired. The trainee nurse shall learn not only how to work in a team, but also how to lead a team and organise overall nursing care, including health education for individuals and small groups, within health institutes or in the community.

This training shall take place in hospitals and other health institutions and in the community, under the responsibility of nursing teachers, in cooperation with and assisted by other qualified nurses. Other qualified personnel may also take part in the teaching process.

Trainee nurses shall participate in the activities of the department in question insofar as those activities are appropriate to their training, enabling them to learn to assume the responsibilities involved in nursing care.

6. Training for nurses responsible for general care shall provide an assurance that the professional in question has acquired the following knowledge and skills:

(a) comprehensive knowledge of the sciences on which general nursing is based, including sufficient understanding of the structure, physiological functions and behaviour of healthy and sick persons, and of the relationship between the state of health and the physical and social environment of the human being;

(b) knowledge of the nature and ethics of the profession and of the general principles of health and nursing;

(c) adequate clinical experience; such experience, which should be selected for its training value, should be gained under the supervision of qualified nursing staff and in places where the number of qualified staff and equipment are appropriate for the nursing care of the patient;

(d) the ability to participate in the practical training of health personnel and experience of working with such personnel;

(e) experience of working together with members of other professions in the health sector.

7. Formal qualifications as a nurse responsible for general care shall provide evidence that the professional in question is able to apply at least the following competences regardless of whether the training took place at universities, higher education institutions of a level recognised as equivalent or at vocational schools or through vocational training programmes for nursing:

(a) competence to independently diagnose the nursing care required using current theoretical and clinical knowledge and to plan, organise and implement nursing care when treating patients on the basis of the knowledge and skills acquired in accordance with points (a), (b) and (c) of paragraph 6 in order to improve professional practice;

(b) competence to work together effectively with other actors in the health sector, including participation in the practical training of health personnel on the basis of the knowledge and skills acquired in accordance with points (d) and (e) of paragraph 6;

(c) competence to empower individuals, families and groups towards healthy lifestyles and self-care on the basis of the knowledge and skills acquired in accordance with points (a) and (b) of paragraph 6;

(d) competence to independently initiate life-preserving immediate measures and to carry out measures in crises and disaster situations;

(e) competence to independently give advice to, instruct and support persons needing care and their attachment figures;

(f) competence to independently assure the quality of, and to evaluate, nursing care;

(g) competence to comprehensively communicate professionally and to cooperate with members of other professions in the health sector;

(h) competence to analyse the care quality to improve his own professional practice as a nurse responsible for general care.

Point 5.2.1. of Annex V - Training programme for nurses responsible for general care

The training leading to the award of a formal qualification of nurses responsible for general care shall consist of the following two parts.

A. Theoretical instruction

a. Nursing:

- Nature and ethics of the profession
- General principles of health and nursing
- Nursing principles in relation to:
  - general and specialist medicine
  - general and specialist surgery
  - child care and paediatrics
  - maternity care
  - mental health and psychiatry
  - care of the old and geriatrics

b. Basic sciences:

- Anatomy and physiology
- Pathology
- Bacteriology, virology and parasitology
- Biophysics, biochemistry and radiology
- Dietetics
- Hygiene:
  - preventive medicine
  - health education
- Pharmacology

c. Social sciences:

- Sociology
- Psychology
- Principles of administration
- Principles of teaching
- Social and health legislation
- Legal aspects of nursing

B. Clinical instruction

Nursing in relation to:

- general and specialist medicine
- general and specialist surgery
- child care and paediatrics

- maternity care
- mental health and psychiatry
- care of the old and geriatrics
- home nursing

One or more of these subjects may be taught in the context of the other disciplines or in conjunction therewith.

The theoretical instruction must be weighted and coordinated with the clinical instruction in such a way that the knowledge and skills referred to in this Annex can be acquired in an adequate fashion.