



## Comparison of teacher ECEC curricula in unitary and separate systems across 5 EU countries

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## 1. Introduction

The role of high-quality ECEC (Early Childhood Education and Care) for a wide range of short- and long-term benefits for individuals and society has been extensively supported (see Council of the European Union, 2011). Countries have adopted different strategies to achieve the mutual goal of an affordable, accessible and effective ECEC and are, despite the common policy goals, at very different stages of policy development and implementation (European Commission/EACEA/Eurydice, 2019). European countries can be placed on a continuum (from integrated to split systems) according to four criteria linked to the **quality dimensions**:

1. **settings** (unitary or separate) - where,
2. authorities (single or dual) - how,
3. **highly qualified staff throughout the entire ECEC phase** (minimum ISCED level 6) - who,
4. education guidelines applying for all settings - what.

Unitary ECEC systems, that include the whole pre-primary age group (0-6) have been found to be more effective than separate systems, in terms of the organisation of services and quality assurance, while split systems tend to weaken the provision of high-quality ECEC because governance processes are more complicated due to the fragmentation of administrative responsibilities. The ECEC policy integration dimensions in the focus of the report are the “where” (Setting) and the “who” (Staff).

Moreover, ECEC is especially beneficial for disadvantaged children (low socio-economic and migrant backgrounds, children with special needs or disabilities), including those on the autism spectrum, whose gains in cognitive and socio-emotional development are higher than for neurotypical children. However, these children tend to be less represented in ECEC, due to the lack of adapted settings. The report focuses also on this topic within teacher education/training.

This report is a part of the NEMO project (*NEw MOnitoring guidelines to develop innovative ECEC teachers curricula*) and aims to introduce and recommend guidelines for a new curricula

for pre-primary school teachers<sup>1</sup>, within a unified ISCED 0 system (0-6 years), taking ASD children's needs into account.

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<sup>1</sup> **Terminology** always poses a challenge in the comparative reports, as often national terms related to education imply certain systemic solutions that may not be embedded in their English counterparts. Alternatively, English terms may imply meanings that do not have representations in national education systems. In this report, we use the term 'preschool', 'pre-primary' (related to education, teachers etc.) interchangeably. **The terms 'ECEC teachers', 'pre-school teachers', 'kindergarten teachers', 'pre-primary teachers' and most general term 'core practitioners' are used interchangeably.** The terms 'pedagogue', 'educator', 'childcare practitioner', 'pedagogical staff', 'early childhood teacher' may also apply.

## 2. Aim of the report

The aim of the report is a comparative analysis of different ECEC settings in European countries and their teachers' study/training programmes (curricula etc.) with a special focus on the countries of the NEMO partnership: Slovenia, Sweden, Spain, Cyprus, and Italy. The aim is also to explore the good practices of the selected countries. This provides us with a baseline to prepare recommendations for a unified pre-primary European teacher curriculum [European ECEC teacher curricula proposal]. Based on the results of this report, we introduce and recommend guidelines for pre-primary teachers' curricula for a unified system ISCED 0 (0 – 6 years), by also considering ASD children's needs and other outputs in the project. With this, we also wish to encourage European policymakers responsible for national ECEC systems, to widen their monitoring and curricula guidelines into a unitary perspective (0-6), including the innovative methodologies and tools developed in the project.

## 3. Methodology

### Participating countries

For this comparative report, we included all 5 countries participating in the NEMO project (Slovenia, Cyprus, Sweden, Spain, and Italy). Each country's representative(s) has provided data on the questionnaire designed specifically for this report.

### Data sources

Official documents issued and/or recognised by central/top-level authorities were the prime sources of information when answering questions.

### Instrument

A questionnaire was developed for the purpose of this study, including questions covering the main ECEC settings, staff categories included in it, initial education requirements and the associated curricula, and continuous professional development. The complete questionnaire is available via the link in [Annex 1](#). The collection of data referred to mainstream public and private ECEC provision that was within the regulatory framework in the 2019/2020 school year. Only centre-/school-based provision and not home-based provision were reported. Partners used official documents issued and/or recognised by central/top-level authorities, representative information on regional regulations and common practices. Furthermore, national steering and legislative documents, scientific articles, reports, national analyses/studies, national Statistic Office, and Eurydice studies, were also reported.

## 4. Results with Discussion

We have analysed different elements of the ECEC systems in five European countries - Slovenia, Sweden, Spain, Cyprus and Italy. Across these countries, we have compared the main ECEC settings (table 1) and ECEC staff categories in these settings (table 2) with a special focus on teacher education. An in-depth comparison was conducted for the minimum qualification levels of the core staff categories based on ISCED levels (table 3), the main elements of their initial educational programmes (table 4, e. g. title of the programme, provider, duration), the presence of topics (table 5, e. g. pedagogical/psychological topics, special didactics, school experience). We have also compared the programmes based on the subjects/courses in the study programmes.

### Main ECEC settings

Results (Table 1) show variations of ECEC settings in the NEMO countries. Slovenia has a single main setting across the entire preschool age (*vrtec*). The situation is similar in Sweden (*Förskola*) even though Sweden has two main settings (a separate setting for the last year before primary schooling begins). It is important to note that the pre-primary class setting is in the phase of phasing out – after 2026 it will be integrated into primary years. On the other hand, Spain has either an integrated setting or separate settings for younger and older children (*Escuelas infantiles – primer ciclo; Escuelas infantiles – segundo ciclo*). In Cyprus two separate settings exist for younger and older children with an overlap for children at the age of 3 to 4;8 years (*Vrefopaidokomikoi Stathmoi; Nipiagogeio*). In Italy, until recently two distinct settings have existed for younger and older children (*Servizi educativi - nido d'infanzia; Scuola dell'infanzia*). However, since the law in 2017, these two settings make up an 'integrated system 0-6'. The integrated system is in the phase of implementation – the ECEC system is currently typically still represented by split settings.

Looking at the European level, most countries provide centre-based ECEC in two separate age-dependent settings; in almost one-third of countries, it is provided in a unitary setting, while in several countries both unitary and separate settings co-exist (European Commission/EACEA/Eurydice, 2019). In this sense, **NEMO countries represent variations present across Europe.**

Table 1. ISCED Level 0 in the participating countries (only centre-based settings; based on data from the questionnaire and European Commission/EACEA/Eurydice, 2019)

Countries	Age of children						
	0	1	2	3	4	5	6
Slovenia	Vrtec (Eng. Kindergarten)						
		ISCED 010		ISCED 020			
Sweden	Förskola (Eng. Preschool centre)						Förskoleklass (Eng. Pre-primary class)
		ISCED 010		ISCED 020			
Spain	Escuelas infantiles (primer y segundo ciclo) (Eng. Preschool, first and second cycle)						
	Escuelas infantiles (primer ciclo) (Eng. Preschool, first cycle)		Escuelas infantiles (segundo ciclo) Colegios de educación infantil y primaria (Eng. Preschool, second cycle; Preschool and primary education schools)				
	ISCED 010		ISCED 020				
Cyprus	Vrefopaidokomikoi Stathmoi* (Eng. Day nursery)						
	ISCED 010						
			Nipiagogeio (Eng. Kindergarten)		Prodimotiki (Eng. Pre-primary class)		
		ISCED 020					
Italy <sup>1</sup>	Servizi educativi (nido d'infanzia)* (Eng. Educational services and Nurseries)		Scuola dell'infanzia (Eng. Pre-primary school)				
	ISCED 010		ISCED 020				

Notes: ISCED 010 = early childhood educational development programmes; ISCED 020 = pre-primary education programmes; <sup>1</sup> = Ministry of education is responsible for the promotion and the development of the newly introduced 0-6 integrated system; Italy has introduced 'integrated ECEC 0-6' with the law in 2017, however, currently, ECEC services in Italy remain represented by, for the most part, a split system – dotted line separating the two settings reflects this (European Commission/EACEA/Eurydice, 2019 has the reference year 2018/19 and also lists Italy as having two split age-dependent settings); \*= responsible authority is from education or the social administration.

Table 2. ECEC staff's categories required qualifications for settings in included countries in national languages with English translations (core practitioners in blue and assistants in black)

	Slovenia	Sweden	Spain		Cyprus <sup>4</sup>	Italy		
Setting ///Required Qualification	<b>Vrtec</b> (Kindergarten)	<b>Förskola</b> <sup>1</sup> (Preschool centre)	<b>Escuelas infantiles (primer ciclo)</b> <sup>2</sup> (Preschool, first cycle)	<b>Escuelas infantiles (segundo ciclo) Colegios de educación infantil y primaria</b> <sup>2</sup> (Preschool, second cycle; Preschool and primary education schools) <b>Escuelas infantiles (primer y segundo ciclo)</b> (Preschool, first and second cycle)	<b>Vrefopaidokomikoi Stathmoi</b> (Day nursery)	<b>Nipiagogeio</b> (Kindergarten)	<b>Servizi educativi (nido d'infanzia)</b> (Educational services and Nurseries)	<b>Scuola dell'infanzia</b> (Pre- primary school)
Upper secondary (ISCED 3)	<b>Pomočnica vzgojiteljice</b> (preschool assistant)			<b>Asistente educativo</b> (Educational Assistant)				
Post- secondary non-tertiary (ISCED 4)		<b>Elevassisten</b> (Student Assistant)					<b>Operatori di Nido Familiare</b> (The family day- care operator)	
Short cycle tertiary education (ISCED 5)			<b>Técnico Superior en Educación Infantil</b> (Advanced technician in preschool education)					
Bachelor's degree (ISCED 6)	<b>Vzgojiteljica</b> (Preschool teacher)	<b>Förskollärare</b> (Preschool teacher)		<b>Grado en Maestro de Educación Infantil</b> (Teacher of	<b>Nipiagogos</b> (Kindergarten teacher)	<b>Nipiagogos</b> (Kindergarten teacher)	<b>Educatore Professionale</b> (Nursery educator)	

				pre-primary education)				
Master's degree (ISCED 7)								Maestra (Teacher)
No formal qualification required		Barnskötare (Eng. Child Caregiver) *			Voithos Nipiagogou (Teacher Assistant)**			

Notes. \* They usually have a three-year vocational (integrated) education on a secondary level. This degree is also available through adult education; \*\* By law, no qualifications are needed. However, most of the time principals prefer to hire qualified teachers' assistants (bachelor's degree in the field of early childhood education, child care/ psychosocial and spiritual education of the child. Rarely they hire people with certificates or diplomas of tertiary (not university level) education (see more in additional information).

Additional country-specific information:

<sup>1</sup> In **Sweden**, according to the Swedish Education Act, 2:13, only staff with a certificate showing the qualification as a preschool teacher can be in charge of the position of a preschool teacher. Preschool teachers are responsible for educational development in ECEC groups (all ages). Statistics show that every preschool teacher (ISCED level 6) oversees 13 children on average. All staff included the average is 5 children per employee. In private settings there are fewer educated teachers, however, the Education Act states at least one educated teacher per setting who has the pedagogical responsibility.

<sup>2</sup> In **Spain**, the so-called Alternative pedagogy projects (i.e. free schools; <https://ludus.org.es/es/projects>) also exist, but do not have to fulfil the same requirements as the other types of schools.

## ECEC staff categories, including the minimum qualification levels for core staff categories

A comparison of the ECEC staff categories in the main settings shows that two types of staff work in a group with children - core practitioners (teachers) and assistants (see table 2). A **core practitioner** (also known as a pedagogue, educator, childcare practitioner, pedagogical staff, preschool, kindergarten or early childhood teacher) is an individual who leads the practice for a group of children at the class- or playroom-level and works directly with children and their families. An **assistant** is an individual that supports the core practitioner with a group of children or class on a daily basis. The **minimum qualification level for the core practitioners most commonly is a BA degree (ISCED 6) in preschool education or a similar field** (e.g. Preschool Education in Slovenia, BA in Education, speciality in Child Education in Spain; Educational Sciences in Italy). In Slovenia and Cyprus, this is required for the entire preschool age and since 2019 also in Italy for younger groups (see table 3). In Italy, however, individuals working with older children even are required to have an ISCED 7 education (Primary Education Sciences). In Spain, ISCED 6 is only needed for staff working with older children. In Sweden, preschool teacher education BA degree (ISCED 6) is required for the position as preschool teacher. For *other* core practitioners, the Education Act only states “sufficient education or experience to promote children’s development and learning” (2010: 800, 2:14). The holistic approach of education and care stated in the Education Act (2010:800, 8:2), however, requires the presence of preschool teachers as part of the core practitioners in an ECEC setting.

Table 3. *Minimum qualification levels required to become a core practitioner in main centre-based setting(s) according to top-level regulations, presented by age-divided settings (based on data from the questionnaire and European Commission/EACEA/Eurydice, 2019)*

	0-3 years of age	3-6 years of age
Slovenia		ISCED 6
Sweden		X <sup>1</sup>
Spain	ISCED 5	ISCED 6
Cyprus		ISCED 6
Italy	ISCED 6 <sup>2</sup>	ISCED 7

Notes: <sup>1</sup> = According to the Swedish Education Act, 2:13, only staff with a certificate showing the qualification as a preschool teacher (ISCED 6) can be in charge of the position as a preschool teacher, for other core practitioners the Education Act states “sufficient education or experiences to promote children’s development and learning” (2:14). In 2017 40.1 % of all staff employed in kindergartens had a Bachelor's degree as ‘Preschool teachers’, while

19.5 % had secondary education for child care, 29.6 % had no qualifications for working with children; Skolverket's national statistics, see European Commission/EACEA/Eurydice, 2019). <sup>2</sup> = in laws from 2019/2020; previously it was a matter of regional autonomy; ISCED 6 – Bachelor's or equivalent level; ISCED 7 – Master's or equivalent level

To summarize, at the level of NEMO partnership, the required level of education for core ECEC practitioners varies from no regulation to ISCED 6 in Sweden, and ISCED 5 (Spain younger) to majority regulated at ISCED 6 (Slovenia, Spain older, Cyprus, Italy younger) and in one case even ISCED 7 (Italy older). **Recent reforms show the direction of increasing the required level of education in ECEC**; however, Spain in younger settings remains an exception.

However, even with the existing situation in the NEMO countries, it can be stated that **NEMO countries can in general serve as good practices**, particularly for the countries with minimum qualification level required to work as a core practitioner in either **younger or older age group still below Bachelor's level** (Czechia, Ireland, Latvia, Malta, Austria, Romania, Slovakia and the United Kingdom – Scotland).

### Comparison of initial educational programmes

We have conducted the comparative analysis of the ECEC curricula for the following core staff categories: *vzgojitelj/vzgojiteljica* for Slovenia, *Förskollärare* for Sweden, *Técnico Superior en Educación Infantil* and *Grado en Maestro de Educación Infantil* for Spain, *Nipiagogos* for Cyprus, and *Educatore Professionale* and *Maestra* for Italy (see tables B and C). We have compared the regulations regarding the study programmes, aims, general competencies/learning outcomes, the main elements (e.g. title of the programme, provider, duration), the presence of topics (e.g. pedagogical/psychological topics, special didactics, school experience) and subjects/courses in the programmes.

### Aims and general competencies/learning outcomes

A comparison of the aims of the study programmes in the NEMO countries shows they are very similar. All of them in different words highlight the **aim of preparing for the pedagogical/educational and care activities in the ECEC settings with children, families, colleagues (planning, implementing, evaluating; documentation), including subject-related competencies (preschool didactics), other key knowledge (i.e. psychology) and health issues**. The aim is also to equip future ECEC teachers with theoretical and conceptual knowledge (i.e.

educational science core; this is less so in Spain for 0-3). In the case of Slovenia and Sweden, the preparation for further academic education toward a master's degree is also relevant. General competencies or learning outcomes stated in the programmes **are aligned with these aims** and are also similar across countries with a **slightly different focus in each country**.

### **Main elements, the presence of topics and subjects/courses in the programmes**

The comparison of the main elements of the initial programmes for the core practitioners in the selected countries (table 4) shows, that it is mainly **provided by the universities**, and it takes from two to five years to finish it, most commonly **from 3-4 years**. It consists of 120 to 300 ECTS, most commonly from **180 to 240 ECTS**. The most noticeable exceptions are Spain and Italy; in Spain, core practitioners for younger children have lower education requirements (ISCED 5, providers are professional training institutes) and in Italy, for older children, higher education requirements (ISCED 7) compared to other countries (ISCED 6). Before the year 2019, Italy also had no central level requirements (regional autonomy) for the practitioners working with younger children.

In each country, there are more providers of the educational programme required for the core practitioners. We chose one provider per country to analyse the study programme required for the core practitioners, i.e. Slovenia – University of Maribor, Sweden – Stockholm University, Spain - Ministry of Education / White Book, Cyprus – European University Cyprus, Italy - University of Bologna (see table 5). The national experts in the NEMO questionnaires reported that the **programmes are quite similar across different providers**.

An in-depth analysis of the study programmes was conducted via **comparison of the compulsory and elective subjects** (see table 5). The subject/course titles were translated into the English language. This was followed by finding a higher-order common topic (i.e., Physical development and movement, Language and communication skills, Psychology, Methodology) to which subjects/courses could be assigned. Then a researcher went through all of the subjects/courses in the study programmes and assigned '1' to a specific common topic if the relevant course was present in the study programme. In the final step, common topics were grouped into overarching themes or areas (i.e., Special didactics). See Table 6 for detailed information about the subjects included in the initial education for the core staff in the different countries.

The syllabi of core practitioners' **study programmes are relatively similar, covering similar themes** and (mainly) **including study practice** (exception is High Degree in Child education in Spain). The study programmes cover from 8 (Spain, 0-3) to 18 topics (Cyprus). The fact that the Spanish programme for core practitioners covers the least topics is expectable, it is the only ISCED 5 programme (others are ISCED 6 or 7); the shorter duration and lower ISCED level are reflected in the fewer topics covered in the programme. All programmes (7) cover **Psychology and Pedagogy** (general subjects), **Language and communications skills** and **Special and inclusive education** (special didactics). **Methodology** (general subject), **Expressive arts and development of creativity** (special didactics) and the **school experience** are included in all programmes (6), with the exception of the High Degree programme in Spain.

Because the topic of **Special and inclusive education** is the focus of the NEMO project we have analysed it in more detail. Although it is included in all the study programmes, there are **major differences in how the topic is addressed (numbers of subjects/courses, compulsory versus elective)**. The main differences can be seen in how many related subjects are included (i.e. Slovenia and Spain 0-3 have fewer; Spain 3-6 has more), how many of them are elective and how many obligatory (i.e. in Italy 0-3 are mostly elective, Spain 3-6 obligatory). Although several subjects are addressing special and inclusive education, there is **no specific reference to ASD** in any of the NEMO countries.

Table 4. Main elements of the initial educational programmes for the core practitioners in the selected countries

	<i>Slovenia</i>	<i>Sweden<sup>1</sup></i>	<i>Spain</i>	<i>Cyprus</i>	<i>Italy</i>		
	<b>Vzgojitelj_ica</b> (Preschool teacher)	<b>Förskollärare</b> (Preschool teacher)	<b>Técnico Superior en Educación Infantil</b> (Advanced technician in preschool education)	<b>Grado en Maestro de Educación Infantil</b> (Teacher of pre-primary education)	<b>Nipiagogos</b> (Kindergarten teacher)	<b>Educatore Professionale<sup>2</sup></b> (Nursery educator)	<b>Maestra</b> (Kindergarten teacher)
Title of the programme/ training	Preschool education	Preschool teacher training programme	Training cycle: High degree on Child Education	B.A. on Education, speciality on Child Education	Early Childhood Education/ Pre-primary school teaching / Pre-Primary Education	Educational Sciences	Primary Education Sciences
Programme/training provider (Institution...)	Public universities (University of Ljubljana - UL, University of Maribor - UM, Univerza na Primorskem - UP)	20 Universities have the entitlement, by UKÄ, to award Degree of Bachelor of Arts in PreSchool Education.  <a href="#">List of Higher Education Institutions under the governance of The Swedish Council of Higher Education (2016)</a>	<a href="#">Professional Training Institutes Official program from the Ministry of education.</a>  <a href="#">All the centres giving this training in Spain.</a>	Dozens of Universities across the country.	European University Cyprus - EUC, University of Cyprus, University of Nicosia and Frederick University Cyprus	University	University
Type of the programme (BA, MA, Vocational...) and ISCED level	BA - 6	BA - 6: Degree of Bachelor of Arts in PreSchool Education, including vocational training (integrated)	Training Cycle - 5	BA - 6	BA- 6	Specific BA Program - 6	Specific MA Program -7

Duration (in years)	3	3,5	2	4	4	3	5
ECTS	180	210	120	240	240	180	300

Notes: ECTS-European Credit Transfer and Accumulation System. <sup>1</sup> = No minimal legal requirements; the study programme in the table is not required for the core practitioners working in the ECEC settings (only one per kindergarten is the requirement); <sup>2</sup> = in laws from 2019/2020; previously it was matter of regional autonomy.

Table 5. Topics in the curriculum in the initial education for the core staff in centre-based settings in the selected countries

		<i>Slovenia</i>	<i>Sweden</i>	<i>Spain</i>	<i>Cyprus</i>	<i>Italy</i>			
Title of the programme / Courses		Preschool education	Preschool teacher training programme	Training cycle: High degree in Child Education	B.A. on Education, speciality on Child Education	Early Childhood Education/Pre-primary school teaching / Pre-Primary Education	Educational Sciences	Primary Education Sciences	$\Sigma$
PEDAGOGICAL/ PSYCHOLOGICAL KNOWLEDGE	Psychology	1	1	1	1	1	1	1	7
	Pedagogy	1	1	1	1	1	1	1	7
	Didactics	1	1						2
	Linguistics		1			1			2
	Methodology	1	1		1	1	1	1	6
SPECIAL DIDACTICS	Physical development and movement	1			1	1	1	1	5
	Expressive arts and development of creativity	1	1		1	1	1	1	6
	Language and communications skills	1	1	1	1	1	1	1	7
	Foreign language				1	1	1	1	4
	Reading literacy	1			1	1	1	1	5
	Numerical and logical reasoning	1	1		1	1		1	5
	Natural science/Understanding of the world	1	1		1	1		1	5
	Play		1	1		1			3
	Digital awareness					1	1		2
	Civic and democratic competences				1	1			2
	Special and inclusive education	1	1	1	1	1	1	1	7
	Health education			1	1	1			3
	Emotional, personal and social development		1	1		1	1		4
Family literacy	1					1		2	
Religion				1				1	
OTHER				1		1	1	3	

SCHOOL EXPERIENCE	1	1		1	1	1	1	<b>6</b>
$\Sigma$	<b>13</b>	<b>13</b>	<b>8</b>	<b>15</b>	<b>18</b>	<b>14</b>	<b>13</b>	

Notes. The curricula from the following institutions were analysed: Slovenia – University of Maribor, Sweden – Stockholm University, Spain - Ministry of Education / White Book, Cyprus – European University Cyprus, Italy - University of Bologna. 1 indicates that the analysed curriculum contains a specified topic – based on the course title(s).

Table 6. Subjects in the curriculum for the initial education of the core staff in centre-based settings in the selected countries

		<i>Slovenia</i>	<i>Sweden</i>		<i>Spain</i>		<i>Cyprus</i>		<i>Italy</i>
	Title of the programme/ Courses	Preschool education	Preschool teacher training programme	Training cycle: High degree in Child Education	BA on Education, speciality on Child Education		Early Childhood Education/Pre-primary school teaching/Pre-Primary Education	Educational Sciences	Primary Education Sciences
<b>PEDAGOGICAL/ PSYCHOLOGICAL KNOWLEDGE</b>	<b>Psychology</b>	Developmental psychology; Educational psychology	Children's conditions for growing up and ethical meetings in preschool; Children's development and learning	Cognitive and motor development	Psychology of education; Sociology and social psychology of education; Developmental Psychology I and II; Child health and psychology; Child psychopathology		Educational Psychology in Early Childhood Education; Child Development and Psychology	Developmental psychology; General psychology; History of childhood theories; Laboratory in the field of developmental psychology and education; Developmental psychopathology - E; Social psychology - E	Developmental psychology
	<b>Pedagogy</b>	Preschool pedagogy; Theory of education; Educational concepts in theory and practice - E; The role of the adult in the child's introduction to	Documentation, assessment and quality work; Legal and professional aspects of work in preschool; Pedagogical Documentation	Teaching children's education; Project childcare	Teaching materials and resources; The nursery school; The nursery school as an educational space; The teacher in the nursery school		Introduction to Pedagogy; Fundamental Issues in Early Childhood Education; Sociology of Education; History of Education; Philosophy of	Anthropology of education; General and social education; Models of educational mediation; Educational services, social changes and	Active methods and teaching methods; Laboratory of educational and teaching design models; Laboratory of learning evaluation theories and

	<p>the social environment - E</p>	<p>n, Ethics and Curriculum Theory; Preschool assignments and pedagogical environments; Preschool history and place in society; Pedagogical leadership in preschool - E</p>	<p>Education; Curriculum Development - E; Entrepreneurship and Innovation in Education - E; Contemporary Issues in Early Childhood Education - E; General Education - E; Museums and Education - E;</p>	<p>pedagogy of families; Sociology of organisations and pedagogical design of services; Laboratory in the field of general and social education; Laboratory in the field of experimental education; Comparative history of ECEC institutions - E; ECEC policies and pedagogical approaches in an international perspective - E Laboratory in the field of the history of education; History of institutions for the children in Italy and Europe - E;</p>	<p>procedures; Educational and didactic design models; Theories and procedures of learning evaluation; General and social education; History of education; Educational innovation and educational technologies; Laboratory of educational innovation and educational technologies</p>
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						Educational theories and models of gender differences - E	
<b>Didactics</b>	Didactics	Preschool Didactics					
<b>Linguistics</b>		Prominence and Rhetoric			Introduction to Linguistics		
<b>Methodology</b>	Introduction to the methodology of pedagogical research	Scientific Method and Research Ethics; Knowledge, Science and Research Methodology		Context assessment; Observation at school	Educational Research and Statistics; Methodological Approaches in Early Childhood Education	Design, documentation and evaluation	Reflections and analysis of educational activities; Methodology of empirical and evaluation research; Teaching method with elements of statistics Laboratory of space and figures, data and forecasts
<b>SPECIAL DIDACTICS</b>	<b>Physical development and movement</b>	Motorics of children; Didactics of physical education; Motor practical course; Sensorimotoris -		Physical education in early childhood education	Theoretical Basis of Physical Education in Early Childhood; Physical Education in	Body education and game methodology	Body education and motor activity methodology; Workshop for body education and motor

	E; Sport in outdoor education - E				Early Childhood - E		activity methodology
<b>Expressive arts and the development of creativity</b>	Vocal/instrumental practicum I, II; Didactics of dance education; Didactics of music education; Elementary art-pedagogical practicum; Puppet-theatre education; Didactics of art activities; Art activities in the museum and gallery – E; Artistic expression and space - E; Dance dramatisation in kindergarten - E; Instrumental playing - Orff instruments - E; Kindergarten music activities - E; Preparation and implementation of a puppet	Preschool didactics with a focus on aesthetics and ethics		Development of musical expression; Visual and plastic education	Introduction to Visual Arts and Education for Early Childhood; Music Education in Early Childhood- C; Music and Movement in Early Childhood Education; Drama Education and The Art of Storytelling - E	Education in the image and child's drawing; History of childhood illustration - E; Sound education	Iconography and iconology; Laboratory of iconography and iconology; Laboratory of the methodology of musical education; Methodology of musical education

project –  
performances - E;

<b>Language and communication skills</b>	Slovenian language; Didactics of language education; Language activities in kindergarten - E	Preschool didactics with a focus on language and communication	Expression and communication	Spanish language; Didactics of the Spanish language in children; Content and language integrated learning (CLIL)	Language and Literacy in Early Childhood Education; Communication Skills in Early Childhood Education	Verbal communication education	Italian literature and language; Italian teaching and text analysis: Text analysis; Italian teaching; Text analysis laboratory; Italian teaching laboratory; Italian linguistics
<b>Foreign language</b>				English in early childhood education I and II; English in infant education III; French in early childhood education I and II; Learning and teaching EFL; Resources for	Second Language Education - E; English Language - E	Suitability for English language B - 1	English language workshop; English language laboratory; Suitability for English language B - 2

				EFL in infant school		
<b>Reading literacy</b>	Youth literature			Children's literature and literary education	Children's Literature	Literature for children; Literature for children; Laboratory of literature for children
<b>Numerical and logical reasoning</b>	Didactics of mathematics; Learning maths through play - E	Preschool didactics with a focus on mathematics and technology		Didactics of mathematics	Mathematical Literacy in Early Childhood Education; Introduction to Mathematical Thinking	Basic geometry and mathematics; Foundations of mathematics and teaching of mathematics; Laboratory of numbers and relations

<b>Natural science/Understanding of the world</b>	Initial natural science; Didactics of introduction to the social environment; Didactics of learning about the natural environment; Didactics of technical education	Preschool didactics with a focus on science and sustainable development; Outdoor Didactics in Science and Mathematics in Preschool - E	Didactics of natural sciences; Natural sciences in early childhood education	Science Education in Early Childhood; Introduction to Scientific Literacy; STEAM in Early Childhood Education - E	Geography; Laboratory of geography; Elements of general biology; Elements of chemistry and teaching of chemistry; Elements of ecology; Transversal laboratory of nature sciences; Elements of physics and teaching of physics; Workshop on processes, models and interactions in physics and sciences
<b>Play</b>	Play in preschool - meetings and meaning-making	The children's play and its methodology	Play and Learning		
<b>Digital awareness</b>				Learning and Communication Technologies - E	Computer lab

	<b>Civic and democratic competencies</b>	Social and intercultural education; Teaching social sciences	Social Sciences in Early Childhood Education; Environmental Education - E
	<b>Special and inclusive education</b>	Special pedagogy	Special Education; The aesthetic expression of children's culture - E; Specialisation in special education - Preschool Teacher Programme - E
		Intervention with families and care for minors at social risk	Curriculum and inclusive early childhood education; Developmental disorders; Early attention; Educational responses to specific needs; Innovation in the inclusive school; Language and communication disorders; Language and communication in the bilingual classroom; Prevention of learning difficulties
		Special and Inclusive Education; Intercultural Education - E; Differentiation in Inclusive Education - E;	Laboratory in the field of teaching and special education; Education of migration - E; Intercultural education - E; Special education - E; Intercultural education- E; Didactic disciplines for the integration of the disabled- Hygiene - E; Ecological approach to inclusive education and social inclusion - E
		Special educational workshop for inclusion; Special education for inclusion; Psychology of disability and integration; Laboratory of psychology of disability and integration; Intercultural education, Workshop of intercultural education; Design of educational paths; Teachings for the reception of disabled students: Hygiene; Developmental psychopathology	

	<b>Health education</b>		First aid; Personal autonomy and child health	Childhood, health and nutrition	Child Health, First Aid and Safety	
	<b>Emotional, personal and social development</b>	Social relations in preschool	Socio-affective development; Social skills		Children Behaviour Management - E	Education as life design: body-mind- emotion and well-being - E
	<b>Family literacy</b>	Sociology of the family and the preschool child; Family literacy - E				Education of families and gender differences - E
	<b>Religion</b>			Religion; Didactics of the Catholic religion		
<b>OTHER</b>			Training and career counselling; Business and Entrepreneurship; Work centres			General sociology  Cultural anthropology; Sociology of education; History of contemporary society
<b>SCHOOL EXPERIENCE</b>	I, II, III, IV, V, VI, VII, VIII	I, II, III, IV, V		I, II, III, IV, School practices with attention to diversity; School practices in bilingual education	I, II and III	Apprenticeship Internship

Notes: E - elective. In blue are subjects for the topic of special and inclusive education – the focus of the NEMO project. Curricula from the following institutions were analysed: Slovenia – University of Maribor, Sweden – Stockholm University, Spain – Ministry of Education/White Book, Cyprus – European University Cyprus, Italy – University of Bologna

## Continuous professional development

In addition, to the comparison of initial education requirements for the core staff in the ECEC in the selected countries, we also provide a comparison of the CPD with a focus on the topic of autism. The main characteristics of the CPD in each country, institutions that provide CPD and information about the training content related to SEN with a focus on autism are compared.

### Description of mandatory courses, main content, methods and the minimum number of hours per year

In Spain Continuing professional development is optional. There is specific continuing education during the first year directly in the workplace for those with B. A, after which the training is divided over a period of 6 years (with a minimum of 100 hours every six years) necessary to obtain an extra salary, but not mandatory. Those who have passed public exams and obtained their positions, must take a year of training specifically designed for their position.

In Sweden, it is the employer's obligation to provide CPD, while it is the employee's duty to attend employer-mandated courses. The content, methods and number of hours vary. Higher education CPD for the individual is optional. Formally, no further education is required; in practice, however, it is more often required because CPD is an occupational duty. CPD is provided as online courses, webinars, collegial learning through study circles, and as conferences.

Special education teachers are a professional group who already have additional training from a 90-credit teaching certificate in addition to basic teacher education and three years of practice as a teacher in the school/preschool.

For the position of director of a preschool (a preschool district), additional specific higher education of 30 ECTS credits is required. The director must have formal director training, but does not have to be a preschool teacher.

The requirements and formalities for recruiting a first preschool teacher differ from municipality to municipality, and their title may also vary from employer to employer. Formally, no further education is required; in practice, however, it is more often required because the CDP is a professional duty. Recruitment depends on the availability of staff (Sweden is a country

with very remote areas with few inhabitants - although inhabitants have the same rights for 0-6 preschool standards as elsewhere).

In Cyprus, Training workshops are organized by the Cyprus Pedagogical Institute during the school year for all current staff working in public educational settings. The purpose of the workshops is to acquire additional professional skills and their attendance is mandatory. For in-service teachers, the minimum duration of compulsory CPD according to the high-level regulations is 10 hours per year.

In Slovenia, CPD is mandatory as a professional duty and right. The collective agreement for education in the Republic of Slovenia determines the right of pedagogical staff to 5 days of in-service training per year or 15 days in three years.

Continuing education or CPD consists of professional training programs, thematic conferences, extraordinary programs, as well as project programs. It can also take the form of an update of existing training.

The content of CPD is very versatile as each year the Ministry of Education determines the priority themes and fields of CPD and announces a public call for proposals and co-financing of continuing development programs. Several institutions can apply with their CPD proposal and the programs are then selected and approved by the Ministry. There is a wide variety of choices for preschool teachers, including training on working with SEN children, some even specific to autism.

When participating in CPD, preschool teachers receive paid study leave and reimbursement for travel and participation expenses. In general, the decision of which CPD program to take is up to the preschool teacher.

In Italy, continuous training is made compulsory for childhood educators (0-3) by Law n 65 of 2017.

The Multi-year Action Plan (Piano di Azione Pluriennale) makes available each year financial resources that the Regions, through their programming, allocate to local authorities for CPD and the promotion of territorial pedagogical coordination (D.L. 65/2017).

At the Nursery, there is no real career ladder, but a specific division of duties conferred by the preparation of the professional. The educator has a three-year degree (L-19), while the

Pedagogist has a five-year training: three years in L-19 + two years in LM-57. There is the possibility of attending courses for continuous professional development, but their attendance is not made mandatory by law.

The obligation of professional training and updating concerns all tenured teachers (Kindergarten, 3-6) who have a contract in public institutions, whether part-time or full time as provided by Law 107 of 2015 (Buona Scuola). The law does not provide a predefined amount of hours for training activities, the only constraint it places is that the training must be carried out during the teachers' service. Therefore, the compulsory nature of the training is closely linked to the hourly service of the teachers, who therefore will not have to carry out the activities beyond the hours provided by the employment contract. The Ministry of Education is responsible for teacher training, at the national level, dictating the guidelines. Participation in training initiatives, included in special training courses, even individually, is communicated to the Administration by the manager concerned and is considered a useful service for all purposes.

The obligation of professional training and updating concerns all tenured teachers (Scuola dell'Infanzia, 3-6) who have a contract in public institutions, whether part-time or full-time. It extends, without exception, to all orders and levels of education: preschool, elementary school and secondary school, first and second grade.

The school manager and the newly hired teacher establish, with a special pact for professional development, the objectives for the development of cultural, disciplinary, didactic-methodological and relational skills, to be achieved through specific training activities. There are 50 hours of training for each teacher. At the end of the training and probationary period, the Headmaster evaluates the teacher in training and probationary, after hearing the opinion of the committee for the evaluation of teachers and the tutor who followed the newly hired teacher. Therefore, the newly hired teacher is required to undergo initial continuing education.

The School Directors (at the School of Infancy for 3-6 years) are currently recruited by the Ministry of Education through a national open competition. The training and professional development of managers is a permanent method to ensure the constant adaptation of managerial skills to the evolution of the cultural, technological and organizational context of

reference and to encourage the consolidation of a managerial culture oriented to results and innovation.

Managers may choose to take part in training and refresher courses that are in any case in line with the objectives set out in the National Collective Labor Contract. To this end, the manager is granted a period of unpaid leave for study purposes for a maximum of three months within a year. Therefore, Continuing Education for Managers is optional.

#### *ADDITIONAL COMMENTS:*

##### *Mandatory or Optional:*

A comparison of the above countries shows that Continuing Education for Teachers and Educators is made mandatory in Cyprus, Slovenia and partially in Italy. The Ministry of Education in Italy, in fact, has made Continuing Education mandatory only for permanent teachers in kindergarten (3-6 years).

The training for teachers of Scuola dell'Infanzia in Italy must be carried out during the teachers' service, so they will not have to carry out the activities beyond the hours foreseen by the employment contract. The school director and the newly hired teacher establish, with a special pact for professional development, the objectives for the development of cultural, disciplinary, didactic-methodological and relational skills, to be achieved through specific training activities.

In Sweden, on the other hand, it can be seen that CPD is optional, but at the same time while not formally required, in practice, it is more often required since CDP is a professional duty.

##### *Fruition and delivery of continuing education courses:*

Regarding the fruition of courses for Continuing Education in Spain, during the first year of service, they can be attended directly in the workplace for teachers with B. A. After the first year of service, however, the training is divided over a period of 6 years to receive an extra in salary. Finally, teachers who have obtained tenure through an open competition must take a year of training specifically designed for their position.

Therefore, Continuing Education in Spain can be characterized initially as a tool to learn the profession directly in the field, and in later years can be characterized as a tool to update professionals in the field who are thus rewarded and encouraged to continue professional development through the increase in salary. The courses are used in order to the type of

professional path that teachers have followed and therefore it can be deduced that continuing education is established in adherence to the prerequisites and the type of training that the teacher possesses at the time he or she enters the school.

In Italy, there is similar management regarding the entrance of new professionals and their initial probationary training. In fact, in Italy, the school headmaster (3-6) stipulates an agreement with the newly hired teacher, through a special pact for professional development, in which the objectives for the development of cultural, disciplinary, didactic-methodological and relational competencies are set, to be achieved through specific training activities. At the end of the training and probationary period, the Headmaster evaluates the teacher in training and probationary, after hearing the opinion of the committee for the evaluation of teachers and the tutor who followed the newly hired teacher. Therefore, the newly hired teacher is required to undergo initial continuing education.

In Sweden, CPD is delivered as online courses, webinars, collegial learning through study circles, and as conferences whose content, methods and number of hours vary. It is the employer's obligation to provide Continuing Education for teachers who are thus required to attend employer-mandated courses.

In Cyprus, the Cyprus Pedagogical Institute organizes training workshops during the school year for all in-service staff working in public education settings.

In Slovenia, it is the collective agreement for education in the Republic of Slovenia that determines the entitlement of pedagogical staff. Each year the Ministry of Education determines the priority themes and fields of CPD and announces a public call for proposals and co-funding of continuing development programs. Several institutions can apply with their CPD proposal and the programs are then selected and approved by the Ministry. Continuing education or CPD consists of professional training programs, thematic conferences, extraordinary programs, as well as project programs. There is a wide variety of choices for preschool teachers, including training on working with SEN children, some even specific to autism.

In general, the decision of which CPD program to take rests with the preschool teacher who is entitled to paid study leave and reimbursement of travel and participation expenses. Study leave and reimbursement of expenses give Continuing Education professional value and allow

teachers to open themselves to new perspectives in order to carry out their work to the best of their ability in adherence to up-to-date knowledge in teaching and pedagogy. Also, in Italy, participation in training initiatives, included in special training courses (even individual ones) is considered a useful service to all intents and purposes; in fact, it is communicated to the Administration by the manager concerned. In Italy, it is the Miur (Ministry of Education) that deals with teacher training, at the national level, dictating the guidelines (3-6).

#### The number of hours of Continuing Education Courses and Basic Training required of various educational professionals:

In Spain, the years following the first year of service the training is divided over a period of 6 years with a minimum of 100.

In Sweden, the number of hours varies depending on the course the teacher decides to take. Special education teachers are a professional group that already has additional training from a teaching diploma of 90 credits in addition to the basic teacher training and three years of practice as a teacher in the school/preschool. The requirements and formalities for recruiting a first kindergarten teacher differ from municipality to municipality, and their title may also vary from one employer to another. Recruitment depends on the availability of staff as Sweden is a country with very remote areas with few inhabitants - although inhabitants have the same rights for 0-6 preschool standards as elsewhere. The case of Italy is different as it establishes 50 hours of mandatory Continuing Education for each permanent teacher at the Scuola dell'Infanzia (3-6 years). Regarding the recruitment of School Directors (at the Infancy School 3-6 years), however, they are currently recruited by the Ministry of Education through a national open competition. At the Nursery School (0-3 years), finally, there is no real career ladder, but a specific division of duties conferred by the preparation of the professional. The educator has a three-year degree (L-19), while the Pedagogist has a five-year training: three years in L-19 + two years in LM-57. In general, in ECEC services (0-3 in the split system and 0-6 in the integrated system) the annual CPD hours are distributed as follows, as we can see from the examples:

- 20 hours for Educators
- -40 hours for Pedagogical Coordinators

In Cyprus for preservice teachers, the minimum duration of mandatory CPD under high-level regulations is 10 hours per year.

In contrast, for the position of director of a kindergarten (a preschool district), additional specific higher education of 30 ECTS credits is required. The director must have formal director training, but does not have to be a preschool teacher.

The collective bargaining agreement for education in the Republic of Slovenia determines the right of pedagogical staff to 5 days of in-service training per year or 15 days in three years.

### **Public institutions (universities, colleges...) and private institutions (associations, training agencies, cooperatives...) involved in the CPD of Teachers and Educators.**

In Spain the institutions involved in the CPD of Teachers and Educators are:

- Teacher Training Centers belonging to the Department of Education of the Regional Government.
- Spanish Ministry of Education
- Universities

In Sweden:

1) Universities/Higher Education- provide training for all teachers, at all levels. These are courses ordered and designed in accordance with municipal needs. They can be short-term CPD courses designed for a specific task, but they can also be comprehensive preschool (licensed) teacher training programs.

2) Government agencies that provide CPD such as the National Education Agency that provides online courses free of charge. Courses can be enrolled individually but most often are completed in collaboration with colleagues (supported by the local school administration); or the School Authority for Special Education (Specialpedagogiska skolmyndigheten: SPSM) which provides free online courses focused on special education development. SPSM can also arrange local meetings and consultations if requested.

3) Active teaching staff under the auspices of the local municipality: depending on qualifying resources, municipalities offer local CPD in specific areas.

4) Associations and cooperatives that provide CPD e.g. Professional Union of Teachers.

All CPD is in line with the curriculum, school law and development intentions of the National Education Agency and the Swedish School Inspectorate. But also based on the profession's need for practical solutions and proven experiences.

In Cyprus are:

- European University of Cyprus
- University of Cyprus
- University of Nicosia
- University of Frederick
- Pedagogical Institute of Cyprus

In Slovenia, several institutions can apply with their CPD proposal and the programs are then selected and approved by the Ministry. These are a range of private and public institutions, from public universities, schools and kindergartens, Educational Research Institute, National Institute of Education and Institute for the Deaf and Hard of Hearing to private companies and individual owners (self-employed).

In Italy, the government, through Law 170/2016, has set the criteria that private training providers must meet in order to be accredited by Miur and see their courses recognized. At the same time, the SOFIA platform was established, in which all training courses valid for the fulfilment of the professional obligation are collected.

Schools, at the local level, are called to quantify the obligation in terms of Training Units (very similar to the CFU of degree courses), also indicating the valid activities to fulfil it (in-person and distance learning, documented educational experimentation, networking, personal and collegial study, documentation and forms of restitution and reporting, planning).

With regard to tenured teachers, the Ministry of Education establishes the areas of updating. The Principal, within each institute, dictates the guidelines. Finally, the Board of Teachers elaborates (Collegio dei Docenti) all these indications and inserts specific training proposals within the Three-Year Plan of the Educational Offer. In all this system, however, a central role is always and, in any case, recognized to the freedom of the teacher. In no way can teachers be forced to participate in the training initiatives approved by the college. Their only duty is to achieve their goals. For the rest, they can freely choose "external" courses, as long as they are offered by accredited bodies.

The Ministry of Education annually defines the share of resources to be allocated to the updating and training of managers. (3-6 and mandatory school)

In Italy, thanks to D. L. 65/2017 CPD has become mandatory also for sectors 0-3 (as well as 0-6 in integrated systems). Every year the State allocates funds for CPD through the Action Plan. It exists the “National Fund for the Integrated System of education and Instruction.

In particular, the Fund's resources are intended as co-financing for regional planning of educational services for infants and services for infants and kindergartens are disbursed by the Ministry of Education directly to the municipalities after regional planning.

CPD is managed at Region level, for example:

In Lombardia this is one of the platforms for CPD thought for Educatori e Insegnanti (0-6), it's an association called “ASSONIDI” (example of a platform for CPD).

#### *ADDITIONAL COMMENTS:*

In Spain, teacher and educator CPD courses are delivered by Training Centers funded by the Regional Government, the Spanish Ministry of Education, and the University. It is interesting how these training courses are national (Government) and how they are managed by formal training institutions such as the University and the Ministry of Education. This can be read as a strength that identifies continuing vocational training as a phase closely linked to the development of professional skills, not only at the moment of basic training that prepares workers for their entry into the working world but as a continuous accompaniment throughout the working career. The same can be said of Sweden. In Sweden, in fact, courses are provided by the University; by government agencies that provide CPD that provide free online courses; or by the "School Authority for Special Education" that provides free online courses focused on special education development. Interesting how in this case Sweden takes charge of special education at the school level by facilitating attendance through the free service. In addition, in Sweden, continuing education is promoted and delivered by the active educational staff under the auspices of the local municipality based on the qualification resources available to municipalities in specific areas. Finally, courses are also delivered by Associations and Cooperatives. In general, in Sweden, all CPD is in line with the curriculum, the school law and the development intentions of the National Education Agency and the Swedish School Inspectorate. But also based on the profession's need for practical solutions and proven

experiences. Therefore, Government and Local Authorities seem to be in strong connection to ensure good continuing education and continuing professional development.

Similar to the Swedish example seems to be the situation in Slovenia. Indeed, Slovenia boasts several institutions that can apply their CPD proposal and programs to the Ministry, which then selects and approves. These are a range of private and public institutions, from public universities, schools and kindergartens, the Institute for Educational Research, the National Institute of Education, and the Institute for the Deaf and Hard of Hearing to private businesses and individual owners (self-employed).

Also, in Italy, continuing education is managed at the national level by the government, which has established the criteria that private training providers must meet in order to be accredited by the Ministry of Education and to have their courses recognized. At the same time, the SOFIA platform has been established, in which all the training courses valid for the fulfilment of the professional obligation are collected.

The Ministry of Education (Miur) annually defines the share of resources to be allocated to updating and training managers, in addition, the same Miur is responsible for establishing the areas of updating permanent teachers. Continuing education for tenured teachers is highly regulated in Italy, so much so that continuing education is a fundamental trait and an integral part of a teacher's job (3-6) are collected. On the other hand, as regards the 03 and 0-6 segments, it is also managed at the regional level through the 2017 law by means of funds that local authorities manage at the local level. Fondo Nazionale zerosei provides funding for Piano di azione and are disbursed by the Ministry of Education directly to municipalities after regional planning. (0-3 years and 0-6 in integrated system)

CPD is an expense that falls under these national funds (Law n. 107/2015). Funds are disbursed periodically by the Ministry of Education, but are divided among the various Regions of Italy based on their number of services and internal organization.

In Cyprus, the courses are mainly provided by the European University of Cyprus, the University of Cyprus, Nicosia, Frederick and the Cyprus Pedagogical Institute. It can be seen that continuing education is the responsibility of the Institutional Body that not only trains future professionals but also takes care of ongoing training and continuing education. This is common to all European countries that have joined the NeMo project.

## Specific CPD training related to autism and approaches presented, contents and main themes.

In Spain, specific CPD Training related to autism is represented by the following interventions:

- Early intervention in autism according to the Denver model
- Early intervention in autism after the ImPACT project
- Structured teaching in autism spectrum disorders
- Bullying prevention in autism spectrum disorders
- Digital media for students with autism spectrum disorders
- Alternative and augmentative communication systems in ASD

Official Documents reporting the major themes and continuums are as follows:

- Childhood Education Teaching Specialties (national in scope);
- Child education personnel in private schools (national in scope):
- Early Childhood Education Personnel in the First Cycle (0-3 years) (regional).

In Sweden, teaching materials and courses for inclusive education in kindergarten are provided by the School Authority for Special Education. These courses promote equality and inclusive education in kindergarten and it is the director who decides which courses are needed as he/she is held responsible for the quality of the kindergarten and therefore, within a given framework, has a special responsibility to provide this. Inspections by the Swedish School Inspectorate are the (effective) means of promoting continuing education for staff.

There is no CPP designed specifically for special education teachers in kindergarten, however, the Spsm (the National Agency for Special Needs Education and Schools) supports with courses and consultations for the development of knowledge and practice in special needs issues in schools and kindergartens in Sweden for staff in general.

- Special Education School Authority is a government authority with supporting tasks - to support the development of special education needs in Swedish school systems (to help schools and kindergartens meet national requirements and educational goals).

All services are free of charge. The support can be short-term advice, but also support longer-term development (of services).

- The Autism and Asperger's Association is a non-governmental organization that works to create better conditions for children, youth and adults with autism, Asperger's syndrome and other autism-like conditions.
- Riksförbundet Attention - This is an interest organization with the purpose of informing and supporting children with neuropsychiatric disabilities.
- Attention Utbildning AB is the training centre and provides knowledge about neuropsychiatric disabilities especially to support professionals in the area.
- The Dyslexia Association is a disability association that brings together people with reading and writing difficulties/dyslexia, people with math difficulties/dyscalculia, their relatives, parents and other interested parties. The association assists with courses and consultations and promotes the dissemination of language disorders and dyslexia.
- Språkförskolan: The language kindergarten is an organization that accepts children with severe primary language disorders. Primary language disorder means that the child does not have other disabilities such as a hearing problem or a developmental disorder that could explain the language disorder. In order to come to a speech-language preschool, you must have a referral from a speech-language pathologist. The child attends Språkförskolan for about 3 hours a day (also provides integrated language support therapy for children with Swedish as a second language)
- Finally, Habilitation & Health (Habilitering och hälsa) - is an organization that belongs to the Swedish health system (not education) that provides counselling, support and treatment to children and adults with disabilities. "Habiliteringen" also provides counselling and support to relatives and staff. The services of "Habiliteringen" are closely linked to the needs of individual children.

In Cyprus, CPD in autism can be from:

1. Master's Degree/Postgraduate Programs

There are currently three MA programs in the field of special and inclusive education offered by Cypriot universities. These programs offer a couple of elective courses each that include ASD.

2. Seminars and workshops of the Cyprus Pedagogical Institute for In-Service Professional Development for Special and General Educators

In collaboration with the Ministry of Education, Culture, Sports and Youth, the Cyprus Pedagogical Institute, which is the main public agency responsible for in-service training, may offer mandatory or optional seminars and workshops (short, one-day or longer, up to 5 days) both specific to ASD (e.g., special approaches such as ABA, TEACCH, PECS and other communicative approaches) and more generally on special and inclusive education that may include references to ASD.

3. Individual initiatives by private associations/companies and NGOs:

Private companies, representatives of particular approaches (e.g., Pyramid Educational Consultants representing PECS), or NGOs (e.g., parent associations) may organize and offer seminars and workshops for educators and/or parents on specific topics related to ASD.

4. Training activities and research projects funded by the EU and others

CPD opportunities may also be offered as part of EU and other funded project activities. For example, Erasmus+ projects (KA1, KA2 & KA3) specifically targeting ASD may include training for teachers and/or parents and/or other professionals and pilot implementation.

In Slovenia there are several training options for working with SEN children, some even specifically for autism, e.g. Educational Strategies and Challenging Learning Environment for Children and Adolescents with Autistic Disorder (16 hours), Child and Adolescent with Autistic Disorder (16 hours), Structured Learning as a Method of Success in Teaching Children with Autistic Disorders (16 hours), Working with pre-schoolers with autism (8 hours).

In Italy, autism is managed at the national level through the publication of the Guidelines for Autism proposed in Law 134/2015 (Ddl Autismo) approved by the Hygiene and Health Commission of the Senate. The law deals with updating the essential levels of care, with the inclusion, with regard to autism spectrum disorders, of early diagnosis, care and individualized treatment, through the use of methods and tools based on the most advanced scientific evidence available. The regions and autonomous provinces of Trento and Bolzano guarantee the functioning of health services for persons with autism spectrum disorders, may identify reference centers with the task of coordinating these services within the regional health

network and the autonomous provinces, establish diagnostic, therapeutic and care pathways for minors, adolescents and adults with autism spectrum disorders, verifying their evolution, and adopt appropriate measures to achieve certain intervention objectives.

In Italy, there is still no specific mandatory training for nursery educators with methodologies for taking charge of children with autism at the educational level. The educator has already accumulated training credits through the L-19 degree in pedagogy, but there is still no specific and mandatory CPD training related to autism.

In Italy, there are optional training courses that educators can decide to attend to specialize in autism. These are regional courses designed by associations or other entities limited to a specific region of Italy (0-6 years).

#### ***ADDITIONAL COMMENTS:***

In Spain, specific CPD Training related to autism is represented by several interventions based on Early Intervention in Autism according to the Denver Model, following the ImPACT project; Structured Teaching in Autism Spectrum Disorders; Bullying Prevention in Autism Spectrum Disorders; Digital Supports for Students with Autism Spectrum Disorders; and Alternative and Augmentative Communication Systems in ASD. These modes of intervention are supported by some official Documents that report the main themes and contents which are Child Education Teaching Specialties (of national character); Child Education staff in private schools (of national character) and finally Child Education staff in the first cycle (0-3 years) (of regional character). It is interesting to underline how the theme of disability is taken care of at the regional level and how, on the other hand, for the more delicate band of children from 0 to 3 years of age, autism is managed at the regional level. It may be deduced that the difference between the national and regional levels may be due to Spain's desire to adapt the interventions on the youngest children according to the conditions of the context of reference traceable in the Region to which the child with autism belongs, and thus as an act of attention on the part of the State.

In Sweden, teaching materials and courses for inclusive education in kindergarten are provided by the "School Authority for Special Education". The principal decides which courses are needed as he is held responsible for the quality of the kindergarten. Inspections by the Swedish School Inspectorate are an (effective) tool to promote continuous staff training.

There is no CPP designed specifically for special education teachers in kindergarten, however, the Spsm supports with courses and consultations for the development of knowledge and practice in special needs issues in schools and kindergartens in Sweden for staff in general. In addition, there are several governmental authorities with supporting tasks; non-governmental associations that work to improve contexts where people with autism can live to their full potential; interest organizations with the aim of informing and supporting children with neuropsychiatric disabilities; training centers that provide knowledge about neuropsychiatric disabilities especially to support professionals in the area; organizations that belong to the Swedish health system (and not to education) provide advice, support and treatment to children and adults with disabilities while also providing advice and support to relatives and staff. Sweden can be said to place a great deal of emphasis on training educators, teachers, and families in the management of people with autism. In addition, Sweden is particularly attentive to the social and educational needs of people with autism, and seeks to include people with autism in school and social settings, taking great care to ensure that the setting is appropriate.

The same considerations can also be made of Cyprus as Sweden. In Cyprus, in fact, CPD in autism can be from Masters and postgraduate university programs; Seminars and workshops of the Cyprus Pedagogical Institute for in-service professional development for special and general educators. These Training Institutions collaborate with the Ministry of Education, Culture, Sports and Youth, Cyprus Pedagogical Institute, which is the main public agency responsible for in-service training, to deliver seminars and workshops both specific to ASD (e.g. special approaches such as ABA, TEACCH, PECS and other communicative approaches) and more generally on special and inclusive education that may include references to ASD.

In addition, there are a number of private associations/companies and NGOs such as private companies, representatives of particular approaches (e.g., Pyramid Educational Consultants representing PECS) or NGOs (e.g., parent associations) may organize and offer seminars and workshops for educators and/or parents on specific topics related to ASD; training activities and research projects funded by the EU and others.

CPD opportunities may also be offered as part of EU and other funded project activities. For example, Erasmus+ projects (KA1, KA2 & KA3) specifically targeting ASD may include training for teachers and/or parents and/or other professionals and pilot implementation.

Also, in Slovenia there are several training options for working with SEN children, some even specifically for autism, e.g. Educational Strategies and Stimulating Learning Environment for Children and Adolescents with Autistic Disorder, Child and Adolescent with Autistic Disorder, Structured Learning as a Method of Success in Teaching Children with Autistic Disorders, Working with Preschoolers with Autism.

In Italy, autism is managed at the national level through the publication of the Guidelines for Autism by the Senate Commission on Hygiene and Health. The purpose of the guidelines is to update the essential levels of care, with the inclusion, with regard to autism spectrum disorders, of early diagnosis, care and individualized treatment, through the use of methods and tools based on the most advanced scientific evidence available.

The regions and autonomous provinces of Trento and Bolzano guarantee the functioning of health services for persons with autism spectrum disorders, may identify reference centers with the task of coordinating these services within the regional health network and the autonomous provinces, establish diagnostic, therapeutic and care pathways for minors, adolescents and adults with autism spectrum disorders, verifying their evolution, and adopt appropriate measures to achieve certain intervention objectives.

In Italy, there is still no specific mandatory training for nursery educators with methodologies for taking charge of children with autism at the educational level. The educator has already accumulated training credits through the L-19 degree in pedagogy, which includes subjects with a pedagogical orientation for the care of disabilities in general.

In Italy, there are optional training courses that educators can decide to attend in order to specialize in autism. These courses are regional and designed by associations or other entities limited to a specific region of Italy (0-6 years). From what emerges, it can be said that, like the other European countries that have joined the NeMo Project, Italy is showing attention to the creation of inclusive and open socio-educational contexts.

## 5. Recommendations for a pre-primary teachers' curricula for a unified system ISCED 0 (0 – 6 years)

The comparative report served us as a baseline to prepare recommendations for a unified pre-primary European teacher curriculum while adding relevant data from other intellectual outputs prepared in the NEMO project.

In all NEMO project countries, the university is one of the most important training agencies; as far as other training courses are concerned, Italy is partly similar to Slovenia. In fact, in both countries, the content of CPD is very versatile and different institutions can present their own CPD proposal.

IO1 could be included in optional courses based on observation in 0-3 services. Observation is a very important skill required of educators in Italy to guarantee quality (Orientamenti nazionali per i servizi educativi per l'infanzia, 2022). It could be used several times to observe the same child at different times after a few months to assess the situation of doubt and determine whether the case can be brought to the attention of experts. The peculiarity of the Nemo tool is that it confirms doubts and specifies them, describing the area in which they focus, to facilitate a more precise request. Video support is recommended to reduce the difficulty in observation due to the continuous movement of the children. The observation format provided by the tool is also considered useful and the paper observation grid is recommended as Italian nurseries do not have wi-fi and prefer paper (also easier to use).

It is recommended that the IO3 instrument be used for children between the ages of 3 and 6 for the purpose of learning and conducting a final observation. It could be included in 50 hours for each permanent teacher at 3-6 years schools. Moreover, as it has the characteristic of being self-built, it can be used to monitor the child's performance.

By integrating the two IO1 and IO3 instruments, one could think of creating an all-around training package for the initial, in progress and final observation of the child in the 0-6 system. They could be included as part of initial staff training (a three-year degree course by the University) and as CPD (within 20 hours of continuing education courses for Educators) in the framework of atypical development and the identification of children's needs.

In Italy, it also could be included in specific regional training courses for educators promoted by associations accredited by the Government and it could be complemented by other systematic observation tools that currently exist.

The content would be the initial observation of the young child at the time of his/her inclusion in the nursery. Both the 0-3 Guidelines and the 0-6 Pedagogical Guidelines (Linee Guida Pedagogiche, 2021) can become the framework for IO1 in line with the idea of continuity and in line with the purpose of an integrated system.

## 6. References

Council of the European Union. (2011). Council conclusions on early childhood education and care. *Official Journal of the European Union*, 2011/C 175/03.  
<http://register.consilium.europa.eu/pdf/en/11/st09/st09424.en11.pdf>

European Commission/EACEA/Eurydice. (2019). *Key Data on Early Childhood Education and Care in Europe 2019 Edition Eurydice Report*. Publications Office of the European Union.  
<https://doi.org/10.2797/966808>

## 7. Annex 1: Questionnaire for developing the Comparative Report



NEMO

QUESTIONNAIRE for the development of IO4

Prepared by the Educational Research Institute together with Gruppo Nazionale Nidi

Infanzia

June 2020

Country	
Author	
Email address	
Date	

Should you have any questions, please do not hesitate to contact Moira Sannipoli ([moira.sannipoli@unipg.it](mailto:moira.sannipoli@unipg.it)) or Maša Vidmar ([masa.vidmar@pei.si](mailto:masa.vidmar@pei.si)).

Please send the completed questionnaire **before 30 September 2020** to Moira Sannipoli

[moira.sannipoli@unipg.it](mailto:moira.sannipoli@unipg.it).

## 1.0 Introduction

This questionnaire collects data in your country to support the development of the IO4 - ECEC teacher curriculum for the whole period covered by ISCED-0.

Some data needed for the IO4 are also collected in the questionnaire for IO2. To avoid duplication, we will use the data collected in the IO2 questionnaire as well while preparing the final report.

### Coverage of the data collection

The collection refers to the **mainstream public and private ECEC provision**, that is, within the regulatory framework, i.e., it must comply with a certain set of rules, minimum standards and/or undergo accreditation procedures. It covers centre-/school-based provision (but not home-based). It covers the **most typical ECEC settings in your country**.

### Data sources

Official **documents issued and/or recognised by central/top-level authorities** are the primary sources of information while answering questions. Countries in which the regions (Communities etc.) are competent in all/most areas related to ECEC should try to provide information on regional regulations that is sufficiently representative and specify which regions are covered.

If certain ECEC areas are not covered by central/top-level regulations/recommendations (i.e. they are the responsibility of local authorities), countries can still provide information on the most **common practices**. In this case, countries should clearly indicate that there are no central/top-level regulations/recommendations. Yet, **the information provided should, as far as possible, be evidence-based, i.e., supported by references to representative surveys, analyses and reports.**

### Reference period

The reference year for the entire questionnaire is the **2019/2020 school year**.

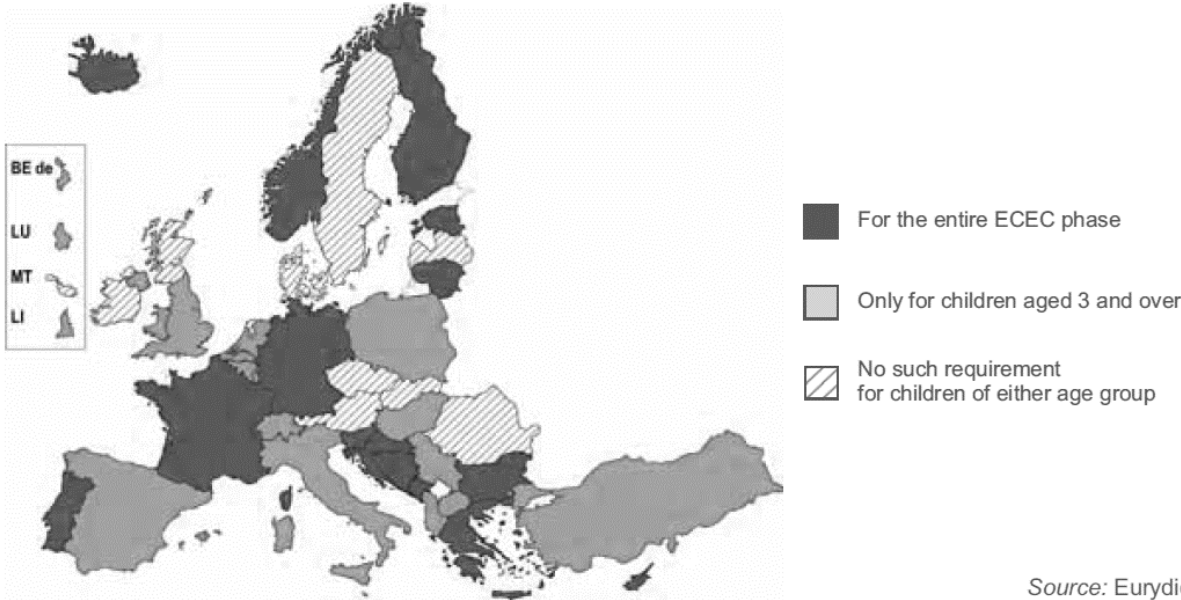
If certain aspects of ECEC have recently been (or are currently being) subject to **reforms**, this should be indicated in 'Comments'.

## 2.0 Explanatory notes

The European Commission/EACEA/Eurydice (2019) identified four core dimensions (categories) of an integrated ECEC system from birth to the start of primary education. Based on these four dimensions, the countries were categorised in 5 groups, depending on the level of integration in their ECEC system (see the table below). As you can see, each country of the NEMO partnership belongs to one category.

Country	Degree of system and policy integration	Staff qualifications requirements
Slovenia	Integrated	degree qualification for 1–6 years workers + assistants
Sweden	Somewhat integrated	degree qualification for 1–6 years workers + assistants
Spain	Mid-way	0–3: Pre-Primary Education Advanced Vocational Training  ?: University Bachelor in School Teacher of Pre-Primary Education
Cyprus	Somewhat split	0–3 years: day nursery staff in the public sector are not required to hold any teaching qualifications. They are qualified social welfare personnel holding the status of a civil servant  3–5;8: kindergarten teachers in the public sector are university graduates
Italy	Split	0–3 years: ?  3–6 years: degree qualification

The STAFF qualification requirements for working with children below and above 3 years of age is a core dimension of ECEC policy integration. As shown in the figure below, the European Commission/EACEA/Eurydice (2019) already categorised the countries by their staff qualification requirements. We will be asking more about this topic later in this questionnaire.



Source: Eurydice.

This means that some countries will report the same information for the whole ECEC, whereas others will need to report separate information based on children’s age or the specific ECEC setting. Please make sure this is clearly indicated in your responses.

### 3.0 Questions

3.1 Please describe what is the main ECEC setting(s) in your country that the report refers to (list them as setting 1, setting 2 etc.).

3.2 Staff categories: what are the main ECEC staff categories and minimum level of the final qualification required to be employed as ECEC staff (for each category)

Please provide the actual titles of all main staff categories (in the national language and English) for each ECEC setting. Only staff in direct regular contact with children should be considered (kitchen, cleaning staff, heads etc. should not be included).

**ECEC staff categories – job titles** (*in the national language and English*)

Required qualification	Setting 1	Setting2	Setting3
	Upper secondary (ISCED 3)		
Post-secondary non-tertiary (ISCED 4)			
Bachelor's degree (ISCED 5)			
Master's degree (ISCED 5)			
Other qualification(s) ( <i>please specify in comments</i> )			
No formal qualification required			

### 3.3 Curricula for ECEC staff

These questions refer to curricula/training/qualifications for the same staff categories as in 3.2.

#### 3.3.1 Topics included in the curricula for ECEC teachers

In this section, we ask you to tell us about the knowledge, expertise, skills, capabilities, learning outcomes and placement opportunities of curricula. Please include links to national regulatory references, if any.

*Please complete the table for each staff category – job title as in 3.2.*

Title of the programme/training	
Programme/training provider (Institution...)	
Type of the programme (BA, MA, Vocational...)	
Duration (in years)	
ECTS – European Credit Transfer and Accumulation System (per year), if applicable	
Aims of the programme	
General competencies (Learning outcomes)	

#### 3.3.2 Subjects present in the curriculum/training

In this section, we ask you to tell us about the study units, learning activities and teaching methods.

Also tell us about the initial training for working with children with SEN and specify if there is specific training related to autism and the approaches presented.

**3.4 CPD – continuing professional development**

**3.4.1 Status of continuing professional development (CPD) for ECEC staff referring to the same staff categories as in 3.2.**

Staff category – job titles <i>(please fill in as in 3.2)</i>	CPD is a professional duty	CPD is necessary for promotion	CPD is optional
Comments:			

**3.4.2 Types of lifelong learning training available.**

In this section, we ask you to tell us about whether courses are compulsory, what is their main content, which methods are used, and the minimum number of hours per year.

**3.4.3 Institution/s lifelong learning provider for ECEC educators/teachers**

In this section, we ask you to tell us about the public (universities, schools of higher education...) and private (associations, training agencies, cooperatives...) institutions involved.

**3.4.4 Specific training for children with SEN**

In this section, we ask you to tell us about specific CPD training related to autism and the approaches presented. You can point out the contents and main themes.

**3.5 Comment**