

The Qualifications Agency

Seminar for EAfA Partner Countries Qualifications Agency, 13th October 2022





THE FOUNDER

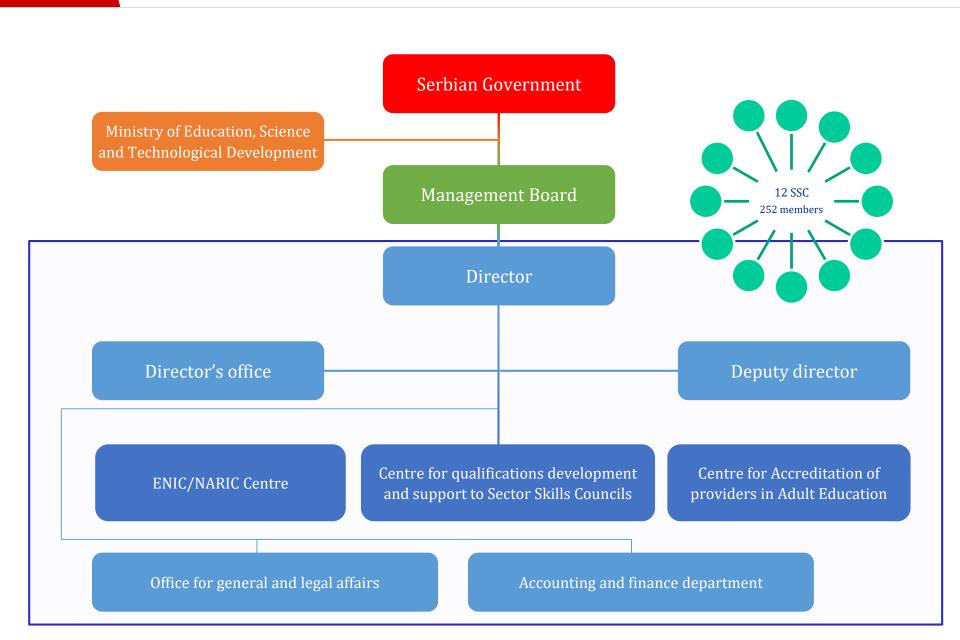
Government of the Republic of Serbia (the Law on the National Framework of Qualifications of the Republic of Serbia)

JURISDICTION

Providing expertise and professional support in the process of **developing qualifications** and ensuring quality in the **implementation** of the **National Qualifications Framework** of the Republic of Serbia and **connecting** the qualifications system with the **European Qualifications Framework**.









Main tasks



- Assessment of initiatives for the introduction of new qualifications
- Provision of expertise and administrative-technical support to sector skills councils (SSC), and development of proposals for qualification standards
- Management of the NQFS Register according to the The National Qualifications Classification System (CLASSNQFS), aligned with the International Standard Classification of Education (ISCED 13-F)
- Recognition of foreign school qualifications and professional recognition (ENIC/NARIC Center)
- Accreditation of providers in non-formal AE (PROAEA)
- External evaluation of **PROAEA**
- Monitoring the measures and effects of the implementation of (new)
 qualifications on employment and lifelong learning
- Preparation of developmental projects, analysis and research of importance for the development of qualifications







NQFS Register is a **public database** in which qualifications are classified and which contains relevant information on qualifications.

Role of the NQFS Register:

- Transparent integration of the data on nationally recognized qualifications at all levels
- Comparability of learning outcomes achieved at different levels, within different types and different forms of learning
- Linking data on qualifications to occupations
- Comparability of qualification levels in Serbia with EQF and QF-EHEA levels









- The <u>NQF Register</u> has been established and is available to citizens though the NQFS Portal
- Functional connection with Unique information system in education registers and other registers such as Central Register of Compulsory Social Insurance and National Employment Service is enabled
- Includes a sub-register of national qualifications, a sub-register of qualification standards and a sub-register of publicly recognized organizers of adult education activities with employers where publicly recognized organizers of adult education activities organize practical work
- In the process of connecting to the European Qualification Database (Europass)
- The plan is to improve the NQFS Portal as a **unique national system** for information and support to interested parties
- Electronic submission of the Initiative for the development and adoption of qualification standards is enabled



NQFS Register Structure



Sub-registers	Content - data
National Qualifications ✓ 4654 national qualifications	New qualifications Active qualifications: - level NQFS 1 - qualifications on level 2-5 NQFS from 1987 levels 6.1 to 8 NQFS from Bologna process introduction, 2005. Register has Archive which contains qualifications made before active qualifications, because they are mostly represented in working population
Qualification standards	<u>Standards of qualifications</u> - defined in line with Qualifications development Methodology
Publicly Recognized Organizers of Adult Education Activities (PROAEA)	<u>Accredited PROAEA</u> - approved adult education programs/activities and employers with whom PROAEA realize practical work.



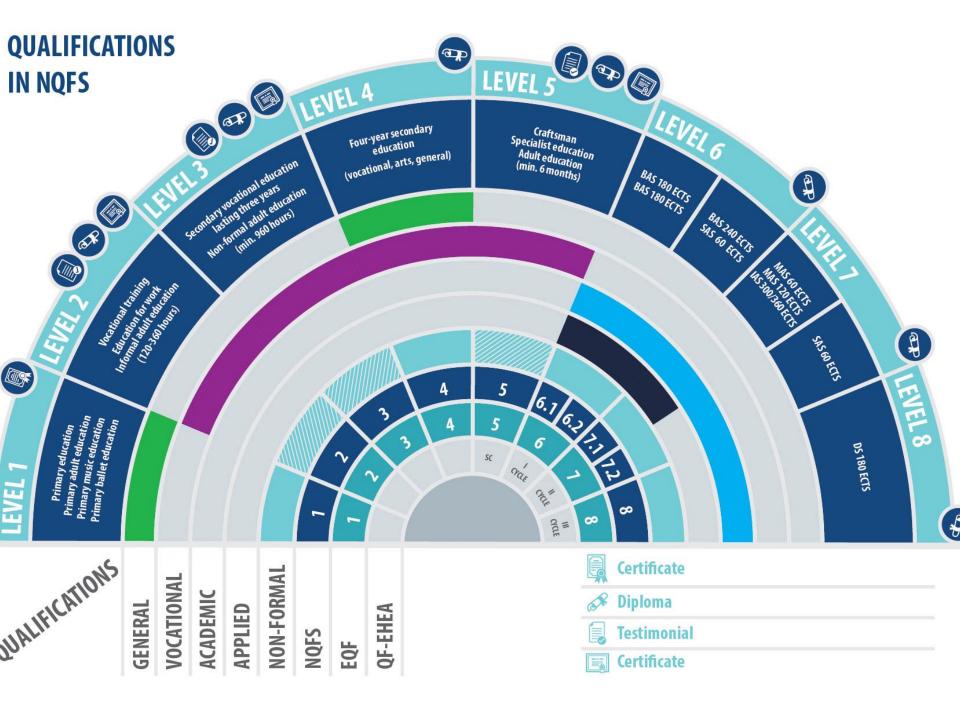
Qualification standard and work-based learning





Main characteristics of NQFS

- The system that **regulates qualifications** in the Republic of Serbia;
- Includes the number and description of qualifications, the relationships between qualifications and the paths of mobility and advancement (Qualifications are classified in NQFS into eight levels and four sub-levels);
- Serves for the development of qualification standards based on the **needs of the labour market, the individual and society as a whole**;
- Contributes to the improvement of cooperation between relevant interested parties, i.e. social partners: educational institutions, institutions, employers and trade unions – SSC (Sector Skills Councils);
- Enables improvement of access, transparency, flexibility of paths and permeability in the education system, and recognition/validation of non-formal and informal learning (competencies acquired through work experience);
- Ensures comparability and recognition of qualifications obtained in the Republic of Serbia with qualifications obtained in other countries.







NQFS-EQF

Comparability and recognition of qualifications at the national and international level

NQFS
1
2
3
4
5
6.1
6.2
7.1
7.2
8

- Serbia completed referencing of the NQFS to the EQF in February 2020
- National qualifications in the Register have the EQF level
- It is possible to compare national qualifications with European ones and facilitate the recognition of qualifications
- The international mobility of pupils, students and workforce is facilitated
- The plan is to connect the NFQS register to the Europass platform, to harmonize it with digital databases (EDCI), and to change the public documents as well





- Serves to harmonize education policy and employment policy
- Document that contains description of learning outcomes, as well as qualification data on the basis of which levels are determined, classified and evaluated (Act on NQFS)
- Document on the basis of which the **teaching and learning plan and program** is drawn up, i.e. **study program** and **training program in Adult education**
- Structure, elements and concept of learning outcomes are determined by the Methodology for the development of qualification standards





- development-

- 82 standards were developed in accordance with the prescribed national Methodology for the development of qualification standards
- Data in the standard important for the individual: NQFS/EQF level, a clear brief
 description of the qualification, competences, descriptions of knowledge, skills,
 abilities and attitudes, prerequisites, forms of learning and accessibility, as well as
 occupations that can be performed with the acquired qualification
- Qualification standards were developed for the needs of modernizing education programs, as well as ensuring the quality of exams (state matura and final exams) and a significant number of new qualifications relevant to employment (initiatives of employers, sector councils and organizers of Adult education activities)
- There is a plan to develop standards in higher education, within which activities have already begun at the level of sector skills councils in accordance with the 2030 Strategy for education development in Serbia





- participation of employers -

- Participation of **employers** in the process of development of qualification standards
 - ✓ Data on the needs for qualifications on the *labor market*
 - ✓ The possibility of submitting *Initiatives* for the development of new qualifications
 - ✓ Participation in the creation of *job descriptions*
 - ✓ Feedback on quality of qualification standards
 - ✓ Participation in *committees* at the final exam





- dual education -

- Qualification standard as a guarantee of quality in dual education
 - ➤ On the basis of a qualification standard the *teaching and learning plans* and *programs* are being developed, as well as the *plan for the practical* part of the curriculum (work-based learning)
 - Competency-based assessment for the final examination (also developed based on qualification standards)
- Qualification standard contains information about occupations that can be performed with a certain qualification





- dual education -

- Most of the qualifications for which the qualification standard has been developed are acquired through dual education
 - ➤ Electrician, Baker, Cook, Carpenter, Installer of Telecommunication Networks, Metal fitting, turning and machining Operater, Industrial Mechanic (NQFS 3)
 - ➤ Aircraft Mechatronics Technician, Multimedia Technician, Logistics and Freight Forwarding Technician, Press Technician (NQFS 4)
- No specific qualification standards are being developed for dual education (Dual model of education is integrated into educational policy, dual education as a model of curriculum implementation)
- Developing qualification standards on the basis of which study programs for dual studies in higher education will be created *in progress*



Qualification standard elements



QUALIFICATION STANDARD				
Title of the qualification:				
Code of the qualification				
BASIC QUALIFICATION CHARACTERISTICS	RELEVANCE OF QUALIFICATION FOR EMPLOYMENT AND FURTHER LEARNING			
CLASSNQFS / ISCED-F 2013	Permeability within the qualifications system			
NQFS LEVEL	Occupation(s) to which qualification is related			
EQF level	Occupational standard 4			
Type of the qualification	Duties and tasks / only if there is no occupational standard			
Scope of the qualification (in credits or duration of programme)	LEARNING OUTCOMES			
Preconditions for the acquisition of the qualification	General description of the qualification			
Form of learning/education	Knowledge			
Type of public document	Skills			
	Abilities and attitudes			
	Type of assessment of the achievement of learning outcomes			
QUALIFICATION STANDARD REFERENCE DATA	QUALIFICATION QUALITY ASSURANCE			
Effective Date	Qualifications of programme organizers/teachers			
Revision date	The body competent for issuing the document			
End date				

Article 50. paragraph 3. of the Law on NQFS stipulates that until the adoption of occupational standards in accordance with the regulations relevant to employment, the link between qualification standards and the labour market will be based on the data on occupations determined in accordance with labour and employment regulations.





Qualification standard COOK

QUALIFICATION STANDARD		
Qualification name	соок	
BASIC (CHARACTERISTICS OF THE QUALIFICATION	
CLASSNQFS ¹ / ISCED-F in 2013	1013 Hotels, restaurants and catering	
NQFS level ²	3	
EQF level ³	3	
Type of qualification	Vocational	
Scope of qualification	3 years	
Prerequisites for obtaining the qualification	NQFS level 1 - basic education and upbringing, elementary education of adults, elementary ballet education and upbringing and elementary music education and upbringing	
Forms of learning	Formal education; Non-formal adult education lasting at least 960 hours of training; Recognition of prior learning,	
Type of public document	Diploma: Certificate of passed exams within the mastered program for the educational profile: Certificate on the achieved qualification standard as a whole.	
	RELEVANCE OF THE QUALIFICATION OYMENT AND CONTINUATION OF EDUCATION	
Mobility in the	Level 4 of NQFS	
qualifications system	Level 5 of NQFS	
	5120.01 Ship's Cook 5120.02 Dietary Cook	
	5120.02 Dietary Cook	
	5120.04 Pastry cook	
Occupation	5120.05 Canning condiments and sauces cook	
	5120.06 Special dishes cook	

*The system according to which qualifications are classified and coded in NQFS, harmonized with International standard classification of education ISCED 13-F.

5120.07 Assistant cook

5120.08 Grill-master

² National qualifications framework of the Republic of Serbia (NQFS)

Occupational standard4

Buropean Qualifications Framework (EQF)

Until the adoption of ecocupational standards, the connection to the qualification standard Cook with the labor market is based on data on occupation determined on the basis of regulations in the field of work and employment (according to Law on NGFs. Article 50), as well as on the description of the work from the initial proposal of an adaptive the the initiative for the development and adoption of the outlification standard visit in the Initiative for the development and adoption of the outlification standard visit.

LEARNING OUTCOMES The cook independently prepares and serves dishes and other kitchen products in accordance with internal procedures, established product descriptions, norms, aesthetic elements and all quality parameters of prepared dishes/culinary products with the application of valid standards in the production process in the kitchen. Trained to independently receive, store, prepare and thermal treat food, as well as to keep records in the kitchen. Independently implements hygienic-technical protection measures and hygienic standards in the kitchen departments and their associated equipment, devices and work inventory, according to the rules and principles of the HACCP food safety General description of the Effectively and clearly communicates and coonerates qualification with superiors and colleagues when performing tasks and actively contributes to a culture of respect and cooperation. Continuously follows the innovations in cooking and trains for the purpose of his own entrepreneurial business and/or meeting the demands of employers. Purposefully applies technical information, information and communication technologies (ICT) and improves their application through learning and training. The level of general and professional knowledge, skills, abilities and attitudes within the framework of acquired competences primarily enables the cook to get employment and continue education in the given professional field. Organizing personal work and independent preparation and arrangement of the storage, food processing, heat treatment and food service workplace; Food storage and processing; Preparation and serving of meals: Competencies Ensuring quality, hygienic-technical and safety protection at the level of personal workplace: Key competencies 5(in particular: entrepreneurship and orientation towards entrepreneurship, cooperation, responsible attitude towards health and responsible attitude towards the environment).

*On the basis of: Rulehook a on general achievement standards at the end of general secondary education and secondary vocational education in the field of general education subject (*Official gazette RS *, no. 117/13).

After the acquired qualification, the person will be able to: list the systems of work organization in the kitchen; distinguish types of foodstuffs, food semi-products and products used as food, and evaluates all parameters of their quality: explain safety risks, ways of storing and preserving foodstuffs, food semi-products and products; differentiate methods of food processing and the specifics of certain procedures in the preparation of meals: explain methods of preparing dishes from international cuisines and traditional Serbian dishes; describe the composition of dishes and other kitchen products, respecting the recipes and standards for the preparation of various types of: soups and stews, ready meals, roasts, stews, cold and hot appetizers, fish, crabs, shellfish, dishes made to order, grilled dishes, fondues and sauces, salads and simple desserts and pastries: explain the purpose, characteristics and rules of safe handling and maintenance of the equipment funcionality, Knowledge devices and tools for food preparation in accordance with the established procedure and instructions explain the basic principles of a balanced diet and the importance of nutrients in the composition of meals, as well as the characteristics of special diets; specify norms for the preparation of certain dishes and other kitchen products; explain the ways and rules of writing menus and menu items and the price calculation procedure; list the types of records in the kitchen and describe the explain the importance of the food safety system and state the standards related to safety, food quality and minimum technical conditions for catering activities; identify various labels and safety instructions used in the workplace: list the possible fire outbreak causes and explain fire prevention methods and procedures.





Qualification standard METAL FITTING, TURNING AND MACHINING OPERATOR

QUALIFICATION STANDARD		
Qualification name	METAL FITTING, TURNING AND MACHINING OPERATER	
BASIC O	HARACTERISTICS OF THE QUALIFICATION	
CLASSNQFS 1/ ISCED-F2013	0715 Mechanical engineering and metalworking	
NQFS level ²	3	
EQF level ³	3	
Type of qualification	Vocational	
Scope of qualification	- 3 years; - At least 960 hours of training in non-formal education.	
Prerequisites for obtaining the qualification	NQFS level 1 - basic education and upbringing, elementary education of adults, elementary ballet education and upbringing and elementary music education and upbringing	
Forms of learning	Formal education; Non-formal education; Recognition of prior learning.	
Type of public document	Diploma; Certificate of passed exams within the mastered program for the educational profile; Certificate on the achieved qualification standard as a whole	
1	RELEVANCE OF THE QUALIFICATION	
FOR EMPL	OYMENT AND CONTINUATION OF EDUCATION	
Mobility in the qualifications system	Level 4 of NQFS Level 5 of NQFS	
Occupation	7223.07 Computer Numerical Control Machine Operator 7224.01 Grinder operator 7223.05 Router operator 7223.06 Lathe operator 7223.04 Punch operator 7223.04 Punch operator 7223.09 Adjuster of metal cutting machines 7223.01 Server of adjusted grinders/drills/mills/lathes	
Occupational standard ⁴	7223.11 Machine tool operator 7223.15 Metal drilling machine operator	

[&]quot;The system according to which qualifications are classified and coded in NQFS, harmonized with the International Standard Classification of Education ISCED 13-F.

*European Qualifications Framework (EOF)

LEARNING OUTCOMES A Metal fitting, turning and machining Operater creates a workpiece by cutting materials (turning, milling, grinding and drilling) on conventional machine tools and on a computercontrolled (CNC) machine. Trained to: choose accessories and cutting tools, and adjust the machine for processing by cutting in accordance with the technical and technological documentation; create, measure and control workpieces on conventional machines, as well as workpieces on CNC machines; applies quality standards, as well as safety and health at work and environmental protection measures in the field of metal processing industry i.e. metal machining. Effectively communicates and cooperates with superiors General description of and colleagues when performing tasks and actively contributes the qualification to a culture of respect and cooperation. Continuously follows the news in mechanical engineering, i.e. in the field of mechanical metal processing, and improves himself for the purpose of his own entrepreneurial business and/or meeting the demands of employers. Purposefully applies technical information, information and communication technologies (ICT) and improves their application through learning and training. The level of general and professional knowledge, skills, abilities and attitudes within the framework of the acquired competences of the Metal fitting, turning and machining Operater primarily enables employment and continuing education in the given professional field. Adjusting the cutting machine; Production of the workpiece by cutting on conventional Production of the workpiece by cutting on CNC machines; Competencies Key competences⁵ (in particular: digital competence, entrepreneurship and entrepreneurial competence, responsible attitude towards health and responsible attitude towards the environment).

"On the basis of: Rulebook on general achievement standards at the end of general secondary education and secondary vocational education in the field of general education subjects ("Official Gazette of RS", no. 117/13).

A	fter the acquired qualification, the person will be able to:
	distinguish elements of technical and technological documentation;
-	 list the basic types and characteristics of materials for processing by cutting;
	list the basic parts of conventional and CNC machines (electrical, pneumatic, hydraulic and mechanical circuits) and explain how they function;
	 list tools for different types of cutting, clamping accessories, devices and accessories for adjusting and positioning tools for conventional and CNC machines, and describe the way of their application in the processing process
	 differentiate processing mode parameters;
Knowledge -	 describe the procedures for processing external and internal surfaces, angled surfaces, openings, grooves, spiral grooves, serrations;
	 describe the ways of programming and operating CNC machines in relation to the modes of operation of the control unit (manual, automatic, incremental, reference point, operation of the control unit in buffer memory);
	 list the types and application of measuring and control accessories during cutting;
	 describe the methods and procedure of control, testing and determining the accuracy of production on different machine tools and CNC machines during cutting processing;
	 differentiate the causes of defective pieces in the manufacturing process;
	 list the procedures for cleaning and preventive maintenance of machine tools;
	 specify procedures for cleaning and preventive maintenance of machine tools;
	 specify the measures and procedures for protection at work, as well as the procedure in the event of an accident and injury
	at work in accordance with the prescribed procedure.

[&]quot;National Qualifications Framework of the Republic of Serbia (NQFS)

Until the adjustment of occupations of control to the description of the qualification standard Metal fitting, turning and machining Operator with the labor market is based on data on occupations determined on the basis of regulations in field of work and employment (according to Law on NQTS, Article 50), as well as on the description of the description



Future plans



- Qualification standards
 - Effective development of new qualification standards
- Labor market and employers engagement
 - Improvement of databases based on needs of the labor market
 - ➤ Identifying **occupations** that are relevant to the labor market



Connecting the Dual Model of Education with the Non-Formal Adult Education in Serbia





Competencies of PROAEA Center

The PROAEA Center carries out the following activities:

- accreditation of providers in non-formal adult education, i.e. approval of the status of publicly recognized organizers of adult education activities (hereinafter: PROAEA)
- develops standards for self-evaluation and external evaluation of PROAEA
- o performs the procedure of external evaluation of PROAEA
- provides support to PROAEA in the implementation and improvement of the non-formal adult education quality system
- o promotes adult education at the local, regional and national level
- o manages the PROAEA Sub-Registry within the NQFS Register for the purpose of informing the public about accredited trainings/ PROAEA





Legal Framework

Legal Framework for accrediting non-formal adult education providers comprises:

- o The Law on the Foundations of the Education System
- The Law on Adult Education
- The Law on the National Qualifications Framework of the Republic of Serbia
- The Rulebook on detailed conditions regarding programs, personnel, space, equipment and teaching aids for acquiring the status of a publicly recognized organizer of adult education activities
- The Rulebook on the type, name and content of forms and the manner of keeping records and the name, content and the appearance of forms of public documents and certificates in adult education





Preparation of the Application for Acquiring the Status of PROAEA

- An organization wishing to acquire the status of PROAEA for a particular program of non-formal adult education prepares the Application by taking the following steps:
- Checks the Qualification Standards List*;
- 2. Fills out the Application form;
- 3. Prepares the Adult Education Program Proposal;
- 4. Collects evidence on the fulfillment of the conditions for acquiring the status of PROAEA;
- 5. Submits the Application to the Qualifications Agency.

^{*}If the qualification standard has not been adopted, the organization may submit an *Initiative for the adoption of an appropriate standard* (hereinafter: the Initiative) according to the *Procedure for the development and adoption of qualification standards* (link).





Preparation of Adult Education

Program Proposals

The Proposal for the adult education program contains the following elements:

- 1. Adult education plan and program and the manner of its realization
- 2. Conditions for conducting the adult education program related to:
- ✓ the space in which this activity will be performed,
- ✓ necessary equipment and teaching aids, as well as
- ✓ competencies and the number of professionals who will be engaged in performing the adult education activities
- ✓ if the practical part of the training is realized at the employer's premises, the organization should submit the **Contract on technical cooperation with the employer**





Preparation of Program Prosals based on Qualification Standards

- qualification standards (QS) can be a basis for the development and accreditation of non-formal adult education programs
- QS provide quality assurance of non-formal adult education programs
- programs based on QS lead towards the acquisition of professional qualifications at level (2), 3 and 5 of NQFS
- similarity of non-formal AE and dual education in terms of possibility of acquiring NQFS level 3 qualifications
- ✓ Level 2 at least 120-360 hours
- ✓ Level 3 at least 960 hours
- ✓ Level 5 min, 6 months

e.g. NQFS Level 3 that can be acquired through NFAE: Carpenter, Cook, Beekeeper, Operator of internal means of transport





The Procedure for Acquiring the PROAEA Status

The Procedure includes the following steps:

- 1. The PROAEA Centre's employee checks to see if the Application contains all the necessary elements and evidencies
- 2. An Expert Commission is formed in order to draft *The Report on the fulfillment of conditions regarding the plan and program of adult education activities, implementation of program and personnel* (45 days)
- 3. The QA requests from the Inspection Sector of MoESTD to determine whether the conditions regarding the space, equipment and teaching aids are fulfilled
- 4. The Inspection submits *the Minutes on the Performed Verification of Fulfillment of Conditions* to the Qualifications Agency (30 days)
- 5. The Director of the Agency issues a *Decision on the Approval of the Status of a Publicly Recognized Organizer of Adult Education Activities* (10 days)





Statistical Overview of Accredited

Programs

Since the beginning of the accreditation process:

- ✓ 546 ACCREDITED TRAINING PROGRAMS
- ✓ 112 PROVIDERS

In 2021:

- ✓ 185 RECEIVED APPLICATIONS
- ✓ 118 ACCREDITED TRAINING PROGRAMS





The concept of non-formal adult education and work-based learning

- o the entire concept of learning methodology in non-formal adult education in Serbia is based on the concept of work-based learning
- o in the process of accreditation a good distribution of theoretical and practical hours of training is especially evaluated
- andragogical principle at least 20% of theory and up to 80% of practical part of the training
- a significant part of the training (up to 80%) includes a transfer of practical knowledge and skills by the instructor at the premises of the employer





Similar Preconditions for Realization of Dual Education and Non-Formal AE

- Two important preconditions for both dual model of education and non-formal AE are:
- **the participation of employers** in the implementation of a significant part of the training
- **the competence of staff** who know how to transfer both theoretical and practical knowledge and skills within the work environment
- o in addition to professional competences, the personnel of PROAEA (teaching staff) must possess adult teaching competences
- 5 adult teaching competences may be acquired during the accreditation period





Registers of Employers and Staff

- According to the Law on Dual Education, the Chamber of Commerce of Serbia is obliged to maintain and regularly update:
- ✓ the Register of employers meeting the conditions for performing dual model of education (work-based learning);
- ✓ the Register of Contracts on Dual Education.
- According to the Law on the NQFS, the Qualifications Agency is obliged to maintain and regularly update the NQFS Register which includes:
- ✓ the PROAEA Sub-Registry that contains information on approved adult education programs/activities as well as information on staff and employers with whom PROAEA realize practical work





A Unifed Database of Employers and Staff

In the following period, the system of the dual education and non-formal education of adults should be connected by way of forming:

- > a **unified database of employers** who:
- 1) take part in dual education, i.e. implement work-based learning and
- conduct the practical part of the training in the context of non-formal adult education
- > a **unified database of competent staff** who can:
- take part in dual education, non-formal AE, including in the process of RPL

^{*}one member of the examination commission in the process of recognition of prior learning must be a representative of the economy





Concluding remarks

- ✓ a certain number of companies participating in the dual system of education are already interested in the accreditation of non-formal adult education programs
- ✓ representatives of the economy should be encouraged to take part in both models of education
- ✓ non-formal adult education should be promoted through the system of dual education
- ✓ career guidance and counseling services' programs at all levels should make links between the dual aducation and the non-formal AE
- ✓ the perspective of lifelong learning should be enforced by connecting the dual model of education with the non-formal AE





Thank you for your attention!

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