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UZBEKISTAN



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Professional Education in Central Asia (PECA)

Introduction

GIZ Project «Professional Education in Central Asia – Fostering Systemic Approaches in the Food Processing Sector» (PECA 4) supported the reform of professional education systems in Central Asia (Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan and Republic of Uzbekistan). PECA paid particular attention here to labour market orientation and the introduction of international quality standards. PECA project promoted closer regional collaboration among the partner countries with a focus on the design and implementation of national systems of dual technical vocational education and training (TVET) and cooperative higher education (CHE) based on best practices that have been jointly implemented in Europe by state educational institutions and business organizations.

To this end, one of PECA's intervention areas aimed at empowering relevant actors from politics, industry and education sector in each partner country to jointly work on necessary national regulatory frameworks to promote a labour market-oriented professional education in the food processing sector. More concretely, selected sector-specific occupational standards were developed or revised. Additionally, the national methodologies for the development of occupational standards were developed in Tajikistan, Uzbekistan and the existing methodologies have been extended in Kazakhstan and Kyrgyzstan. A guideline for the development of dual TVET educational programmes on the basis of newly developed occupational standards was elaborated to stress a need for more competence – oriented approach. In addition, concepts for dual TVET and CHE have been drafted including road maps for their implementation.

The documents mentioned above have been developed by the national working groups, which were led by experts from ministries, business sectors and educational institutions. The technical guidance and international expertise were provided by the ICON Institute on behalf of the PECA project.

The documents were presented and discussed at national conferences and suggestions for further changes and corrections were included in the final versions, which were officially handed over to the partners in Russian and respective national / state languages. All documents are confirmed by the partners at different levels of recognition: as a legal and / or working documents. While the English version of these documents was provided to the international donor organizations working in the field of professional education in respective countries in order to enhance synergies and jointly support the national Ministries of Education in professional education reform and mutual learning processes.

The follow-on GIZ Project Professional Education for Economic Growth Sectors in Central Asia (PECA 5), will further support partner organizations in designing the necessary national regulatory frameworks and implementing dual TVET and CHE programmes.

Content:

Concept

Methodology

Guidelines

**METHODOLOGY FOR THE
DEVELOPMENT
OF OCCUPATIONAL
STANDARDS IN
THE REPUBLIC OF UZBEKISTAN
IN THE FIELD OF FOODSTUFF
INDUSTRY**

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INTRODUCTION

An occupational standard is predesignated for establishing unified requirements towards the content and level of the occupational activity; for assessing the qualifications of specialists when hiring and during attestation at the workplace, career planning.

The introduction of occupational standard is necessary to optimize the attestation procedure for employees, improve their qualifications, and adjust the regulatory legal and local acts of organizations in the foodstuff industry.

The purpose of this methodology is to provide a unified approach towards the development of occupational standards in the field of foodstuff industry.

The work considers the following tasks:

1. Improving the system of training qualified personnel and professional development of food industry workers both in public and private sector in accordance with the requirements of the occupational standards.
2. Creation of a package of local documents by institutions and organizations in accordance with the requirements of the occupational standards.
3. Development of educational standards based on occupational ones.

The occupational standard is a tool for improving the quality of education as an objective measurer of an employee's qualifications. One of the main tasks of the occupational standard is to ensure orientation targets and the prospects for professional development of specialists.

The following documents were provided by experts of the project on "Working out/revision of the methodology of the development of occupational standards in the Republic of Uzbekistan on the basis of regulatory legal acts in force in the territory of the Republic of Uzbekistan":

1. The development methodology of the occupational standards in the field of foodstuff industry.
2. The Occupational standard model.
3. Step-by-step instructions on filling out an occupational standard model in the field of foodstuff industry.

This Methodology was developed in accordance with the Legislation of the Republic of Uzbekistan, and also while taking into account the peculiarities of the food industry, international and domestic experience in the development of occupational standards.

METHODOLOGY FOR THE DEVELOPMENT OF OCCUPATIONAL STANDARDS IN THE FIELD OF FOODSTUFF INDUSTRY

1. GENERAL PROVISIONS

1. This methodology was developed in accordance with the regulatory legal acts of the Republic of Uzbekistan with an aim to provide practical assistance to bodies of public and economic management, employers' associations, professional communities, representatives of the private sector and other interested organizations (hereinafter referred to as organizations-developers) in the development of occupational standards.
2. This Methodology was created on the basis of the following regulatory legal documents in force in the Republic of Uzbekistan: National qualifications framework (hereinafter - NQF)¹; the National Classifier of Types of Economic Activity of the Republic of Uzbekistan (hereinafter

- NCEA-2)6, introduced into mandatory use within the territory of the Republic of Uzbekistan, the Classifier of main positions of employees and occupations of workers as of 2020 (hereinafter - CMPO-2020)5, developed based on proposals from state organizations and specialists of the private sector of the Republic of Uzbekistan, taking into consideration the requirements of the industry.

This Methodology defines the general requirements of the development of occupational standards with an aim to provide methodological assistance to employers, their organizations and associations, sectoral (inter-sectoral) councils, central executive authorities, scientific institutions and other stakeholders in ensuring the unified approach and observing objectivity when developing occupational standards and the quality of their verification.

3. The Methodology applies the following terms and definitions:

Type of occupational activity is a set of generalized labour functions having a close nature, the results and working conditions of a specialist at the workplace, ensuring the implementation of a part of the production or business process;

Position is the official rank of an employee associated with the execution of certain duties;

The Classifier of main positions of employees and occupations of workers (hereinafter - CMPO-2020) is a systematized list of the main positions of employees and occupations of workers operating on the territory of the Republic of Uzbekistan, and the definitions of the diapason of workers and categories of positions of employees, as well as requirements to the minimum level of education;

Competence is the capability to successfully act based on practical experience, ability and knowledge when solving professional problems;

The International Standard Classification of Occupations as of 2008 (ISCO-08) is a system for classifying and summarizing information about professional employment.

The Generalized labour function (GLF) is a set of labour functions connected to each other, which are folded up as a result of the division of labour in a specific production or business process; corresponds with official duties, but is not identical to the position in a specific organization; includes occupational activities that can be performed by one employee;

Educational organizations are state and non-state educational institutions, subdivided into types in accordance with educational programs, the implementation of which is the main goal of their activities;

An **organization-developer** is an association of employers and (or) an organization engaged in the development of occupational standards, namely: associations of employers, professional communities, educational organizations of higher and professional education and other interested organizations;

A **sectoral council** is a consultation and advisory body coordinating the work on the development of occupational standards, acting on the basis of a regulation approved by the head of the relevant body of state and/or economic management of the industry.

A **user of occupational standards** is a legal or individual entity applying an occupational standard in their occupational activities, among other employers' associations, directly employers, professional communities, educational organizations and other interested parties;

Occupational standard (OS) is a regulatory document that defines the requirements for the qualifications of an employee in the field of a specific type of economic activity with an aim to carry out his occupational activities. The occupational standard is intended to determine the employees' job responsibilities, plan their professional growth, organize professional training

and qualification upgrade according to the development requirements to the quality and productivity of services, the selection, placement and use of personnel, and also the rationale for decisions made when conducting attestation of managers and specialists;

A **profession** is a type of labour activity in the system of social division of labour, conditioned by the totality of knowledge and labour skills acquired by the employee as a result of special training or practical experience;

Professional qualification is a certain step of professional preparedness of an employee to perform this or that type of work of a certain quality and complexity; a system of specific knowledge, abilities and skills that ensure the fulfilment of occupational activities and reflect the suitability of a specialist for a type of any labour; a set of gained learning outcomes recognized by an educational organization and certified by an appropriate document (diploma, certificate), providing a possibility to execute a certain type of work or carry out occupational activities;

A **labour function (LF)** is a set of labour actions within the framework of a generalized labour function; corresponds with the specific type of work entrusted to an employee; determined by the technological process and assumes availability of the necessary competencies required for their implementation;

Labour action (LA) is the process, where an employee interacts with the subject of labour, in which the result of performing a certain task is achieved;

Skill is possession of ways to apply the acquired knowledge on practice;

Grade of qualification is the degree of a person's suitability for any type of labour, the level of preparedness;

A **functional map** is a structured description of the employees' labour functions performed within a certain type of occupational activity of a specialist.

4. The occupational standard is subject to the State Registration through the Ministry of Employment and Labour Relations of the Republic of Uzbekistan.

2. PURPOSE AND ASSIGNMENT OF THE OCCUPATIONAL STANDARDS

5. The occupational standard is developed for hiring, conducting and confirming the qualifications of specialists, training and retraining of personnel, facilitating the labour rationing and is intended for use by a wide range of users:

by employers - in order to understand the imposed requirements for the profession in the industry, planning to improve their qualifications and career advancement;

by employers – to develop job descriptions of employees, the formation of criteria for hiring and attestation of personnel, as well as for drawing up programs for professional development, development, promotion and rotation of personnel;

by educational organizations – to develop educational standards, programs, modules and career guidance of students and enrolees;

by organizations (bodies) carrying out activities for certification and qualification assignment - to develop assessment materials when holding certification of personnel and the development of criteria for qualifications of employees by levels of compliance;

by employment centres - to carry out activities assisting in employment, development of training programs and retraining.

The occupational standards are used in the following areas:

1) in education:

- for development of educational standards, curricula and programs, as well as educational and methodological materials for all forms and types of education, for training workers in production, training of pedagogical personnel, standing at origins of training of specialists in various areas determining the vector of socio-economic development of the country;
- for development of criteria for learning outcomes, assessing the compliance of the acquired qualifications of graduates of educational institutions;
- for conducting procedures on confirmation of the results of vocational training;
- for formation of unified criteria to assess the professional competencies of qualifications seekers, regardless of the ways of obtaining them;
- for vocational guidance of the population, including students of educational institutions, job seekers and temporarily unemployed persons of working age.

2) in personnel management:

- for creation of conditions for the professional development of employees and improving the quality of their labour, including in small and medium-sized enterprises;
- for organization and labour rating;
- for determining the employees' job responsibilities, planning their professional growth, developing job descriptions;
- for organization of training, retraining and qualification upgrade of employees;
- for justification of decisions to be made based on the results of attestation of employees;
- for tariffication, categorization of positions and occupations;
- for grouping the professional qualifications to be applied at an enterprise, organization, institution, by NQF levels or relevant qualifications framework of the industry;
- for establishing the unified requirements towards the content and quality of occupational activities, agreeing on the names of positions/professions, ordering the types of occupational activities.

3. PRINCIPLES AND APPROACHES IN DEVELOPING OCCUPATIONAL STANDARDS

6. When developing occupational standards in the foodstuff industry, the following **principles** should be observed:
 - compulsoriness of all footsteps - each step described in the Instructions is obligatory for the developers of occupational standard;
 - professional approach;
 - objectivity - when developing occupational standard, a detailed analysis of the activity type is carried out to identify features, established practices and topical trends;
 - feedback - remarks and comments of interested parties should be analysed and taken into consideration in the process of developing occupational standards.
7. The occupational standard is developed depending on the need of employers for the qualified labour, its distribution by workplaces (positions), forms of employment and working conditions for a certain occupation or for a group of the cognate positions/occupations in the foodstuff industry.

The occupational standards are developed for the most promising positions and occupations that are of high demand in the labour market.

To understand the informational content of the occupational standard, an explicit and clear definition of key terms is essential.

Approach to the development of occupational standards:

The occupational standard is developed for an occupation of a worker or a position of an employee in accordance with the CMPO in force on the territory of the Republic of Uzbekistan.

The type of occupational activity is highlighted in accordance with the Descriptor adopted by the Ministry of Employment and Labour Relations of the Republic of Uzbekistan (hereinafter – MELR). If necessary, developers can approach with a proposal on introducing a new type of activity in the Descriptor.

The occupational standard to be developed always indicates the code and title of the type of economic activity according to NCEA-2 adopted in the Republic of Uzbekistan.

The four-digit position (occupation) code belonging to CMPO-2020 corresponds to the occupation group code in ISCO.

Design of the occupational standard is carried out in accordance with the Occupational Standard Model given in Annex 1 of this Methodology.

When determining the type of occupational activity, one should be guided by the following criteria: the presence of the assumed type of activity in the MELR's Descriptor, expected technological, organizational and legislative changes. It is especially important to analyse the list of all occupations covered by this type of the occupational activity and take into consideration the possibility of combining several related positions (occupations) in one occupational standard in order to make transparent the intersubstitutability of employees.

Grades of qualification in the occupational standard are exhibited taking into account those ones determined in the CMPO-2020.

The Generalized labour functions and labour functions inside them are developed for each position (occupation). The fundamental criteria can be formulated as follows: what needs to be fulfilled to achieve the labour function and what labour functions are linked.

When defining labour functions, it should be taken into account their necessity and sufficiency.

The next stage is the definition of labour actions within each labour function.

It is needed to pay due attention to the style and formulation, which are used in defining labour actions, as well as the required skills and knowledge. It should be formulated in one sentence, if possible. When writing the required skills, it is necessary to put the verb in an indefinite form (e.g., "bake", "dough up", etc.). In the functional map of the occupational activity type, the generalized labour functions are divided into labour functions, then the same is repeated in the standard, and already within the standard, it is determined labour actions, necessary skills and knowledge for each labour function.

Developers of occupational standards are **encouraged to**:

- organize the development and agreement of the draft occupational standard as per this Methodology;
- conduct monitoring of technological processes and the content of occupational activities in order to ensure the relevance of occupational standards;
- provide the developed occupational standards to the Ministry of Employment and Labour Relations of the Republic of Uzbekistan to prepare for registration.

4. CONTENT OF THE OCCUPATIONAL STANDARD

8. The occupational standard is developed based on the analysis of:
- the state and development prospects of the corresponding type of economic activity, group of occupations, to which the occupational standard belongs to;
 - regulatory legal acts and other regulatory documents, in which the requirements for qualifications per occupations, positions, specialties corresponding to this type of occupational activity are defined.

This form of the occupational standard is a verified version of the occupational standard template approved by the Resolution No. 287 of the Cabinet of Ministers of the Republic of Uzbekistan dated May 15, 2020.

9. The occupational standard includes:

Title of occupational standard

Service (Official) notes

Section I. General information;

Section II. Description of labour functions included in occupational standard (functional map of the type of occupational activity);

Section III. Characteristics of the generalized labour functions;

Section IV. Information about the organizations-developers.

Section I includes:

- 1) the title of occupational activity type and its code according to Descriptor (a list of occupational activity types belonging to the foodstuff industry are given below in the Instructions);
- 1) the line on "The main purpose of the occupational activity type", in which the main purpose of the specialist's work is briefly described by developers;
- 2) the line "Group of occupations", which indicates the title of one or several basic groups of occupations in accordance with ISCO-08;
- 3) the line "Types of economic activities" indicating the code and the title of one or several chapters, sections, groups and/or subgroups of economic activities in accordance with NCEA-2 in the foodstuff industry.

Section II contains a description of all labour functions in the form of a table, which indicates the titles of the generalized labour functions, code and the grade of qualifications, which are determined by the specialists of the organizations-developers based on an analysis of the requirements for a given occupation, the required grade of qualifications at a given workplace and the characteristics contained in the NQF.

Section III contains a detailed description of the generalized labour functions and labour functions that are included in its content.

Along with that, it is indicated the title and code of the generalized labour function, as well as the grade of qualification for each occupation (position).

These data must be identical to those ones indicated in the "Generalized labour functions" of Section II.

The table "Origin of the generalized labour function" indicates the originality of the developed standard. The developer declares the originality of his standard through the sign "+", while the

sign "-" allows you to determine the borrowings the developers take from another standard (or part of it) out of the related fields of activity. The registration number of the occupational standard used by the developer is also indicated in this table.

The corresponding columns indicate:

- 1) possible titles of positions (occupations) of employees performing the given generalized labour function
- 2) requirements for education and training - requirements towards the level of education, focus of the main and (or) additional vocational education programs and (or) main vocational training programs;
- 3) requirements for practical work experience - required work experience in the food industry;
- 4) special conditions for permit-to-work - requirements towards the gender and age characteristics of workers performing the given generalized labour function, availability of a medical examination, lack of criminal record and other additional requirements, if any;

The table "Additional characteristics" indicates the title of the document (CMPO-2020), code of position (occupation) and title of positions (occupations).

The item "Labour functions" includes:

- 1) labour actions;
- 2) required skills;
- 3) necessary knowledge;
- 4) other characteristics.

Section IV contains information about the organizations-developers of occupational standard and the content of the decision made by the sectoral council.

10. Recommendations for the design of an occupational standard:

The occupational standard should be designed in accordance with the following rules:

Format - A4

Page layout/orientation - portrait (vertical)

Font - Times New Roman, font size - 13

Line spacing - 1.2

Document margins: right - 20mm, left - 25mm, top and bottom - 20mm

Section names are in bold.

Page numbers - top centre

5. DEVELOPMENT AND APPROVAL OF OCCUPATIONAL STANDARDS

11. The occupational standards are developed by the relevant body of state and/or economic management of the branch of foodstuff industry, employers' associations, professional community and other interested organizations with the participation of the scientific-expert community, representatives of employers and the trade unions council of the branch of foodstuff industry.

When developing occupational standards, it is recommended to use the following research approaches:

- analytical (research of documents of international and foreign organizations, foreign scientific and methodological literature);
 - empirical (conducting the structured group discussions in expert groups consisting of employee representatives, as well as revealing labour functions within the framework of consideration of the food production cycle);
 - comparison and collation analysis;
 - testing the results in practice.
12. Responsibility for developing occupational standard is laid to the personnel service (or an authorized employee coordinating the entire process) of the relevant body of state and/or economic management of the industry.
 13. Coordinating the development, organizing expert examination of the draft occupational standard is carried out by the sectoral council on development of professional qualifications and competencies (hereinafter - sectoral council), acting on the basis of a regulation approved by the head of the relevant state body and/or economic management of the industry in accordance with the regulatory legal acts of the Republic of Uzbekistan. Sectoral councils work closely with state and economic management bodies in the field of food production, food industry enterprises, entrepreneurship entities engaged in the production of food products, educational organizations of higher and vocational education, as well as with the Ministry of Employment and Labour Relations of the Republic of Uzbekistan.

It is recommended to include the food industry professionals, higher and vocational education specialists, representatives of the private sector, and invited experts into the sectoral council. The number of the sectoral council members is at least 5 people.

The designation of the sectoral council is to help in forming a workforce capable to ensure the economic and strategic competitiveness of enterprises in food industry and effective employment in the given industry. The activity model of the sectoral councils implements a market mechanism that combines the responsibility of employers at sites and their interest in the professional development of industry specialists and increasing competitiveness in a specific area of the occupational activity. Establishing the sectoral councils is aimed at providing enterprises with workers who have those qualifications that are indeed necessary for the successful development of the industry and its member enterprises, through influencing public authorities and the sphere of education for providing enterprises with the necessary personnel. In this regard, the main task of the sectoral councils is to help meeting the requirements of employers for the quality of workers' labour and in securing employers' investment growth in vocational education and training to increase productivity and the efficiency of both the public and private sectors of the economy on the basis of achieving an optimal ratio of demand and supply of qualifications in the labour market.

14. The draft of the developed occupational standard is launched on the portal "profstandart.uz" for a period of at least 20 days for public and expert discussion.
15. When discussion is over, amendments and additions are introduced to the developed occupational standard taking into account comments provided, after which the occupational standard is approved by the sectoral council and the head of the organization in-charge for the development of the standard.
16. After approval, the occupational standard is introduced to the Ministry of Employment and Labour Relations of the Republic of Uzbekistan for registration and entry into the Register of the Occupational Standards.

If the requirements and rules of design are met, the occupational standard is considered by the Council for Development of Professional Qualifications and Competencies (accountable to the President of the Republic of Uzbekistan and the Cabinet of Ministers of the Republic of Uzbekistan), after which, in the absence of comments from the Council, it receives a unique number of State registration and is posted on the portal "profstandart.uz".

6. FINAL PROVISIONS

17. The occupational standards do not abrogate the job descriptions adopted in the Republic of Uzbekistan, specifying the requirements to the post. The occupational standard and job description are intersubstitutable documents.
18. The occupational standard is mandatory for application by all organizations and representatives of the private sector working in the Republic of Uzbekistan.
19. The occupational standards are subject to change or additions, taking into account the prospects for the industry development, if there are reasonable proposals or appropriate changes in the legislation of the Republic of Uzbekistan.

OCCUPATIONAL STANDARD

 (Title of the occupational standard)

Registration number

Requisites of the approving organization

SECTION I. GENERAL INFORMATION

 (title of occupational activity)

Code as per
 Descriptor

Main goal of occupational activity type:

--

Occupations group:

(code as per ISCO)	(title of the group)	(code as per ISCO)	(title of the group)

Type of economic activity:

(code as per NCEA)	(title of the type of economic activity)

SECTION II. DESCRIPTION OF LABOUR FUNCTIONS INCLUDED INTO THE OCCUPATIONAL STANDARD
(functional map of the type of occupational activity)

Generalized labour functions			Labour functions		
Code	Title	Grade of qualification	Title	Code	Grade (subgrade) of qualification

SECTION III. CHARACTERISTICS OF THE GENERALIZED LABOUR FUNCTIONS

3.1. Generalized labour function

Title

Code

Grade of qualification

Origin of the generalized labour function	Original (+/-)	Borrowed from the original (+/-)	Original	
			Code as per Descriptor	Registration number

Possible titles of positions (occupations)	
Requirements towards education and training	
Requirements towards practical experience	
Special conditions for permit-to-work	

Additional characteristics:

Document title	Code	Title of the position (occupation)

3.1.1. Labour function

Title

Code **Grade of qualification**

Origin of the labour function	Original (+/-)	Borrowed from the original (+/-)	Original	
			Code as per Descriptor	Registration number

Labour actions	
Required skills	
Necessary knowledge	
Other characteristics	

3.1.2. Labour function

Title

Code **Grade of qualification**

Origin of labour function	Original (+/-)	Borrowed from the original (+/-)	Original	
			Code as per Descriptor	Registration number

Labour actions	
Required skills	
Necessary knowledge	
Other characteristics	

SECTION IV. INFORMATION ABOUT THE ORGANIZATIONS-DEVELOPERS OF THE OCCUPATIONAL STANDARD

4.1. Responsible organization-developer

<p>_____</p> <p>(Organization name)</p> <p>_____ (position and head's name, family name)</p>	<p>_____ (signature)</p>
--	--------------------------

4.2. Titles of the organizations-developers

4.3. Decision of the Sectoral council on professional qualifications and competencies

(name of the council)

Content of the decision	

Instructions for the development of occupational standards in the foodstuff industry

Step 1. Preparatory work and decision-making on the development of occupational standard draft

The development of occupational standard requires careful preparation. The purpose of this step is to carry out all the necessary preliminary work for the subsequent successful implementation of the project on developing occupational standard. Decisions for the development of occupational standard can come both from the MELR, sectoral councils, and from employers, professional associations and educational system organizations.

To take a decision on developing the draft occupational standard, its developer studies the actual state and prospects of applying the type of occupational activity, the reasonability of developing occupational standard.

To study the actual state and prospects of applying the type of occupational activity, a list of questions can be drawn up in accordance with Annex 1 to this Instructions.

This information can be used in taking decision on developing occupational standard and filling out the structure of the draft occupational standard.

At this stage of developing the draft occupational standards, the developer determines a separate occupation or a group of occupations (positions) of similar content, nature and complexity.

Step 2. Forming a working group (developers)

After the decision is made, a project manager is appointed for the development of occupational standard and a qualified team is set up. The project manager forms a working group, which consists of representatives of employers, their organizations and associations, trade unions, their organizations and associations, representatives of small and medium-sized enterprises. The team may also include (by consent) other professionals in the food industry for which the occupational standard is being developed. It is also involved representatives of small and medium-sized businesses, experts, specialists of the production and technological field/direction (managers, supervisors, brigade leader, technologists, heads of departments (workshops) and other structural divisions, etc.), specialists in the field of personnel management, experts of the relevant professional field.

The selection of a project manager and the team for developing occupational standard with the necessary qualifications is one of the key steps for the further high-quality performance of all the work on developing OS. Therefore, it is important that both the leader and each member of the team developing OS match the required criteria and have the relevant knowledge and experience in the area of developing occupational standard.

Step 3. Organization of the process of developing occupational standard draft

The purpose of the given step is to compile the correct plan for the development of OS. The development plan is to be prepared by the developers in cooperation with representatives of fields and other parties who are planned to be involved in the process of developing OS as experts of the working groups.

The plan for the development of OS may include the following sections:

- number and sequence of seminars/workshops/working meetings and the preparation procedure (preparation of the agenda, distribution of materials among participants, etc.);
- dates, times and places of events;
- a tentative list of participants in seminars/workshops/working meetings

- organizers and responsible persons with a description of their areas of responsibility;
- number and sequence of events to highlight the process of developing OS with intermediate results, e.g., on the website of the sectoral council, the organization-developer or via social networks (with the possibility of discussion);

Choosing the right moderator of working groups is just as important as choosing a project leader, since the organization of the working group's activities and the achievement of the results of joint work directly depend on the moderator's abilities and competences.

To ensure an effective environment in which stakeholders can express their views openly and honestly, the moderator needs to have similar experiences and certain personal qualities such as:

- analytical skills;
- ability to ask questions and understand the answers correctly;
- communication skills;
- ability to clearly formulate own thoughts;
- ability to smooth out conflict situations;
- positive attitude and motivation.

Step 4. Conducting preparatory work

Before starting the work, the project manager or moderator can organize training for the working group on structure, order and the principles of functional analysis of labour functions/actions, approaches to describing the general information and other components of the occupational standard.

At the first stage, the working group collects information concerning to:

- labour functions performed by employees of a certain position (occupation);
- production technologies, a list of items and means of labour, equipment, products, materials and labour tools used in a certain type of occupational activity or directly by occupation;
- provisions of the current regulatory legal acts and regulatory-technical documents establishing requirements in regard to the content and the quality of professional activity;
- professional competencies (specific to a certain professional area, related to special knowledge in this area);
- requirements to be asked for the knowledge and skills of employees;
- requirements for employees of a certain position or occupation per qualification level, medical contraindications for work, work experience, level of educational, availability of certificates of awarded professional qualifications recognized by a qualification centre, an entity of educational activity, another authorized entity, additional requirements for the performance of labour functions.

At the second stage of the functional analysis, the working group creates a list of GLF, LF and LA included in them using the information obtained at the first stage of this analysis.

For this end, the working group members cluster GLF/LF/LA while voting.

After the work is done, the titles of GLF, LF and LA are entered in the form reflected in **Table 1**.

Table 1

Table for filling out the titles of GLF, LF, LA

GLF	Grade of qualification GLF	LF	Grade (subgrade) of qualification LF	LA
1	2	3	4	5

At the third stage of the functional analysis, the working group works out the final version of the list of labour functions and actions by their sequential placement.

After that, the working group determines skills and knowledge necessary to perform the relevant labour function.

Experts can agree/disprove or supplement the information prepared by the working group (table 2).

Table 2

Table for determining the list of skills and knowledge necessary to perform the relevant labour function

GLF, grade of qualification GLF	LF, grade (subgrade) of qualification LF	Required skills	Necessary knowledge

After summarizing the results of the expert opinion, by a majority of votes, the working group approves the final version of the list of skills and knowledge necessary to perform the relevant labour function and continues its work on developing occupational standard.

Step 5. Instructions for writing occupational standards in the food industry

The purpose of this Instruction is to write an occupational standard correctly and consistently according to the model and this Methodology.

1) The title of the occupational standard

(The position (occupation) is indicated in the nominative case).

2) Requisites of the approving organization

It should be indicated the full name of the organization-developer of the occupational standard, legal address, telephone number and e-mail address.

3) Registration number is not filled out

The State registration number is assigned by the Ministry of Employment and Labour Relations (MELR) after the conclusion of the Council on the development of professional qualifications and competencies (accountable to the President of the Republic of Uzbekistan and the Cabinet of Ministers of the Republic of Uzbekistan).

4) I. General information

Columns:

The occupational activity title and code as per Descriptor in the standard are to be filled in accordance with the Descriptor of the types of occupational activity: on the left line - the verbatim text from the Descriptor of occupational activity, on the right - the code according to the Descriptor table corresponding to the text on the left side line.

In particular, the following codes and types of occupations may be related to the food industry, according to the Descriptor of occupational activity:

Title of the type of occupational activity	Code as per Descriptor
Production of wine products	A01.021
Processing of fish and seafood	A03.011
Maintaining, control and management of the production process of semi-finished products and culinary products from fish and seafood	A03.012
Maintaining and development of technological processes for fish and seafood processing	A03.015
Production control and product quality management for fish and seafood, development of production control programs	A03.020
Organization and conducting research in the premises of the technological process of fish processing and seafood	A03.021
Food and beverage industry and tobacco	C01.
Management of the operation of heating and refrigeration units in the heat treatment of food	C01.001
Management of the operation of milling and grinding equipment in the manufacture of food products	C01.002
Control of the operation of the squeezing equipment in the manufacture of food	C01.003
Management of oil purification and refining plants	C01.004
Separator equipment control	C01.005
Liquid food filling equipment control	C01.008
Repair and commissioning of bottling equipment	C01.009
Controlling	C06.002
Technical testing and analysis	M03.002
Food business management	N03.005
Manufacture of confectionery and chocolate products in catering organizations	N03.006
Food, beverage and culinary production in catering organizations	N03.007
Production of bakery products in catering organizations	N03.010
Other services	N03.016
Organization personnel management	O.002
Ensuring environmental protection in organizations of industrial fields	Z.101
Robotic production service	Z.149

The main goal of the occupational activity type is the result for the sake of which a person does his/her job. To be filled in one sentence

The **occupations group per ISCO** is to be filled in like the same data as in the corresponding column of the CMPO-2020 according to the International Standard Classification of Occupations (ISCO) – 08.

The following ISCO groups may concern to the food industry:

- 1221 Sales and marketing managers
- 1321 Heads of departments (managers) in the manufacturing industry
- 1324 Heads of services on supply, distribution of goods and similar activities
- 2141 Industrial and manufacturing production engineers
- 3122 Foremen (brigade leader) in the manufacturing industry
- 3139 Process control technicians (operators) not classified in other groups
- 4132 Product accounting clerks
- 4322 Clerks involved in dispatch preparation of production
- 7511 Meat, fish and other food processors and manufacturers
- 7512 Bakers, confectioners and candy makers
- 7513 Dairy producers
- 7514 Producers and processors of fruits and vegetables
- 7515 Food and beverage tasters and determinants of grades
- 8131 Operators of chemical raw material processing plants/devices
- 8160 Food and similar products processing machine operators

Types of economic activities is to be filled in according to the National Classifier of Types of Economic Activities of the Republic of Uzbekistan (NCEA, edit. 2)⁶.

In particular:

- 10 Food production
 - 10.1 Processing and preserving of meat, production of meat products
 - 10.11 Meat processing
 - 10.11.1 Slaughtering of livestock in a slaughterhouse, processing or packaging of meat
 - 10.11.2 Manufacture of fresh, chilled or frozen meat
 - 10.11.9 Other meat processing activities
 - 10.12 Processing of poultry meat
 - 10.12.0 Processing of poultry meat
 - 10.13 Manufacture of poultry meat and poultry products
 - 10.13.1 Production of salted, brine, dried or smoked meat, poultry meat and edible offal
 - 10.13.2 Manufacture of sausages
 - 10.13.9 Manufacture of other meat products, not classified in other categories
 - 10.2 Processing and preserving of fish, crustaceans and shellfish
 - 10.20 Processing and preserving of fish, crustaceans and shellfish

- 10.20.0 Processing and preserving of fish, crustaceans and shellfish
- 10.3 Processing and preserving fruits and vegetables
 - 10.31 Processing and preserving of potatoes
 - 10.31.0 Processing and preserving of potatoes
 - 10.32 Manufacture of fruit and vegetable juices
 - 10.32.0 Manufacture of fruit and vegetable juices
 - 10.39 Other types of processing and preserving of fruits and vegetables
 - 10.39.0 Other types of processing and preserving of fruits and vegetables
- 10.4 Manufacture of vegetable and animal oils and fats
 - 10.41 Manufacture of vegetable and animal oils and fats
 - 10.41.0 Manufacture of vegetable and animal oils and fats
 - 10.42 Manufacture of margarine and mixed edible fats
 - 10.42.0 Manufacture of margarine and mixed edible fats
- 10.5 Manufacture of dairy products
 - 10.51 Processing of milk and cheese production
 - 10.51.0 Processing of milk and cheese production
 - 10.52 Manufacture of ice cream
 - 10.52.0 Manufacture of ice cream
- 10.6 Manufacture of products of the milling industry, starches and starch products
 - 10.61 Manufacture of products of the flour-grinding industry
 - 10.61.0 Manufacture of products of the flour-grinding industry
 - 10.62 Manufacture of starch and starch products
 - 10.62.0 Manufacture of starch and starch products
- 10.7 Manufacture of bakery and flour products
 - 10.71 Manufacture of bread, fresh flour confectionery, cakes and pastries
 - 10.71.0 Manufacture of bread, fresh flour confectionery, cakes and pastries
 - 10.72 Manufacture of rusks and biscuits, long shelf-life confectionery
 - 10.72.0 Manufacture of rusks and biscuits, long shelf-life confectionery
- 10.73 Manufacture of pasta and similar flour products
 - 10.73.0 Manufacture of pasta and similar flour products
- 10.8 Manufacture of other food products
 - 10.81 Manufacture of sugar
 - 10.81.0 Manufacture of sugar
 - 10.82 Manufacture of cocoa, chocolate and sugar confectionery
 - 10.82.0 Manufacture of cocoa, chocolate and sugar confectionery
 - 10.83 Processing of tea and coffee

- 10.83.0 Processing of tea and coffee
- 10.84 Manufacture of spices and seasonings
 - 10.84.0 Manufacture of spices and seasonings
- 10.85 Manufacture of prepared food products
 - 10.85.0 Manufacture of prepared food products
- 10.86 Manufacture of baby food and dietetic food products
 - 10.86.0 Manufacture of baby food and dietetic food products
- 10.89 Manufacture of other food products not classified in other categories
 - 10.89.0 Manufacture of other food products not classified in other categories
- 10.9 Manufacture of prepared animal fodder
 - 10.91 Manufacture of prepared fodder for farm animals
 - 10.91.0 Manufacture of prepared fodder for farm animals
 - 10.92 Manufacture of prepared pet fodder for domestic livestock
- 11 Beverage industry
 - 11.0 Beverage industry
 - 11.01 Distillation, rectification and mixing of alcoholic beverages
 - 11.01.0 Distillation, rectification and mixing of alcoholic beverages
 - 11.02 Wine production from grapes
 - 11.02.0 Wine production from grapes
 - 11.03 Manufacture of cider and other fruit wines
 - 11.03.0 Manufacture of cider and other fruit wines
 - 11.04 Manufacture of other non-distilled fermented beverages
 - 11.04.0 Manufacture of other non-distilled fermented drinks
 - 11.05 Beer production
 - 11.05.0 Beer production
 - 11.06 Malt production
 - 11.06.0 Malt production
 - 11.07 Manufacture of soft drinks; production of mineral waters and other bottled waters
 - 11.07.0 Manufacture of soft drinks; production of mineral waters and other bottled waters

5) II. Description of labour functions included in the occupational standard (functional map of the occupational activity type).

The functional map is presented in the form of a table, which indicates:

Generalized labour functions are a set of interlinked labour functions, formed as a result of the division of labour in a specific production process.

Code is indicated in Latin letters in an alphabetical order. e.g.: A, B, C, etc.

Title is indicated here as the title of the generalized labour function. e.g.: "Maintaining the technological process of food production".

In the column **Grade of qualification**, it is indicated the figure from 1 to 8 corresponding to the grade, according to the National Qualifications Framework (NQF).

Labour functions are the terms of reference of an employee within the framework of the generalized labour function. e.g.: "Maintenance of technological equipment for food production."

Code is indicated in sequential alphanumeric numbering taking into account the code of the generalized labour function and the grade of qualifications. e.g.: in category A at qualification grade 3, codes A/01.3, A/02.3, A/03.3, etc. will be used, in category B at qualification grade 4, codes B/01.4, B/02.4, A/03.4, etc. will be used.

Grade (subgrade) of qualification is indicated as the level from 1 to 8.

This column was introduced so that (in rare cases) when two consecutive levels of education are available in one category, it would be possible to divide labour functions into subgrades.

For example:

Code	Title	Grade of qualification	Title	Code	Grade (subgrade) of qualification
A	Maintenance of technological equipment for food production	3-4	Preparation of food production equipment for operation	A/01.3	3
			Preparation of food production equipment for operation	A/02.4	4

If there is one qualification grade in one category, then the numbers are simply duplicated.

For example:

Code	Title	Grade of qualification	Title	Code	Grade (subgrade) of qualification
A	Maintenance of technological equipment for food production	4	Preparation and maintenance of food production equipment for operation	A/01.4	4
			Execution of technological operations of food production	A/02.4	4

The number of the generalized labour functions and labour functions within them are defined by the occupational standard developer.

6) III. Characteristics of the generalized labour functions

Generalized labour function

Title, code and grade of qualification are taken from the table in the previous paragraph.

The table "Origin of the generalized labour function" indicates the originality of this paragraph of the occupational standard. The sign "+" stands for the original. If this item is original (which means that an organization-developer is its author), then the signs "+" and "-" are placed in the first two columns. If this item was borrowed from another occupational standard adopted in the Republic of Uzbekistan, then the signs "-" and "+" are placed in the first two columns, in the third column, it is shown the code according to the Descriptor, in the fourth column, it is indicated the registration number assigned to the occupational standard by the Ministry of Employment and Labour Relations of the Republic of Uzbekistan, from which the borrowing was made.

Possible titles of positions (occupations) include all possible titles of this position/occupation (according to CMPO-2020), e.g.: this item may look as follows for the specialty "Confectioner":

Possible titles of positions (occupations)	Confectioner Waffle maker in the confectionery industry Pastry chef
--	--

This column is filled in according to the staffing table.

Requirements towards education and training are completed in accordance with the qualification grade indicated in the last column of the CMPO-2020 opposite the title of the occupation/position.

In the column of **requirements towards practical work experience**, it is written the exactly required number of years of work experience in the food industry, or a dash ("-") is put. This takes into account the qualification grade indicated in the last but one column of the CMPO-2020 opposite the title of the occupation/position.

Special conditions for permit-to-work can specify additional requirements necessary for the acceptance of an employee to work for this position. These may include the field/direction of education, the age of the employee, availability of a medical record-book, absence of criminal record, illnesses according to the list of the Ministry of Health of the Republic of Uzbekistan and other requirements desirable for the employer. If there are none, then a dash ("-") is put in this column.

The table **"Additional characteristics"** is filled in according to the Classifier of the main positions of employees and occupations of workers (CMPO-2020).

In the column **"Title of the document"**, it is written the accepted abbreviated title of the CMPO operating in the Republic of Uzbekistan (for this moment: CMPO-2020).

In the column **"Code as per ISCO"**, a four-digit position (occupation) code is written in accordance with the corresponding column from the CMPO-2020.

In the column **"Title of the position (occupation)"**, the title of the position (occupation) is written in accordance with the CMPO-2020.

For example:

Title of the document	Code as per ISCO	Title of the position (occupation)
CMPO-2020	7512	Confectioner
	7512	Waffle maker in the confectionery industry
	5120	Pastry chef

7) Labour function

The title, code and grade of qualification are taken from the table in clause II.

The table "**Origin of labour function**" indicates on the originality of this clause of the occupational standard. It is filled in the same way as the table "Origin of the generalized labour function."

Labour actions indicate all labour actions to be performed by an employee within the framework of his/her job responsibilities and concerns to this labour function.

For example, for the labour function of "Preparation of the workplace for the start of work", labour actions can be listed as follows:

- Preparation of the production workshop and workplace for work
- Use of uniforms and personal protective equipment
- Inspection and preparation for operation of the technological equipment
- Checking the availability of raw stuff and materials, etc.

The column **required skills** indicates all the skills that an employee must possess.

For example:

- Fulfil the work on preparation of the workplace
- Check the serviceability of equipment, etc.

Required knowledge indicates all knowledge that an employee must have, e.g.:

- Rules for using personal protective equipment
- Requirements for storage of food, etc.

The column **other characteristics** indicate the additional requirements asked from an employee, e. g.:

- Activity implemented under guidance with elements of self-reliance
- Shift schedule of work
- Heavy physical labour, etc.

or a dash ("-") is put.

8) IV. Information about the organizations-developers of the occupational standard

For the **responsible organization-developer**, it is indicated the full title of the organization-in-charge for the development of occupational standard, surname, name and position of the organization head and the head's certifying signature.

In the **titles of the organizations-developers**, all organizations involved in the development of occupational standard are listed.

Decision of the Sectoral council on professional qualifications and competencies indicates the full title of the sectoral council (field of activity), number and the meeting date, during which the decision was taken on approving the occupational standard.

ANNEX
TO THE INSTRUCTIONS ON THE DEVELOPMENT OF OCCUPATIONAL STANDARDS
IN THE FOODSTUFF INDUSTRY

The list of questions for studying the actual state and prospects of application of the occupational standard

Before starting the work, the occupational standard developers are encouraged to:

collect general and additional information about the occupation (professional titles of position (occupation)), the reasonability of developing the occupational standard, risks and benefits of introducing a certain occupational standard in practice;

study the information, which is necessary for filling in the occupational standard;

size and profile of the professional segment of the labour market, the geographic location of specialized enterprises;

This information is important, particularly, for determining the base of the study (studying the opinions of leading specialists and specialized workers).

information on the number of employees engaged in a particular area of occupational activity, matching supply and demand in the labour market.

Data are taken from statistical information of the State Statistics Committee; reporting forms of the state employment service; materials of employers' organizations and their associations, organizations of trade unions and their associations.

possible career development ways for the relevant position (occupation);

a list of educational institutions and a list of available qualifications;

Information is obtained from the Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan, which ensures the formation and implements the state policy in the field of education and science, as well as other ministries and departments, to which educational institutions are subordinate.

regulations and other normative-technical documents of enterprises, institutions, organizations;

The regulatory and technical documents of the enterprise, as well as international acts are to be studied. A list of normative materials is to be formed that would be used in the development of occupational standards.

conditions of employment, wages, allowances, the degree of social protection of workers;

The data are taken from the sectoral agreement, collective agreements of enterprises, institutions, organizations on the amount of wages of employees of the relevant occupations (professional titles of positions (occupations)) and the content of the provisions on social protection of workers.

a set of environmental factors affecting the health and human performance in the process of work.

It is studied information on labour conditions, production environment, occupational risks for health of workers, personal protective equipment, on referring the work as hazardous and harmful working conditions and on determining the right of workers to benefits and compensation for work. This information is selected from the materials of certification of workplaces for the working conditions of an enterprise, institution, organization.

SAMPLE OF THE OCCUPATIONAL STANDARD

Confectioner

(title of the occupational standard)

HOOLDING COMPANY "O'ZBEKOZIQOVQATXOLDING"
 100015, Tashkent, 73A, Nukus str.
 www.oziq-ovqat.uz /devon@uzfood.uz
 Phone: (78) 129-59-59; (71) 255-46-48

Registration number
of MELR

Requisites of the approving organization

I. General information

Manufacture of confectionery and chocolate products in catering organizations

(title of the occupational activity type)

N03.006

Code as per
Descriptor

Main goal of the occupational activity type:

Manufacturing of high-quality confectionery and chocolate products,
their presentation and sale in catering organizations

Occupations group:

5120	Cooks	7512	Bakers, pastry chefs and candy makers
5132	Bartenders		

(code as per
ISCO)

(title of the group)

(code as per
ISCO)

(title of the group)

Type of occupational activity:

10.7	Manufacture of bakery and flour products
10.71.0	Manufacture of bread, fresh flour confectionery, cakes and pastries
10.72.0	Manufacture of rusks and biscuits, long shelf-life confectionery

(code as per
NCEA)

(title of the occupational activity type)

**II. Description of labour functions included into the occupational standard
(functional map of the type of occupational activity)**

Generalized labour functions			Labour functions		
Code	Title	Grade of qualification	Title	Code	Grade (subgrade) of qualification
A	Making dough, semi-finished products, confectionery and chocolate products under the guidance of a pastry chef	3	Following instructions and tasks of the pastry chef on the organization of the workplace	A/01.3	3
			Performing tasks of a pastry chef for making presentations and sale of dough, semi-finished products, confectionery and chocolate products	A/02.3	3
B	Making dough, finishing semi-finished products, making desserts, confectionery and various assortment of chocolate products	4	Preparation of inventory, equipment and the workplace of the pastry chef for work	B/01.4	4
			Manufacturing, decoration and presentation of the pastry shop and chocolate products	B/02.4	4

III. Characteristics of the generalized labour functions

3.1 Generalized labour function

Title

Making dough, semi-finished products, confectionery
and chocolate products under the guidance of a pastry chef

Code

A

Grade of qualification

3

**Origin of the
generalized labour
function**

Original (+/-)	Borrowed from the original (+/-)	Original	
		Code as per Descriptor	Registration number
+	-		

Possible titles of positions (occupations)	Confectioner Waffle maker in the confectionery industry Assistant pastry chef
Requirements towards education and training	Initial vocational education or specialized secondary education or short and medium term certified professional training courses or professional experience
Requirements towards practical experience	-
Special conditions for permit-to-work	Availability of a medical record-book; passing mandatory preliminary (upon admission to work) and periodic medical checks (examinations), as well as extraordinary medical examinations (inspections) in the order established by the legislation of the Republic of Uzbekistan

Additional characteristics:

Document title	Code	Title of the position (occupation)
CMPO-2020	5120	Pastry chef
	7512	Waffle maker in the confectionery industry
	7512	Confectioner

3.1.1 Labour function

Title Following instructions and tasks of the pastry chef on the organization of the workplace

Code A/01.3

Grade of qualification 3

Origin of the labour function	Original (+/-)	Borrowed from the original (+/-)	Original	
			Code as per Descriptor	Registration number
	+	-		

Labour actions	Preparation for the work of the confectionery shop and workplace in accordance with the instructions and regulations for catering
	Cleaning of workplaces of workers of the confectionery department as instructed by the pastry chef
	Checking of simple technological equipment, production equipment, tools, weighing devices of the confectionery department as instructed by the pastry chef
	Packaging of finished products and storage of food products used in the preparation of a confectionery and chocolate products or remaining after their preparation, taking into account safety requirements and storage conditions, as ordered by the pastry chef
Required skills	Perform work on the preparation of the workplace and technological equipment, production equipment, tools, weighing devices of the confectionery shop for work
	Comply with cleanliness standards in the workplace in the confectionery shop
	Apply regulations, standards and regulatory-technical documentation used in the production of a confectionery and chocolate products
Necessary knowledge	Normative legal acts regulating the activities of catering organizations
	Recipes and technologies for the preparation of a confectionery and chocolate products
	Requirements towards quality, terms and conditions of storage, signs and organoleptic methods for determining the good quality of food products used in the preparation of confectionery and chocolate products
	Appointment, rules for the use of the applied technological equipment, production equipment, tools, weighing devices, dishes used in the confectionery shop, and the rules for their care/maintenance
	Labour protection, production sanitation requirements and fire safety in catering organizations
Other characteristics	-

3.1.2 Labour function

Title

Performing tasks of a pastry chef for making presentations and sale of dough, semi-finished products, confectionery and chocolate products

Code

A/02.3

Grade of qualification

3

Origin of labour function	Original (+/-)	Borrowed from the original (+/-)	Original	
			Code as per Descriptor	Registration number
	+	-		
Labour actions	Preparation of dough, filling and semi-finished products for confectionery and chocolate products as tasked by the pastry chef			
	Manufacturing of confectionery and chocolate products as tasked by the pastry chef			
	Presentation of confectionery and chocolate products under the guidance of the pastry chef			
	Acceptance and processing of payments for confectionery and chocolate products as tasked by the pastry chef			
	Packaging of finished confectionery and chocolate products takeaway as tasked by the pastry chef			
Required skills	Knead dough, prepare fillings and semi-finished products for confectionery and chocolate products			
	Observe the rules for combining basic products and raw materials in the manufacture of confectionery and chocolate products			
	Strain, sift, wipe, knead, grind, shape the raw materials used for the preparation of confectionery and chocolate products			
	Portion (package) confectionery and chocolate products			
	Sell finished confectionery and chocolate products, taking into account the safety requirements for finished products			
	Safe use of technological equipment for the manufacture of confectionery and chocolate products			
	Observe sanitary and hygienic requirements and labour protection and fire safety requirements			
	Use raw materials carefully and economically in the production process of confectionery and chocolate products			
	Make settlements with consumers using various forms of cash and non-cash payment			
	Aesthetically and safely pack ready-made confectionery and takeaway chocolate products			

Necessary knowledge	Normative legal acts regulating the activities of food industry organizations
	Technologies for the manufacture of confectionery and chocolate products
	Requirements for the quality, safety of food products used in the manufacture of confectionery and chocolate products, the conditions for their storage
	Rules on using of recipes collections for the manufacture of confectionery and chocolate products
	Principles and techniques for presenting confectionery and chocolate products to consumers
	Methods for minimizing waste of raw materials used in the manufacture of confectionery and chocolate products, taking into account compliance with quality requirements
	Nutritional value of types of confectionery and chocolate products
	Rules and technologies for cash and non-cash payments with consumers
	Principles and techniques for the presentation of confectionery and chocolate products
	Labour protection, production sanitation requirements and fire safety in catering organizations
	Other characteristics

3.2 Generalized labour function

Title

Making dough, finishing semi-finished products, making desserts, confectionery and various assortment of chocolate products

Code

B

Grade of qualification

4

Origin of the generalized labour function

Original (+/-)	Borrowed from the original (+/-)	Original	
		Code as per Descriptor	Registration number
+	-		

Possible titles of positions (occupations)	Pastry chef Chocolatier
Requirements towards education and training	Initial vocational education and professional experience or secondary vocational education or long-term professional training courses on the basis of educational institutions for vocational training programs or educational programs for vocational training of at least 1 year, validated
Requirements towards practical experience	At least one year for employees with vocational training - professional training and retraining programs
Special conditions for permit-to-work	Availability of a medical record-book; passing mandatory preliminary (upon admission to work) and periodic medical checks (examinations), as well as extraordinary medical examinations (inspections) in the order established by the legislation of the Republic of Uzbekistan

Additional characteristics:

Document title	Code	Title of the position (occupation)
CMPO-2020	5120	Pastry chef
	5132	Chocolatier

3.2.1. Labour function

Title

Preparation of inventory, equipment and workplace of the pastry chef to work

Code

B/01.4

Grade of qualification

4

Origin of the labour function

Original (+/-)	Borrowed from the original (+/-)	Original	
		Code as per Descriptor	Registration number
+	-		

Labour actions	Assessment of the availability of stocks of raw materials and semi-finished products required for the manufacture of confectionery and chocolate products
	Assessment of the provision of confectionery and chocolate production with labour resources and the necessary equipment
	Drawing up applications for raw materials and semi-finished products used in the production of confectionery and chocolate products
	Preparation of product reports for the production of confectionery and chocolate products
	Monitoring the performance of the tasks for preparing the equipment and the confectioner's workplace for work by the assistant pastry chef
	Monitoring the storage and consumption of products used in the manufacture of confectionery and chocolate products
	Checking the working condition of the confectionery shop equipment
Required skills	Justify the assortment of confectionery and chocolate products
	Analyse and assess the need for labour resources required for the production of confectionery and chocolate products
	Assess the availability and predict the need for raw materials and materials for confectionery and chocolate production according to the available storage conditions
	Organize training for assistant pastry chefs at workplaces in the technologies of preparing confectionery and chocolate products
	Monitor the performance of tasks for the production of types of dough, semi-finished products, confectionery and chocolate products of the assortment by the confectioner's assistants
Necessary knowledge	Normative legal acts regulating the activities of catering organizations
	Requirements for the quality, timing, storage conditions, portioning, decoration and serving of desserts, ice cream, confectionery and chocolate products of various assortments
	Technologies for making dough, finishing semi-finished products, desserts, ice cream, confectionery and chocolate products of a variety of assortments
	Rules for drawing up menus, orders for products, keeping records and compilation of commodity reports on the production of the confectionery and chocolate products
	Methods for reducing losses and preserving the nutritional value of food products used in the production of confectionery and chocolate products during their heat treatment
	The specifics of the organization's production activities, technological processes and modes of production of the confectionery and chocolate products
	Methods of using fragrances and their dosage in order to improve the taste of culinary products
	Mentoring and on-the-job learning technologies
Other characteristics	-

3.2.2. Labour function

Title Production, design and presentation of the confectionery and chocolate products

Code B/02.4

Grade of qualification 4

Origin of the labour function	Original (+/-)	Borrowed from the original (+/-)	Original	
			Code as per Descriptor	Registration number
	+	-		

Labour actions	Development of a menu/assortment and recipes for a pastry shop and chocolate products
	Preparation of raw materials and semi-finished products for the preparation of confectionery and chocolate products
	Manufacturing and decoration of confectionery and chocolate products of a standard assortment
	Manufacturing and decoration of ice cream, fruit and light fat-free confectionery products, low-calorie products, diet confectionery products
	Manufacturing and design of a branded confectionery and chocolate products
	Manufacturing and decoration of confectionery and chocolate products of national cuisine
	Presentation of finished confectionery and chocolate products to consumers
Required skills	Prepare dough and semi-finished products for a pastry shop and chocolate products
	Cook confectionery according to technological maps and chocolate products
	Combine different cooking methods and combinations of main products with additional ingredients to create harmonious confectionery and chocolate products
	Decorate desserts, pastries and chocolates using suitable finishing semi-finished products and decoration
	Prepare confectionery products with subsequent cooling and freezing, taking into account the requirements food safety
	Cooking and presenting confectionery and chocolate products with show elements, including taking into account national characteristics
	Observe when preparing desserts, pastry chocolate products requirements for the quality and safety of their preparation
	Assess the quality of preparation and safety of finished confectionery and chocolate products
	Make a cost estimate for confectionery products and chocolate production
	Summarize the concepts that influenced the choice and decoration of confectionery and chocolate products
	Create a portfolio of confectionery and chocolate products

Necessary knowledge	Normative legal acts regulating the activities of catering organization
	The basics of organizing food, including dietary food
	Recipe and modern technologies for the preparation of various assortment of confectionery and chocolate products, including branded products and products of national cuisines
	Consumption rates of raw materials and semi-finished products used in the confectionery industry, rules for accounting and dispensing products
	Types of technological equipment used in the production of confectionery and chocolate products, technical characteristics and conditions of its operation
	Principles and techniques for presenting confectionery and chocolate products to consumers
	Labour protection, production sanitation requirements and fire safety in catering organizations
Other characteristics	-

IV. Information about the organizations-developers of the occupational standard

4.1. Responsible organization-developer

<u>Holding company "Uzbekozikovkatholding"</u>
(Organization name)
First Deputy Chairman of the Management Board _____ Inakov, B.R.
(position and head's name, family name) (signature)

4.2. Names of the organizations-developers

	Holding company "Uzbekozikovkatholding"
	Chefs Association of Uzbekistan
	International Centre of Uzbek Culinary Arts

4.3. Decision of the Sectoral council on professional qualifications and competencies

(title of the council)

Content of the decision

Used regulatory legal documents

1. Resolution of the President of the Republic of Uzbekistan "On measures for cardinal improvement of the qualifications assessment system and providing the labour market with qualified personnel" dated December 31, 2020, No. 4939.
2. Decree of the President of the Republic of Uzbekistan "On additional measures for further improvement of the vocational education system" dated September 6, 2019, No. 5812.
3. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures for improvement of the system of professional training of qualified personnel in demand on the

labour market" dated May 13, 2019, No. 394.

4. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures for organizing the activities of the national system of professional skills, knowledge and skills in the Republic of Uzbekistan "dated May 15, 2020, No. 287.
5. Classifier of main positions of employees and occupations of workers – CMPO-2020 (O'z DST 35317:2021).
6. National classifier of types of economic activities of the Republic of Uzbekistan. Edition 2. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On measures for the transition to the international system of classification of economic activities" dated 24.08.2016 No. 275.
7. International Standard Classification of Occupations as of 2008 (ISCO-08).
8. Descriptor of occupational activities. Order of the Minister of Employment and Labour Relations of May 25, 2020, No. 97-ICh.
9. Decree of the President of the Republic of Uzbekistan "On measures for developing the spheres of education and upbringing, and science in the new period of development of Uzbekistan" dated November 6, 2020, No. 6108.
10. Resolution of the President of the Republic of Uzbekistan "On additional measures for further improvement of the education and training system" dated November 6, 2020, No. 4884.

**THE CONCEPT FOR
THE INTRODUCTION
AND FURTHER
DEVELOPMENT OF
DUAL EDUCATION IN
UZBEKISTAN**

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INTRODUCTION

This concept describes the design and further development of dual education (DE) for the vocational education and training (VET) system of the Republic of Uzbekistan (RUz). It is intended to provide direction and guidance to the responsible state bodies in the further development of dual VET. This concept is based on an analysis of the national vocational education system, considering the changes necessary to create the desired system. It goes through the various phases of the typical process of developing and implementing a dual education system. Thus, it is not simply a duplication of any particular dual vocational education system, but rather a well-founded selection of elements to be added to the existing traditional VET system in order to create a national dual vocational education system.

At the end of the document, the roadmap outlines the most important steps for implementing the concept. The brief PR strategy outlines what needs to be considered in order to secure the support of the various stakeholder groups for the implementation of dual education.

This document was developed by the National Working Group (NWG) on development proposals for improving the national framework conditions for RUz VET within the framework of the GIZ project “Vocational Education in Central Asia - Promoting Systemic Approaches in the Food Production Sector” (PECA). The NWG consisted of representatives from the Ministry of Higher and Secondary Specialized Education (MHSSE) of RUz, the Ministry of Employment and Labour Relations (MELR) of RUz, administrative and faculty staff of vocational education institutions and employers' associations:

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The NWG was supported by international experts Ms. Thea Siplashvili and Mr. Reinhard Hanneschläger from ICON-Institute, Mr. Thomas Lux and Ms. Gulnara Rakhmatullaeva from GIZ, and national experts Ahadkhon Babakhanov and Khudainazar Kurbanov from ICON-Institute.

BACKGROUND

(1) DUAL VET AND POTENTIAL BENEFITS FOR SOCIETY AND ECONOMY

Dual vocational education and training systems are known for the fact that the state and companies with an interest in vocational education and training work together to ensure a high level of employment for graduates, resulting in a significant reduction of unemployed youth. However, dual VET is more than just tailoring the content of education and training to the needs of employers. It is, above all, a holistic form of education that includes not only the development of practical and theoretical skills, but also attitudes such as work ethic and civic skills that contribute to the development of technically, socially, and emotionally mature people.

The key to the high employability of dual VET graduates is their early integration into the world of labour. Dual education maximizes the employability of VET graduates, where partner companies play an important role in fostering independence and a painless adaptation of young professionals to adulthood. This is achieved due to the fact that the process of recruiting trainees resembles the usual recruitment process. The employer chooses a potential employee, while the trainee, in his role as an employee, is already integrated as a team member, spending most of his time not in an educational institution, but in the workplace, where he acquires important professional skills and gains professional experience for the first time. Furthermore, education and training in both places, both in the educational institution and in the workplace, are connected to each other and build on each other. Only educational systems that provide this integration into the world of work, combining it with a well-designed and adequately financed vocational education and training system, can be considered dual VET.

The additional coordination efforts between the education sector and the economy at the macro, meso, and micro levels needed to successfully implement dual VET pay off, resulting in improved quality and relevance of education and learning. Thus, in the long run it contributes to increasing the number of qualified personnel, increasing the competitiveness of enterprises and the level of the national economy as such. Another important aspect is that in a well-organized dual education system, representatives of the business community can actively participate in shaping the system of vocational education and ensure the quality of training.

(2) DUAL VET MODEL

The basic process of dual VET consists of several steps as shown in the figure below. The light blue colour indicates steps that exist in all types of VET systems but must be adapted for dual VET. Dark blue indicates processes that need to be implemented in addition to the traditional VET forms.



All of these core processes depend on additional management processes (such as defining requirements for dual education companies, requirements for educational agreements, developing educational standards, and organizing exam boards), as well as support processes (such as promoting dual VET, supporting companies wishing to participate in dual VET, training teachers, vocational trainers at the educational institution and mentors at the enterprise, development of examination questions / assignments).

The dual vocational education system should contain all of these processes. This means, for example, that graduates should not be required to take additional examinations to prove their professional qualifications. Dual education should be integrated into the national qualifications' framework in the same way as traditional vocational education and training.

This document takes these processes into account in order to create and implement a national dual VET system.

(3) DEFINITION OF DUAL VET AND ITS ROLE IN THE EDUCATION SYSTEM [UZBEKISTAN]

Dual Vocational Education and Training (dual VET) in Uzbekistan will be implemented from 2021 according to the “Regulation on the organization of dual education in the system of vocational education”¹.

In the Regulation, dual VET is described as VET, which aims to obtain the necessary knowledge, skills and abilities by the trainees, part of which is carried out on the basis of the educational organization, and another part - at the workplace of the trainee at the enterprise. At the same time, the tasks and responsibilities for the implementation of dual education at the two training sites are regulated by the relevant Regulation.

The minimum duration of dual VET programs for vocational school students is 2 years. The duration of training in colleges and technical schools is determined by the level of complexity of the specialties and the number of hours allocated to these qualifications in the curriculum. Graduates of the 11th grades of secondary schools, vocational schools and academic high schools are entitled to enrol in dual VET programs with the duration of 6 months to 2 years in colleges and up to 3 years in technical colleges, which are specified in the curriculum.

Admission to dual VET is linked to a place in a company for practical training in a profession according to the dual VET program. Young people who have successfully completed at least nine years of general education are entitled to apply for VET by submitting all the documents specified in the regulations on admission to vocational education and training institutions². The minimum age of students is 16 years old³.

Dual VET is characterized by inter-sectoral cooperation between the economy and the education system in its development, administering and implementation.

The partnership between a vocational education institution and employers is the basis of dual VET. Companies that have signed an agreement with a vocational education institution on training in dual education (partner companies) must provide places for practical training and on-the-job experience.

Young people (or their legal representatives in case they are minors) as well as adults enrolled in the dual VET program must sign a dual education agreement, the format of which will be developed by the Ministry of Higher and Secondary Special Education of the RUz (MHSSE).

The partner company hires apprentices under the same conditions (paperwork and contracting) that are set for its employees. Apprentices of the same professional profile from different partner companies will attend the vocational education institution as members of one group. According to the current legislation in vocational educational institutions the occupancy of groups is set from 12 to 30 people. If necessary, the number of students in the group can be less than 12, based on the reimbursement of training costs for professions and specialties on the basis of proposals of customers⁴. The terms and periods of students' involvement in the production process (including on-the-job training) are defined in the curriculum for the professional profile.

Dual VET curricula include theoretical classes and practical training in vocational schools, as well as practical instruction and on-the-job training, considering the interdependence between the various theoretical areas and skill areas. Thus, theoretical knowledge and the ability to perform certain basic tasks differentiate trainees from untrained employees and allow the partner company, on the one hand, to quickly integrate them into certain activities of the production process and, on the other hand, to deepen their professional knowledge, understanding and skills.

The curricula also stipulate that the emphasis on the specific skills of the apprentices due to the partner company's specialization will be balanced with practical training to acquire basic skills and experience in

1 See the Law of the Republic of Uzbekistan “On Education” No. 637 of 23.09.2020. <https://lex.uz/ru/docs/5013009> See also “Regulations on the organization of dual education in the system of vocational education” approved by the Decree of the Cabinet of Ministers of the Republic of Uzbekistan № 163 of 29.03.2021. <https://lex.uz/docs/5346217>

2 See paragraph 5 of “Regulations on the Admission to Vocational Education Institutions” approved by Decree № 715 of the CM RUz from 11.11.2020. <https://lex.uz/docs/5096886#5103642>

3 According to the labor law, in order to prepare young people for work, students of secondary schools, specialized secondary and vocational educational institutions may be admitted to employment for light work that is not harmful to their health and moral development and does not disrupt the learning process, in their free time after they reach the age of fifteen with the written consent of one of their parents or one of the persons in loco parentis.

4 Note: When training on the programs of initial vocational education in vocational schools, the number of students in groups is set at least 26 people.

laboratories, workshops or (in the best case) in small-scale production workshops at the vocational education institution, thus ensuring a high level of professional training for graduates of dual VET programs that meets the demands of the labour market.

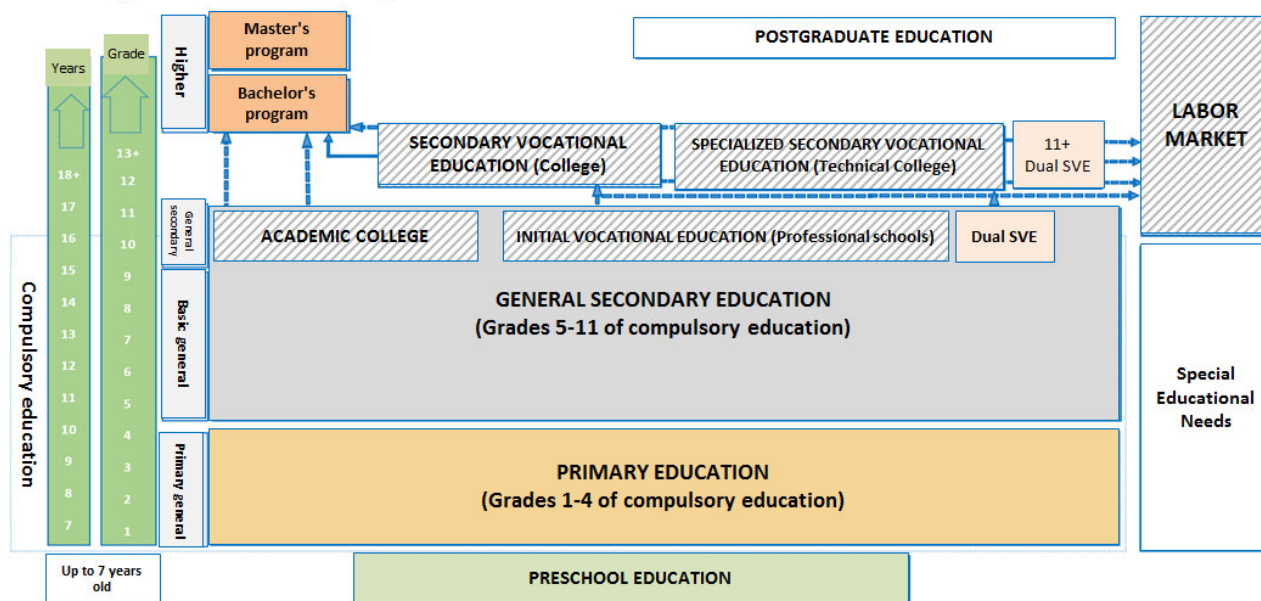
At the end of the final year of the dual VET program, students are required to take independent theoretical and practical examinations. Independence means that the exam board will include not only the teachers who have taught the students, but also representatives of companies other than the student's employer.

When a student successfully passes the exam, the apprenticeship ends. The graduate can continue working at a partner company by signing a regular employment contract, or he or she can get a job at another company.

All successful graduates receive a state diploma confirming their professional qualification. Persons who have received additional qualifications in their specialty are issued a certificate of the established form. Graduates are assigned the appropriate grades in accordance with the established procedure.

Independent theoretical and practical examinations are prepared and conducted jointly by the educational institution and representatives of enterprises (associations, chambers). Graduates of dual vocational education have the right to receive further vocational or higher education (in colleges based on ISCED level 4 programs, or in technical colleges implementing programs corresponding to ISCED levels 4 and 5, or to enter universities to study bachelor programs) (see Figure 1), including, if they successfully complete programs at ISCED level 5, they have the right to continue studying at institutions of higher education in specialized bachelor fields, starting in their second year without discontinuing their studies⁵.

Figure 1. Education system of Uzbekistan after introduction of dual education



5 See the Presidential Decree No. UP-5812 of September 6, 2019 "On Additional Measures to Further Improve the Vocational Education System". Also see the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On approval of normative legal acts regulating the system of continuous primary, secondary and secondary specialized professional education in the Republic of Uzbekistan", No. 466 of 07.08.2020.

(4) MECHANISMS OF GOVERNANCE, LEGAL AND REGULATORY FRAMEWORK, PARTICIPANTS AND RESPONSIBILITIES

Name and description of the institution	Role and main functions in the national VET system
Cabinet of Ministers of RUz	<ul style="list-style-type: none"> o implements a unified state policy in the field of education; o governs the authorized bodies of state administration in the field of education; o determines the procedure for attestation and state accreditation of educational organizations, attestation of teaching staff and scientific personnel, issuance of licenses to non-state educational organizations for the right to carry out activities to provide educational services; o approves state samples of educational documents and establishes the procedure for their issuance; o approves the list of educational directions, specialties and professions; o establishes the procedure for admission to state educational institutions and organizations; o determines the procedure for retraining and advanced training of personnel; o forms state orders for personnel training in educational organizations; o establishes material, infrastructural and parametric requirements for educational organizations; o establishes the order of preparation and publication of textbooks and teaching aids, as well as requirements for their delivery and use in educational organizations.
State Inspectorate for Quality Supervision of Education under the Cabinet of Ministers of the Republic of Uzbekistan	<ul style="list-style-type: none"> o conducts attestation and state accreditation of educational organizations, as well as attestation of teachers; o monitors the quality of the educational and pedagogical process; o supervises and participates in the process of assigning positions and qualification categories to pedagogical workers of educational organizations; o issues licenses to non-state educational organizations.
Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan (MHSSE)	<ul style="list-style-type: none"> o implements state policy in the field of education; o approves the model educational standard; o implements, approves and manages the practical implementation of educational standards, qualification requirements, curricula and programs; o establishes the procedure for evaluating the knowledge, skills and abilities of students o ensures implementation of progressive forms of education, new pedagogical technologies, technical and informational means of education.
Ministry of Finance	<ul style="list-style-type: none"> o financing of primary, secondary and secondary specialized vocational educational institutions, including the current maintenance, operation and strengthening of their material and technical base.
Ministry of Economic Development and Poverty Reduction	<ul style="list-style-type: none"> o determines the need for personnel, establishes state quotas in accordance with the target parameters of programs and labour market forecasts; o makes proposals for the opening of new education directions and specialties, considering the ongoing changes in the programs of socio-economic development of the regions.

Ministry of Employment and Labour Relations (together with other ministries)	<ul style="list-style-type: none"> o revises the Classifier of basic positions of employees and professions of workers; o registers and enters professional standards into the register; o makes changes and additions to the layout of professional standards; o coordinates the formation of the state order for the creation of jobs.
Line ministries	<ul style="list-style-type: none"> o determine the need for qualified specialists for the industry; o coordinate the activities of vocational colleges; o finance the costs of current maintenance, activities, strengthening the material and technical base and personnel training at the expense of extra-budgetary funds of the relevant ministries and departments.
Institute for Pedagogical Innovation, Retraining and Professional Development of Vocational Education Managers and Educators	<ul style="list-style-type: none"> o improvement of the structure and content of educational programs, development of new curricula and programs; o improvement of qualifications and retraining of VET teaching staff using modern educational technologies; o leading and organizing a working group (WG) to develop new or reform existing directions; o chairing the WG; o researching dual VET and providing advice to stakeholders.
Vocational schools, colleges and technical colleges	<ul style="list-style-type: none"> o training of specialists and workers based on the demand in the labour market; o targeted use of the material and technical base; o providing conditions for retraining and professional development of teaching staff.
Employers, professional associations	<ul style="list-style-type: none"> o determination of the need for qualified specialists and personnel; o establishment of qualification requirements; o participation in the development of professional and educational standards; o sponsorship / donations; o creation of workplaces; o participation in independent certification.
Local Khokimiats (Governors)	<ul style="list-style-type: none"> o make proposals on the parameters of admission of students to vocational education institutions on the basis of programs of dual education; o make proposals to the MHSSE for organizations where dual education will be organized.

Despite the fact that dual education requires equal efforts from employers and educational institutions, representatives of employers are little involved in the process of dual education management, which may lead to the following:

- some important governance issues are overlooked because employers do not have an equal say in governance;
- there is a weak relationship between employers and educational institutions; low employer motivation and interest in dual education;
- quality assurance measures for dual education are not yet presented / developed with employers and employers' opinions are not considered, so the expansion of current quality assurance measures may demotivate employers to participate in dual education, as these measures may be seen as interfering with the conduct of business;
- companies are not involved in the process of developing standards, in practical professional training and in independent certification in a systematic way.

Other challenges in the introduction process of dual vocational education are as follows:

- requirements for enterprises participating in the dual education program have not been determined;

- the procedure for reimbursement of expenses for meals and providing special-purpose clothing (overalls) of apprentices, compensation for damage, breakage, accidents with equipment due to negligence of apprentices, etc. has not been determined;
- mechanisms of effective management at the vertical and horizontal levels, monitoring and coordination of the dual education process should be introduced.

(5) ENROLLMENT AND AGREEMENT

Planning of the number of study places in the dual VET will be carried out jointly with educational institutions and partner companies. The State Commission on admission to educational institutions approves the parameters of admission to dual education based on the proposals of the Council of Ministers of the Republic of Uzbekistan, regional khokimiyats, ministries and departments. At the same time the methodology of defining quotas by local authorities for educational institutions and partner companies is still open. On the basis of the approved quotas educational institutions will determine the maximum number of training places for a particular profile.

An educational contract (based on a template developed by the Ministry of Higher and Secondary Specialized Education of the RUz in agreement with the Ministry of Employment and Labour Relations of the RUz) will be signed by the student (or his/her legal representative), the partner company and the educational institution.

(6) EDUCATION AND TRAINING IN THE VOCATIONAL EDUCATIONAL INSTITUTION

Education and training in a vocational training institution should be carried out according to the curriculum of dual vocational education and training. This training can take place in parallel with on-the-job training, but it is recommended that the training takes place seasonally or in blocks of several weeks at an educational institution, depending on the requirements and the territorial remoteness of the employers from the educational institution. The content of theoretical and practical vocational training is defined in the training program.

The teaching load in vocational schools is divided into blocks of general education, professional (general and special) disciplines and practical classes. In colleges the teaching load is divided into blocks of professional (general and special) subjects and practical classes. Additional subjects may be included in the curriculum at the request of ministries, agencies and employers or at the request of students. In technical colleges the study load is divided into blocks of humanitarian and natural sciences, special subjects and practical classes.

Vocational schools, colleges, and technical schools provide basic practical training and instruction in laboratories, workshops, or small-scale production shops in a vocational educational institution, ensuring that students acquire a set of basic professional competencies and qualifications in their specialty.

At the end of each academic year, students undergo an intermediate attestation (annual), according to the results of which they are assigned the achieved level of professional qualification (grade, category) in a particular specialty, as well as a diploma after completing the last year of study in the educational institution.

The independent certification is prepared and conducted jointly by the educational institution and representatives of the economy (e.g., associations/chambers). In order to familiarize themselves with the objectives of the program and the methodology of dual education, teachers and workplace instructors will regularly participate in a short training module for teachers on dual VET.

(7) EDUCATION AND TRAINING IN THE WORKPLACE

In the workplace, apprentices will be integrated into the production process, considering periods of absence during training at the educational institution.

Each apprentice will be assigned a mentor who will be responsible for training and accompaniment in the partner company. The apprentice gets acquainted with, practices and performs certain types of work according to the plan spelled out in his or her diary.

The apprentice's diary is a standard document for each dual VET specialty, developed along with the syllabus. It will be used to track the implementation of on-the-job training, indicating what types of work have been demonstrated, practiced, and successfully completed.

(8) FINANCING

Vocational schools are financed from the state budget of the Republic of Uzbekistan. The activities of colleges are financed from extra budgetary funds of relevant ministries, departments and organizations, as well as other sources, not prohibited by law. Technical colleges are financed from grants, income from educational services, production and other activities, sponsorship of legal entities and individuals, other sources not prohibited by law.

The company can cover the cost of travel to the company, food, overalls (uniforms) and means of production, raw materials, accommodation (if necessary), depending on its capabilities. The company can also participate in the organization of professional development of teachers of pro-professional educational institutions and masters of vocational training.

Budget financing is carried out at the national, regional and local levels. Local governments forecast their annual budget according to local revenues and projected expenditures.

Apprentices receive a minimum remuneration according to their professional profile scheme, which is agreed upon by the social partners and considers the level of performance. Mentors in the company are full-time employees who are paid by the partner company.

(9) LEGAL FRAMEWORK

Dual VET is regulated by the law "On Education", the Regulation on the organization of dual education in the system of vocational education approved by the Decree of the Cabinet of Ministers of the RU from 29.03.2021, the Standard Agreement on dual training.

RECOMMENDATIONS FOR FURTHER IMPROVEMENT

1. Since the process of training within the framework of the dual education program is closely connected with on-the-job training, the rights and obligations of program participants should be clearly spelled out in the labour legislation.

In this regard, it is necessary to make additions to the Labour Code of the Republic of Uzbekistan, providing the form, the procedure of vocational training and/or retraining, the rights and obligations of participants in the process of training, retraining and professional development, as well as the basic terms used in the organization of training.

2. It is advisable to develop requirements for enterprises participating in the dual education program, instructions and a model plan for on-the-job training, which are an integral part of the educational program. This document should clearly indicate providing the necessary conditions to conduct training at the workplace, the overall learning outcomes (probably the same as for the specialization to be awarded in traditional forms of VET), as well as learning outcomes and instructions on teaching and assessment separately for the participating enterprises and for the educational institution.
3. Employers should participate in the management and coordination of dual education, as well as in the process of its implementation. In order to avoid discrepancy in the number of graduates with the future needs of employers in the qualified workforce enterprises should be actively involved in the process of forming applications and enrolment of trainees in dual education programs.
4. It is recommended to make additions to the Regulation "On measures on the organization of dual education in the system of vocational education", including the following issues:

A) Status and roles of the apprentice-participant of the dual education program. Roles of apprentices should include, but not be limited to, the following:

- a) *get acquainted with the conditions of work, normative legal acts regulating professional education, conditions of safety and labour protection;*
- b) *observe training and production discipline, rules of internal labour order, requirements on labour protection and occupational safety;*
- c) *take a full course of training according to the approved curriculum;*
- d) *make an appropriate entry in the diary about the passage of on-the-job training and professional practice, provide a mentor with a report on the work done;*
- e) *pass intermediate and final attestation on completion of dual training.*

B) Access (including young people and adults with special educational needs) to dual education programs, period of study, criteria and procedure for organizing admission, participation of employers in the admission process, enrolment of a student in a dual education program, etc.

5. It is recommended to develop and approve a methodological manual for the development of dual education programs (methodology for the development of standard curricula and plans for dual education) based on professional standards
6. Regular monitoring and registration of training places at the production/enterprise is required.
7. It should be noted that dual education is a new approach, so it is not easy to convince stakeholders to take it on. Dual education is costly for employers. For example, the level of productivity is low, the requirements of employers to hire underage people are high, and the risk of accidents in the workplace is high. Higher costs for workplace safety and for paying the mentor, social benefits (as a rule, apprentices have, unlike normal workers, the right to accommodation, transportation, food, stipends, etc.). Apprentices are involved in the production process and therefore bring profit to the company, but in sectors that require highly skilled workers, such as mechatronics, the cost of hiring an apprentice may be higher compared to hiring and involving skilled workers in production.

Therefore, the government should create a system of incentives that will increase the motivation of employers (educational institutions and trainees) to participate in dual education and balance the cost of

employers for dual education trainees. For example, in order to encourage employers to participate in dual VET, it is advisable to provide tax incentives and preferences and social security benefits, reimbursement for meals and providing special-purpose clothing (overalls) for apprentices, compensation for damage, breakage, accidents with equipment due to negligence of apprentices.

8. In order to implement unified coordination and effective control for the period of implementation and piloting of dual education at vertical and horizontal levels, it is recommended to create a coordinating council on dual education under the Cabinet of Ministers of RUz for cooperation in the field of management with sectoral and territorial councils for development of professional qualifications.

The Coordinating Council includes representatives of ministries and agencies, professional associations, major employers, the Chamber of Commerce and Industry, trade unions, etc. The tasks of the Coordinating Council include:

- responsibility for the development of dual education in the republic;
- introduction of proposals to the industry councils of professional qualifications on revision of existing standards and qualification requirements;
- selection and approval of the list of professions (qualifications) for which dual education is implemented (taking into account the location of enterprises and the demand);
- establishment of unified rules and recommendations for participants of dual education on the following issues:
 - o the procedure for financing dual education programs;
 - o obtaining the maximum number of training places while maintaining a minimum quality of on-the-job training;
 - o development of a framework for minimum requirements for partner companies;
 - o securing funding for the necessary equipment for vocational school laboratories and workshops;
 - o providing financing of training activities for teaching staff of vocational schools and mentors of companies;
 - o other issues related to specific areas.

9. Sectoral councils perform the following functions:
 - develop proposals for remuneration of apprentices;
 - regulate changes in the curriculum;
 - develop industry-specific minimum requirements for partner companies and monitoring the company registration process;
 - develop specific remuneration schemes;
 - research employer/company supply and demand for the industry;
 - determine the necessary equipment for vocational school laboratories and workshops;
 - other issues related to specific areas.
10. The functions of the coordination council and ensuring the implementation of the concept of dual education at the regional level can be performed by the territorial councils for the development of professional qualifications and competencies created in accordance with the Decree of the President of the Republic of Uzbekistan from December 31, 2020, № PP-4939.

In addition to this, the councils shall deal with the following issues:

- study of the demand and offers of employers/companies at the regional level;
- monitoring the opportunities of educational institutions and vacancies for dual training at the regional level;
- other issues related to specific areas.

11. Employers determine the requirements for the level of qualification of graduates and are the main participant in the development of professional standards. Systematic involvement of stakeholders (employers, trade unions, professional associations and other public organizations) in the process of developing standards and curricula, organizing training and assessing knowledge, skills and abilities is one of the main factors in ensuring the quality of professional training. All this ensures that training programs are developed considering general needs of employers and specifics of workplaces and serve as practical training for participants in the dual program.
12. Companies must be involved in the recruitment process, since the annual quotas offered under the dual education program must be based on real jobs, pre-published open positions for apprenticeships.
13. Companies should be given the right to choose from among the applications they receive who they wish to accept as an apprentice. Educational institutions can support partner companies in organizing this process.
14. Companies should be given the right to train additional specialists on the basis of the contract and on the order of core enterprises and small businesses that do not meet the requirements of the participant of the dual education program.
15. The correct way of establishing a relationship chain, taking into account the interests and motivation of the participants in the dual education program is one of the important factors of success in its implementation. In order to organize an effective dialogue with companies involved in dual education, it is recommended that they unite in associations or chambers, and the dialogue on dual education between the state and the private sector is conducted through these associations or chambers based on the framework agreements. Through support in the process of organizational development, these institutions should be strengthened so that they can fulfil their role and be provided with the necessary means to do so.
16. The model contract should be 3-sided and signed by the educational institution, the company and the apprentice. This document should regulate the following issues of the relationship between the parties: duration of training; date of the beginning and end of training; responsibilities of the parties; probationary period; right to leave; content of training; remuneration of the apprentice; grounds for suspension from work, etc.
17. A model training agreement developed by the Ministry of Higher and Secondary Specialized Education of RUz in agreement with the Ministry of Employment and Labour Relations of RUz must be adapted for each profile; the contract will be signed by the apprentice (or his/her legal representative), the partner company and the educational institution. Training agreements are registered by the vocational education institution and the employer with mandatory entry into the unified register of the Ministry of Higher and Secondary Specialized Education of RUz.
18. At present the awareness of the professions among the students of secondary schools, colleges and academic lyceums is limited by the personal experience of their parents and relatives. When choosing a future profession, much attention is paid primarily to its demand, popularity and prestige. Therefore, career guidance for dual education is an important tool for recruiting in-demand applicants for the program, taking into account the needs and requirements of employers. Consequently, regional employment centers should be provided with career guidance consultants within the framework of dual education. This will contribute to increasing the efficiency of the work carried out within the framework of the program.

It is recommended to develop a procedure that regulates in detail the role of the parties involved (apprentices, employers, educational institutions, etc.), funding, and the procedure for conducting vocational guidance events.
19. Training. Vocational educational institutions will be required to diagnose the potential of apprentices and build further vocational training process taking into account the analysis of availability of both “hard” and “soft” skills of apprentices.
20. In the case of early termination of apprenticeship, the credits received by apprentices must be taken into account in the conclusion of new training agreements, as well as in obtaining other forms of education.

21. Practical training in the workplace. Those undergoing on-the-job training and practical training are subject to occupational health and safety requirements. Therefore, the apprentice is contractually formalized as a full-time employee and is supervised by a mentor assigned by the company. During the on-the-job training period, the apprentices are instructed, practice and carry out work in accordance with the training plan.
22. The government should take measures to ensure the accessibility of dual education for students with special educational needs (SEN).
23. Retraining and professional development of teachers. All persons teaching within the dual education should possess appropriate theoretical and practical knowledge in their fields of professional competence, as well as appropriate teaching skills appropriate to the type and level of classes they are called upon to teach.
24. It is necessary to introduce professional competence standards for teachers-participants of dual vocational education program.
25. It is necessary to decentralize the system of retraining and professional development of VET teaching staff-participants of dual vocational education program by introducing alternative and flexible forms of professional competency development based on the principle of “lifelong learning”.
26. Introduce a system of independent assessment of professional competence, certification of personnel participating in the dual vocational education program, taking into account the best international practices.
27. Mentoring. In connection with the practical introduction of dual form of education in Uzbekistan and taking into account the circumstances that today at the national level there is no provision regulating the training and / or professional development of mentors in enterprises, it is recommended to:
 - develop and implement a program for training, retraining, and advanced training of mentors;
 - develop and approve at the government level the Regulations governing the rules and requirements for training, retraining and advanced training of mentors;
 - it would be advisable to prescribe the conditions and criteria for encouraging mentors at the workplace in the contract with the mentor participating in the dual education program.
28. Mentors in the partner company need higher and secondary vocational education and need to take a training module for mentors on dual VET.
29. The financing of dual education should follow the above-mentioned pattern of two different places of learning: Education and training in an educational institution should be financed in accordance with the financing procedure for traditional VET. The main responsibility for the costs of education and training at the workplace falls on the employer. However, the funding mechanisms must be agreed between the state and the social partner in order to avoid bureaucratic delays and to ease the financial burden on the partner companies of dual VET, thereby ensuring that participation in dual education is attractive to them.
30. It is recommended to implement a PR strategy (see Appendix 2) to support the implementation of dual education. There is a need for wide coverage of the ongoing work in the VET system to introduce dual education as a new approach to the training of qualified personnel. Raising awareness of stakeholders (parents, employers, educational institutions and the general public) is one of the main factors for the successful implementation of dual education in the country.
31. State exam. The state examination board should include other teachers, not from those who taught this student, but on the part of employers - representatives of companies other than the employer of this student.
32. Practical examination assignments for professions should be prepared on the basis of an educational standard developed on the basis of a professional standard, relevant and validated.

It is recommended to conduct continuous monitoring and evaluation of the dual education piloting process in order to take the necessary measures in a timely manner, develop recommendations and conclusions on the results of the work carried out.

(1) IMPLEMENTATION ROAD MAP

Activities	Implementation mechanism / outcomes	Timeline	Responsible party	Other stakeholders
1	2	3	4	5
I. Improving the regulatory framework for dual education				
Introduce amendments and additions to the Labour Code and other legislative acts of the Republic of Uzbekistan on issues of dual education in terms of determining the forms, the procedure for conducting vocational training and / or retraining, the rights and obligations of participants in the process, as well as the main terms used in the process of organizing dual education	Draft Law of the Republic of Uzbekistan, Draft Resolution of the Cabinet of Ministers of the Republic of Uzbekistan	August, 2022	Ministry of Higher and Secondary Special Education (MHSSE)	Ministry of Finance, Ministry of Labour, Ministry of Economy, Chamber of Commerce and Industry, other interested government agencies, GIZ (as agreed)
Introduce amendments and additions to the Regulation “On measures on the organization of dual education in the vocational education system”, including the following issues: 1) <u>Status and Functions of apprentices</u> participating in Dual Education. Functions of apprentices should include, but are not limited to the following: a) be acquainted with working conditions, normative legal acts regulating professional education, conditions of safety and labour protection b) observe the study and production discipline, rules of the internal labour schedule, requirements to labour protection and safety c) take a full course of education, established by the curriculum d) make a record in the diary about on-the-job training and professional practice, present the report on the work done to the mentor; e) pass intermediate and final attestation upon completion of dual education 2) <u>Access (including of youth with special educational needs)</u> to dual education programs, duration of study, criteria and procedure for organizing admission, participation of employers in the admission process, enrolment of a student in a dual education program, etc. 3) <u>Criteria for encouraging mentors-trainers from production.</u> Financing of textbooks, provision of educational furniture (desks, tables, chairs) and office equipment for classrooms in production, reimbursement of food costs and provision of special clothing for students, compensation for damage, breakdowns, equipment accidents due to negligence of students	Draft Resolution of the Cabinet of Ministers of the Republic of Uzbekistan	April, 2022	MHSSE	Ministry of Labour, Ministry of Economy, other government counterparts

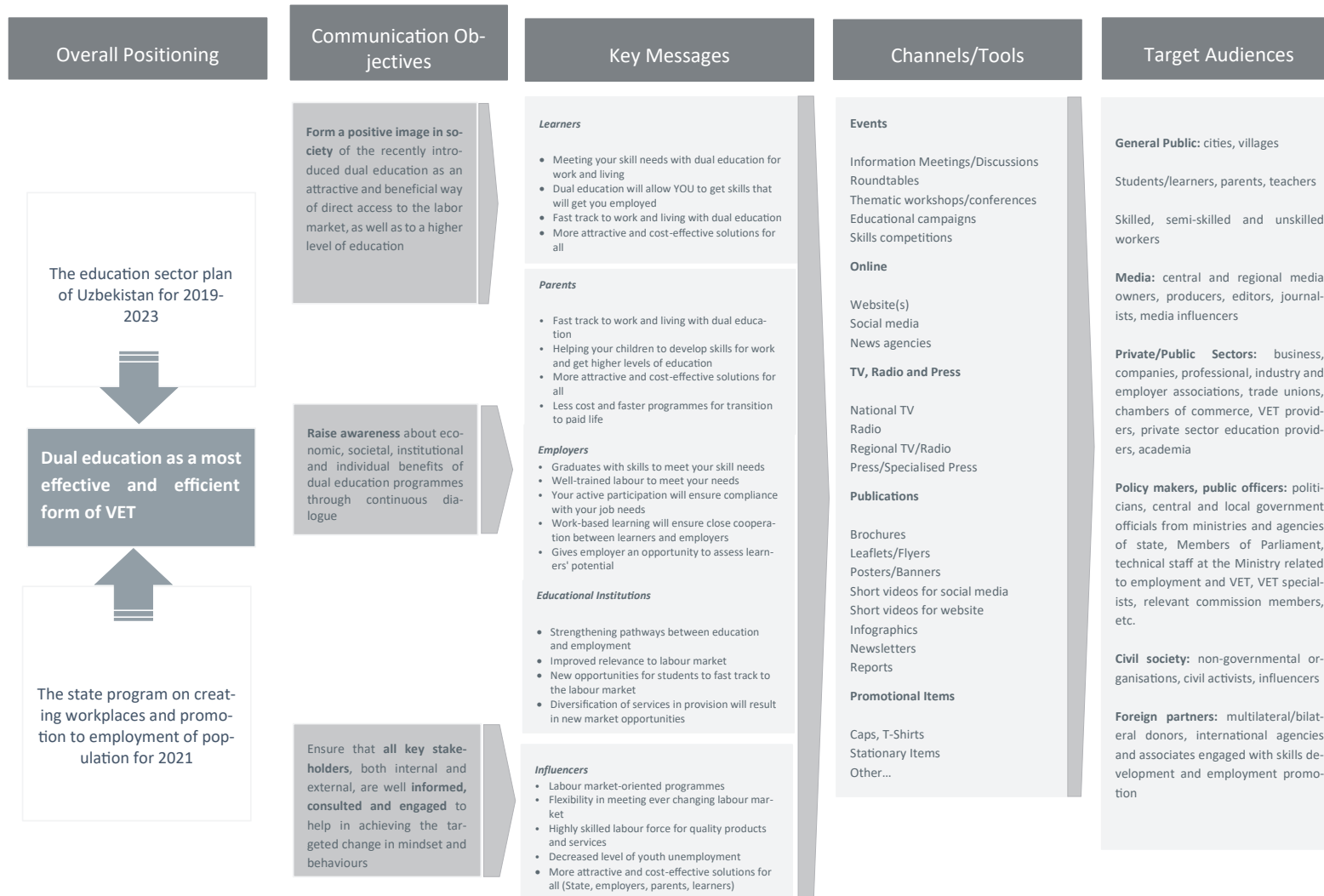
Development, coordination and approval of a three-party model contract for dual education	Order of the MHSSE	September, 2022	MHSSE	Ministry of Labour
Development, coordination and approval: - Requirements for enterprises participating in the dual education program; - Instructions and a model workplace training plan	Order of the MHSSE	April, 2022	MHSSE	Ministry of Labour
II. Improvement of dual education governance				
Creation of the Coordination Council for Dual Education under the Cabinet of Ministers of the Republic of Uzbekistan	Resolution of the CM RUz	April, 2022	MHSSE	Ministry of Labour, Ministry of Economy, other government counterparts
Identify a separate unit within the state agency responsible for regular monitoring and registration of dual education workplaces (as well as procedures for registering such workplaces that are compatible and convenient for employers, accessible and easy for every potential student and educational institution)	Order of the Ministry of Labour	April, 2022	Ministry of Labour	MHSSE
Providing regional employment centers with consultants for vocational guidance as part of dual education process	Order of the Ministry of Labour	April, 2022	Ministry of Labour	
III. Dual education content development				
Development of experimental curricula for technical specialties with a reasonable proportion of hours allocated in the workplace and in vocational educational institutions, taking into account the specifics of the professions	Experimental curricula	Within the academic year of 2021/2022	MHSSE	Institute of Pedagogical Innovation, Retraining and Advanced Training of Management and Pedagogical Personnel of Professional Education under MHSSE, partner companies
Professional development for teachers and mentors	development of materials for trainings; conducting training for trainers; selecting mentors and trainers to conduct training; conducting evaluation of trainings; development of electronic version of training modules for teachers and mentors.	April 2022 June 2022 August 2022 February 2023	Institute of Pedagogical Innovation, Retraining and Advanced Training of Management and Pedagogical Personnel of Professional Education under MHSSE	MHSSE, partner companies, GIZ (as agreed)

IV. Development of vocational guidance work				
Development of a procedure for vocational guidance activities under the dual education program	The procedure is approved by a joint order of the MHSSE and the Ministry of Labour	April 2022	MHSSE	Ministry of Labour, Ministry of Public Education
Study of the forecast labour market demand for mid-level qualified personnel by sectors of the economy (according to draft state programs)	Analytical note	Annually, until February 1	Ministry of Labour	Khokimiyats of oblasts (provinces)
Organization of career guidance activities among students at schools, colleges and lyceums	Awareness-raising activities	Annually	Ministry of Labour	Educational institutions, partner companies
V. Awareness-raising activities				
Advocacy for dual education with ongoing coverage of success stories	Speeches, publications	Ongoing	MHSSE	Khokimiyats, VET institutions
Publication of information about dual training on web resources, in social media	Web resources	Ongoing	Institute of Pedagogical Innovation, Retraining and Advanced Training of Management and Pedagogical Personnel of Professional Education under MHSSE	Khokimiyats, VET institutions, partner companies

(2) PR-STRATEGY

Dual education involves the support and cooperation of several partners. They need a proper approach and awareness of the features and benefits of dual education. The Ministry of Higher and Secondary Specialized Education is the main government body responsible for and executing the PR strategy to support the implementation of dual VET.

The plan reflected on the next page is a comprehensive PR strategy to support the implementation of dual VET.



**GUIDELINES
ON THE DEVELOPMENT OF EDUCATIONAL
STANDARDS FOR DUAL EDUCATION
BASED ON OCCUPATIONAL STANDARDS**

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1 INTRODUCTION

The present guidelines have been developed within the framework of the PECA Project¹ implemented in four countries of Central Asia (Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan) with the support of GIZ. The purpose of the guidelines is to provide the developers of Educational Standards in the countries participating in the project with methodological recommendations on the development of educational standards for dual education² based on occupational standards.

The guidelines have been developed primarily with reference to the experience of Austria and Germany (mostly Bavaria) in implementing dual vocational education and training. In addition to information on how to develop an educational standard that is based on an occupational standard, the guidelines contain many examples that give developers of educational standards an idea of the recommended formulations/terms. The guideline is supplemented by a template for an educational standard, which gives standards developers a clear idea of the structure and content of the educational standard developed based on this guideline.

When developing educational standards based on the present guidelines, the requirements according to the current regulatory framework at the national level should be followed. The enclosed template can be adapted to meet these requirements. In this regard, proposals for amendments to the regulatory framework governing the development of the educational standards of each of the above-mentioned countries are attached to the guidelines.

In these guidelines the term "educational standard" is used in accordance with the PECA project terms of reference. Please note that in some countries other terms may be used (e.g., educational program, state education standards, state general standards for education and etc.).

The following abbreviations are used in the guidelines: OJT (on-the-job training), ES (educational standard), OS (occupational standard).

2 PARTICIPATION OF EMPLOYERS IN THE DEVELOPMENT OF THE EDUCATIONAL STANDARD

A high-quality educational standard for dual education is developed on the basis of the occupational standard. Thus, employers' vision of the qualification requirements for specialists is reflected in the educational standard from an occupational standard developed in close cooperation with employers. Nevertheless, employers should be consulted as part of the development of the educational standard, in particular regarding the definition of the outcomes and content of on-the-job training and the pedagogical approach to it. This should also consider the real capabilities of enterprises.

3 REFLECTION OF THE OCCUPATIONAL STANDARD IN THE EDUCATIONAL STANDARD

The development of an educational standard based on an occupational standard implies the reflection of the occupational standard in the educational standard. Of course, a high-quality occupational standard is a prerequisite for the development of a high-quality educational standard. Ideally, the occupational standard describes the activity of a specialist and the knowledge and skills necessary for it in such a way that the developers of educational standards can use them without significant changes. Thus, a clear link is established between both standards.

1 PECA: Professional Education in Central Asia

2 The essence of dual training is that a) training takes place both in an educational organization and in an enterprise, and b) training in an educational organization and in an enterprise are not two separate components but complement each other. How do they complement each other? First, trainees apply the knowledge and skills acquired in the training organization in a real workplace environment with full immersion in the production process. Secondly, the training organization receives feedback from the enterprise about the level of training of the trainees. This is where enterprise-based training as a key component of dual training differs from classical on-the-job training. Today, dual training in the field of vocational education and training is the most successful format of specialist training and is therefore reflected in modern educational standards.

Since the educational standard is based on the occupational standard, the educational standard should not contain information that contradicts the occupational standard. At the same time, an educational standard cannot and should not contain all the information of an occupational standard. At the same time the development of an educational standard requires information that is usually not found in occupational standards (for example, information on the pedagogical approach to teaching).

The following sections describe how the information in the occupational standard should be used when developing an educational standard.

4 CRITERIA FOR THE QUALITY OF THE EDUCATIONAL STANDARD

A qualitative educational standard shall include all the required information, but no more. Repetitions and long lists should be avoided. As a rule, any information shall be mentioned only once. The language of the standard, like of any proper document, corresponds to the style of writing. Suggestions should be brief, and information should be quickly perceived and easily remembered. The text should not require any additional explanations. The information in the different Chapters of the standard should be consistent, i.e., there should be no contradictions. Moreover, a high-quality educational standard should use the terminology accepted in education field in the respective country. For this reason, before developing an educational standard it is necessary to get acquainted with the relevant legal and regulatory documents, including glossaries.

Quality criteria for educational standards

- Adherence to the principle of “including everything necessary, not everything possible”,
- No repetition,
- No long lists,
- Use of short, clear sentences,
- Adherence to the principle of “one paragraph - one point”,
- No questions arising after reading the text,
- Consistency of information,
- Use of nationally accepted terminology.

5 TARGET GROUP OF THE EDUCATIONAL STANDARD

Like any other normative document, an educational standard is compiled for one or more target groups. The effective implementation of an educational standard depends primarily on its purposeful development for the appropriate target group. Consequently, the authors of educational standards need to have a clear idea of who exactly will use them. Examples of target groups for educational standards are Ministries of Education, regional education authorities, heads of educational institutions, faculty of educational institutions, and authors of educational materials. Below is an example of a target group formulation for educational standards.

Example

The target groups of this standard are:

- educational institutions (responsible for the planning and organization of educational processes),
- authors of educational-methodical complexes (EMS) (responsible for the development of the content of EMS).

6 DEFINITION OF LEARNING OUTCOMES

6.1 GENERAL RULES FOR DETERMINING LEARNING OUTCOMES

Defining learning outcomes is the first step in developing an educational standard. At the same time, defining learning outcomes is for the basis for all subsequent steps. Without a clear definition of learning outcomes, it is not possible to define learning content.

Learning outcomes should be defined based on the specialist's labour functions. Moreover, modern educational standards formulate learning outcomes as competencies. It should be noted that there are several definitions of the term "competence". International Labour Organization, for example, implies under the "competence" abilities, knowledge, skills and attitude of a specialist which are necessary for qualitative performance of a task. There are at least two advantages to using the term "competence" in developing an educational standard. First, there is no need to distinguish between knowledge, skills, and abilities. Secondly, any life situation, including the qualitative performance of professional tasks, requires a whole set of abilities, knowledge, skills, and attitudes. This very set is expressed by the term "competence".

6.2 DEFINING COMPETENCIES RELEVANT FOR THE PROFESSION

The competencies directly related to the profession should be defined based on the labour functions described in the occupational standard. The table shows the structure of labour functions and related information in the occupational standards developed under the PECA project. The subcategory of the occupational standard that contains the information needed to formulate the competencies is underlined.

1 - Categories of information about labour functions in occupational standards

Country	Categories of information		
Uzbekistan	Generalized labour functions	Labour functions	Labour actions <u>Necessary skills</u> Necessary knowledge
Kazakhstan	Labour functions	Tasks	<u>Skills</u> Knowledge
Tajikistan	Generalized labour functions	Labour functions	Labour actions <u>Necessary skills</u> Necessary knowledge Other Characteristics
Kyrgyzstan	Generalized labour functions	Labour functions	Criteria for competent work Necessary knowledge <u>Necessary skills</u> Description of the work environment Guidelines for assessment

In modern educational standards competencies are formulated as follows: "At the end of the first year of study/at the end of the module/at the end of study/... students are able to: ...". Using verbs, it is important to list what learners are able to do rather than what they know. Below are examples of competency statements for all four PECA countries.

Example

2 - Formulations of competencies relevant for the profession (Uzbekistan)

UZBEKISTAN			
Occupational Standard			Educational Standard
Generalized labour functions	Labour functions	Necessary skills (selective)	Formulations of competencies (learners are able to)
Production, decoration and presentation of bread, bakery, confectionery and macaroni products	Preparing the working place and tools for technological operations	Knead dough by hand and work on a dough mixer	<ul style="list-style-type: none"> • Knead dough by hand • Work on a dough mixer
		Apply different ways of kneading	<ul style="list-style-type: none"> • Apply the following kneading techniques: ...
		Identify dough defects	<ul style="list-style-type: none"> • Identify the following dough defects: ...
		Evaluate the quality of moulding bakery products	<ul style="list-style-type: none"> • Evaluate the quality of moulding bakery products

3 - Formulations of competencies relevant for the profession (Kazakhstan)

KAZAKHSTAN			
Occupational Standard			Educational Standard
Labour functions	Task	Skills (selective)	Formulations of competencies (Learners are able to)
Dough cutting	Cutting the dough into pieces		
		Divide the dough into pieces manually using scales or dough dividing equipment	<ul style="list-style-type: none"> • Divide the dough into pieces by hand using a scale • Divide the dough into pieces using dough dividing equipment
		Start the dough divider, adjust the weight of dough pieces	<ul style="list-style-type: none"> • Start the dough divider machine • Adjust the weight of the dough pieces
		Control the weight of dough pieces by random weighing	<ul style="list-style-type: none"> • Control the weight of dough pieces by random weighing
		Ensure the operation and compliance with the modes of operation of technological equipment for dividing dough	<ul style="list-style-type: none"> • Ensure the operation and compliance with the modes of operation of technological equipment for dividing dough

4 - Formulations of competencies relevant for the profession (Tajikistan)

TAJIKISTAN			
Occupational Standard			Educational Standard
Generalized labour functions	Labour functions	Necessary skills (selective)	Formulations of competencies (learners are able to)
Production of bakery and flour-based, confectionery and macaroni products	Leading the production process of national flatbread and flour products in a tandoor	Calculate production procedures	• Calculate production procedures
		Calculate the usage of raw materials	• Calculate the usage of raw materials
		Select operations and baking modes for different groups of baked goods	• Select operations and baking modes for different groups of baked goods
		Observe the rules and regulations of labour protection and safety, fire safety, industrial hygiene.	• Perform tasks in accordance with the rules and regulations of labour protection and safety, fire safety, industrial hygiene

5 - Formulations of competencies relevant for the profession (Kyrgyzstan)

KYRGYZSTAN			
Occupational Standard			Educational Standard
Generalized labour functions	Labour functions	Necessary skills (selective)	Formulations of competencies (learners are able to)
Organizational, technological and hardware support of bakery, flour-based, macaroni and confectionery production	Organizational, technological and hardware support of bakery, flour-based, macaroni and confectionery production	Competently keep records in the logs of technological control	• Competently keep records in the logs of technological control
		Control the quality and output standards of finished products. Conduct rejection of products of inadequate quality	• Control the quality and output standards of finished products • Conduct rejection of products of inadequate quality
		Conduct laboratory baking samples in order to clarify product output standards	• Conduct laboratory baking samples in order to clarify product output standards
		Participate in the stocktaking of raw materials, supplies, semi-finished products	• Participate in the stocktaking of raw materials, supplies, semi-finished products

The following rules should be followed when formulating competencies:

- Break down complex skills in the OS into items: for example, “kneading dough by hand and work using dough mixer”, in the ES should be formulated as “kneading dough by hand” and “work using dough mixer”. It is easier to check particular competencies in an exam than complex ones.
- To formulate specific competencies, for example, “apply various methods of kneading” in the OS formulated as “apply the following methods of kneading: ...».
- When defining competencies, only those abilities/skills that relate to specific work processes and the possession of which can be verified and evaluated should be used. For example, “using laboratory equipment correctly” cannot be a separate competence. This skill is assessed as part of the assessment of another process, e.g., “conduct laboratory baking samples for the purpose of specifying production output standards”.
- The information in the “(required) knowledge” category can be used to formulate competencies, but in this case the context in which learners apply the knowledge must be formulated. For example, the knowledge “to name the rules of labour safety and hygiene” in the OS should be formulated as “learners are able to name the rules of labour safety and hygiene and apply them accordingly when performing tasks”. An alternative variant: “the students carry out tasks according to the rules of labour safety and hygiene”.

In most cases, the formulation of competencies by labour functions leads to many results, depending on the number of labour functions and abilities/skills prescribed under them. As a result, it is necessary to generalize them.

6.3 DEFINITION OF PERSONAL COMPETENCIES

In addition to the learning outcomes directly related to the profession, the educational standard also defines learning outcomes related to students’ personal competencies. Personal competencies are necessary for solving almost all problems in personal and professional life. Therefore, they are also called “transversal competences” and, in terms of their development through different subjects in educational institutions, “interdisciplinary competences”.

As a rule, personal competencies are not included in the occupational standards. In the occupational standards developed as part of the PECA project, personal competencies are mentioned only in the standards for Kazakhstan and Kyrgyzstan.

Examples

6 - Formulations of personal competencies (Kazakhstan)

KAZAKHSTAN		
	Occupational Standard	Educational Standard
Profession	Requirements for personal competencies	Competency formulations (learners are able to ...)
Baker	Physical and mental health	-
	No medical contraindications	-
	Willingness to work at night shifts	-
	Endurance	• Demonstrate endurance and determination
	Taste sensitivity	-

Baker	Fine sense of smell	-
	Volumetric vision	-
	Attention	<ul style="list-style-type: none"> • Attentively perform tasks
	Dexterity	-
	Accuracy	<ul style="list-style-type: none"> • Perform tasks with accuracy
	Organized nature	<ul style="list-style-type: none"> • Perform task with organized approach • Plan a sequence of tasks
	Responsibility	<ul style="list-style-type: none"> • Demonstrate responsibility for food products • Demonstrate responsibility for the quality of tasks performed
	Self-control	<ul style="list-style-type: none"> • Recognize the importance of self-control • Check the results of his/her work • Ask for help when it is needed
	Learning ability	<ul style="list-style-type: none"> • Recognize the need to cultivate his/her abilities • Respond constructively to criticism and accept it
	Ability to work as a team	<ul style="list-style-type: none"> • Work in a team (participates in the distribution of roles of team members, helps others, ...)
Communicability	<ul style="list-style-type: none"> • Communicate effectively with others (expresses his or her thoughts clearly, asks questions purposefully, ...) 	

7 - Formulations of personal competencies (Kyrgyzstan)

KYRGYZSTAN		
Occupational Standard		Educational Standard
Profession	Requirements for personal competencies	Competency formulations (learners are able to ...)
Technician-technologist of bakery, macaroni and confectionery production	Organizes own independent activities and activities of a group of people within his/her authority	<ul style="list-style-type: none"> • Organize own independent activities and activities of a group of people within his/her authority <p><i>Simplified version:</i></p> <ul style="list-style-type: none"> • Perform tasks independently • Organize the activities of other people
	Responsible for the work of team members (subordinates) and results of tasks implementation	<ul style="list-style-type: none"> • Take a responsibility for the work of team members (subordinates) and results of tasks performance <p><i>Simplified version:</i></p> <ul style="list-style-type: none"> • Demonstrate responsibility for the performance of tasks by others

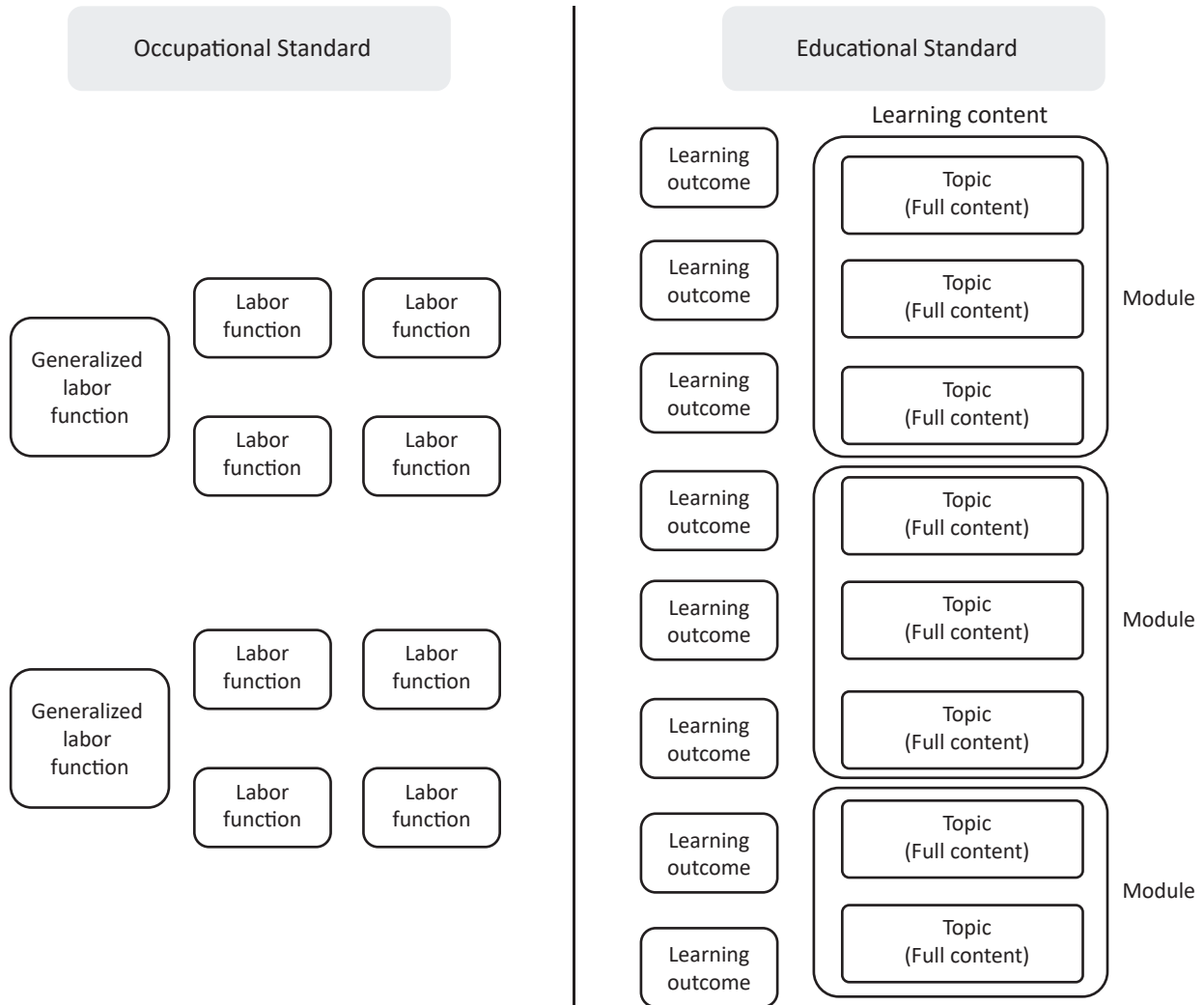
Technician-technologist of bakery, macaroni and confectionery production	Applies various methods of communication to carry out work processes	<ul style="list-style-type: none"> • Apply various methods of communication to perform work processes <i>Simplified version:</i> <ul style="list-style-type: none"> • Communicate effectively with others (purposefully, asking clarifying questions, ...)
	Effectively interacts with other members of work processes and supports them in solving organizational and technological problems	<ul style="list-style-type: none"> • Effectively interact with other members of work processes and support them in solving organizational and technological problems <i>Simplified version:</i> <ul style="list-style-type: none"> • Work effectively as team members
	Uses information and communication technologies in professional activities	<ul style="list-style-type: none"> • Use information and communication technologies in professional activities <i>Simplified version:</i> <ul style="list-style-type: none"> • Use information and communication technologies

It should be noted that there is no single correct formulation of personal competencies. Nevertheless, as competencies related to the profession, they should be formulated in such a way that proper attention is paid to their proficiency and that it is possible to assess their level of proficiency. The availability and proficiency levels of these competencies can be assessed through observation. Consequently, these competencies should be formulated with verbs expressing concrete actions.

7 DETERMINING LEARNING CONTENT

Learning content is determined based on expected learning outcomes, not the other way around. The following principle should be followed: “What learners should be able to do (= learning outcomes) and what needs to be taught to achieve this (= learning content). In developing learning content, one should limit oneself to what is necessary to achieve the defined learning outcomes. In this regard, it should be noted that many countries have switched to the so-called Framework Learning Standards, which differ from traditional standards by specifying only the topics (as opposed to describing the detailed content of each topic). Thus, the learning content sets the structure of the training material (ideally, each topic corresponds to one section in the educational-methodical complex or other materials used to provide training). This applies primarily to those countries where teaching is carried out almost exclusively with the help of educational-methodical complexes, and where the educational standard is made for the authors of EMC. Of course, the educational standard can also prescribe the content of each topic in detail. The decisive criterion in this respect is the target group of the standard. Below is a scheme for the development of learning content based on generalized work functions.

8 - From the generalized functions of a specialist to the learning content



It should be noted that learning outcomes do not correspond to topics of study one-to-one. Usually, the developers of the educational standard shall formulate topics based on several learning outcomes. Topics can be grouped into modules. Formulation of topics and their grouping into modules are carried out according to the following rules:

- The principle “from the simple to the complex”,
- Each topic is an independent unit from the other topics,
- Each topic contains new information,
- Under each topic, in one way or another, the basic information of the previous topics is repeated,
- Each topic contains more or less the same volume of information,
- Topics are formulated using nouns (“what to teach?”), as opposed to competencies, which are formulated through verbs (“what should one be able to do?”),
- Before grouping, grouping rules should be established (e.g., grouping by topic, by qualification level, by the scope of training modules), so that each module represents a logical unit.

8 DETERMINING THE VOLUME OF STUDY

In order to determine the volume of study the developers of an educational standard need to have a clear idea of its content. As a rule, the volume is specified in the number of hours by topic. The distribution of hours within a topic is left to the discretion of the faculty or authors of educational materials.

Examples

Module: Principles of Economics (138 hours)

- Topic: Accounting - 20 hours
- Topic: Introduction to Economics - 40 hours
- Topic: English Language - 30 hours
- Topic: Training firm - 8 hours (one block)
- Topic: On-the-job training - 40 hours

9 SELECTING TEACHING METHODS

Teaching methods are determined based on the chosen pedagogical approach to education. So-called “frontal teaching” in the form of a lecture or presentation (on the principle of “one speaks, and the rest remain silent”) is considered outdated. In many countries this approach has been replaced by so-called “student-centred teaching”, in which not the teacher, but the student is the centre of the educational process. This approach effectively contributes to the development of learners’ competencies. Thus, it corresponds to the above-mentioned competency-based approach to education.³ The selection of teaching methods in the educational standard is important not only for teachers, but also for the authors of educational-methodological complexes. As a rule, teaching methods are stated in the form of “didactic principles”.

Examples

Didactic principles

- Individual approach to each trainee
- Training is aimed at the development of professional knowledge and skills
- Training is aimed at the development of students’ personalities
- Tasks reflect real life situations
- Freedom means responsibility and vice versa
- Constructive attitude towards mistakes

³ For more information on competency-based learning, see. Schustereder, Johann, Competency-Based Learning. Development. Concepts. Teacher training and professional development. International experience. Implementation in Tajikistan. Tajikistan 2020.

10 REQUIREMENTS FOR ON-THE-JOB TRAINING ⁴

Modern educational standards specify the following information regarding on-the-job training⁵: a) its duration (in hours or weeks with the number of hours per week), b) the stage of study at which students take OJT, c) its expected outcomes, d) its content, e) the pedagogical approach used to teach students, f) the type of document certifying the successful completion of the OJT. It is also recommended to include a template of a document which confirms the successful completion of the OJT (see the appendix to this Guideline). The section on OJT may also include other information that contributes to the development of qualitative educational standards for dual education. When developing the section on OJT it is necessary to focus on its goal - to immerse students in a wide range of real-life situations where they can apply and further develop the competencies acquired so far. Consequently, the expected outcome of OJT should be formulated as in the example below.

Example

Tourism

- Duration of on-the-job training: 4 weeks (1 week=40 hours), in one block
- Stage of training: after the first year of training
- Expected outcomes: strengthening of the competencies acquired during the training at the educational institute, in particular in routine situations related to the service of guests
- Content: a) table setting, b) giving recommendations for drinks and dishes, c) serving drinks and dishes, d) complaints and adequate response to them, f) calculation
- Approach to work with students: maximum inclusion of students in standard production processes
- Successful completion of the practical training (OJT) is confirmed by the standard form (see attachment to the present standard).

In countries that have not yet established an effective system of OJT, it is recommended that the education standard shall also include the following information: a) qualification requirements for company-based mentors, b) training program for mentors, c) a practical tool for self-assessment of mentors for work with trainees.

The table shows four areas of qualification requirements for mentors.

9 - Areas of qualification requirements for mentors

Technical Competencies	Competencies related to work at the enterprise
Pedagogical Competencies	Transversal competencies

⁴ See Schustereder, Johann, Work-based learning: benefits, success factors, international practices, in-company trainers, tools. Azerbaijan 2019.

⁵ Different technical and vocational education and training systems have adopted different terms for on-the-job training, such as "practicum, production practice, on-the-job training", etc. In order to communicate effectively, use of these terms in normative- legal documents should always be accompanied by a definition.

Example

Technical Competencies: <ul style="list-style-type: none"> • Knowledge of the profession based on own experience • Knowledge of the qualification requirements of the profession • Knowledge of professional development in the industry • Knowledge of other professions in the industry 	Competencies related to work at the enterprise: <ul style="list-style-type: none"> • Knowledge of the company's main business activities, structure, approach to work, goals of the company • Understanding of future requirements for specialists in the industry
Pedagogical Competencies: <ul style="list-style-type: none"> • Assessment of learning needs • Planning OJT for students • Realization of the practice (OJT) • Evaluation of the practice (OJT) 	Transversal competencies: <ul style="list-style-type: none"> • Positive attitude • Effective communication • Providing constructive feedback • Critical thinking • Conflict resolution • Willingness to self-development • Self-Assessment

Self-evaluation of mentors is a key tool for high-quality execution of OJT. The purpose of self-assessment is to gradually improve one's performance and, as a result, to increase the level of effectiveness of the OJT⁶.

11 ASSESSMENT GOAL AND APPROACH

The approach to assessment must be consistent with the learning goals and outcomes. The learning goals and objectives of dual education are the development of competencies. The arrangement and content of assessment should reflect this goal, i.e., during the process of assessment (exams, etc.) students are required to perform specific actions through which they demonstrate proficiency in certain competences. Therefore, competency-based assessment in dual education is different from the traditional approach to assessment, in which students answer questions and simply show that they have learned certain information by heart. But in that case, one does not even know whether they have really mastered what they have learned by heart.

Assessment procedures and tools should be unified for all professions. In order to avoid repeating the same information about assessment in all educational standards, the educational standard usually does not contain this information, but refers to a normative document on assessment. The standard merely outlines learning content, which, as noted above, should coincide with learning outcomes. Carefully formulated learning outcomes in the form of competencies can be used without significant changes to organize assessment considering the procedures and criteria outlined in the relevant regulatory document.

Assessment based on learning outcomes uses assessment criteria, which can be formulated based on the criteria of competent work described in occupational standards⁷.

⁶ See appendices for an example of a mentor self-assessment tool.

⁷ Competent work criteria - a description of the outcomes of certain labor functions in accordance with the requirements and norms (Methodology for developing occupational standards in the Kyrgyz Republic. Resolution No. 77 of the Cabinet of Ministers of the Kyrgyz Republic of July 15, 2021).

The regulatory document on assessment includes at least the following: a) information on assessment modes, b) frequency of assessment, c) criteria for assessing proficiency in competencies (e.g., “performs the task with confidence”, “performs the task uncertainly but satisfactorily”, “performs the task unsatisfactorily” or “has competencies above the necessary level”, “has competencies at the necessary level”, “does not have the necessary competencies”), d) information about the correspondence of the definition of the level of competence to the evaluation grade on a scale from 5 to 1 (for example, “if all tasks are completed with confidence the grade is 5”, “if less than half of the tasks are not completed the candidate does not have the necessary competence and the grade is ...”). In the absence of a regulatory document on assessment it is necessary to include the relevant information in the educational standard. During the development of several educational standards, it is advisable to create a separate normative document on assessment and include a reference to it in the educational standards.

The standards developed as part of the PECA program do not provide guidance on assessment. The only exception is the standards of Kyrgyzstan, which provide guidelines for evaluation.

Example

10 - Guidelines for Assessment (Kyrgyzstan)

KYRGYZSTAN			
Occupational Standard			Educational standard or normative / regulatory document on assessment
Generalized labour function	labour function	Guidelines for assessment	Organization of assessment and evaluation criteria
Organizational, technological and hardware support of bakery, macaroni and confectionary production.	Organizational, technological and hardware support of bakery, macaroni and confectionary production.	<p>The assessment strategy should focus on evaluation of the necessary knowledge and skills and their practical application of more than one of the following assessment methods:</p> <ul style="list-style-type: none"> • Written and/or oral assessment of the candidate's (student's) required knowledge • Observable, documented and/or evidenced by the documents, competencies of a candidate (from previous employers, from the place of practical training) • Demonstration of the application of appropriate work processes and methods for safe and effective achievement for the required results. 	<ul style="list-style-type: none"> • Assessment is based on the students' performance of a common assignment for the profession • Assessment evaluates the level of achievement of competence described by the learning outcomes • Assessment is based on the observation of the performance of the task • The rules of evaluation in the educational system (or in the system of TVET) of the Kyrgyz Republic are applied during the assessment.

The educational standard should also specify the tasks that candidates are expected to perform as part of the assessment process. Ideally, these tasks coincide with the competencies defined as learning outcomes.

12 REFERENCE LIST

Curriculums of Vocational Educational Institutions in Austria,
<https://www.abc.berufsbildendeschulen.at/downloads/>

Curriculums of Bavarian Vocational Educational Institutions (Germany),
<https://www.isb.bayern.de/berufliche-schulen/lehrplan/>

Occupational standard “Production of bakery and flour confectionery products”. Kazakhstan 2021.

Occupational standard “Specialist in the production of bread, bakery and flour confectionery products. Tajikistan 2021.

Occupational standard “Technician-technologist of bakery, pasta, confectionery products production”. Kyrgyzstan 2021.

Occupational standard “Food Technologist (Technologist of food production) (production of bread, bakery, confectionery, pasta products). Kyrgyzstan 2021.

Schustereder, Johann, Competency-based Training. Development. Concepts. Teacher Training and Professional Development. International experience. Implementation in Tajikistan. Tajikistan 2020.

Schustereder, Johann, Work-based learning: benefits, success factors, international practices, in-company trainers, tools. Azerbaijan 2019.

APPENDIX: MENTOR SELF-ASSESSMENT TOOL

Criteria	How often?		
	Almost never	Sometimes	Almost always
I treat trainees as colleagues, not subordinates.			
I am a positive role model for trainees.			
I engage students in a wide range of pro-professional activities.			
I demonstrate how to do something, not just explain it.			
I have a positive attitude towards learning from one's mistakes.			
I encourage students to apply their theoretical knowledge into practice.			
I demonstrate transversal competencies such as time management, prioritizing, and taking responsibility for the quality of my work.			
I encourage more than I criticize.			
I communicate with students in an understandable, constructive, and polite manner.			
I give feedback on the students' performance of the assignments.			
I give feedback on transversal competencies to trainees (time management, prioritizing, responsibility for the quality of the task performance).			
I recognize areas in which students have special potential or talent.			
I point out areas where students need improvement.			
I explain the methods and criteria for evaluation.			
I give an objective and fair assessment.			
I substantiate the results of the evaluation.			

This template may be adapted to meet national requirements.

Educational Standard Specialty:
<p>Introduction</p> <ul style="list-style-type: none"> • The objective of the present standard • Regulatory framework for developing the present standard • Target group • Information on the development of the educational standard • Information about the reflection of the occupational standard in the educational standard
<p>Learning Outcomes</p> <ul style="list-style-type: none"> • Competencies related to the profession • Personal competences
<p>Learning Content</p> <ul style="list-style-type: none"> • <i>Title of the topic</i> • <i>Title of the topic</i> • ...
<p>Volume of study</p>
<p>Didactic principles</p> <ul style="list-style-type: none"> • General didactic principles • Didactic principles for theoretical teaching • Didactic principles for practical training (OJT at workshops, in the enterprise)
<p>On-the-job training</p> <ul style="list-style-type: none"> • Duration • Stage of training • Expected outcome • Content • Pedagogical approach (see also didactic principles) • Qualification requirements for mentors • Confirmation of successful completion of OJT
<p>Assessment</p> <ul style="list-style-type: none"> • Content of the assessment • Reference to normative document on assessment or description of assessment procedures and criteria
<p>Appendices</p> <ul style="list-style-type: none"> • A template for confirming completion of on-the-job training • ...

Preparatory phase

- Study of the national legal and regulatory framework for ES development
- Study of this Guideline
- Study of OS
- Study of quality criteria for the OS

ES development phase

- Definition of the ES target group
- Definition of competencies related to the profession
- Definition of personal competences
- Definition of learning content
- Definition of the volume of study
- Definition of pedagogical principles
- Requirements for on-the-job training
- Description of the goal and approach to assessment
- Consideration of the “Educational Standard Model” and, if necessary, its adaptation
- Consideration of the “Confirmation of on-the-job training completion” and, if necessary, its adaptation

The phase of drafting up and execution of the ES

- Drafting the ES
- Execution of the ES

The phase of verification and finalization of the ES

- Verification of the developed ES for its compliance with the quality criteria
- Finalization of the ES

APPENDIX: CONFIRMATION OF ON-THE-JOB TRAINING COMPLETION

Below is a variant of the template of Confirmation of on-the-job training completion.

Confirmation of on-the-job training completion
(The completed template is no more than one page long)

Enterprise information	
Name of mentor	
Name of student/trainee	
Period of practice (OJT)	
Volume (number of hours)	
He/she did the following during the OJT (indicate no more than 10)	
Brief description of strengths of the student/trainee	
Competencies that he/she needs to improve	
Date, signature of authorized representative of the enterprise	

The following “proposals for changes in the regulatory framework governing the development of educational standards” are designed to adapt the regulatory framework in educational standards. The proposals are provided as a separate document.

Recommendations for introducing changes in the documents regulating the development of educational standards / curriculums

Country: **Uzbekistan**

Which principle should be included (is missing, partly present, needs improvement...)?	To which document/ documents?	To which section/ sections?	Suggested formulations
The principle of dual learning	<p>"Recommendations for Curriculum Development for Colleges and Vocational Schools". Reviewed and recommended for use by the Scientific-Methodical Council for Professional Education of the Institute of Pedagogical Innovations at MHSSE (MINISTRY OF HIGHER AND SECONDARY SPECIAL EDUCATION) on August 28, 2020 (Minutes № 7)</p>	I. General program requirements	<p>Supplement with the paragraph: All of the points in this recommendation apply to the development of dual education curricula as well.</p> <p>Supplement with the paragraph: The curriculum of dual education must not contradict the established norms approved by the RCM (Resolution of the Cabinet of Ministers) №163 "On measures to organize dual education in the system of vocational education".</p>
Determining learning outcomes by subject	<p>"Recommendations for Curriculum Development for Colleges and Vocational Schools".</p>	Curriculum and its components, paragraph 4.5	<p>Supplement with the paragraph: The learning outcomes of the curriculum should correspond to the labour functions of the occupational standard, as well as to the competencies in the qualification requirements developed on the basis of the OS. The work functions in the OS and the general and professional competences of the qualification requirements of the profession must not contradict each other.</p>
	<p>"Recommendations for Developing Curriculum for Academic Modules and Practices (OJT) at Vocational Educational Institutions". Reviewed and recommended for use by the Scientific-Methodical Council for Professional Education of the Institute of Pedagogical Innovations at MHSSE (MINISTRY OF HIGHER AND SECONDARY SPECIAL EDUCATION) on August 28, 2020 (Minutes № 7)</p>	III. The procedure for developing and approving Curriculum, Paragraph 16.3	<p>Supplement with the paragraph: The learning outcomes of the curriculum should correspond to the labour functions of the occupational standard, as well as to the competencies in the qualification requirements developed on the basis of the OS. The work functions in the OS and the general and professional competences of the qualification requirements of the profession must not contradict each other.</p>

Determining personal/transversal learning outcomes	" Recommendations for Curriculum Development for Colleges and Vocational Schools ".	II. Curriculum and its components, Paragraph 4.5	Supplement with the paragraph: General (personal/transversal) and professional competencies defined in the qualification requirements of the profession or specialty shall be reflected in the curriculum in general (by subject), as well as separately by the topics of a particular subject (module), as a learning outcome.
	" Recommendations for Developing Curriculum for Academic Modules and Practices (OJT) at Vocational Educational Institutions ".	III. The procedure for developing and approving Curriculum, Paragraph 16.3	Supplement with the paragraph: General (personal/transversal) and professional competencies defined in the qualification requirements of the profession or specialty shall be reflected in the curriculum in general (by subject), as well as separately by the topics of a particular subject (module), as a learning outcome.
Principles related to teaching methods	" Recommendations for Curriculum Development for Colleges and Vocational Schools ".	II. Curriculum and its components, Paragraph 4.14	Add an item: When selecting teaching methods, it is necessary to consider the expected learning outcomes. Teaching methods are determined based on the selected pedagogical approach to education and its principles. The method of teaching should be student-centred and contribute to the development of students' competencies.
Principles related to the organization of the on-the-job training	" Recommendations for Developing Curriculum for Academic Modules and Practices (OJT) at Vocational Educational Institutions ". Reviewed and recommended for use by the Scientific-Methodical Council for Professional Education of the Institute of Pedagogical Innovations at MHSSE (MINISTRY OF HIGHER AND SECONDARY SPECIAL EDUCATION) on August 28, 2020 (Minutes № 7)	Administration	Supplement with the paragraph: The curriculum for dual education is developed and approved by the educational institution and the enterprise. The practical part of the studies should be organized in the enterprise. The enterprise shall have the necessary prerequisites for the implementation of the practical part of the training (OJT). Supplement with the paragraph: When developing the curriculum, it is necessary to determine the learning outcomes that are formed by the educational institution and the company. The company's ability to shape the learning outcomes according to the qualification requirements of the profession must be taken into consideration.
Principles related to the organization of assessment	" Recommendations for Developing Curriculum for Academic Modules and Practices (OJT) at Vocational Educational Institutions ".	III. The procedure for developing and approving Curriculum, Paragraph 16.6	Supplement with the paragraph: Assessment of students is performed based on the results of the ongoing and interim control of students' proficiency in the curriculum material by subject (module). Assessment should determine the compliance or non-compliance of students with the learning outcomes of the curriculum.

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