

# **Technical Report on the Second Pilot Project DARYA, Module 2**

Authors: Olav Aarna, Sergey Melnik, and Kaie Piiskop

October 2025

# Contents

Introduction .....	3
1. Conceptual Model and Life Cycle of an Occupational Qualification Standard .....	4
1.1. Conceptual Model of National Qualifications Systems.....	5
1.2. What Does it Mean to be Competent? .....	6
1.3. Conceptual Model of an Occupational Qualification Standard .....	8
1.4. Life Cycle of an Occupational Qualification Standard .....	9
2. The Process of Piloting National Qualifications in CA countries .....	11
2.1. Stages and Timeframe of Piloting .....	11
2.2. Piloting Methodology.....	12
3. Development of Occupational Qualification Standards in CA Countries.....	13
3.1. Common Features of the Structure of Occupational Qualification Standards in CA Countries with Examples .....	13
3.2. Common Features of the Use of Occupational Qualification Standards in CA Countries with Examples .....	15
3.3. Self-Assessment of Pilot Project 2 Results by Facilitators from CA Countries .	17
4. Recommendations for Implementing the Experience of Developing Occupational Qualification Standards in CA Countries.....	21

## Introduction

The objective of Pilot Project 2, according to the DARYA project description, was to:

- Support the methodological and technical work for the development of Occupational and qualification standards in Central Asian (CA) countries;
- Prepare materials for piloting the validation of non-formal and informal learning (Pilot 3);
- Develop 10 national qualifications in at least 3 countries and across at least 2 sectors (total quantity for the region) – ranging from 1 to 3 per country.

Pilot Project 2 serves as a link between Pilot Projects 1 and 3.

The project participants included national working groups and international experts. The national working groups:

- Supported the mobilization of multi-stakeholder partnerships;
- Identified suitable national information sources (regulatory documents, methodologies, relevant occupational and qualification standards, etc.);
- Participated in working meetings and assumed agreed-upon roles and responsibilities throughout the Pilot 2;
- Supported the dissemination and application of the pilot results within their respective countries.

International experts Olav Aarna, Sergey Melnik, and Kaie Piiskop:

- Coordinated the implementation of the Pilot 2 in the CA countries;
- Provided methodological guidance, capacity building for national stakeholders, and a helpdesk function.

# 1. Conceptual Model and Life Cycle of an Occupational Qualification Standard

This chapter describes the conceptual model of the occupational qualification standard, as well as the standard's life cycle. Together, these elements create the conceptual and theoretical framework for Pilot 2. Table 1, developed in Pilot Project 1 of Module 2, illustrates the diversity of concepts used in the occupational standard templates of CA countries. This indicates the need to create a common conceptual model for the Occupational Qualification Standard (OQS), as well as a clear description of the links between the Occupational standard and the Occupational Qualifications System.

**Table 1. Comparison of the structure for describing competencies and learning outcomes**

Multi-country Occupational Profile	Existing national Occupational (qualification) standards				
	Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan	Turkmenistan
Occupational profile units (Qualification units)	Job function	Job function	Job function	Units of competence	Job tasks (functions)
Competence	Skill	Job actions	Performance criteria	Units of competence	Performance indicators
Knowledge	Knowledge	Knowledge	Required knowledge	Required knowledge	Required knowledge
Skills	Abilities	Skills	Required skills	Required skills	Required skills
Autonomy, responsibility	Requirements for personal competences	Responsibility and independence	Personal competences	Required work attitude	Personal skills

To a large extent this diversity in the approaches used to create Occupational standards, qualifications, and qualification frameworks, as well as the associated conceptual framework, is due to the development process of National Qualifications Systems (NQS) in CA countries since 1991, and to varying degrees, the influence of different approaches active in other countries. These approaches can be summarized into two main models:

- **Qualifications are described by learning outcomes** (what a person knows, understands, and can do), classified by knowledge, skills, and the level of autonomy and responsibility. Such approaches prevail in the countries of the European Union (EU). In the EU, each country has its own National Qualifications Framework (NQF), which is referenced to a regional meta-framework — the European Qualifications Framework (EQF) for lifelong learning. The EQF, with its 8 qualification levels, serves as a translation tool, ensuring the comparability of qualifications from different EU countries and supporting the mobility of students and workers across Europe. It can be said that in the EU, there is a network of NQFs based on learning outcomes and linked to each other through the EQF.
- **Qualifications representing a more centralized system**, in which NQFs are clearly built around and linked to state occupational standards and educational standards (despite the common goal of improving the link between education and the labour market). These characterize many post-Soviet type NQs.

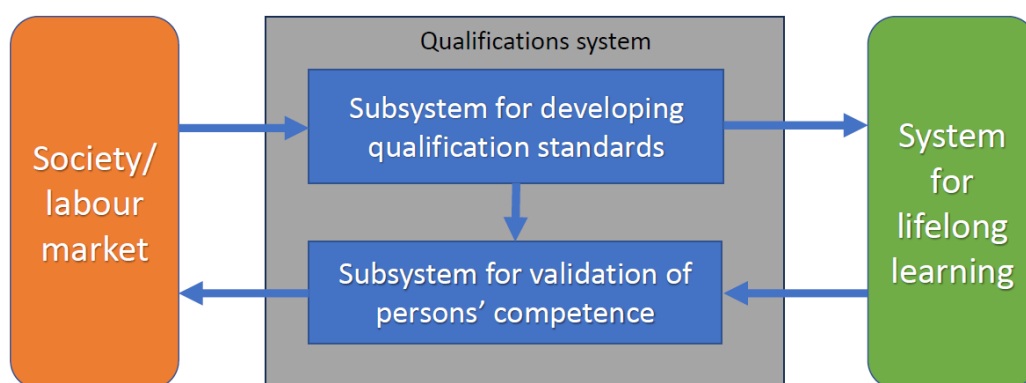
## 1.1. Conceptual Model of National Qualifications Systems

The conceptual model of NQS answers three questions:

- What does it mean to be competent?
- How to describe a competent person?
- How to satisfy the needs and expectations of society and the labour market?

In the EU Recommendation on the EQF, a national qualifications system is defined as follows:

National qualifications system means all aspects of a Member State's activity related to the recognition of learning and other mechanisms that link education and training to the labour market and civil society. This includes the development and implementation of institutional arrangements and processes related to quality assurance, assessment, and the award of qualifications. A national qualifications system may be composed of several subsystems and may include a national qualifications framework.



**Figure 1. Structure of the qualifications system**

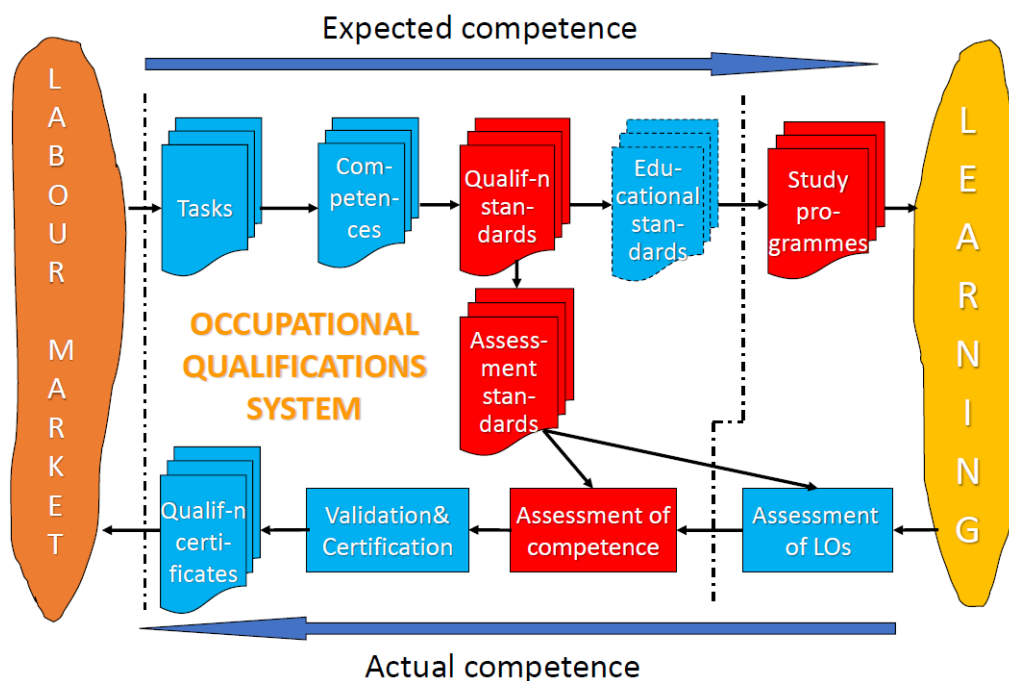
In other words, the NQS is the interface between society (specifically, the labour market) and the system for lifelong learning (LLL). Two processes take place within this interface (see Figure 1):

- Development of qualification standards;

- Validation of individuals' competence.

the Occupational Qualifications System — an important type of NQS — is the interface between the labour market and the system for LLL. The system for LLL includes learning in all three forms: formal learning, non-formal learning, and informal (spontaneous) learning.

By its nature, the NQS is a system for assuring the quality of qualifications. ISO 9000 defines quality as a measure of how well the characteristics of an entity meet the needs and expectations of stakeholders. Indeed, in the NQS, on one hand, stakeholder expectations regarding persons' competence are formalized in the form of qualification standards; on the other hand, a person's competence is assessed, validated, and certified for compliance with the qualification standard.



**Figure 2. Competence cycle**

Figure 2 presents a more detailed view of the NQS, called the “competence cycle”. Qualification standards can be used in two ways:

- As input data for the development of study programmes;
- As the standard against which a person's competence is assessed.

The development of national curricula (education and training standards) is an optional element of the qualification standard development subsystem, as the qualification standard can be used directly as input for curriculum development by education and training providers.

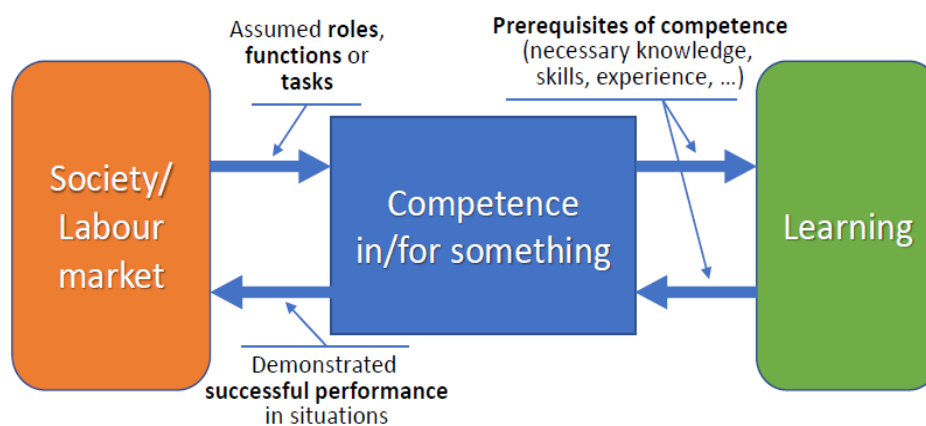
Competence is the central concept of the NQS, while qualification means officially recognized competence in something. Obviously, society and the labour market expect citizens to demonstrate competent behaviour in various situations of daily life, work, and study throughout their lives.

## 1.2. What Does it Mean to be Competent?

A competence model (CM) is a simplified but holistic representation of what it means to be competent in something (e.g., in mathematics, playing chess, etc.) or for something (e.g., as a teacher, welder, parent, citizen, etc.). Let us begin with the definitions of competences and learning outcomes (LO) adopted in the EU:

**Competence** means the demonstrated ability to use knowledge, skills, and personal, social, and/or methodological abilities in work or study situations and in Occupational and personal development.

**Learning outcomes** are statements of what a learner knows, understands, and is able to do upon completion of a learning process.



**Figure 3. The dual nature of competence**

The terms "competence" and "learning outcomes" are often used interchangeably, which is misleading. The dual nature of competence is illustrated in Figure 3, which is graphically similar to Figure 1. From the perspective of society, particularly the labour market, "being competent" means the demonstrated (proven) ability to perform required roles, functions, or tasks (as an employee, freelancer, or simply a member of society or a community). From the perspective of the individual as a learner, "being competent" means having the necessary prerequisites for competence, which are usually described by a list of knowledge, skills, and attitudes.

**Prerequisites for competence** are the necessary conditions for a person to effectively perform their roles, functions, or tasks. Consequently, being competent means the successful performance of tasks in everyday life, at work, or in studies.

Despite the dual nature of competence, it is a human quality (an implicit attribute) — the ability to use the prerequisites of competence to perform successfully in situations. On the other hand, competence can be developed (acquired) and assessed based on how one performs in situations. Conclusions about a person's competence in or for something, based on an assessment of their performance in situations, are always indirect and un-precise. Nevertheless, it is crucial to design appropriate learning and assessment situations.

The EU Recommendation on the EQF defines qualification as follows:

Qualification means a formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards.

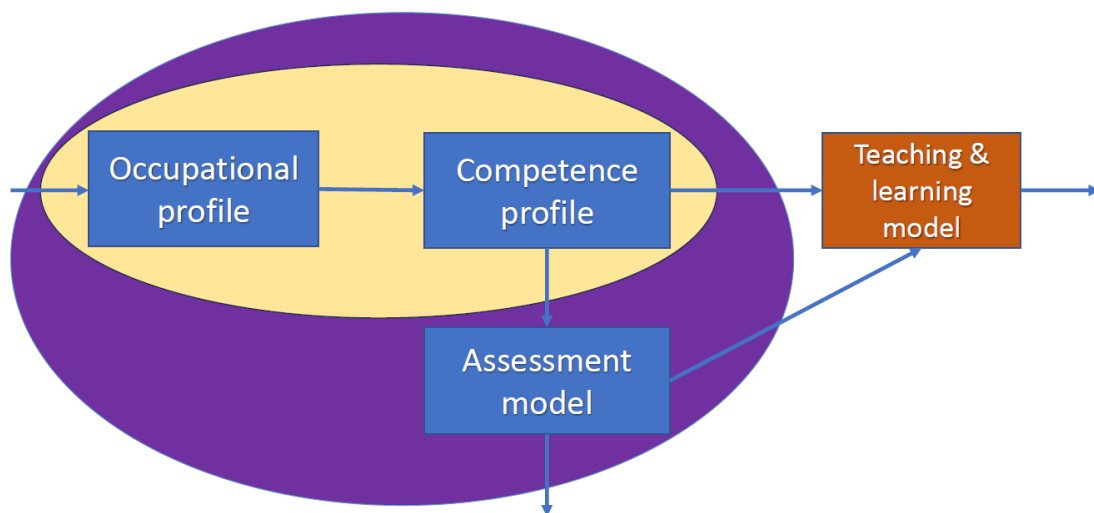
In other words, a qualification is a person's officially recognized competence in a specific field, while "official recognition" means it is determined by a competent body (awarding body). A qualification indicates that a person possesses the necessary prerequisites of competence in or for something. However, holding a qualification does not automatically guarantee competence.

In summary, competence is an inherent quality of a person, whereas a qualification is not. In other words, competence can be developed and assessed, while a qualification can neither be developed (upgraded) nor assessed.

### 1.3. Conceptual Model of an Occupational Qualification Standard

A competent employee can be described using an Occupational qualification standard (OQS), which consists of three components (see Figure 4):

- **Occupational profile**, describing the functions and tasks performed by a person in this role;
- **Occupational competence profile**, describing the necessary prerequisites for competence, i.e., the required competences;
- **Competence assessment model**, describing the criteria and methods for assessing competence.



**Figure 4. Structure of an Occupational qualification standard**

An **occupational profile** is a set of job functions performed within a given occupation. As a rule, each job function is represented as consisting of performed job tasks. A job function has independent significance in the labour market; i.e., in a large organization/enterprise, the set of job tasks included in a given job function may be the work of an employee.

A **competence profile** is a set of competences necessary for the effective performance of a given profession. In other words, an OQS describes competence in an occupation as a set of required

competences in something (a job function, task, area of knowledge, skill). In principle, each element of the occupational competence profile can, in turn, be described through a list of competences (prerequisites for competence). As a result, an occupationally competent person is described through an extensive network of competences.

It is very important to answer the question: under what conditions does an occupational standard become a qualification standard? The answer is very simple: if an occupational standard describes a person's behaviour in an assessable (measurable) form (learning outcomes or performance indicators), it becomes an OQS.

To assess a person's competence, an assessment standard must be added to the set of documents describing an occupationally competent person. The **competence assessment standard** (competence assessment model) can be an independent document or combined with the OQS, as shown in Figure 4. The latter case is mandatory if the OQS is used by multiple assessors of occupational competence.

## 1.4. Life Cycle of an Occupational Qualification Standard

The life cycle of an OQS (which is closely linked to the occupational standard) is a repeating sequence of stages that ensures its relevance in accordance with the rapidly changing requirements of the labour market and technology. This cycle includes the following main stages:

### 1) **Development** (Creation)

This is the initial stage when the standard is created for the first time.

1. The need for developing the standard is determined (identifying new or rapidly changing professions) based on requests from employers, industry associations, or government priorities.
2. A group is formed consisting of representatives of employers (key industry experts), trade unions, relevant authorities, and educational organizations.
3. Occupational activity is studied: labor functions and labor actions, necessary knowledge and skills, and requirements for education and experience are identified.
4. A draft of the Occupational standard is compiled, describing the qualification levels and their corresponding requirements.
5. The draft is widely discussed within the Occupational community and undergoes internal and external expert reviews.
6. The approved draft is ratified by the authorized state body (e.g., the Ministry of Labor) and entered into the register of Occupational standards.

### 2) **Implementation and Application**

After approval, the standard begins to be actively used.

1. State educational standards (SES) are updated based on the Occupational standard, and new vocational training programs are developed (VET, Bachelor's, Master's, Continuing Occupational Development).

2. The standard is used for conducting Independent Competence Assessment (ICA) in competence assessment centres, confirming that the worker's knowledge and skills comply with labour market requirements.
3. Employers apply it to create job descriptions, certification systems, and for personnel selection and development.

### 3) **Actualization** (Revision)

This is the most important stage, ensuring the viability of the standard:

- Constant analysis of changes in technology, equipment, legislation, and business processes in the relevant industry;
- Actualization of the standard is typically initiated at least once every three to five years (or more frequently if the industry changes very rapidly), based on monitoring data and requests from employers;
- Labor functions and requirements for knowledge/skills are adjusted and, if necessary, qualification levels are changed;
- The revised standard undergoes the procedure of expert review, coordination, and re-approval.

### 4) **Replacement or Removal from the Register**

When an occupation becomes completely obsolete or transforms into a new one, the life cycle of the old standard ends.

- The Occupational standard is recognized as invalid and removed from the register;
- Its functions either transfer completely to a new, broader, or narrower standard, or its requirements are integrated into other existing standards.

## 2. The Process of Piloting National Qualifications in CA countries

This chapter describes the stages and timeframes, as well as the methodology for piloting Occupational qualification standards in CA countries.

### 2.1. Stages and Timeframe of Piloting

The initial timeframe envisaged two stages of the piloting process:

- Development of plans – end of 2024;
- Piloting – January–September 2025.

Since the preparatory process was significantly delayed, particularly due to the delay in completing the first pilot project, the second pilot project actually began in April 2025. Furthermore, the start of piloting across CA countries was not synchronized. For the most part, delays here were caused by difficulties in establishing national working groups. Table 1 presents an approximate timeframe for the piloting the process of developing national OQS by stages.

**Table 1. Timeframe of piloting**

Stages of OQS development	April	May	June	July	August	September	October
1) Organization of kick-off meetings, clarifying the roles of countries, creating working groups for each piloted qualification. Clarifying the structure and content of the qualification standard (agreement on the template).							
2) Collection and analysis of existing information on selected qualifications. Determining which elements (e.g., performance indicators, learning outcomes) of the qualification need to be updated/developed from scratch.							
3) Drafting the introductory part of the qualification standard: title, description of							

Stages of OQS development	April	May	June	July	August	September	October
the qualification, role and place of qualifications in the relevant sector of the country's economy. This part will depend on the structure of the qualification standard.							
4) Drafting descriptions of qualification (competence) units. This part will depend on the agreed structure of the qualification standard.							
5) Drafting the specifications for the competence assessment model.							
6) Collecting feedback and suggestions from potential users of the qualification standard.							

## 2.2. Piloting Methodology

The methodological approach of the project was based on national methodologies and procedures for creating Occupational standards. To the extent possible and necessary, elements proven in international practice, as well as those used in the creation of cross-country profiles, were utilized.

Occupational and qualification standards must take into account how the expected learning outcomes will be assessed in order to evaluate an individual's competence. This is primarily related to the transformation of Occupational standards into Occupational qualification standards. This is described in more detail in the next chapter separately for each CA country.

When selecting sectors and qualifications, the working groups were guided by the following criteria:

- **General labour market relevance** – occupations are in demand (currently and/or in the future) in the country and require adaptation to changing skills requirements;
- **Labour shortages** – the demand for workers in the occupation exceeds the labour supply;

- **Qualification profiles** that address a large number of participants in the existing VET provision and can benefit from modernization.

## 3. Development of Occupational Qualification Standards in CA Countries

This chapter describes and summarizes the process of creating OQS in CA countries.

### 3.1. Common Features of the Structure of Occupational Qualification Standards in CA Countries with Examples

Among the common and similar approaches to occupational standardization, the following can be noted:

- **Similarity in the definition of the key term "Occupational Standard"** (OS or its equivalent). For example, in **Kazakhstan**, it is officially defined that an OS is an "official written document establishing general requirements for knowledge, abilities, skills, and work experience, taking into account formal and/or non-formal and/or informal learning, qualification and competence levels, and the content, quality, and conditions of work in a specific field of occupational activity." In **Uzbekistan**, an OS implies a "document defining minimum requirements for knowledge, abilities, skills, work experience, qualification level, content, quality, and working conditions, as well as occupational behaviour in a specific field of occupational activity." In **Tajikistan**, an equivalent to the OS is used—the competence standard—defined as a "document that defines the requirements for knowledge, abilities, skills, competences, attitudes, value systems, and personal qualities necessary for effective performance in the workplace." While these definitions share general similarities, differences are evident regarding the inclusion of characteristic elements and requirements, as well as the scope of procedures (general requirements vs. minimum requirements, etc.).
- **Similarity in the application of other key terms and concepts.** In most cases, all countries use relevant terms such as job function, qualification level, competences (core, occupational, transversal, personal), national and sectoral qualifications frameworks, skills, knowledge, and so on. A significant difference in this group of countries is the conceptual apparatus used in Tajikistan for occupational and qualification standardization. Essentially, a qualification standard is formed immediately here, focusing on a direct link between the labour market requirements for an occupation, training tools, and the assessment of learning outcomes. Terms such as competence, requirements for learners (students), requirements for teachers, units of occupational competence, performance criteria, elements of competence, and others are observed.

Additionally, in Kazakhstan, unlike other CA countries, the term "skills/tasks" is applied to equivalents of job tasks or job functions (in the presence of generalized job functions). In Uzbekistan, the "Job Card" and "Job Description" reveal a classification of job responsibilities; in the OS hierarchical structure, job tasks include job functions, rather than the other way around in other countries.

- **OS structure** (except for Tajikistan). Key characteristics of the OS structure include:

The presence of introductory parts, technical data on PS development, a glossary and abbreviations (except for Turkmenistan and Kyrgyzstan), lists of job functions and their elements, OS passports, and occupational cards/functional maps of the type of occupational activity (except for Turkmenistan and Kyrgyzstan), descriptions of requirements for knowledge, skills/abilities, personal competences, the working environment, etc.

In **Turkmenistan** and **Kyrgyzstan**, performance indicators/competent performance criteria are specified, along with assessment guidelines.

More detailed information on the OS structural elements—describing the requirements for the occupation, occupational activity, work performed (processes, operations), job functions, job tasks, and the workplace/environment, rather than the qualification, competence (the ability to acquire and demonstrate the ability of using knowledge and skills in practice/assessment), learning outcomes, and their potentially independent assessment in the future—is presented in Table 3.

**Table 3. Key elements of the OS structure or its equivalents in CA countries**

Country	Elements of the OS structure or its equivalents
Kyrgyzstan	Occupational description (general requirements, affiliation with national Occupational and sectoral classifications, list of generalized job functions and job functions indicating their qualification levels per the NQF (and sub-levels/levels of the Sectoral Qualifications Framework, if available), other PS elements (general and/or transversal job functions, etc.)) – Description of job functions: indication of their qualification levels per the NQF (and sub-levels/levels of the SQF, if available) – Competent work criteria – Requirements for necessary knowledge and skills – Personal skills – Description of the working environment – Assessment guidelines – Technical data on standard development.
Kazakhstan	Glossary and abbreviations – OS Passport (name and code, affiliation with national sectoral classification, brief description of occupational activity) – Occupational Card (occupational code, national Occupational Classification Code, sectoral qualifications framework level, similar/possible job titles, description of the main goal of the occupational activity) – List of job functions (main, additional) – Description of job functions and the tasks (skills) included in them: requirements for knowledge and abilities – Requirements for personal competences – Link with other occupations within the SQF – Link with the Unified Tariff and Qualification Reference Book (ETKS) or Qualification Reference Book (KS) – Link with the education system / level of education and qualification – PS Technical data.
Tajikistan	Competence Standard (sector in accordance with NACE, occupational group code, general name of the profession, national occupational code, alignment with international occupational codes, alignment with the qualification level of the National Classifier of Qualifications, total number of units of competence studied) – Information about developers – Introductory part (abbreviations, introduction, conceptual apparatus, stakeholders working with the occupational competence standard, industry standards and norms, general explanations of the occupation, general list of units of competence) – Competence

Country	Elements of the OS structure or its equivalents
	standards by occupation according to the levels of the National Classifier of Qualifications (list of units of competence – employability skills – transversal competence units – core competence units – Occupational competence units – occupational health and safety measures – requirements for students – requirements for teachers – list of necessary tools and equipment) – Bibliography – Appendix 1: Functional map of the occupation; Appendix 2: Expert reviews.
<b>Uzbekistan</b>	General information (PS scope of application, glossary, regulatory legal documents serving as the basis for PS development, abbreviations) – PS Passport (name, affiliation with national sectoral classification, main goal of Occupational activity, brief summary of the PS, list of covered occupations and qualification levels) – Functional map of the type of Occupational activity (name and code of the profession – name and code of job tasks – name and code of job functions – recommendation for assessing job functions) – Job card and job description (work experience requirements, qualification and personal competence requirements, education requirements, reference to non-formal and/or informal learning, presence in the register of occupational standards, other possible job titles, link with other professions) – Classification of job responsibilities (code and name of job functions – job processes – skills – knowledge) – OS Technical data.
<b>Turkmenistan</b>	Occupational description (general requirements, affiliation with national occupational and sectoral classifications, list of job functions) – Description of job functions: indication of their qualification levels in the NQF (and sub-levels/levels of the Sectoral Qualifications Framework, if available), performance indicators – requirements for necessary knowledge and skills – personal skills – description of the working environment – assessment guide – Technical data on OS development.

### 3.2. Common Features of the Use of Occupational Qualification Standards in CA Countries with Examples

The common/similar characteristics of the development and use of OQS in CA) countries include:

- In all cases of OS development, there was a preliminary detailed study of the needs of the national labour market/employers specifically for these pilot qualifications;
- During the drafting of the OS, almost all working groups studied and utilized foreign analogues and the International Standard Classification of Occupations (ISCO-08). In some cases, an in-depth analysis of classifications such as ESCO, ISCO, SOC, o’NET, and others was conducted;
- Almost all countries (except for the Republic of Tajikistan) focussed quite strictly during OS development on a detailed description of the requirements for the occupation (or group of occupations) rather than for the qualification—that is, the description of requirements for assessing the ability of a future occupational qualification holder to demonstrate/confirm their learning outcomes for a group of independent assessors;

- A similar situation applies to the lack of mechanisms and tools for assessing non-formal/informal learning outcomes, as well as the lack of differentiation of qualifications in the OS by types (full, partial, micro, blended, regulated, etc.).

## **Kyrgyzstan**

Within the framework of Pilot 2, international experts supported the development of two OSs by national working groups: "Maid" and "Seamstress." International experts provided comments and suggestions (specification of requirements for personal competences, elimination of overlaps and duplication, detailed health and safety requirements for each job function, inclusion of assessment methods and tools, performance criteria, downward revision of proposed excessive qualification levels and their differentiation by job functions, detailing differences in competences between the 1-6 wage-qualification grades in the "Seamstress" OS, etc.), which were fully taken into account by the developers.

According to the national facilitator, future priorities could cover the link between Pilot 2 and national qualification reforms (to demonstrate practical applicability), and define sustainability elements—specifically, how the outputs of Pilot 2 will be used by the countries after the DARYA project concludes.

## **Kazakhstan**

Within Pilot 2, international experts supported the development of two OSs: "Developer of Parallel and Distributed Programmes" and "Plasterer." It should be noted that the OS for "Plasterer" partially overlapped with the multi-country occupational profile for the "Drywall Master" qualification. At the initiative of Kazakh colleagues, recommendations and additional support were provided for other OSs being developed in Kazakhstan (Truck Driver, Workplace Mentor, E-commerce Specialist (Marketplace), Energy Consultant, Building Modernization Manager, Tourist Guide). International experts provided comments and suggestions, primarily related to the use of analogues from other countries and international classifications (ESCO, ISCO, SOC, o'NET, etc.), which were largely incorporated.

Regarding the use of standards in Kazakhstan, the national facilitator noted that OSs are actively used by educational institutions (colleges and universities), as the mandate to use them in developing educational programmes is defined by the Law on Education. Some large and medium size enterprises use OSs for internal HR documents. The Ministry of Labor of Kazakhstan has determined that by 2030, all wage-qualification reference books must be replaced by OSs. However, currently, enterprises continue to use wage categories for their labour organization and salary systems.

Problems include the difficulty of aligning existing industry wage levels with NQF levels. OSs are developed for groups of related occupations, which creates difficulties for employers in applying them and moving away from old job descriptions. Grouping several occupations into one OS often discourages employers' participation, as they require specific requirements for individual roles. Over-regulation and strict links to national classifiers sometimes distance these documents from actual industry needs.

## Tajikistan

Within Pilot 2, international experts supported the development of two OSs: "Andragogue" and "Marketplace Specialist." These significantly overlapped with the multi-country profiles for "Workplace Mentor" and "E-commerce Specialist." Experts provided analogues from countries like Lithuania, the USA, Germany, France, and Italy. For the "Andragogue" qualification, experts suggested references to 11 related occupations described in ESCO. For "Marketplace Specialist," relevant knowledge and skills were selected from ESCO profiles like "E-commerce Manager" and "Digital Merchandiser."

The national facilitator noted that these standards could serve as a good basis for "competence standards" for specific occupations, which in Tajikistan combine occupational and qualification standards. The main challenge remains the passivity of employers in the development and implementation process.

## Uzbekistan

Within Pilot 2, national working groups developed OSs for "Seamstress" and "Drywall and Plastering Works." The latter fully coincided with the "Drywall Master" multi-country profile. Expert suggestions regarding personal competences, safety requirements, and assessment tools were incorporated. Analogues from Ukraine, Estonia, France, and ESCO were provided.

The national facilitator noted that in Uzbekistan, the developed standards have found wide practical application:

- Used for updating study programmes in VET;
- Applied in certification and independent assessment (including pilot validation procedures);
- Used by sectoral councils to define qualification requirements;
- Serve as a basis for accreditation centres and examination materials.

Challenges include low awareness among employers, limited resources for independent assessment centres, the need for regulatory updates, and a shortage of competence assessment specialists.

## Turkmenistan

Within Pilot 2, experts supported the development of three OSs: "Guide (Guide-Interpreter), Tourism Manager," "Painter-Plasterer," and "Tiler." These overlapped with multi-country qualifications for "Tourist Guide" and "Drywall Master." Experts provided guidance on personal competences, safety, and performance criteria, incorporating international classifications. For the "Guide" qualification, experts adapted analogues from the USA, France, Spain, South Korea, Germany, Italy, Japan, and Canada to the Turkmen labour market context.

## 3.3. Self-Assessment of Pilot Project 2 Results by Facilitators from CA Countries

### Kyrgyzstan

- **Organizational measures:** The national facilitator noted that in addition to the good organization of Pilot 2, working on Module 2 once again revealed internal systemic problems in the organization of occupational (qualification) standard development at the sectoral/national level in Kyrgyzstan, which, in particular, led to delays in preparing draft documents.
- **Collection and analysis of existing information on selected qualifications:** No information was provided by the national facilitator in this area.
- **Drafting the introductory part of the qualification standard:** No information was provided by the national facilitator in this area.
- **Drafting descriptions of qualification units and competencies:** It was noted that developers in the country often do not see a direct link with the NQF of Kyrgyzstan and the complexity levels of job functions. It was suggested to conduct specialized additional seminars/training in the future.
- **Drafting the specification of the competence assessment model:** The national facilitator noted that the incentive system for OS developers is insufficiently developed at the national level, which caused problems with the development of the competence assessment model specification.
- **Collection of feedback and suggestions from potential users of the qualification standard:** No information was provided by the national facilitator.

The responsible representative of this country emphasized that the results of Pilot 2 became a solid foundation for new development teams. Current participants who have gained practical experience could act as national facilitators or mentors in the future. It was also mentioned that the developed draft OSs will be officially approved following the stipulated procedure, and will be used, in particular, for skills validation procedures.

## Kazakhstan

1. **Organizational measures:** Among other results, the facilitator highlighted:
  - Objectives, tasks, and schedules were presented clearly; the continuity between pilots 1, 2, and 3 was a motivating factor.
  - International experts supported the national initiative to develop additional qualifications.
  - The structure of the standard corresponded to the multi-country occupational profile.
  - Difficulties in interacting with the National Qualifications Authority to improve the Kazakh OS development methodology.
  - The procedure for transforming an OS into a qualification standard was not fully explained to all participants.
2. **Collection and analysis of information:** Developers relied on a general need for updates without specific detailing. The facilitator suggests a joint step-by-step walkthrough of the national methodology with experts in the future.
3. **Drafting the introductory part:** Much of the content was taken from Pilot 1. However, the conceptual difference between a "occupation" and a "qualification" was not fully clarified to developers.

4. **Drafting descriptions of qualification units and competencies:**
  - *Positive:* Developers realized the transition to competencies, skills, knowledge, and autonomy/responsibility. The Transition Table was a practical tool.
  - *Shortcomings:* The need for descriptors like "autonomy" and "responsibility" (not used in the current Kazakh OSs) was not fully clarified.
5. **Drafting the specification of the competence assessment model:** While the interpretation of descriptors was constructive, the link between Pilot 2 terms and Kazakh national methodologies was not always clear.
6. **Collection of feedback:** Informal feedback was received, but the activity level of national stakeholders was low. Increased support from the National Qualifications Authority and Sectoral Councils is needed.

### Tajikistan

1. **Organizational stage:** Everything was organized at a proper level with planned methodological support.
2. **Collection and analysis of information:** International experts assisted in gathering international best practices. It was noted that more attention should be paid to learning outcomes and assessment tools in the future.
3. **Drafting the introductory part:** No difficulties were reported.
4. **Drafting descriptions of competence units:** The template provided by international experts allowed for the synchronization of the standard's structure.
5. **Drafting the specification of the competence assessment model:** The template provided was effective for creating the updated specification.
6. **Collection of feedback:** The communication process was efficient, though employers remained relatively passive.

### Uzbekistan

1. **Organizational stage:** Successfully completed with working groups for "Cargo Driver" and "Plasterer." Challenges included limited time to involve all stakeholders.
2. **Collection and analysis of information:** Labour market analysis and international experience (Kazakhstan, Poland, Germany) were analyzed. Gaps in digital and green competencies were identified.
3. **Drafting the introductory part:** The economic context was well-defined (e.g., the role of the Cargo Driver in a sector representing 10% of GDP).
4. **Drafting descriptions of competence units:** Core and transversal competencies (safety, ecology, digital) were developed in cooperation with sectoral councils.
5. **Drafting the specification of the competence assessment model:** The model was prepared based on international expert suggestions, strengthening the link between standards and assessment procedures.
6. **Collection of feedback:** Positive feedback was received from training providers. Suggestions were made regarding requirements for trainer and digital skills.

### Key Conclusions from the Self-Assessment:

- Facilitators in general gave high marks to Pilot 2 across all six stages.
- **Positive aspects:** Clear methodology, continuity between project phases, and the practical value of the "Transition Table" for moving from occupational to qualification standards.
- **Challenges:** Limited timeframes, difficulties in engaging national-level institutions, and inconsistencies between national regulations and modern assessment tools.
- **Requests for International Experts:** More information on the advantages of qualification standards over traditional OSs, and the need for more descriptors (communication, autonomy).
- **Proposals for the ETF (European Training Foundation):**
  - Development of methodological guidelines for the "Transition Table."
  - Assistance in updating national regulatory frameworks, including validation of non-formal learning.
  - Guidelines for transitioning from old wage-category systems to modern qualifications systems, incl. micro-credentials, partial qualifications.
  - Additional training on NQF level determination.

## 4. Recommendations for Implementing the Experience of Developing Occupational Qualification Standards in CA Countries

Preparation of an OQS is a resource-intensive and strategic process that requires time, financial resources, and competent people. For the document to be practical and contribute to the development of human resources and the cohesion of the education system, cooperation, negotiations, agreements, and compromises among many stakeholder groups are necessary.

The use of Artificial Intelligence (AI) can provide effective support in collecting, analysing, and summarizing information—for example, when comparing qualifications, harmonizing skill descriptions, and analysing the needs of the world of work. However, the quality and relevance of OQS will depend on interpersonal cooperation and expert assessments.

Taking into account the self-assessment results and expert observations, we present recommendations based on the lifecycle of an OQS, drawing on the best practices of Estonia and the EU countries.

### **Stage 1 – Preparation for the development of an OQS**

To initiate the preparation of an OQS development, the initiative should come from employers, the education and training sector, and government bodies. It is advisable to involve various stakeholders from the very beginning, including employer associations, education and training providers, ministries, and professional associations.

It is crucial to explain the necessity and objectives to stakeholders: what problems the OQS will help to solve, what added value it will create, and how it will support labour mobility and economic development.

At the beginning of the process, it is desirable to:

- Identify existing qualifications and job roles in the sector;
- Analyze labour market needs (statistics, surveys, interviews with employers);
- Familiarize stakeholders with the structure, methodology, and terminology of the standard.

Time management and a realistic schedule are important factors. When drafting the schedule, the workload of working group members, the duration of public holidays, and decision-making processes should be considered. It is also recommended to appoint a project manager and involve external experts, such as representatives of employers or educational institutions with practical experience in the relevant field.

**Recommendation:** At the initial stage of developing an OQS, it is advisable to organize an information day or seminar to harmonize agreements and create a mutually favourable atmosphere for cooperation.

## Stage 2 – Drafting the Occupational qualification standard

Before starting work, training should be organized for working group members to familiarize them with the methodology of occupational profiling (work processes, tasks, functional analysis, etc.), the regulatory framework, and international examples of OQS development. This will ensure common terminology and understanding.

Based on the information obtained from mapping, it is necessary to:

- Determine which competences are of key importance in the occupation;
- Decide on the distribution of competences across qualification levels;
- Define the roles and responsibilities of working group members.

During this work, comparative analysis should be used—for example, studying similar standards in other countries—to ensure that OQSs are harmonized and internationally comparable.

**Recommendation:** It is good practice to prepare a working draft within the first few months and validate it with selected employers or education and training providers to obtain early feedback.

## Stage 3 – Collection and dissemination of feedback on the draft OQS

Communication and interaction are key at this stage. It is important to communicate actively with employers, education and training providers, ministries, and other stakeholder groups, explaining the purpose and potential uses of the standard.

Feedback collection should be:

- **Structured** (e.g., using questionnaires, seminars, online discussions);
- **Analytical** (feedback is systematized, and reasoned changes are added);
- **Transparent** (participants are informed about how their suggestions were taken into account).

**Recommendation:** In the context of CA countries, it may also be useful to involve international experts or partner organizations from the EU to ensure the standard complies with the quality principles of the EQF.

## Stage 4 – Approval of the OQS

At the approval stage, formal cooperation with national policy-making bodies (e.g., ministries of education and labour, professional associations, sectoral representative bodies) is essential. A clear and transparent approval process increases the reliability and usability of the standard.

In CA countries, attention should be paid to:

- The legal status of the standard (whether it is advisory or mandatory);
- The distribution of institutional responsibility (who is responsible for updates);
- The link with educational programmes (the OQS as a basis for curricula development).

## Stage 5 – Publication and dissemination of the OQS

A prerequisite for successful implementation is active communication and awareness-raising. The standard should be available to all stakeholders—employers, education and training providers, students, and government authorities—in both electronic and printed forms.

Different channels should be used:

- Websites and databases;
- Information platforms of competent authorities or ministries;
- Seminars, workshops, and social networks.

**Recommendation:** To foster cooperation between CA, consideration could be given to creating a common regional register of qualifications, which would increase labour force mobility and mutual recognition of qualifications in the region.

### **Stage 6 – Updating and maintaining the Occupational qualification standard**

An OQS should be a dynamic document reflecting changes in the labour market. It is advisable to establish a regular review cycle (e.g., every 3–5 years) to assess the standard's relevance and update its content.

Updates may be necessitated by:

- Technological changes;
- Changes in job tasks and competences;
- The emergence of new occupations.

**Recommendation:** Create a monitoring and evaluation system that constantly collects feedback on the implementation of the OQSs and supports its continuous improvement.