



**Twinning Project MD 13 ENPI OT 01 16 (MD/26)**

*Support to promote cultural heritage in the Republic of Moldova  
through its preservation and protection*

### **Component 3**

**Quality Vocational Education and Training (VET) programs related to the protection and restoration of cultural heritage at secondary vocational education and at Higher Education (HE) levels developed and implemented**

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### **Activity 3.4**

**Facilitation of professional insertion of VET and HE students in the field of protection and restoration of cultural heritage in partnership with public and private entities**

## **ASSESSMENT REPORT ON PROFESSIONAL INSERTION OF VET AND HE STUDENTS IN THE FIELD OF PROTECTION AND RESTORATION OF CULTURAL HERITAGE**

March 2019

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The structure and the content of the present document has been elaborated by Piero Fibbi (CISPEL) on the basis of the other reports related to component 3, prepared by Marta Gnone (MIBACT), Piero Fibbi and Marco Simoncini (CISPEL) and by the RTA, Luisa De Marco (review and integration of the content of the reports).

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## TERMS OF REFERENCE.

The present document is realized for the **EU Twinning Project** between Italy and Moldova **MD 13 ENPI OT 01 16 (MD/26)** *“Support to promote cultural heritage in the Republic of Moldova through its preservation and protection”* within **Component 3** *“Quality Vocational Education and Training (VET) programs related to the protection and restoration of cultural heritage at secondary vocational education and at Higher Education (HE) levels developed and implemented”*, **Activity 3.4** *“Facilitation of professional insertion of VET students and HE in the field of protection and restoration of cultural heritage in partnership with public and private entities”* that sets out the following benchmarks:

- Analysis of current demand of skilled practitioners, workers and professionals in conservation and identification of major impediments hindering employment of specialized workers and professionals carried out;
- Report including recommendations and spheres where change/ reform or effective implementation of existing norms;
- Initial Workshop to gain information and views on state of professions related to CH conservation.

This assessment report contributes to the achievement of Mandatory Result 3 *“Quality education programmes linked with cultural heritage at VET and HE improved and implemented”*, so that the recommendations given will feed into the imminent development of practical courses and of the curricula for HE in architecture and engineering.

In particular, this report stems directly from the analysis performed under the other three activities included in Component 3:

- Activity 3.1, consisting in the analysis of the current organisation of courses, curricula and syllabuses in HE (architecture, archaeology and engineering) and VET with particular regard to conservation of cultural heritage subjects;
- Activity 3.2, consisting in the revision of the curricula and syllabuses of the courses for VET;
- Activity 3.3, consisting in the revision of the curricula and syllabuses of the courses for HE degrees in archaeology, architecture and engineering.

A comparison was also made with EU requirements and with the specific organisation of didactic activities in EU countries with long tradition in HE and VET education related to conservation of cultural heritage and recommendations given on how to strengthen HE and VET educational programmes on conservation of cultural heritage, with specific regard to immovable properties.

All these activities were carried out through desk work, interviews with relevant stakeholders, visits to VET and HE educational institutions.

Through their commitment and openness to dialogue and exchange, the Beneficiary representatives strongly contributed to identify the educational needs and strengths, producing relevant documentation and laws, allocating time for discussing with the MS STEs the proposed amendment to curricula and syllabuses.

## EXECUTIVE SUMMARY.

The present document assesses the current situation in Moldova for the accreditation and qualification methods used to enable professionals and companies to take part in CH restoration works. Taking into consideration the situation on VET training and HE emerged during the assessment made for Activity 3.1, this report aims at outlining some possible strategies and actions in order to facilitate the professional insertion of VET/HE students in the field of protection and restoration of cultural heritage.

As a first step, an overview is given requirements and specific organisation of professional certification on EU. Secondly the analysis has focused on Italy, being the country one of the EU members with a long tradition in the conservation/restoration of cultural heritage and in higher education in the field.

In both cases, the legal framework is analysed examining the practical implementation of the legal provisions and the good practices adopted for the certification of professionals and companies in order to ensure a state-of-the art intervention on material cultural assets.

Then the Moldovan situation is presented in detail beginning, again, with the provisions descending from the legal framework and then examining their actual implementation through a series of structured interviews carried out with some of the main actors in the sector (CEC, Incercom) and one NGO formed by professional architect (UrbanLAB).

Finally, some proposals for possible actions are set out to strengthen VET training and HE curricula of specialists in CH conservation sector and to reform the current certification procedures, since both aspects seem to be inadequate if compared to the best standards in use.

As a first evidence, it has been found necessary to strengthen the link between the Classification of occupations and the educational requirements. Secondly, it has been noted that there is no normative act establishing compulsory specific professional requirements.

In particular, the conservator/restorer professional figure, which is commonly recognized by law in EU countries, is not envisaged by Moldovan legislation and there is currently no regulation defining workers involved in conservation/restoration of built cultural heritage.

As a consequence, although there is a need and demand for qualified workers, the legislation does not assist in supporting the creation of the necessary skills needed for intervention on cultural heritage, as in the labour market, firms/ companies are not compelled to refer to stringent qualification requirements.

The educational curricula of all professionals supposed to intervene on built heritage (such as architects, engineers, foremen, construction managers, technicians and construction workers) dedicate little or no attention to the issue of conservation and restoration. Even when this topic is envisaged (e.g. architect curriculum), curricula prove to be inadequate anyway. No Master (II level) exists with a focus on architectural conservation/ restoration since the faculty of architecture is still organised around one single cycle, differently from the degree course in construction. Additionally, no third level higher education programme exists concerning restoration/ conservation of historic buildings/ built heritage. This means that projects of conservation/ restoration are prepared by professional who have received only very limited education and gained little knowledge about how to

approach the interventions on existing buildings and could therefore build only very limited competences in this regard. Only few professionals who acquired their competences in restoration during the soviet period, when period restoration was regularly taught and practiced, remain in the country: whilst they hold knowledge about how buildings were built in the past and about documentation methodology, which is a strength, their approach to the intervention tends to privilege the re-making rather than the conservation of existing fabric.

The same can be said for certification-related issues. Based on the information gathered through interviews, the requirements for specific qualifications for architects working on cultural heritage are limited and the issuance of the A4 category for professional architects is given upon frequency of a course which mainly focuses on normative matters rather than on professional content, due to the lack of competent conservation professional able to impart the necessary information. Construction Companies may be involved in delicate restoration work without the necessary knowledge since the licencing process so far had a mere administrative nature.

The Twinning project has organised a qualifying training for architects and engineers which was developed throughout nine months: despite the efforts to coordinate and collaborate with INCERCOM, the certifying body for professionals in the construction sector in the Republic of Moldova, it has not been possible to reach an agreement between MECR, Twinning and INCERCOM, with regard to the recognition of this training course as one through which the attendants could achieve the A4 category.

It is crucial that the qualification process is reformed, in order to ensure that architects or engineers obtaining the A4 category are adequately trained and educated about conservation principles, practices and techniques. Clear regulations and a robust dialogue led by MECR with MEI are needed in order to achieve an effective and efficient reformed qualification system.

## EUROPEAN UNION.

### *EUROPEAN QUALIFICATIONS FRAMEWORK (EQF)*

The European Qualifications Framework (EQF) was adopted by the European Parliament and the Council on 23 April 2008 (OJ C 111, 6.5.2008, p. 1–7). The EQF encourages countries to relate their qualifications systems or frameworks to the EQF by 2010 and to ensure that all new qualifications issued from 2012 carry a reference to the appropriate EQF level.

The European Qualifications Framework (EQF) acts as a translation device to make national qualifications more readable across Europe, promoting workers' and learners' mobility between countries and facilitating their lifelong learning<sup>1</sup>.

Individuals and employers will be able to use the EQF to better understand and compare the qualifications levels of different countries and different education and training systems.

The EQF applies to all types of education, training and qualifications, from school education to academic, professional and vocational.

Currently, 35 countries are developing 39 NQFs (National Qualifications Frameworks). Almost all countries decided to develop NQFs as a way of linking to the EQF.

Recognition of titles is an important instrument to facilitate the free movement of students and of graduates in Europe. A distinction must be made between recognition for academic purposes (i.e.: a title needs to be recognized in order to continue studies) and recognition for professional purposes (i.e.: a title needs to be recognized in order to work in a certain profession).

There are no European provisions imposing recognition of diplomas (except for certain regulated occupations) and Universities are autonomous in establishing the content of their curricula and for awarding diplomas and certificates to students. Diplomas and certificates are recognized by the authorities of the Member State concerned.

The European Commission has encouraged mutual recognition (for academic purposes) between the various education systems in Europe.

As regards recognition for professional purposes, it is important to distinguish between professions that are regulated and non-regulated professions.

A profession is said to be **regulated** when it is a statutory requirement to hold a diploma or other occupational qualification in order to pursue the profession in question. In that case, the lack of the necessary national diploma constitutes a legal obstacle to access to the profession.

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<sup>1</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:c11104>

It is important to note that the EU Directives did not set up a system of automatic equivalence between diplomas. It is up to the person concerned to submit an individual application specifying clearly which occupation they wish to pursue.

If that profession is **not regulated**, the applicant is subject to the rules of the labour market and not to any legal constraints with regard to her or his diploma. The authorities of the host country are in any event obliged, under the articles on freedom of movement of the EC Treaty, to take account of the applicant's professional diplomas and qualifications acquired in another Member State.

## ***RECOGNITION OF PROFESSIONAL QUALIFICATIONS***

The system of mutual recognition of professional qualifications in the EU is governed by **Directive 2005/36/EC**<sup>2</sup> of 07.09.05 on "*the recognition of professional qualifications*", which introduced a scheme for temporary mobility allowing professionals to work on the basis of a declaration made in advance.

The directive provides a modern EU system of recognition of professional experience and promotes automatic recognition of professional experience across the EU. In practice, the recognition of professional qualifications enables the free movement of professionals (such as doctors or architects) within the EU. Other professions, such as lawyers, commercial agents, sailors or aircraft controllers do not fall under the Directive and are governed by specific legislation.

Directive 2005/36/EC:

- Brings a comprehensive modernisation of the EU system for recognition of professional experience
- helps make labour markets more flexible
- further liberalises the provision of services and promotes automatic recognition of professional qualifications in EU countries.

In total, across the EU Member States (MS) there are about 800 categories of regulated professions. Access to these is often based on differing national laws, which can make exercising a profession in another country difficult.

Directive 2005/36/EC applies in general to regulated professions unless otherwise stated. The professions falling under the Directive are nurses, midwives, doctors (general practitioners and specialists), dental practitioners, pharmacists, architects and veterinary surgeons.

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<sup>2</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32005L0036>



Directive 2005/36/EC does not apply to professions for which the recognition of professional qualifications is governed by specific legal provisions. These professions are sailors and seafarers, statutory auditors, insurance intermediaries, lawyers, commercial agents, aircraft controllers as well as some other professions in transport or those linked to activities involving toxic products.

The Directive provides for automatic mutual recognition of qualifications for the following seven out of a total of 800 professions: doctor, nurse responsible for general care, dental practitioner, veterinary surgeon, midwife, pharmacist and architect.

It also establishes three systems for permanent RPQ:

**AUTOMATIC RECOGNITION.** It is a system for automatic recognition of professional qualifications for seven so-called *sectoral professions*: these are nurses, midwives, doctors, dentists, pharmacists, architects and veterinary surgeons with harmonised minimum training. To work in another EU country, professionals must apply to the authority that oversees the profession in that country, providing proof of their qualifications. The authority must:

- acknowledge the petitioner's application within 1 month of receiving it and ask the petitioner for necessary and missing documents to process the application;
- assess the petitioner's qualifications and decide whether to grant the recognition to the petitioner within 3 months (or 4 months for certain complicated cases in the area of non-automatic recognition).

In case of disagreement, professionals can appeal to the court in the respective country.

**RECOGNITION BASED ON PROFESSIONAL EXPERIENCE.** Professionals working in the craft, commerce or industry sectors may qualify for the automatic recognition of professional qualification in another EU country. There are two ways of obtaining qualifications recognised:

- automatic recognition. Applies for qualifications on the basis of professional experience. The required minimum duration and nature of the professional experience are laid down in Directive at Articles 17 and 19.
- mutual recognition. Applies for qualifications on the basis of the general system.

If the authorities of the host country find significant differences between the training acquired in the petitioner's country of origin (including his/her professional experience) and that required for the same work in the host country, they may ask the petitioner to complete a traineeship or aptitude test.

**GENERAL SYSTEM** for all other professions. The general system of recognition enables workers to have their professional qualification recognised in another EU country. In such cases, the host country:

- recognises qualifications when the worker's level of professional qualification is at least equivalent to the level immediately below the level required in the host country;
- grants recognition to workers whose profession is not regulated in the country of origin but who have worked full-time in that profession for two years;
- may impose measures such as an adaptation period of up to three years or an aptitude test under certain conditions.

Moreover, Directive 2005/36/EC sets the rules for:

**1.TEMPORARY MOBILITY.** The rules for temporary mobility are set out in chapter II of Directive 2005/36/EC and apply to the temporary or occasional nature of activities of a self-employed or an employed person in another EU country. In other words, this scheme allows professionals to work in another EU country on the basis of a declaration made in advance. The host EU-country:

- assesses the temporary mobility on a case by case basis (duration of activity, frequency, regularity, continuity)
- may require a written declaration in advance;
- may check the professional qualification before the professional can provide services for the first time. This applies when the profession in question has public health or safety implications and does not benefit from automatic recognition under Chapter III of the Directive;
- may provide for automatic temporary registration or pro forma membership on the basis of the declaration made in advance;
- may require the service provider to supply the recipient of the service with certain information;
- requires the professional to inform the public social security bodies in advance or, in an urgent case afterwards, of the services provided.

**2.ESTABLISHMENT IN ANOTHER EU COUNTRY.** The directive lays down rules for professionals who want to establish themselves as:

- an employed or self-employed person;
- on a permanent basis;
- in a country where they did not obtain their professional qualification.

**3.SYSTEMS OF RECOGNITION OF QUALIFICATIONS.** As seen above, there are three systems of recognition:

- automatic recognition for professions with harmonised minimum training conditions (i.e. nurses, midwives, doctors (general practitioners and specialists), dental practitioners, pharmacists, architects and veterinary surgeons);
- general system for other regulated professions such as teachers, translators and real estate agents;
- recognition on the basis of professional experience for certain professional activities such as carpenters, upholsterers, beauticians etc.

#### **4.KNOWLEDGE OF LANGUAGES AND PROFESSIONAL ACADEMIC TITLES.**

In each EU country, workers are required to obtain special qualifications or specific job titles to perform regulated professions. Different requirements across the EU may make it difficult for qualified professionals to apply for jobs in other EU countries. It may also be difficult to get information on what conditions these professionals have to comply with to be able to work in another country.

This is why the European Commission also set up a **database of regulated professions**<sup>3</sup> in order to make it easier for EU citizens to find information about and professional access requirements across the EU. The database on regulated professions provides:

- information on regulated professions in all EU countries, EEA countries and Switzerland;
- statistics on professionals moving abroad and on temporary mobility;
- an interactive map;
- useful links and contacts.

Directive 2005/36/EC on recognition of professional qualifications and the subsequent **Directive 2006/123/EC**<sup>4</sup> of 12.12.06 on “*services in the internal market*” are complementary instruments dealing with different matters. Consequently, for matters not relating to professional qualifications, the “Services Directive” applies to those regulated professions that fall within its scope. Through this Directive, the European Commission aims to remove barriers for companies looking to offer cross-border services. The core principles governing the Single Market for services are:

- the freedom to establish a company in another EU country (Article 49 TFEU);
- the freedom to provide or receive services in an EU country other than the one where the company or consumer is established (Article 56 TFEU).

In November 2013 the Directive 2005/36/EC was amended with the publication of the **Directive 2013/55/EU**<sup>5</sup> of 20.11.2013 on “*the recognition of professional qualifications and Regulation on administrative cooperation through the Internal Market Information System (IMI Regulation)*”. The transposition period was 2 years and was due by 18 January 2016.

Add something on ECCO work on profession classification (NACE)

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<sup>3</sup> <http://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=homepage>

<sup>4</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0123>

<sup>5</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1551785272584&uri=CELEX:32013L0055>

# ITALY.

## LEGAL FRAMEWORK FOR COMPANIES

A first legal instrument protecting the quality of public works in Italy is given by the **Consolidated Law on Safety** (Law n. 81/08)<sup>6</sup>, regulating the protection of health and safety of workers in the workplace, thus making Health & Safety in the workplace a validating element of the good- quality operating capacities of a company. The Code states that any company involved in public works must possess the necessary documentation and prove the fulfilment of legal obligations in the following fields:

- Administrative;
- Legal;
- Contractual;
- Social Security;
- Safety in the workplace;
- Insurance;
- Quality.

Such qualification allows the company participating in tenders, signing contracts, avoiding sanctions, accessing to benefits and public funding, etc. thus granting it an advantage in terms of added value as a further guarantee compared to purely technical and professional elements.

With particular attention to those operating in the construction sector, the company qualification system is achieved at least through the adoption and dissemination of a document standard that allows the continuous verification of the suitability of companies and self-employed workers, in the absence of violations of the provisions of the law and with reference to the envisaged requirements, including training on health and safety at work and the measures issued by the supervisory bodies.

The qualification requirements are distinguished in general and special requirements. The general requirements for the qualification are related to:

- the criminal situation of the legal representative/administrator and the technical director;
- the company situation;
- violations committed in construction activity.

The special requisites required for qualification are:

- adequate economic and financial capacity;
- adequate technical and organizational skills;
- adequate equipment of technical equipment;
- adequate average annual permanent staff.

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<sup>6</sup> <http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2008-04-9;81lvig=>

The Commission must identify sectors and criteria aimed at defining the system of qualification, which must be based on the specific experience, competence and knowledge, acquired also through targeted training courses and on the application of contractual and organizational standards in the use of workforce.

A second tier to be faced by licensed companies is represented by **the national code on public procurements** (Law n. 50/16)<sup>7</sup> stating:

at Article 23 (*Levels of design for tenders, for works concessions as well as for services*):

- For the design of works of particular relevance from an architectural, environmental, landscape, agronomic and forestry, historical-artistic, conservative and technological point of view, the contracting authorities shall use internal professional skills, provided that they possess the appropriate competence in the subject matters (Comma 2).

and at Article 147 (*Levels and contents of the design*):

- For the works concerning cultural heritage, a technical sheet is required [...] drawn up by professionals in possession of specific technical competence in relation to the object of the intervention [...] interventions related to movable cultural heritage, decorated surfaces of architectural heritage and historical materials of real estate of artistic or archaeological interest [...] must be drawn up by restorers of cultural heritage, qualified according to current legislation (comma 2).

The code also provides for the SOA qualification for the execution of works contracts issued by Public Administrations that are superior to 150.000 €. The SOA Qualification is a certification necessary to prove the company's ability to compete and perform public works with an amount greater than € 150,000.00. It is issued by special Certification Bodies<sup>8</sup> and demonstrates that the competitor has the necessary requisites to be able to contract with the Public Administration.

SOA certificates enables the construction company to compete in public tenders for 52 work categories (13 concerning general works and 39 concerning specialized works) in 10 different cost rankings. Some of these categories of works are related to Cultural Heritage Sector.

Among general works category:

- OG2 - Restoration and maintenance of real estate subject to legal protection according to the Code of Cultural Heritage and Landscape d.lgs. 42/2004 as amended.

Among specialized works category:

- OS2A - Decorated surfaces of cultural heritage and cultural heritage of historical, artistic, archaeological and ethno - anthropological heritage;
- OS2B - Movable cultural heritage of archival interest and libraries;

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<sup>7</sup>[http://www.gazzettaufficiale.it/atto/serie\\_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2016-04-19&atto.codiceRedazionale=16G00062](http://www.gazzettaufficiale.it/atto/serie_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2016-04-19&atto.codiceRedazionale=16G00062)

<sup>8</sup> <http://elencosoa.avcp.it/public/>

- OS24 - Parks and Gardens;
- OS25 - Archaeological excavations.

The SOA Qualification is valid for five years (if confirmed at the end of the first three years) and is the result of a detailed verification of the existence of the minimum certification requirements, which the company must demonstrate with appropriate documentation concerning the ten years prior to the qualification request. All documents sent to the certification body are acknowledged in special databases or information systems, so that the SOA can guarantee the validity, conformity, correctness and authenticity of such documents.

Finally, as a third tier of compliance, the technical-economic qualification of companies wishing to participate in public and private contracts on Cultural Heritage are regulated by the **procurement regulation on public procurement for Cultural Heritage** (DPR n.154/2017)<sup>9</sup>. It applies to all procurements aiming at monitoring, maintenance and restoration work on protected buildings; archaeological excavations; monitoring, maintenance and restoration of movable cultural heritage or surfaces decorated with historical materials. In other words, all historical, artistic or archaeological properties are subject to specific procurements for cultural heritage /restoration works.

As a general requirement, the regulation imposes the registration at the chamber of commerce it is mandatory for the following kind of works:

- archaeological excavations;
- maintenance and restoration of movable cultural heritage and decorated surfaces of architectural heritage and historicized materials of cultural real estate, works of conservation and restoration of works of art;
- restoration and maintenance of immovable cultural heritage, conservation and restoration of works of art;
- for the historic parks and gardens.

Moreover, the regulation imposes precise constraints as special requirements:

- **the Technical Director** must have the uniqueness of the assignment and, for the entire duration of the contract, he/she cannot hold a similar position on behalf of other qualified companies. A declaration must be given to the contracting authority. For the OG2 category (Restoration and maintenance of protected real estate) the technical director must be an architect registered in the register or graduated in conservation of cultural heritage. For the OS2-A categories (Decorated surfaces of real estate of cultural heritage and movable cultural heritage of historical, artistic, archaeological and ethno-anthropological interest) and OS2-B (Mobile cultural heritage of archival interest and libraries):
  - a degree of restorer at the high schools or other institutes indicated by the code of cultural heritage
  - or a degree in conservation and restoration of cultural heritage

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<sup>9</sup> <http://www.gazzettaufficiale.it/eli/id/2017/10/27/17G00169/sg>

- or he needs to be qualified restorer of cultural heritage as per Article 182 of the Cultural Heritage Code, but with at least three positions of technical management already performed before the regulation entered into force.

For jobs with an amount lower than 150 thousand euro these requirements are self-certified. In case of ascertained non- veracity of the self- certified statement, there are administrative and penal sanctions to be applied. Additionally, the contract with the company for the specific work may be discontinued.

- **Works already performed.** The company must have performed work on cultural assets at least for 70% of the amount of the classification for which registration is required. For the purposes of qualification, the certificates issued before the entry into force of the decree are valid only if accompanied and supplemented by the declaration of success issued by the authority responsible for protecting the assets on which it intervened. Works can only be used if carried out by the company, also as a subcontractor. The contractor cannot subcontract conservation / restoration works (categories identified above).
- **Organizational suitability.** Restorers, collaborators and archaeologists must have a fixed or an indefinite contract with the company:
  - OG2 category. Companies with at least 6 employees on average over the last ten years: eligibility is demonstrated by a staff cost of at least 15% of OG2 jobs carried out in the last ten years prior to enrolment in the SOA, of which at least 40% must concern the workers' staff. Or, the expenditure for permanent employees must be at least 10% of OG2 jobs carried out in the last decade, of which at least 80% for qualified technical personnel.
  - Categories OS2-A and OS2-B. Companies with at least 6 employees on average over the last ten years: eligibility is shown with at least 20% of restorers and with at least 40% of collaborators restorers or restorers, always with respect to the overall staff. Or, the company must demonstrate that it has incurred a labour cost for restorers and restorers of at least 40% of the OS2 works (A and B) in the decade preceding the SOA enrolment.
  - Companies with up to five employees (for OS2): they must have at least one restorer within them.
  - OS25 category. Companies with at least 6 employees on average over the last ten years: eligibility is obtained with the presence of at least 30% of archaeologists compared to the total number of staff units. Or, the company is suitable if it proves to have supported with labour costs at least 30% of the amounts of OS25 works in the decade preceding the SOA registration.
  - Companies with up to five employees (for OS25): presence of at least one archaeologist.
- **Economic capacity.** The rules of the Procurement Code apply. Bank references are sufficient for the categories OS2-A, OS2-B and OS25.

- **Oversized works.** When tenders have a value of over 150 thousand euros, the companies must demonstrate possession of the following qualifications:
  - OG2 (Restoration and maintenance of real estate under protection),
  - OS2-A (Decorated surfaces of real estate of cultural heritage and movable cultural heritage of historical, artistic, archaeological and ethno-anthropological interest),
  - OS2-B (mobile cultural heritage of archival and library interest),
  - OS24 (Green and urban furniture),
  - OS25 (archaeological excavations).

The issued certification must also contain the certificate of the successful completion of the interventions, this is issued by the authority responsible for protecting the asset, that is to say the responsible Soprintendenza.

To summarize, the Ministerial Decree 154/2017 specifies that companies participating in procurements on cultural heritage must demonstrate possession of the specific qualification (for example the OG2 related to the restoration and maintenance of protected real estate, the OS25 concerning archaeological excavations, etc.) and exhibit certification issued by the authority responsible for protecting the asset object of the work that works were successfully carried out and in the full respect of the heritage object. The decree also provides technical eligibility requirements on the work performed; for example, to participate in the contract, the company must have performed work on cultural heritage for at least 70% of the amount of the classification for which registration is requested.

The new decree therefore drops the threshold set at 90% from the previous Ministerial Decree 294/2000, which had set out a too high threshold to allow good companies to improve and grow in the profession, limiting the access to large companies only, therefore conducive of potential monopoly by a very limited number of companies, not necessarily any longer encouraged to deliver quality interventions. Another important change concerns the faculty of the contracting authorities to provide, among the criteria for assessing the offers, a specific bonus system for the offers presented by companies that avail themselves in the design and execution of the work of personnel holding securities issued by specialized schools in the sectors of cultural heritage enhancement.

The Ministerial Decree also specifies that for works concerning cultural heritage, in the case in which the registration to an order or professional college is not envisaged, the performances related to the feasibility, definitive and executive planning can be performed also by a subject bearing the qualification of restorer of cultural heritage. For the supervision of the works and technical support for the activities of the unique technical director, it is necessary to use a qualified cultural heritage restorer or, according to the type of work, another professional referred to in article 9-bis of the Code of cultural heritage (archaeologists, archivists, librarians, restorers of cultural heritage, etc.) with at least five years' experience and specific skills consistent with the intervention.

## ***LEGAL FRAMEWORK FOR PROFESSIONALS***

As a general definition, the Italian law defines the *restorer of cultural heritage as the professional who defines the state of conservation and implements a series of direct and indirect actions to limit the*



*degradation processes of the materials constituting the goods and ensure their conservation, safeguarding their cultural value. It also carries out documentation, research, experimentation and dissemination activities in the field of conservation of cultural heritage.*

The figure of the restorer<sup>10</sup> of cultural heritage is clearly defined by current legislation, starting from the **Code of Cultural Heritage** (Law n. 42/04), up to the Regulations issued by Decree of the Ministry for Cultural Heritage and Activities n. 86 of May 26, 2009.

The title of Master's Degree in Conservation and Restoration of Cultural Heritage (class LMR/02) achieved at the end of the five years entitles the holder to be included in the List of Cultural Heritage Restorers, as required by the Code of Cultural Heritage (Legislative Decree no. 42/2004 article 182, paragraph 1-bis)<sup>11</sup>. It corresponds to VII level of the European Qualifications Framework, corresponding to the second cycle of academic qualifications.

The subsequent **Law n. 110/14**<sup>12</sup> on "Amendment to the code of cultural heritage and landscape, on the subject of cultural heritage professionals, and establishment of national lists of the aforementioned professionals", provides that the operational interventions of protection, protection, conservation, enhancement and use of cultural heritage are entrusted to the responsibility and implementation of archaeologists, archivists, librarians, demo-ethno-anthropologists, physical anthropologists, restorers of cultural heritage and collaborators restorers of cultural heritage, experts in diagnostics and science and technologies applied to cultural heritage, art historians. National lists must be established at the Ministry of Cultural Heritage and Activities and Tourism in which the professionals meeting the requirements must register, with the exception of the restorers of cultural heritage and of the collaborators of cultural heritage restorers.

The lists must be published on the MIBACT website: it does not constitute a professional register and not being registered does not preclude the possibility of exercising the profession. The keeping and updating of the lists are handled by the Directorate General for Education and Research<sup>13</sup> of the MIBACT.

The creation of such lists, whose access requirements are defined by a public authority, does not limit the exercise of the professions of archaeologist, archivist, librarian, demo-ethno-anthropologist, physical anthropologist, expert in diagnostics and science and technology applied to cultural heritage and art historian, that can also be exercised by those who are not registered in the lists, provided that they document the possession of those titles, indicated in the decree, which integrate and constitute the "adequate training and professional experience". Contrary, for example, to what happens to the restorers, for whom, the registration to the list is a prerequisite for the exercise of the profession and

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<sup>10</sup> [https://temi.camera.it/leg17/temi/le\\_professioni\\_dei\\_beni\\_culturali](https://temi.camera.it/leg17/temi/le_professioni_dei_beni_culturali)

<sup>11</sup> [http://www.beniculturali.it/mibac/multimedia/MiBAC/documents/1409838432762\\_Linee\\_guida\\_art.\\_182\\_Codice\\_dei\\_beni\\_culturali.pdf](http://www.beniculturali.it/mibac/multimedia/MiBAC/documents/1409838432762_Linee_guida_art._182_Codice_dei_beni_culturali.pdf)

<sup>12</sup> [http://www.bosettiegatti.eu/info/norme/statali/2014\\_0110.htm](http://www.bosettiegatti.eu/info/norme/statali/2014_0110.htm)

<sup>13</sup> <http://dger.beniculturali.it/index.php?it/80/professioni>

for the exclusive right of execution of conservation /restoration actions on movable cultural heritage and decorated surfaces.

The **Law n. 7/13**<sup>14</sup> on “Modification of the transitional discipline of the attainment of the professional qualifications of restorer of cultural heritage and of a collaborator restorer of cultural heritage” finally modified the art. 182 of Legislative Decree 42/2004 concerning transitory discipline for the achievement of the qualifications of restorer and collaborator restorer of cultural heritage. For both professional figures, the law provides, in the presence of certain requirements, the direct acquisition following a public selection procedure based on the valuation of securities and assets, or, in the presence of other requirements, the acquisition after exceeding a suitability test.

The status of restorer of cultural heritage, as a result of the public selection procedure, is achieved with a score (deriving from qualifications and professional experience) equal to 300. It is acquired through measures of the Ministry, which inserts the professionals in a list divided by sectors of competence.

### ***ACCREDITATION OF PROFESSIONALS***

In the Republic of Moldova, the most developed professional accreditation system for professional in the heritage sector is the one set up for Archaeologists, which can be considered as a key example of the different approaches in use throughout Europe.

In the Republic of Moldova, a Faculty of Archaeology is actually provided by four institutions of higher education, two are public and two are private. With regard to their training of Archaeologists, in 2013 the Ministry of Culture has established a registry of archaeologists and later on set three different categories of professionals to be defined according on their level of expertise:

- novice archaeologist, featuring a mere degree in history;
- specialized archaeologist, also possessing a diploma issued after a specialized training;
- senior archaeologist, whose practical experience (or Master Degree) received at least 4 points of assessment.

Only professional Archaeologists that completed at least one year of a specialization training can work at the Archaeological National Agency (ANA).

In **Italy**, a Master Degree in Letters or Cultural Heritage (3+2) is needed. After the degree three years of specialization in archaeology (access upon examination – only a limited number of enrolments is possible) with compulsory attendance (classical, archaeology, medieval, prehistoric etc.) are requested or, alternatively, the research doctorate (limited number as well and selection process to access the programme). The specialization in archaeology or, alternatively, the research doctorate in archaeology are set by art. 95 of Legislative Decree 63/2006 as essential requisites for the drafting of

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<sup>14</sup> <http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2013;7>

the document of preliminary verification of the archaeological interest for public works. After registration on the MIBACT list<sup>15</sup>, specialized or doctorated archaeologists can apply for the competition aimed at selecting public officers or, as freelancers, can obtain a code to sign the documents of preventive archaeology. In case of a simple 3+2 degree, it is possible to participate in excavation sites as an archaeologist. There is no professional order and free-lance archaeologists have neither juridical recognition nor a trade union. There are no 'rules for the archaeologist' such as those for lawyers, architects, geologists, engineers etc.

The recently introduced *Codice dei contratti pubblici* (Code for Contracts in Public Works) points out at Article 95 that the preliminary project must contain an integrated geological and archaeological survey investigation to evaluate the archaeological 'risk'. Only scholars who graduated in archaeology (with a no less than a five-year degree) and/or a department of archaeology are entitled to sign the report and to submit it to the superintendent, which is the head of the deconcentrated offices of MIBAC responsible for implementing cultural heritage protection.

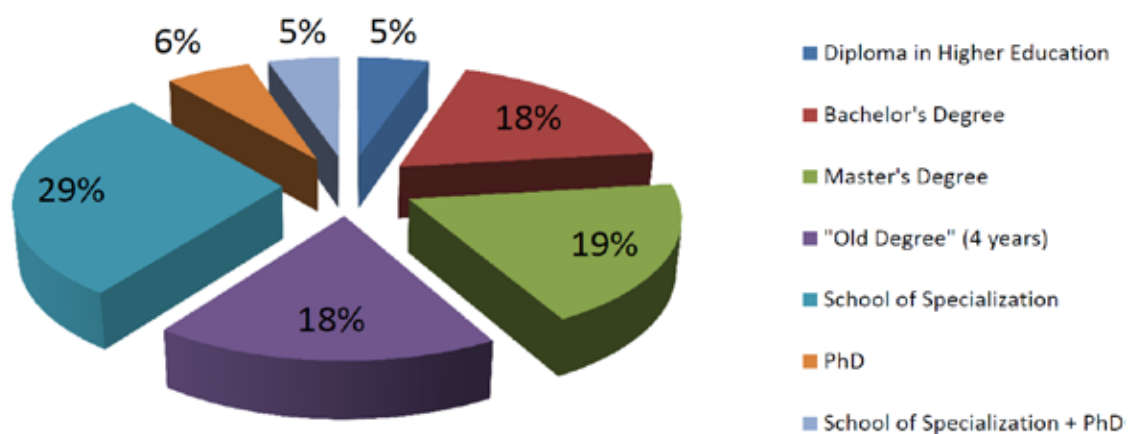


Figure 1 - The Education of Italian Archeologists (source ANA 2011)

In **Greece**, a Degree course (3+2 and thesis) is needed. After the degree, archaeologists can participate in excavations and in public competitions for State officers. Responsibility for the protection of cultural heritage lies exclusively with the central government. Regional and local authorities have no competence in those matters. Archaeological investigations (but no rescue excavations) may also be undertaken by universities, research institutes and foreign archaeological schools in Greece, after permission from the Minister of Culture. So far, the status of the state archaeologist has contributed to the minimization of antagonisms between public and private interests. In 2004, 430 state

<sup>15</sup> <http://www.archeologiapreventiva.beniculturali.it/>

archaeologists worked for the Ministry of Culture on a permanent basis, whereas a varying number of archaeologists under contract were temporarily employed in the framework of major public works. In the latter case, the criteria for the employment of these staff are not imposed by law and the length of the contract is determined by the timeframe of the rescue excavation for which they are needed. Education and training of archaeologists is based on university courses. Professional training and continuous education for field archaeologists employed in archaeological investigations in the context of development projects is a desideratum.

In **Ireland**, criteria for eligibility for first-time licence applicants are an academic qualification with a substantial archaeological content and relevant archaeological excavation experience in a supervisory capacity. Competency is further assessed in an interview where the applicant is examined with regard to his/her knowledge of Irish archaeology, excavation and survey techniques, knowledge and recognition of archaeological objects, knowledge of conservation techniques, post-excavation analysis experience, skills in preparation of material for publication and knowledge of relevant legislation. A list of all archaeologists eligible for licences is available from the Department of Environment, Heritage and Local Government. This list is sent to private developers who require professional archaeological services.

Compared to many other European countries, **England** is unusual in archaeological terms in two ways. First, there is no general system of state licensing of archaeological excavation work (or other archaeological work): permission is only required to excavate on protected monuments and in certain other limited circumstances. Beyond those, anyone can – as long as they have the landowner's permission – excavate any archaeological site they like. Second, there is no general state ownership of antiquities in England. Apart from some limited provisions relating mainly to 'treasure' – precious metal artefacts and associated items – all antiquities belong to the owner of the land on which they are found. The central government organisation which has the main responsibility for archaeology in England is English Heritage. This is a statutory body set up by an Act of Parliament. It is legally an independent body, but it receives about 80% of its annual budget from the Department of Culture. The Department of Culture has a key responsibility within the Government for archaeological matters, does not employ any archaeological specialists itself. Instead, it gets advice on archaeological matters from English Heritage. English Heritage has a wide range of archaeological functions. It recommends monuments for legal protection and gives advice on applications for permission to do things (such as new buildings) which would affect protected monuments. The actual legal protection and the permissions are given by the Department of Culture. English Heritage also carries out archaeological work itself. It has a number of teams of excavators, geophysical surveyors, field surveyors, archaeological scientists, aerial photographers and others who carry out projects, and who can also give advice to others about, for instance, scientific techniques. Also important to mention is the Institute of Field Archaeologists, the professional body for archaeologists in the United Kingdom. This body has about 2000 members. It has a Code of Conduct, sets standards for archaeological work and has a disciplinary procedure if there are complaints of bad work or unprofessional conduct. It also has a scheme for registering archaeological organisations and inspecting them annually. In a world of commercial archaeology, the importance of having a strong professional body, and a clear professional ethos, cannot be emphasised enough.

In **France**, Preventive archaeology is organised by the Law of 17 January 2001, modified in 2003 and 2004, which constitutes the application to French law of the European Convention on the Protection of the Archaeological Heritage of Valletta (Malta) in 1992, ratified by France in 1994. This law is based on two principles: the developer pays for preventive archaeology (according to the principles, now embedded in environmental directives, that 'the polluter pays'), and most of this activity is entrusted to an institute of public research, the *Institut National de Recherches Archéologiques Préventives* (INRAP), under the double supervision of the Ministry of Culture and the Ministry of Research. The initial law of 2001 set excavations as a public monopoly entirely entrusted to INRAP but it was amended in 2003 introducing the possibility to enter into commercial competition for the excavations. Nevertheless, INRAP still does most of the preventive excavations and, of the 3500 archaeologists of France, it employs 1800 permanently and about 200 with a short-term-contract. France also has an archaeological curriculum. The French system appears to be the most advanced with regard to the attention given to preventive and rescue archaeology and has developed a centralised system of funds collection (established percentage of the budget allocated for public works likely to have an impact upon the archaeological resources).

In **Spain**, archaeology is not taught as a degree subject. It is taught via a series of courses as part of history and humanities, from archaeology and prehistory departments in the 34 public universities spread throughout Spain. In order to overcome the 'irregular' status of the profession, the standards for protecting historical heritage have incorporated the need to guarantee the suitability and quality of professionals drafting archaeological intervention projects. In this way the responsibility for overseeing the professionalism of the sector is not left in the hands of universities or professional associations, but instead those of the public authority responsible for historical heritage. Since 1984, a series of efforts have been made to recognise archaeology as a profession, supported by professional bodies within the field and regional governments. Apart from a degree, the main requirements include experience in field or laboratory work (historical specialities, duration of work, drawing pottery, etc.), and scientific publications.

# MOLDOVA.

## LEGAL FRAMEWORK

In order to clarify the accreditation system of professionals and companies in Moldova, an extensive survey was first addressed to the legal framework disciplining the sector. Among the most relevant laws, codes and regulations the following were identified:

### **Draft Urbanism and Construction Code of The Republic Of Moldova<sup>16</sup>.**

The urban planning code and buildings is still at draft stage<sup>17</sup> but seems to contain elements suitable in order to put on a system of certification for both professionals and companies. Below the most important articles of the Code are quoted.

ART 192. The construction design works may be executed by the natural or legal person, registered according to the legislation in force, which have included in the scope of activity construction activities and have design specialists, certified according to the provisions of the present Code.

ART 194. Recognition of the qualifications of designers, project examiners and technical experts, citizens of the Republic of Moldova, shall be based on the legislation in the field of education and attestations obtained subsequently.

ARTT 195-196. The designer is a natural person who must hold a diploma issued by accredited educational institutions in accordance with the Nomenclature of Vocational Training and Qualifications for the Training of Staff in Higher Education Institutions. The designer is entitled:

- urban planner in the field of urban planning and territorial planning;
- architect in the field of architecture;
- construction engineer for the field of civil engineering;
- construction engineer with various specializations for Industrial Engineering and installation engineering.

ART 241. In the exercise of the profession, the construction engineers shall carry out activities according to the appropriately obtained competences and according to the technical-professional certifications provided by this Code.

ART 242. In the field of civil engineering and installations, the specializations recognized for a construction engineer are as follows:

- civil and industrial constructions;
- railways, roads and bridges;
- constructions and fortifications;

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<sup>16</sup> [https://gov.md/sites/default/files/document/attachments/intr05\\_67.pdf](https://gov.md/sites/default/files/document/attachments/intr05_67.pdf)

<sup>17</sup> CEC reports that the draft was withdrawn and its approval was postponed to the end of 2019.

- hydrotechnical facilities and constructions;
- mining constructions;
- sanitary engineering and environmental protection;
- land improvement and rural development;
- civil engineering;
- Urban engineering and landscaping (including regional development);
- construction installations;
- conservation and restoration.

ART 244. Holds the title of engineer in construction with various specializations, for the specializations provided in art. 242 of this Code, the graduate with a Bachelor integrated system or other similar document.

ART 245. Under the terms of this Code, engineers in construction, according to the specializations listed in art. 242 of this Code, have the right to carry out the following activities for constructions of all categories of importance and related facilities:

a) the design of new constructions, as well as modifications, transformation, consolidation, extension and major repairs of existing constructions, design of interventions on historical monuments registered in the Republic of Moldova's State Monuments Register, including the installations related thereto;

f) control and follow-up of the quality assurance of the construction works on the site during the execution, the pursuit of the protection requirements of the historical monuments inscribed in the Register of monuments of the Republic of Moldova protected by the state on the site of restoration/rehabilitation as technical responsible or site supervisor or representative of the State Building Inspectorate;

ART 246. Have the right of signature the persons mentioned in art. 244 with the specializations provided for in art. 242, certified according to the provisions of this Code and registered in the National Register of Construction Engineers and Architects.

ART 249. In the National Register of Construction Engineers and Architects shall be kept records of the attestations, on the basis of which the persons enrolled in them exercise their profession.

ART 250. After registration in the National Register of Civil Engineers and Architects, engineers in the field of civil engineering and installations and architects, stipulated in art. 242, obtain the right of signature according to art. 246.

ART 320. The enterprises involved in the design and/or construction of the constructions shall have the right to participate in the public auctions for the construction works or services in the domains for which they have been registered and for which they have obtained the professional qualification according to the provisions of the present Code.

Construction companies may have one or more professional qualifications in accordance with the classification of construction activities and may change their professional qualifications over time.

ART 321. Construction companies shall be classified as:

- by fields of activity, established by the Classification of Building Activities, which ensures the classification of construction enterprises by types of constructions, categories of works, related activities and by technical levels;
- by type of performance;
- by technical capacity;
- according to the size of the contracts they have the competence to take for execution, established on five levels, according to the turnover, the total value of the reference contracts, the average annual labor force, the average number and the qualification of the managerial team.

ART 322. For the purpose of centralizing the records of the construction companies having the right to work in the field of designing and/or execution of constructions, the Professional Register of Construction Companies (hereinafter referred to as Professional Register) shall be set up.

ART 323. The construction companies, irrespective of size, legal status, field of activity, as well as whether or not they hold the professional qualification certificate, have the obligation to register with the Professional Register.

The certificate of registration of construction enterprises in the Professional Register shall indicate the company's data as well as the classification of the enterprise.

ART 325. Certification of the professional qualification of the construction companies shall be carried out by the bodies for certification.

The certification of construction enterprises shall be carried out in accordance with the certification procedures developed by each certification body and approved by the central specialized body of the public administration in the field of construction.

ART 328. Surveillance measures shall include the actions, planned annually and further, to verify that the criteria underlying the granting of certification are maintained by the certification body and are finalized by decisions on:

- maintaining certified areas;
- the extension or restriction of certified areas;
- Modification of the class of competence;
- limited suspension;
- withdrawal of certification.

ART 330. Undertakings in construction less than 3 years of age or who have no continuity in the performance of the activities in the field for which they are applying for certification have the right to apply for limited time certification.

The limited-term certification shall be granted for a period of 1 year and may be extended up to 3 years if, at the end of the first year, references are provided to the requirements established by the present Code and the normative documents for its application.

ART 331. In order to be certified, construction companies must meet the requirements set out in this Code. Classification of requirements shall be based on the following assessment criteria:

- legal-administrative criteria;



- financial criteria;
- technical criteria.

ART 335. LEGAL-ADMINISTRATIVE CRITERIA. The certification body shall exclude from the certification procedure any applicant undertaking in any of the following situations:

- is in insolvency, liquidation, its activities are suspended or is in a situation similar to the above mentioned, regulated by the legislation;
- subject to a legal procedure for declaring insolvency, winding up and subject to insolvency proceedings;
- the leader has been convicted in the last 3 years by a final judgment of a court of law for an offense which has violated professional ethics or for committing a professional misconduct;
- presents false information or fails to submit the information requested by the Certifying Body in relation to its own situation in the cases referred to in the preceding paragraphs;
- fails to fulfil the obligations to pay taxes and duties to the state, in accordance with the legal provisions;
- Has essential breaches of the building legislation and technical norms for the last 3 years.
- Any construction enterprise that has been the subject of a final conviction in the last 5 years by a final decision on:
  - participation in criminal organizations;
  - corruption;
  - fraud, within the meaning of the legislation in force;
  - money laundering, as defined by the legislation in force in the Republic of Moldova.

ART 338. ECONOMIC AND FINANCIAL CRITERIA. The economic and financial criteria underlie the evaluation of the financial capacity of the demanding enterprises in construction and ensure their classification on the value levels by analyzing the following documents:

- bank statement or proof of professional risk insurance;
- the balance sheet or the balance sheet statement, if the balance sheet is published in the law of the country in which the applicant undertaking is resident;
- the statement of the total turnover for the last 2 years of the financial year and the turnover for the field of activity for which certification is requested for the last 3 years of the financial year;
- financial reports, as appropriate, of independent auditing firms or other enforceable documents to the extent that they reflect a true and fair view of the economic and financial situation of the requesting enterprise.

ART 343. TECHNICAL CRITERIA. The technical criteria are based on the assessment of the technical capacity based on the information and verifications carried out on:

- implementing a quality management system according to the ISO series standards;
- experience in the area under certification;
- qualification and competence of management and executives;
- technical equipment with specialized equipment, installations and equipment;

- endowment with measuring devices, monitoring.

ART 344. The assessment of the technical and professional capacity of the construction enterprises in the areas for which certification is requested shall be carried out on the basis of

- information on the firm's experience of carrying out similar works resulting from:
  - a list of similar works executed in the last 3 years;
  - certificates of good execution of the most important similar works executed from state or state-guaranteed funds, countersigned by the competent authority.
- information regarding the technicians and professionals certified according to the provisions of the present Code, in the field for which certification is requested;
- information on the machinery, equipment, technical equipment at the requesting undertaking and/or it may provide them through cooperation contracts with specialized enterprises;

Construction companies applying for certification must have a quality management system certified by a certification body accredited at national level and recognized by the central specialized body in the case of requesting the construction of categories A, B or greater than EUR 1 million while for the construction of categories of importance C, D, the quality management system certification is optional.

ART 347. The certificate of professional qualification of the companies participating in the public tenders cannot be used for the subcontractors declared in the tender, the tenderer must then present their qualification certificate in the fields for which he/she is a subcontractor.

ART 468. The quality system in construction shall comprise the following components:

- technical regulations in construction;
- design of urban and construction documentation;
- verification and expertise of projects and constructions;
- Authorization of institutions/enterprises with activities in the field of verification/examination of project and exchange documentation;
- certification of specialists in construction;
- management and quality assurance in construction;
- metrological activity in construction;
- the quality of the products used for constructions;
- accreditation and recognition/assessment by the assessment bodies (testing laboratories, product certification bodies, certification bodies for management systems and inspection bodies) of the conformity of construction products;
- technical assessments in construction;
- building reception;
- behaviour of buildings in operation and time interventions in existing constructions;
- post-use of constructions;
- state quality control in construction.

ART 480. For the purposes of this Code, regulated professions which may be exercised by specialists attested to this purpose are:

- designers, designers in urban planning, project verifiers and technical experts;
- technical officers, site supervisors, technical followers and energy auditors for buildings;
- specialists from the testing laboratories in construction.

The technical-professional attestation of the specialists provided for in paragraph (1) shall be carried out every five years by the certification commissions, established by the central specialized body, with the issuance of a certificate of technical and professional attestation.

The persons indicated in par. (1) of this article shall be obliged, upon the expiration of 5 years after obtaining the certificate of technical and professional attestation, to attend a training course after which the certificate of attestation will be extended for a period of 5 years.

ART 482. The certificate of a certified specialist can be suspended for a period of 3 to 12 months only by order of the specialized central body.

The authorization of the institution/undertaking for the verification/examination of the projects may be suspended for a period of 6 to 18 months only by order of the central specialized body. The decision to suspend or cancel the certificate of technical and professional attestation and/or the authorization of the institution/enterprise for the verification/examination of the projects will be based on:

- Statement of Inquiry prepared by the State Building Inspectorate for this purpose;
- the report of a group of three certified technical experts, analyzing the report of the State Inspectorate for Construction and confirming (or invalidating) the proposal regarding the duration of the suspension;

The expert group consists of three representatives: a certified technical expert, appointed by the central specialized body, one recommended by the national representative in the field of construction, and the third proposed by the nominee for sanctioning.

Finally, the Code of Urbanism stipulates that it is mandatory to obtain a certificate for those who do not have studies in the field of their teaching, as is the case of the *Maistri Constructori* providing VET training to Adults referred above.

With reference to this, the **Order n. 5620 of 11.11.2010**<sup>18</sup> on the “*valid programs for the contest for the occupation of the teaching positions/chairs declared vacant/reserved in the pre-university education*” sets the rules and requirements for the related national contest<sup>19</sup>.

The **Government Decision n. 329 of 23.04.2009**<sup>20</sup> on “*Approval of the Regulation on the technical and professional attestation of specialists with construction activities*” was referred by Incercom staff.

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<sup>18</sup> <http://oldsite.edu.ro/index.php/articles/14650>

<sup>19</sup> <https://www.edu.ro/programe-specifice-pentru-concurs-titularizare-mai%C8%99tri-instructori>

<sup>20</sup> <http://lex.justice.md/md/331409/>  
<https://servicii.gov.md/ServiceDetails.aspx?id=80925a3e-9ea7-4675-aeed-403ef1bbcb9>

According to the decision, the service of technical and professional attestation of specialists with construction activities provides the certification/re-certification of design specialists, project verifiers, technical experts, site supervisors (*diriginți de șantier*), technical officers, supervisors for the execution of specialized works (*responsabile tehnice*) and the fitting of construction facilities, technical staff responsible for construction works and installations related to construction and technical specialists from construction testing laboratories that are responsible for the quality of construction, according to their obligations under the law.

The certification / re-qualification of the specialists shall be made every five years.

Qualification certificates are issued to specialists responsible for the quality of construction.

Technical and professional attestation of construction specialists is a component of the quality system in construction and is carried out with the aim of complying with normative acts in construction and ensuring the following essential requirements:

- A - strength and stability;
- B - safety in operation;
- C - fire safety;
- D - hygiene, human health, restoration and protection of the environment;
- E - thermal insulation, waterproof and energy saving;
- F - noise protection.

A specialist may be certified upon his request to one or more specialties or to one or more construction domains subject to all the conditions of the Regulation.

The certification of specialists with construction activities is carried out by the National Building Steering Body through specialized technical-professional certification commissions.

For the technical-professional certification, the applicant shall submit to the National Construction Guidance Body the following documents:

- the applicant's application indicating the name, surname, date of birth and the domain (s), profiles for which the attestation is required (see domain list at pag.36);
- copy of the identity card;
- copy of the diploma of graduation of the educational institution and / or of the scientific title;
- copy of the work card or labor contracts;
- a copy of the permit for gas installations or the authorization of an authorized electrician (*for engineer-installers*);
- two recommendations - from the institutions (enterprises) in which the applicant or specialists attested in the relevant field carry out or have carried out their activity;
- list of the most important works executed, approved by the enterprise in which the applicant is working;
- medical certificate concerning the possibility of exercising service duties for persons over 65 years for men and 60 years for women (*only for project supervisors and technical staff*).

The above is also confirmed by the **Decision n. 913 of 06.11.2014**<sup>21</sup> on the “*Approval of the Regulation on the organization and functioning of the one-stop shop for the technical evaluation in construction and the Regulation on the organization and functioning of the one-stop shop for issuing the certificate of technical and professional attestation of construction specialists*”.

In particular, the Annex 2<sup>22</sup> to the mentioned decision is the *Regulation on the organization and functioning of the one-stop shop for issuing the certificate of technical and professional attestation of specialists in construction*. Through the one-stop shop certificates of attestation shall be issued to the following specialists:

- designers;
- project verifiers;
- technical experts;
- currency developers;
- site supervisors;
- responsible technicians;
- supervisors with the execution of specialized works and installations related to constructions;
- technical responsible for specialized works and installations related to construction;
- specialized staff from the testing laboratories in construction.

It was activated within the former Ministry of Regional Development and Constructions (MDRC) which, according to the Decision, was in charge of:

- approving the action plan regarding the establishment and promotion of the one-stop shop;
- providing the infrastructure and the working environment necessary for the operation of the one-stop shop;
- designating officers within the central public administration specialized body in the construction field to participate in the one-stop shop;
- ensuring participation in the activity of the one-stop shop of the appointed representatives;
- approves the work schedule.

In order to certify and obtain the certificate of technical and professional attestation, the applicant submits to a single or on-line counter in electronic format, by accessing the web-site of the central specialized body of the public administration in the field of constructions, an application where the name, surname, date of birth, domicile and domain s, profiles, for which the attestation is required. On request, the applicant must also attach:

- copy of the graduation diploma of the educational institution and/or the scientific degree certificate;

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<sup>21</sup> <http://lex.justice.md/md/355388/>

<sup>22</sup> <http://old.mdrc.gov.md/libview.php?l=ro&idc=51&id=3406&t=/Atestare-specialisti/Atestarea/REGULAMENT-cu-privire-la-organizarea-si-functionarea-ghiseului-unic-deeliberare-a-certificatului-de-atestare-tehnico-profesionala-a-specialistilor-in-construcții>

- copy of the workbook or the employment contracts;
- two recommendations - from institutions (enterprises) in which the applicant or specialists attested in the relevant field are carrying out or have carried out their activities;
- list of the most important works executed approved by the enterprise in which the applicant is working;

**Code n. 152 of 17.07.2014<sup>23</sup>** on “*Education of The Republic Of Moldova*”, explicating among other the necessary requirements for those who teach. In particular, Article 132 sets the “minimum Qualification Requirements for Occupation of Teaching and Scientific-Didactical Functions”. The minimum qualification requirements for teaching positions are:

- in early education - possession of a qualification in the field of at least level 4 ISCED - post-secondary technical vocational education;
- in primary education - possession of a qualification in the field of at least 5 ISCED level - post-secondary non-tertiary technical vocational education; in gymnasium education - possession of a qualification in the field of at least 6 ISCED level - higher education degree, as well as promotion of the psycho-pedagogical module;
- in high school education - possession of a qualification in the field of at least 7 ISCED - master degree studies, as well as promotion of the psycho-pedagogical module;
- in technical vocational education - possession of a qualification of at least 5 ISCED level - non-tertiary post-secondary technical vocational education, in profile programs, except foremen, as well as promotion of the psycho-pedagogical module;
- in higher education - possession of a qualification of at least 7 ISCED level - master's degree studies. While in order to hold a scientific-teaching function it is necessary to have a level 8 ISCED qualification - doctoral degree.

In order to occupy the teaching positions, the graduates of the non-pedagogical higher education programs will have to follow the psycho-pedagogical module corresponding to a number of 60 transferable study credits.

The education of arts and sports represents an exception, since the honorary titles and the prizes obtained at national and international competitions, recognized by the relevant central bodies, confer the right to occupy the teaching positions.

### ***ACCREDITATION OF PROFESSIONALS***

Apart from the legal survey, an extensive set of structured interviews was carried out in order to make this subject clear and the make a picture of the state of the art of the qualifying sector in Moldova for both professionals and companies involved in CH restoration works.

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<sup>23</sup> <http://lex.justice.md/md/355156/>

A first interview was performed with the Head of Department of Civil and Industrial Constructions at the **CENTRE OF EXCELLENCE IN CONSTRUCTIONS (CEC)**<sup>24</sup>, a public institution that works partly with funding of the ministry of education and partly with private financing (renting of rooms and similar), from International Projects and private donations.

The school has one only premise and is located in *Chisinau*. They have about 100 teachers (60% internal and 40% outsourced from the technical universities according to the training needs), 20 administrative staff (in part teachers themselves are used for administrative tasks) and 20 more for services/cleaning. Among teachers, the number of women prevails slightly over that of men.

They only deal with construction courses. They currently have 10 study specializations:

- Heat, gas and ventilation systems;
- Interior design;
- Wood processing technology;
- Technology of building materials and articles;
- Building evaluation;
- Cadastre and organization of the territory;
- Construction and operation of roads;
- Architecture;
- Installer of heating, ventilation and air conditioning;
- Construction and operation of buildings and constructions;

They train a total of 1.600 students aged 15 to 22 (pupils). Males and females are represented in equal numbers but with a different distribution according to the courses. In addition to students aged 15-22, they also deliver training to adults.

CEC employs both teachers and trainers (*Maiștri instructori*): one main difference is that teachers work with pupils while trainers work with adults. Moreover, teachers must necessarily be graduates (Architects, Engineers etc.) while trainers may have a technical/economic diploma only. According to the Code n. 152 of 17.07.2014 on "*Education Of The Republic Of Moldova*", in order to teach pupils, it is mandatory to have a Master's degree also.

After graduation, engineers have to do 5 years of work with a senior engineer and then take a state exam that delivers an enabling certification through which they can start signing projects. From that moment, the exam must be repeated every 5 years. If in those five years the professional has not worked (or worked less), the exam cannot be taken. Something similar as reported for Architects, with the only difference that they would need 7 years of experience instead of the 5 requested to Engineers.

According to the newly drafted *Code on Urbanism And Construction* (expected to come into force by year 2020), those who have work experience only and no qualifications can continue to practice the profession as *Maistri Instructori* only through a special qualification exam resulting into an enabling

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<sup>24</sup> <http://ccc.md/>.

certification from Ministry of Education (lifelong, no longer subject to verification). The examination is carried out by a commission that is partly internal to the institution in which one works (2 members of the CEC in this case) partly external (1 member of the Council of something?).

All CEC teachers periodically receive training and professional updating from other colleagues. There are 4 degrees of competence that are checked every 5 years with an appropriate internal examination at CEC (the highest degree is the managerial one). The degree can be confirmed or promoted one step up (with a consequent salary increases). This only applies to VET schools.

In general, it is reported an excessive theoretical approach of teachers who should instead have more practical experiences.

The machinery for civil construction has been updated (as a gift from project with Austria/*Strabag*) but the available machines for other specialties (such as woodworks) are old. Therefore, the overall quality of training machinery is mixed. The Ministry does not buy new equipment, so they have to rely on private donors.

Textbooks and manuals are dating back to the 80s, part in Russian part in Romanian. Some are still good (sometimes even better than the modern ones) while others should be updated.

In the last year of school before graduating, students take three or four weeks of practice (sometimes paid) at private companies of their sector of specialization.

Six months after graduation, CEC conducts a survey (via questionnaires sent by email) to find out how many students are employed and in what sector (no information on their salaries is collected). Generally, some of them are abroad, others started attending university, others work at companies in the sector (sometimes the same ones where they have practiced). Others have radically changed sectors (about 40%) but in her opinion this is normal because the choice of CEC is made at 15 years (sometimes by family pressure) and maybe later on they understand that it was not what they wanted do. After this investigation, they do not make other surveys.

At the present moment there are no active restoration courses or modules within other courses in CH. In the future, however, CEC is planning to activate some single subjects related to heritage conservation within the already existing courses. The teachers who will take care of this new subjects will receive special training from the two who have attended the "*training course for specialists in Architecture and Engineering*" activated as part of this Twinning project.

It is also reported that, at least in the recent past, there were two restoration courses in two professional schools in the country. One is the VET school in *Vulcanesti*, having in the past *Restorers of plasters* among its specialties while at the moment, they only have *Plasters* specialty. The second school is VET school nr.4 from Chisinau that is reported having a specialty related to *Restoration of Paintings*.

It has been reported that at the time of the USSR the theme of art/restoration was much more considered and there were more professionals in the sector and more specific training was available. Now many of them are dead/aged/retired and some went to work abroad. Such skills have been lost, despite the fact that the associations of constructors explained that there is a shortage and need for workers with skills in restoration/ conservation (oral information provided during meetings).



CEC has relationships with the Ministry of Education and with private companies (so as with donor representatives) but they both seem problematic. Even if private companies often show little interest, they have regular meetings with them in order to take joint decisions on which courses to activate also according to the needs of the labour market.

They also have relationships with similar schools in neighbouring countries but do not exchange students (this is done only at university level).

CEC reports that professionals working in the restoration sector do not have to possess specific licenses/authorizations apart from those provided for by their degree (if they are graduates). In the case of engineers, they state that nothing is required except the degree and the possible state-examination for those who are up to sign the project. As an example of this, it was reported that few years later after some restoration works (with original materials) of an ancient church in *Curchi*, all the original materials used had been replaced with modern materials.

Similarly, when asked on the possible licenses/authorizations requested to companies it was reported that, according to the Law n. 721 of 02.02.1996 on "*Quality in construction*", the construction companies, in order to be able to exercise, must possess some form of authorization (as number or qualification of the employees and similar) but in any case nothing specifically related to the interventions on cultural heritage.

Finally, among the main problems of the sector, CEC highlights the lack of communication with the companies operating in the construction sector and the poor consideration they have of the school. CEC therefore hopes for a greater collaboration with economic agents and, with this purpose, they are preparing a draft agreement with them to get a better involvement and motivation.

A second interview was realized with a Senior Architect at **URBAN LAB CHISINAU**<sup>25</sup>, a non-government organization established in 2017 providing expertise in urban development. This interview represented the occasion to deeper investigate the accreditation system of Architects.

It was reported that in Moldova Architects can be Architects or Chief Architects. Architects are those who are simply graduated. They can work as Architects but cannot sign/stamp Projects. Chief Architects are Architects that, after a 7-year working experience, passed a National exam. All Chief Architects can sign/stamp Projects and belong to one of the following four categories:

- A1 Urban Planning;
- A2 Public Buildings (residential/commercial);
- A3 Industrial Buildings;
- A4 Heritage Buildings (in Moldova there are only 20/30 of these).

Up to some years ago the National exam was performed by the Ministry of Construction after a two weeks course centred on the generalization of all the knowledge they already have plus an update on new laws and regulations. The exam is:

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<sup>25</sup> <https://urbanlab.md/#home>.

- composed by an individual oral test performed by a commission taking asking some questions (totally discretionary in number and nature).
- not compulsory and only needed if an Architect decides to become Chief Architect. In other words, the exam is upon candidate's request. In his request, the candidate can choose for how many of the 4 categories apply (minimum 1 – maximum four).

The 7 years-resumé can be a mix of different experiences in one or more of the four categories. To access the exam the candidate just needs a total of 7 years of experience, does not matter on which category.

Of course, the more experience a candidate has in one category for which he applies for, the less questions will be asked on that category. By the contrary, if a candidate applies for A4 and only has A1 experience, will receive much more questions on the A4 subject.

The more categories one applies for, the more difficult is the exam. Again, the category with less experience will be the one that receives more questions.

After the exam, it is discretionary to the commission to decide how many of the requested categories must be awarded to the candidate. In other words, his request can be accepted *in toto*, rejected *in toto*, partially accepted. In case the exam fails (*in toto* or partially) the Architect can try again in the future sessions.

The commission normally gathers four times in a year (every three months) but in case of several requests it gathers more often. The commission is composed by Chief Architects members of State Institutes (e.g. UrbanProiect), Ministry of Constructions, Department of Architecture at Chisinau Municipality.

Again, the exam is not compulsory but once awarded it needs to be repeated every five years. After the first successful exam, the subsequent aim at verifying that one still has the right to the degree already awarded (and eventually to a new degree requested in the meanwhile). If the examined chief Architect fails the exam, the failed degree is removed. If it were the only one that he possessed, the chief Architect returns to be a simple Architect.

This is the compulsory verification but if one Chief Architects wants to apply for a new degree (or more) he doesn't have to wait five years and can place his request whenever he wants.

It does not exist a list of simple Architects. It exists an official register of Chief Architects.

According to Urban Lab, Engineers and Chief Engineers share the very same mechanism with the only difference that they only need a 5 years practice instead of 7. They also have a category that applies (even if not exclusively) to the built-heritage: is the B7 category – *Intervention On Existing Buildings* specifically aiming at conservation, restoration and consolidation.

For what refers to companies, they also must to be officially authorized before practising. There is a body that provides such certification (?) and also a public register of companies specifying what kind of works they are allowed to do.

A criterion that is used to grant such authorization is if the company had previous experiences in the specific sector or, as an alternative, they possess manpower specialized in the field. The result is that, when applying for public procurements, many companies lacking the requested experiences/skills

subcontract other smaller companies that have the requisites. In any case, also the companies that have the authorization for restoring the existing buildings do not have the competencies to do it on historical buildings.

A third interview was realised with an institution releasing official certifications and licenses of professionals involved in construction works. **INCERCOM**<sup>26</sup>, is the one-stop shop for issuing the certificate of technical and professional attestation of specialists in construction works as established by the Government Decision no. 913 of 06.11.2014. The establishment and organization of the one-stop-shop are aimed at requiring the applicant to apply for and receive the information regarding the technical-professional attestation of the specialists and to obtain the certificate of attestation in one point.

The one-stop shop is issued certificates of attestation to the following specialists:

- designers;
- project verifiers;
- technical experts;
- currency developers;
- site supervisors;
- responsible technicians;
- supervisors with the execution of specialized works and installations related to constructions;
- technical responsible for specialized works and installations related to construction;
- specialized staff from the testing laboratories in construction.

In particular, INCERCOM is the authority appointed for releasing the “technical and professional certifications of specialists for construction design activities”<sup>27</sup> that, under the “Architecture” category, also refers to CH-related sectors as Urban planning & landscaping and Architectural & historical patrimony.

INCERCOM is also in charge to draw lists and keep record of authorized technicians of the sector. The official register of certified specialists in Urbanism and Constructions is kept by the Ministry of Economy and Infrastructure (MEI) at <https://mei.gov.md/ro/content/specialisti-atestati>. Nevertheless, apart from the already mentioned Architectural A4, for none of them is foreseen a specialization in restoration interventions on built heritage of historical value. According to the above-mentioned Government Decision n. 329 of 23.04.2009, the only areas of attestation are:

A. Architecture:

- A1. Urban planning and landscaping;
- A2. Architecture of civil constructions;
- A3. Architecture of industrial constructions;

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<sup>26</sup> <http://www.incercom.md/?id=Atestare%20specialisti>.

<sup>27</sup> [http://www.incercom.md/Atestare%20specialisti/Dirigin%C5%A3i\\_de\\_%C5%9Fantier.doc](http://www.incercom.md/Atestare%20specialisti/Dirigin%C5%A3i_de_%C5%9Fantier.doc)

A4. Architectural and historical heritage;

B. Building Resistance:

- B1. Civil engineering;
- B2. Industrial and agro-technical constructions;
- B3. Road construction (roads and aviation tracks; bridges) ;
- B4. Railway construction;
- B5. Hydrotechnical construction and land improvement;
- B6. Protection against dangerous geological processes;
- B7. Building consolidation;
- B8. Special constructions (Artesian fountains; ports and berths; mines and quarries; tunnels; tanks and bunkers);

C. Related installations:

- C1. Installations and networks for water supply and sewerage;
- C2. Gas supply installations and networks;
- C3. Heating, ventilation and air-conditioning installations and networks;
- C4. Electrical installations and networks;
- C5. Automation installations;
- C6. Protective equipment (against fire, external intrusions; corrosion of underground networks);
- C7. Telecommunication installations and networks;

D. Drafting:

- D1. Elaboration of cost estimates;

E. Technology of production of building materials and building materials:

- E1. Technology of production of building materials;
- E2. Building materials.

Legislative framework seems to be rather general with relation to the protection measures or professional skills for those executing works on built heritage. The Law n. 1350 of 02.11.2000 related to "Architectural Activity"<sup>28</sup> at Article 14 (*Obligations for the Architect author of the Work*) generically prescribes at point 4 that "the reconstruction, restoration or repair of the monuments of architecture, history and culture, as well as the construction, repair and reconstruction of the objects located in the protection areas of the monuments shall be carried out in accordance with the provisions of the legislation on the protection of monuments".

Law n. 1530 of 22.06.1993 related to "protection of monuments"<sup>29</sup> at Chapter IV (*Conservation and Restoration Of Monuments*) only states that:

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<sup>28</sup> <http://lex.justice.md/viewdoc.php?action=view&view=doc&id=311578&lang=1>

<sup>29</sup> <http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=333558>

- Conservation and restoration works are carried out according to the norms and prescriptions adopted by the Ministry of Education, Culture and Research. (Art.24)
- Conservation and restoration works are carried out by individuals and legal entities from the country and abroad, specializing in the field of reference. (Art.26.)

In other words, no particular certifications seem to be requested neither to the company performing the restoration works nor to the single workers handling delicate items of historical value. Analogously, the figure of the Technical Director of works remains unclear, both as competences and as responsibilities. With relation to this, INCERCOM confirms they only deal with natural persons (single professionals) and not with legal entities (companies).

A general form of licensing of companies is provided by *Camera de Licentiere*<sup>30</sup> (now part of the *Agentia Servicii Publice*<sup>31</sup> after the recent reform) but is a non-technical evaluation that only has an administrative nature. According to the official website the service provided is described as follows:

“The license is a permissive administrative act, issued by the Licensing Chamber in the process of regulating the entrepreneurial activity, certifying the right of the license holder to carry out for a determined period the type of activity indicated in it, wholly or in part, observing compulsory licensing conditions.

In order to obtain or extend the license, the manager of the enterprise or organization, or the person empowered by it or the individual, submits a declaration of the established model to the Personal Room or through the "e-Licensing" Service.

The copy of the decision to register the enterprise or organization or the identity card of the natural person and additional documents shall be attached to the statement for the issuance of the license in accordance with the provisions of the legislative acts regulating the licensed activity for which the license is requested.

Only the documents requiring updating or containing data different from those presented at the time of issue of the license are attached to the statement for the extension of the license”.

The licensing for category n. 12 - *Design activity for all categories of construction, urbanism, installations and technical-urban networks, reconstructions, restorations* – requires the submission of:

- Copy of the state registration certificate of the enterprise or organization;
- Copies of the technical-professional attestation certificates of specialists for building design activities issued by the Ministry of Construction and Regional Development and/or of the exercise permits issued by the Ministry of Economy to the persons working in the field of industrial security (for the design of the installations and supply networks gas);
- List of required works to be carried out The Nomenclature of Design Works.

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<sup>30</sup> <http://www.licentiere.gov.md/pageview.php?l=ro&idc=277&>

<sup>31</sup> <http://www.asp.gov.md/ro>

The licensing for category n. 13 - *Construction of buildings and/or engineering constructions, installations and technical-municipal networks, reconstructions, consolidations, restorations* - requires the submission of:

- Copy of the state registration certificate of the enterprise or organization;
- Copies of the certificates of technical and professional attestation of specialists with construction activities issued by the Ministry of Construction and Regional Development and/or of the exercising permits issued by the Ministry of Economy to persons working in the field of industrial security (for the construction of gas supply facilities and networks) ;
- List of works required to be carried out according to the Nomenclature of Construction Works;
- The list of specialized techniques and measuring instruments available to the economic entity with ownership and/or right of lease.

## CONCLUSIONS

### REPORTED ISSUES

The teachers at **technical Professional schools (TPS)** informed that there is no request for courses in the field of restoration because there is no market. However, meetings with associations of construction companies revealed that they have the problem of finding employees with specific skills in the sector: this clearly reveals a gap in communication between the VET education sector and the labour market.

In this regard, the dual educational system set up by MECR with external support represents a crucial opportunity to let encounter demand and offer and to strengthen the link between educational sector and job market in the sector.

One key problem is represented by the language used which in turn reflects a mentality issue. The word mostly used in Republic of Moldova when dealing with interventions on built heritage is 'reconstructie' or, at best, reparatie. It is very rare to hear mentioned the word conservare or restaurare, also maintenance – intritinerare - is very rarely mentioned.

It also emerged that the word 'reparare' mostly implies substitution, rather than real repair of damaged parts. Generally, substitution is carried out with modern and low-quality materials and finishes. This is a mentality issue which affects largely the society, to influence even the language used by individuals who are keen of heritage, and of course also teachers and trainers in VET education related to construction.

According to the teachers interviewed, it seems there is no technical manuals available on traditional techniques in Romanian dealing with Moldovan traditional built heritage. Ethnographic publications exist but not technical ones. Some manuals dating back to the soviet period have been mentioned and shown but these manuals date back 30- 40 years if not more. There is no recent technical literature on history of building technology, on traditional construction materials and techniques, and nothing on conservation/ restoration. This makes very difficult the education of youngsters because the lack of knowledge and of awareness affects also teachers, who feel not sufficiently prepared to tackle the subject of heritage conservation/ restoration/ repair teaching and training.

However, the training on traditional techniques held by the Twinning in Butuceni in 2018 demonstrated that, if offered opportunities, students are interested and attracted by traditional constructions, rural heritage and the related building techniques.

Interviews to the **teachers at Technical University of Moldova (TUM)** stating that there is not much interest from students on the subject of restoration. Often there is no knowledge of what conservation/ restoration is and the students propose graduation themes that mention "restoration" but are instead projects of new buildings. The prevailing thought is that there is nothing to be restored in Chisinau. In the country, in general, the "economic value" of the cultural heritage cannot be seen. Even starting from elementary schools there is no education regarding cultural heritage, children are rarely taken to visit museums.

However, it has to be noted that sample lectures on conservation / restoration held in 2018 were followed with interest by UTM students, who were particularly attracted by on-site visits, where they could get in direct contact with the materiality of built heritage and learn to read the signs and information that historic buildings embed in themselves.

VET School No. 4 reported that until 2012 existed a course/module of Restoration included in the Educational Plan of the VET School, but as there was no interest from students, the course was not taught and was cancelled from the offer. There are still 2 teachers who could teach Restoration themes, but not enough to re-launch that study module, craft/line of work.

An awareness campaign on general CH and specific importance of restoration would be appropriate to tackle such misconceptions. The social dislike may be also related to the fact that the salaries of skilled workers in restoration abroad are very high, while in Moldova are compared to construction workers and this brings the few specialists to emigrate.

For the **Federation of Trade Unions** in Construction and Building Materials Industry "SINDICONS" and Federation of Employers in Constructions and Building Materials Production "CONDRUMAT", the main problems of the construction sector in Moldova are the lack of specialists and the lack of financial resources. Regarding the lack of specialists, this problem did not exist in the past, when there was "Specialized Enterprise in scientific restoration works for the execution of monumental plastic art works" (SESR). At the moment there are no training schools for restoration operators. Students come to work on construction sites, but since there are very few restoration sites it is difficult for them to learn anything in the industry. Moreover, those who have specialized in the past go to work abroad because the salaries are much higher. Even at the university level the training of specialists in restoration is lacking.

Regarding the economic problem, in general, the funding for the restorations cannot cover the entire cost, so it ends up changing the materials, losing in quality and "authenticity".

The representatives of the two federations have however declared themselves willing to work together to propose curricula that correspond to the requests of companies in the field of restoration. Therefore, it would be advisable to involve them in the process of curricula reform for VET schools in the sector.

Coming to public tendering procedures, it has been reported by the Agency for Inspection Restoration of Monuments that in case of European projects, the procedure includes some criteria and companies are invited also from outside Moldova and the selection is made on the ground of the most economically advantageous offer, in case of national tenders, the established procedure by law is the selection according to the lowest price with a negative impact on the final results, as the most competent companies have structural costs (e.g. specialised staff) that are higher than those of non-specialised firms, which in turn have not the capacity to achieve the necessary quality in the elaboration of the project and then in the execution of the works. One case has been mentioned of one tender which was announced based on specific criteria, but that it went deserted since nobody was able to participate.

The **Department of Construction** at Ministry of Economy and Infrastructure explained that in some cases restoration works have been entrusted with an international tender to a specialized foreign company and then, indirectly, to a Moldovan company. In the case of works financed with public funds, it is necessary to make a call to identify a company. In the event that the operator is a private



individual, even with a public donation, he can choose how to entrust the work. With regard to professional qualification, in the past representatives of companies could make a declaration on their own abilities, without any institutional body making any verification. Price list of construction costs are outdated and the calculation of the actual costs is to be done according to specific formulas which allow for the update of the costs.

With regard to the operational phase of an intervention on protected heritage assets, inspection is the responsibility of the Monuments Agency (AIRM) and the Construction Agency for general construction aspects. The beneficiary appoints a Technical Responsible (equivalent to the Director of Works), paid as a percentage of the amount of the work. The company appoints a technical director who in Moldova is called "technical representative of the company for works". Both of these figures are specialists.

The law allows variants to the approved works up to 15% of the cost, over this threshold you must make savings that result in the use of lower cost materials and therefore lower quality. An additional problem is that the restoration works last a lot and in the meantime the materials increase the price. The modifications to the project must be submitted to a verification procedure. In the course of the work, in case of problems arising from the project, the Technical Manager can stop the work, summon the designer and find a solution in contradiction, otherwise it intervenes Construction Agency for imposing a choice. If the designer makes mistakes, it is reported to the certification body for A4 category A4, (the one necessary for restoration), which can revoke the license. The same fate can also affect a company. Such a situation suggests the need to promote more training in the field of restoration both for architects and companies (site managers, restorers, specialized workforce), and the qualification system of operators, professionals and companies must be made clear, with regulatory intervention by law.

The **CEC** – Centre of Excellence in Construction is convinced that the Moldovan market needs specialists prepared in the field of restoration but also mentioned the need to train the trainers first. In Moldova still are craftsmen knowing the traditional techniques, and effort is necessary to identify the holders of this traditional knowledge and to engage them in order to ensure the transfer of knowledge to younger generations of professionals.

The **curricula** of all professionals supposed to intervene on built heritage (such as architects, engineers, foremen, construction managers, technicians and construction workers) pay, at the moment, little or no attention to the issue of conservation and restoration. Even when envisaged, curricula prove to be inadequate anyway, due to the rigidity of the curricula and the far too limited credits (and hours) dedicated to topics related to conservation. No Master (II level) exists with a focus on architectural conservation/ restoration. Additionally, no third level higher education programme exists concerning restoration/ conservation of historic buildings/ built heritage. This means that projects of conservation/ restoration are prepared by professional who have received only very limited education and training on how to approach the intervention on existing buildings and could therefore build only very limited competences in this regard.

The same can be said for **certification**-related issues. The requirements for specific qualifications for architects working on cultural heritage are limited and the issuance of the A4 category for professional architects is given upon frequency of a facultative course which mainly focuses on normative matters rather than on professional content. Construction Companies may be involved in delicate restoration

work without the necessary knowledge since the authorizing process has a mere administrative nature.

## **RECOMMENDATIONS**

The investigation carried out between 2017 and 2019 in the sector of intervention on immovable cultural heritage clearly suggests that issues and problems are not limited to restoration works but extend beyond and affect the construction sector as a whole (e.g. the way in which unitary prices are established and contracted, tendering and selection criteria, among the most important).

Problems related to the interventions on monuments also are generated by a combination of rigidity in the construction sector at large and the absent or little awareness that conservation and in general intervention on monuments are to be treated as a specialised construction sector, with ad-hoc tender, qualification / accreditation procedures for all actors of the 'intervention' process, measuring methods of the works, project documentation.

A need for an overall approach to addressing the issues has clearly emerged, an approach based on strengthening the three axis represented by accreditation procedures of professionals and companies, training subject and methodologies both at VET and HE levels, empowerment of the framework of legislation and regulations, all done under a perspective of setting higher standards.

There is a direct relationship between standard setting, accreditation and training delivery since all three need to be tackled simultaneously. Therefore dialogue, cooperation and action within the MECC sectors of responsibility (culture and Education – VET and HE) and among different ministries and institutions (MECC, MEI, INCERCOM, ANACEC, UTM, associations of building enterprises, among the key stakeholders) are crucial to facilitate acceptable accreditation schemes and training programs.

MECC, jointly with MEI, must acquire an enabling role in fixing the identified issues such as standard setting, certification procedures for professionals and enterprises in the conservation / restoration areas and more in general on intervention on historic monuments and immovable cultural heritage. Consistent, clear and accessible practice standards would reduce the current over-reliance on heritage legislation and provide the basis for the necessary improvement in training delivery.

A full set of recommendations stems out clearly from all the performed analysis. It is related to the main weaknesses emerged from the overall education system and directly impacting on the attractiveness of CH conservation specialists/professions.

In general, it is necessary to establish a closer connection between the Classification of occupations and the educational requirements and to establish norms providing for compulsory specific professional requirements in the cultural heritage conservation / restoration/ documentation sectors.

Specifically, the conservator/restorer professional figure, which is commonly recognized by law in EU countries, is not envisaged by Moldovan **legislation** and there is currently no regulation defining the different workers involved in conservation/restoration of built cultural heritage, not to mention their competences.

As a consequence, although there is need for qualified workers, the legislation and the technical norms do not assist in supporting the creation of the necessary skills needed for intervention on cultural

heritage, as the in the labour market is not compelled to refer to stringent qualification requirements. While perhaps a system of certification for restorers might be premature at the moment, it would be of great assistance to strengthen the conservation of the built heritage, if VET curricula be reinforced and specific worker- profiles be created for reparation/ conservation/ restoration of heritage: skilled/ specialised masons in conservation and restoration of historical masonry structures, of wooden architectural components and furniture, of historical plasters and simple stuccoworks (with architectural motives), of architectural metalworks. It would be also very useful to sensitize towards the values of monuments, plumbers, electricians, and in general all workers in the technical installation sector.

The situation described above can be tackled in detail through a series of urgent measures involving different fields.

In the field of **HE curricula** the following actions can be suggested:

- Strengthening the subjects related to restoration in the HE curricula for architects, granting more CH related topics and more credits;
- Introducing master courses (II level) for Architects, enabling them to specialize in CH conservation with a dedicated postgraduate program;
- Introducing subjects related to restoration in the HE curricula for Engineers, since those later on taking the B7 level (*consolidation*) seem to have no training at all in interventions on built heritage;

While on **VET courses** sector is strongly suggested to:

- Through the introduction of a specific legal and curricular basis, creation of the professional figure of restorer intended as a specialized worker specifically trained for intervening on material cultural assets;
- In the short term, instead of creating new schools/courses (both time and resources demanding), inserting in the existing VET schools/courses specific modules related to CH conservation and restoring in order to have manpower qualified in interventions on CH;
- Allowing the manpower already trained to acquire the new skills through specific refresher courses addressed to adults;
- Taking advantage of dual vocational education by granting masons/painters the qualification of restoration worker after a number of working experiences with certified restoration companies;
- With relation to this, private restoration companies should be granted some level of incentives/benefits for training VET students on the field;
- In the long term, activation of specific VET courses entirely dedicated to CH conservation/restoration (metalworkers, woodworkers, plasters, decorators, painters, masons, chemists);
- Foreseeing scholarships to continue postgraduate training after vocational training;
- Foreseeing the possibility of becoming enabled/certified restorers through a specific Lifelong learning;
- Linking recognition to the level of schools where courses are taken, making it easier if such schools are state-run or of proven reliability;

- Updating machineries, text books and adopting the state-of-the-art literature;

Other measures possess a more general nature and are related to both **HE and VET national planning** through the adoption of a national approach to addressing the issues, including standard setting, training (needs, location and amount of training needed) and the current legislation/regulation. In other words:

- A national training strategy is needed to coordinate training needs and delivery across Moldova, targeted to the areas of greatest need and addressing identified skill deficits;
- The above can include all training providers and in general, all relevant stakeholders (MOC, Universities, Schools, Private companies and professionals), that should meet on a regular basis to evaluate, discuss, anticipate and tackle the needs in CH-conservation sector, in the immediate so as in the short term;
- In particular, a mixed working group involving Construction Industry and education providers could periodically identify the Sector Skills to be developed;
- Some training areas are now extinct and no training is being delivered to sustain the related skills. Nevertheless, they could become useful again in a near future so that the teaching should be maintained before that knowledge gets irreparably lost;

Such general measures can only be built upon an improvement in **Data Collection and Analysis** since reliable data is needed to demonstrate the needs, current status and implications of the problems and tackle the mismatch between the training being delivered for professionals involved in practical building conservation and what is needed in the industry and by the consent authorities. So that:

- The employability of VET students should be supported and regularly verified, and VET schools should perform follow-ups on a regular basis to verify the occupation level of the students after completing CH-related courses. In particular, graduates per year, full or part time, skills after training, employment prospects before and afterwards to be verified;
- Analogously, regular surveys on the demand for services (degree, distribution, type and quality) should also be performed to constantly match the variations in CH-market requests;
- The reported scarce attendance/request of some CH-related courses should also be investigated in order to understand the reasons behind the lack of interest (not appreciated socially, not rewarding economically, low quality of the offer etc.) and correct them;

In order to correct such issues (low demand/low offer/general scarce sensibility to the topic), an extensive public advertising campaign aimed at young people, parents and society would be advisable in order to increase the number of applicant students. Similarly, a rising awareness campaign on CH-related professions could increase the social appreciation for the sector workers.

The last set of recommendations directly refers to the **accreditation system of professionals and companies** that seems to be dramatically inadequate for the odds at stake and urgently requires:

- Strengthening the role of the public authorities in carrying out the professional recognition and certification of professionals;
- Accreditation of companies should not be a mere administrative act as foreseen by the registration in the *Camera de Licentiere*, but a certification of technical competences in the

specific sector of intervention. No such a system seems to exist so that any company can perform restoring works on built CH.

- Forcing the professional institutes towards transparent means to offer clients/employers advice on which professional to hire;
- With reference to the previous point, adoption of a conservation specialist register since it would greatly increase the tracking, reliability and credibility with clients/employers;
- Specialist qualifications and register would also enhance the development of postgraduate education and research;
- Adopting systems of periodical skill testing, even for accredited professionals since life-long competency is not guaranteed by a single test for general practice early in the professional's career;
- 7 years of practice as architect before requesting the licensing as Chief architect seems too many. Reducing the practice to three – four years would be a better solution in order to facilitate an earlier and full access to the labour market of new generations of professionals and avoid potential professional exploitation from senior architects of younger practitioners in need of obtaining their professional certificate;
- Examination mechanisms should also be more technical and verifiable and examinations should be performed by experts of the specific domain subject, on their turn, subject to periodical examinations;
- The examining commission should be mainly composed by full public bodies, not by private associations or state enterprises, inverting the proportion of members currently propending towards the private sector;
- This would also avoid cases of conflict of interests, whereas the examiner is at one time also the provider of the courses or where the examiner may have some private interests (e.g. when examining candidates who serve as civil servants at MECC or its subordinated bodies);
- The decisions of the commission should also be verified by the relevant public body in order to avoid abuses (controlling the controllers) while at the moment the MECC does not seem to have any say on the assessment made by the commission;
- After the first exam, the subsequent ones should be different, not repeating the same modalities/topics and should only certify the acknowledgement of skills and competences according to the new techniques emerged in the meanwhile.
- Reforming the system of architects and engineering life- long learning in order to ensure its modernisation (e.g. by expanding the topics taught, including related to conservation / restauration, by modifying the delivery of the courses – in person, online, in streaming, etc.)

Finally, it must also be reminded that any improvement on accreditation procedures drives professions towards training and continuing education so as the quality of university training, that improves against vocational objectives. Accredited professionals also achieve better quality work and the market trusts accredited professionals and increasingly prefers them. In other words, accredited professionals have an advantage in marketing and tendering for more and better jobs.