

URBAN
SKILLS



Built Environment Professionals: Education and Practice in Ukraine



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ABOUT THIS PAPER

Thematic paper series

This paper is one of nine drafted in 2025 by national entities in Ukraine as part of a UN-Habitat-commissioned collection entitled *Thematic Paper Series Informing Urban Recovery*



Urban Governance

- Citizenship: Urban futures in Ukraine
- Municipal Governance Issues in Ukraine
- Decentralization and Recovery: Local Recovery Planning in Ukraine



Urban Land

- Land and Property Issues in Housing and Urban Development in Ukraine



Urban Planning

- Spatial Planning in Ukraine



Urban Housing

- Housing Provision and Outcomes in Ukraine
- Tracing the Path of Social Housing Policy in Ukraine



Urban Skills

- Built Environment Professionals: Education and Practice in Ukraine
- Built Environment Professionals: University Education in Ukraine

Executive summary

This report seeks to examine the past, present, and future of built environment professions in Ukraine. Focusing on education, regulation, and professional practice, it argues that architects, planners, engineers, and related specialists are central to the country's reconstruction, sustainable development, and integration into European systems—a role made more critical by the demands of post-war recovery.

The development of these professions in Ukraine has been shaped by a complex history, ongoing institutional reforms, and myriad external pressures. The Soviet period's highly centralised, technocratic system of rigid standards, limited professional autonomy, and a strong state role in planning and delivery, transitioned toward a more market-oriented system after 1991. This saw the introduction of privatisation, deregulation, and new forms of professional practice, simultaneously expanding the sector while also seeing the emergence of new challenges of governance, coordination, and quality assurance.

Legislative and regulatory reforms have played a key role. New certification systems and the National Qualifications Framework have sought to align professional standards with European norms, enhance accountability, and support labour mobility, but three structural gaps remain: limited practitioner involvement in standard-setting; blurred legal distinctions between architects, town planners, and engineers; and the shift of liability from firms to individuals without mandatory insurance or municipal accountability. Consequently, despite a comprehensive framework, implementation remains uneven and institutional capacity patchy.

Education and training systems have undergone significant transformation. Modernisation in Ukraine has seen curricula aligning with international standards, but the Soviet legacy of rigid standardisation and technical focus continues to influence education. There is increasing recognition of the need to balance technical competencies with creativity, interdisciplinary collaboration, and practical experience, while impacts of the war have also accelerated the shift toward digital learning, at the same time exposing inequalities in access and quality.

Reflecting European influence, professional organisations have evolved from state-controlled entities toward autonomous self-regulatory structures. Still in their relative infancy, concerns persist about

the robustness of these new structures, for example over the transfer of responsibility for professional certification from the National Union of Architects to academic institutions, and the treatment of town planning as a sub-specialty of architecture, rather than a specialisation in its own right. Strengthening Self-Regulatory Organisations (SROs) is essential to aligning professional standards with international practices and ensuring independent, industry-led certification.

The labour market represents the sector's most acute pressure point, driven by a demographic crisis in which Ukraine's population has declined by approximately 10 million. With labour shortages projected to intensify through 2030, the country currently operates with fewer than 5,000 certified architects and less than 700 town planners—roughly one-eighth of the EU average ratio. Reskilling and upskilling initiatives may help to address immediate needs while laying foundations for long-term increased capacity. War-related displacement and the mobilisation of a significant share of male workers have triggered a sharp gender shift: while women's labour-market participation has risen to fill these gaps, the transition remains fragile without gender pay parity and flexible-work policies needed to sustain it.

EU candidacy has institutionalised reforms across built environment education and practice, catalysing demand for "green recovery" specialisms—including sustainable town planners, green building experts, and climate-risk engineers. This transition is operationalised through international frameworks such as the New European Bauhaus (NEB) Facility, which drives circular and regenerative approaches to the built environment. Simultaneously, the Ukrainian diaspora has emerged as a critical intellectual bridge; through remote collaboration and structured knowledge exchange, displaced professionals are mitigating domestic skills gaps and integrating Ukraine into global networks of technical expertise. These internal regulatory shifts and external cooperation frameworks are essential for a reconstruction aligned with the EU Green Deal.

Areas for further research include the impact of educational reforms and international cooperation on post-conflict recovery, the alignment of teaching methods with labour-market needs, the conditions under which SROs can become effective regulators, and the role of technological and environmental change—including gendered dimensions of workforce recovery—in shaping the sector's future.



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LIST OF ABBREVIATIONS

AAU – Academy of Architecture of Ukraine	MESU – Ministry of Education and Science of Ukraine
ACU – Academy of Construction of Ukraine	NAHEQA – National Agency for Higher Education Quality Assurance
AUU – Alliance of Ukrainian Universities	NCO – National Classification of Occupations
BIM – Building Information Modelling	NEB – New European Bauhaus
BMZ – German Federal Ministry of Economic Cooperation and Development	NEBA – New European Bauhaus Academy
CMU – Cabinet of Ministers of Ukraine	NGO/NGOs – Non-Governmental Organisation(s)
CPA – Chief Project Architect	NQA – The National Qualifications Agency
CPD – Continuous Professional Development	NQF – National Qualifications Framework
CPE – Chief Project Engineer	NQS – National Qualifications System
DBN – Ukraine State Construction Norms (Derzhavni Budivelni Normy)	NSAU – National Union of Architects of Ukraine
DIAM – State Inspectorate of Architecture and Urban Development of Ukraine	ODA – Official Development Assistance
EBRD – European Bank for Reconstruction and Development	OECD – Organisation for Economic Cooperation and Development
ECTS – European Credit Transfer and Accumulation System	R&D – Research and Design
EQF – European Qualifications Framework for Lifelong Learning	SROs – Self-regulatory organisations
GER – Gross Enrolment Ratio	SSR – Soviet Socialist Republic
GIZ – German Agency for International Cooperation	TSNUK – Taras Shevchenko National University of Kyiv
GIS – Geographic Information Systems	UAH – Ukrainian Hryvnia
HEIs – Higher education institutions	URAG – The Ukrainian Rebuilding Action Group
ICMPD – International Centre for Migration Policy Development	UkrSSR – Ukraine Soviet Socialist Republic 1922-1991
ILO – International Labour Organisation	UNESCO – United Nations Educational Scientific and Cultural Organisation
JICA – Japan International Cooperation Agency	UNUN – Ukraine-Netherlands Urban Network
KNUCA - Kyiv National University of Construction and Architecture	USAID – United States Agency for International Development
KhSA - Kharkiv School of Architecture	USEDE – Unified State Electronic Database on Education,
KSE – Kyiv School of Economics	USESCS – Unified State Electronic System in the Construction Sector
MDCTU - Ministry for the Development of Communities and Territories of Ukraine	USSR – Union of Soviet Socialist Republics
MoES – Ministry of Education and Science	VET – Vocational Education and Training
	VNFIL – Validation of Non-Formal and Informal Learning

General introduction to the thematic paper series

Four years since Russia's full-scale invasion of Ukraine of February 2022 – and close to 12 years since the illegal annexation of the Autonomous Republic of Crimea and City of Sevastopol in 2014 – war continues to inflict untold suffering on the Ukrainian people.¹ Hostilities since 2022 have caused widespread damage and destruction to Ukraine's built environment – from housing, utilities, and transport networks, to social infrastructure and cultural assets. In this compound crisis of urban systems, many cities have shifted focus from long-term development to continuous emergency repair and risk management. Most recent estimates put the cost of reconstruction and recovery at 587.7 billion USD – a figure that has grown year on year since 2022.² The sector incurring highest damage in dollar terms is housing: 14 per cent of the national housing stock, affecting some 3 million households, has been damaged or destroyed, requiring 61.1 billion USD for reconstruction and recovery needs.³ As at January 2026, around 3.7 million people have been displaced within Ukraine since 2022, with a further 5.8 million now refugees outside the country. This comes in the context of an earlier wave of conflict-related disruption and displacement from 2014.⁴

In a country that is 70 per cent urban by population, Ukraine's cities are central to both crisis and recovery. Total recovery and reconstruction needs are spatially concentrated in frontline areas and major urban oblasts.⁵ Urban centres are 'facing both supply constraints and high demand from displaced populations'.⁶ There is an urgent and pressing imperative to respond to impacts on the built environment and critical infrastructure amidst large-scale humanitarian need. Even as hostilities continue and despite funding constraints, the Ukrainian Government has a strong ambition to 'build back better' – including a desire to revitalize existing towns and neighbourhoods through area-based approaches

that support local-level investment and contribute to recovery;⁷ as flagged by the most recent Rapid Damage and Needs Assessment 5.⁸ The Assessment also highlighted that effective recovery planning requires reforms that enhance the institutional and technical capacity of the country's public sector to prepare, implement and monitor investment projects.⁹ Strengthened data collection and research is identified as one of the main priorities for a durable recovery.¹⁰

Addressing the challenges now facing Ukraine demands a long-term analytical perspective stretching back even earlier than 2014 – to factor in Soviet and post-Soviet structural legacies that continue to fundamentally shape the conditions, constraints, and opportunities facing contemporary urban recovery planning. In particular, Ukraine's post-1991 transition produced privatized housing systems with fragmented ownership and maintenance backlogs, aging and underinvested infrastructure, deindustrialised urban economies and shrinking city dynamics, evolving decentralisation reforms, and an increasingly mobilised civil society with expectations for democratic governance.

In this historical context, national, sub-national and sectoral recovery strategies need to be developed and implemented in ways that also embed measures to build capacity within the built environment professions. The war has affected the availability of Ukrainian expertise within urban development, which was already scarce pre-war. This presents a real risk to the Government's widely supported aim to build back better. While several organisations have emerged to support capacity development in Ukraine on urban and territorial development and management, access to contextually relevant knowledge and best practices on these issues is still limited.

1 In terms of mortalities, hostilities since 2022 have also left over 15,000 civilians dead, and injured over 41,000 others. (OHCHR, 2026).

2 World Bank Group; Government of Ukraine; European Commission; United Nations (2026)

3 The most recent *Rapid Damage and Needs Assessment 5* indicates that 74 per cent of total damage since 2022 occurred in 4 sectors: housing (requiring 61.1 billion USD for reconstruction and recovery needs over the 10-year period 2026–2035; transport (40.3 billion USD); energy (24.8 billion USD); commerce and industry (19.2 billion USD). (Government of Ukraine, World Bank Group, European Commission & United Nations, 2026 p24). As the report notes, 'The total needs include expenses related to rebuilding with improved standards (...) and account for inflationary pressures' (World Bank Group; Government of Ukraine; European Commission; United Nations, 2026 p30).

4 Ukraine already had the highest number of internally displaced persons (IDPs) in Europe as at July 2021, with over 1.4 million people fleeing (Mikheeva & Kuznetsova, 2023 [for IOM]).

5 World Bank Group, Government of Ukraine, European Commission, United Nations (2026 p27)

6 World Bank Group, Government of Ukraine, European Commission, United Nations (2026 p24)

7 World Bank Group, Government of Ukraine, European Commission, United Nations (2026 p54)

8 World Bank Group, Government of Ukraine, European Commission, United Nations (2026)

9 World Bank Group, Government of Ukraine, European Commission, United Nations (2026, p11)

10 World Bank Group, Government of Ukraine, European Commission, United Nations (2026, p42)

In response to urban recovery needs, UN-Habitat collaborates with the Ministry for the Development of Communities and Territories of Ukraine, providing strategy and policy advice. In line with its mandate to promote socially and environmentally sustainable and resilient towns and cities, UN-Habitat supported a variety of not-for-profit and public Ukrainian entities to produce thematic documents on nine inter-related aspects of Ukraine's built environment. Each document considers the historical context and key issues of each topic in relation to urban recovery, presenting authors' valuable understandings of the respective topic.

Under the theme **Urban Governance**, the document *'Citizenship: Urban futures in Ukraine'* examines how civic participation and citizenship may interplay with inclusive and democratic urban recovery processes. The document *'Municipal Governance Issues in Ukraine'* identifies institutional and administrative features as well as opportunities and constraints affecting municipalities' capacity to engage with recovery. The document *'Decentralization and Recovery: Local Recovery Planning in Ukraine'* assesses how historic decentralization reform has shaped the role of local self-government bodies in planning and implementing recovery. Under the theme of **Urban Land**, the document *'Land and Property Issues in Housing and Urban Development in Ukraine'* covers the evolution of land ownership and property rights issues including in terms of their criticality to reconstruction and housing redevelopment. Under the theme of **Urban Planning**, the document *'Spatial Planning in Ukraine'* sets out the planning environment and associated frameworks guiding coordinated spatial reconstruction across national, regional, and local levels. Under the theme of **Urban Housing**, the document *'Housing Provision and Outcomes in Ukraine'* examines mechanisms through which housing is financed, delivered, and regulated, and is complemented by the document *'Tracing the Path of Social Housing in Ukraine'* which explores the evolution of social housing and implications for expanding affordable housing provision. Under

the final theme, **Urban Skills**, the document *'Built Environment Professionals: Education and Practice in Ukraine'* assesses the professional capacity available to plan, design, and implement urban reconstruction, while the document *'Built Environment Professionals: University Education in Ukraine'* evaluates higher education systems preparing future built environment professionals for reconstruction and urban development.

While many documents on recovery and reconstruction in Ukraine start from accounts of damage from 2014 and 2022, this series takes a longer perspective, actively exploring the selected themes across the Soviet and post-Soviet transition and reform periods.

Collectively, the series conveys the voices of academics, practitioners and civil society activists from diverse disciplines and backgrounds, representing local expert knowledge and experience rooted in the Ukrainian context. They offer a multi-dimensional diagnostic foundation and common language to inform evolving and multi-level discussions on the country's urban challenges and opportunities, as well as options for the future and how Ukraine might achieve them. In particular, the series aims to contribute to the continuing processes of decentralisation and democratisation. If decisions about towns and cities are to be driven locally and with context sensitivity, a wider literacy and shared understanding regarding the built environment, including its planning and management, is needed. The thematic documents respond to this need, increasing the availability and accessibility of knowledge on urban topics, and providing extensive references for further reading. UN-Habitat hopes the series will serve as a knowledge resource for policymakers, local officials, practitioners, development partners, researchers engaged in Ukraine's urban recovery, as well as general readers; and will contribute to recovery discourse, processes and outcomes that are context-appropriate, inclusive, resilient, and sustainable.

Introduction

Professionals in the built environment contribute to the planning, design, construction, and management of buildings and territories, shaping the spaces where people live and work. Their education and careers are influenced by historical, regulatory, and socio-political factors. This study explores the evolution of these professions in Ukraine to address a key question: *Why are we where we are today?*

Aim and Scope

This paper provides a fact-based analysis of the development and current state of built environment professions in Ukraine with the availability of reliable data as of 2025. It examines how Soviet-era centralised planning, post-independence reforms, and the ongoing impacts of war and EU integration have shaped education, competencies, and professional regulations. It further assesses the impact of external pressures such as economic downturns, demographic shifts, and technological advancements on education and professional practice. Additionally, it describes the role of the Ukrainian diaspora in facilitating knowledge exchange and professional collaboration through remote work and international partnerships.

Methodology

This study adopts a mixed-method approach, combining qualitative and quantitative analysis. It draws on academic literature, policy documents, regulatory frameworks, expert interviews and case studies to provide a structured overview of built environment professions in Ukraine.

Audience and Relevance

This paper is intended for policymakers, educators, professional bodies, students, and practitioners in the built environment field. It will also be relevant to international organisations involved in Ukraine's reconstruction and professional integration into European standards, as well as to other regions around the world engaged in post-war rebuilding efforts.

Limitations of Research

Data limitations: The research is based on available data up to 2025. Gaps or incompleteness in data may affect the accuracy of the conclusions drawn.

Historical and socio-political factors: The impact of the Soviet era, post-Soviet reforms, and current socio-political conditions may limit the generalizability of the results to other countries or regions.

War and economic crisis: War and economic downturns create additional challenges for professional practice and education, which may affect the results of the study.

Methodological limitations: The use of a mixed-method research approach that includes qualitative and quantitative analyses may have its limitations, including the subjectivity in interpretations and case study analysis.

Definition and regulation of built environment professionals

EVOLUTION OF PROFESSIONS

The need to replenish cultural knowledge for the revival of national traditions and the entry of Ukrainian town planning science into the global cultural process has become obvious. Only on the basis of a well-understood cultural basis can the desired political, economic, ecological and other goals be achieved, in particular, in town planning.

Fomin, 1999

The evolution of built environment professions in Ukraine reflects changes in approaches to the planning, design and development of cities and human settlements, taking into account the historical, technological, social and economic changes that have taken place over the past centuries.

Key stages of this evolution include:

Pre-industrial period (up to the mid-19th century):

Urban development was an organic process, with cities developing mainly around trade routes, rivers and natural resources. Professions associated with town planning included architects, engineers, and builders, but there were no clear boundaries between them.

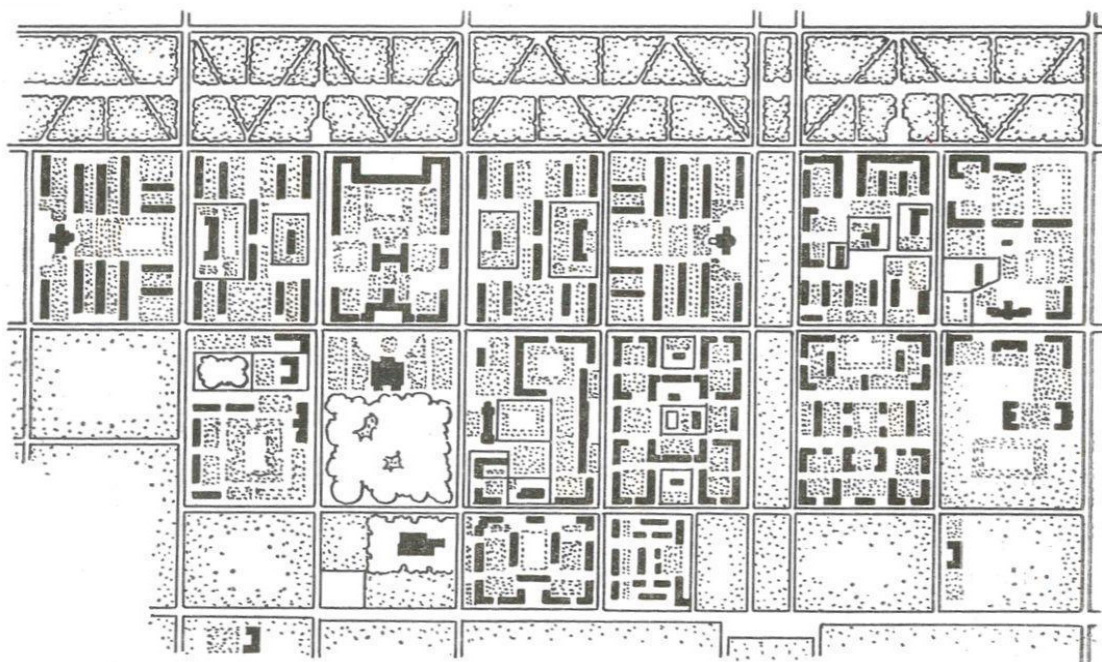
Industrialisation and urbanisation (late 19th - early 20th century):

New industrial cities began to emerge in Ukraine, as did the need to plan residential areas and develop urban infrastructure. Architects and engineers began to specialise in the design of factories, residential areas, and transport infrastructure. The professions of urban planner, water supply, sewerage and electrical engineers are emerging.

Early Soviet period (1917-1945): The early Soviet period brought significant changes to these professions, with centralised five-year plans driving urban development. Architects and planners were

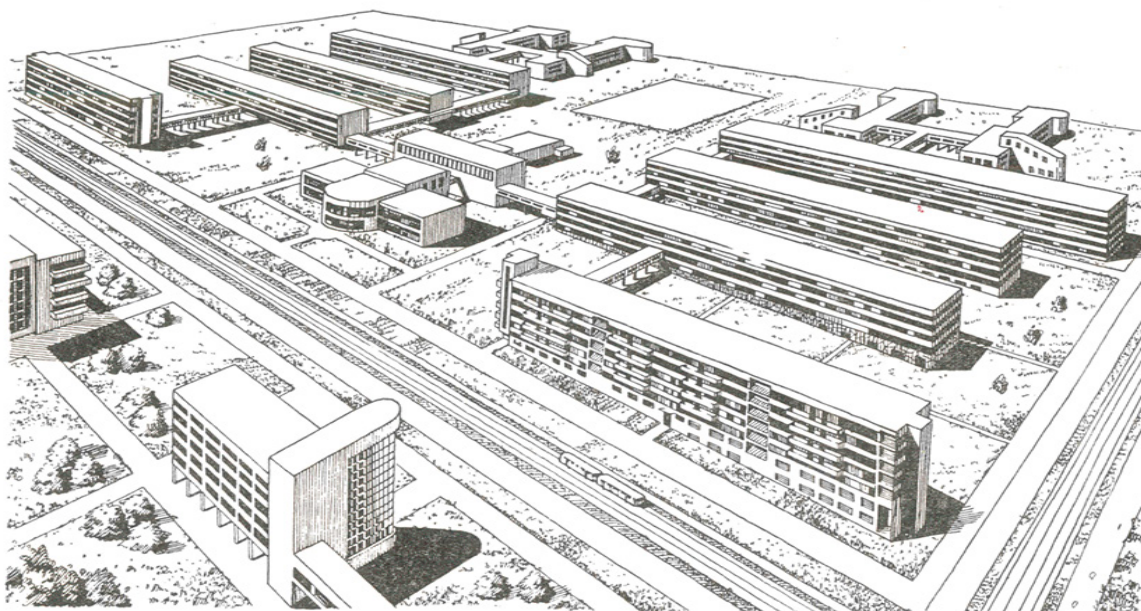
tasked with large-scale, state-directed projects, focusing on rapid industrialisation and the urbanisation of industrial centers, particularly in regions like Donbas, Kharkiv and Dnipropetrovsk. This led to the development of new industrial towns and the expansion of existing cities, with a particular emphasis on providing cheap housing for workers. However, individual housing was critically short and from the 1920s to the 1950s, a significant number of Soviet families lived in communal apartments, while many lived in worse conditions in barracks or “dormitories” (Utekhin & all, 2008). The planning and construction of residential areas were primarily managed by specialised ministries and industrial departments (Hyrych, 2008).

During this period, soviet town and regional planning was introduced, which took a holistic approach by considering entire regions and integrating various factors to determine the most efficient and optimal settlement systems (Mylonov, 1937; Stanislavsky, 1971). This new method aimed to address the needs of both urban and rural areas, focusing on factors such as industrial development, transportation, and creation of socialist cities. A key example of this approach was the 1929 regional plan for the Donetsk Basin, developed by the “Government Commission on the Cities of Donbas” and implemented by the research and design institute Dipromisto, along with the Construction District Plan for the Kharkiv Tractor Plant (Stanislavsky, 1971; Yatsenko, 2016).



План района строительства Харьковского тракторного завода. Архит. П. Алешин.

Figure 1: Plan of the Construction District of the Kharkiv Tractor Plant. Source: Stanislavsky, 1971, p. 108.



Первый квартал, построенный для трудящихся Харьковского тракторного завода. Архитекторы П. Алешин, П. Амосов, А. Аль.

Figure 2: The First Built Quarter. Dipromisto, 1930-s. Source: Stanislavsky, 1971, p. 114.

Established across Ukraine, research and design institutes (R&D institutes) played a crucial role in combining design, planning, and scientific research, serving as centers for innovation in architecture, engineering, town planning, and construction. Institutes like Dipromisto (Giprograd) in Kharkiv, specializing in town planning, and Kharkiv PromstroyNIIproekt, focusing on industrial areas (Eingorn, 1937), brought together experts from various disciplines, like planners, architects, urban economists, structural, geodetic, transportation and urban infrastructure engineers, to collaborate on projects requiring specialised knowledge and innovative solutions (Gosstroy, 1970). Professionals benefited from this centralised approach to urban development, which provided structured frameworks and resources for executing large-scale projects without the complications of private ownership or individual interests (Architecture of the Country of Socialism, 1947).

Soviet period (1945-1990): After World War II, the housing conditions of millions of Soviet people who continued to live in communal apartments, dormitories, barracks and huts became the government's top priority. However, traditional brick house construction was time-consuming and resource-intensive (Yerofalov-Pylypchak, 2010). By the mid-1950s, the inefficiency of Soviet design and construction in addressing the housing crisis led to a search for cheaper, more effective methods, including adopting international models like Plattenbau and American mechanized construction (Yankovska, Bachynskyi, 2013).

In 1954, under pressure from the government, the All-Union Council of Builders defined a new architectural and construction policy: standard designs and mass production of panel houses. A year later, in 1955, the resolution "On the Elimination of Excesses in Design and Construction" was passed (Alekseyenko, 2016), and competitions were held for the best standard designs, the most cost-effective industrial parts, and efficient construction methods (Yerofalov-Pylypchak, 2010).

This resulted in the widespread construction of large-panel residential buildings, such as *Khrushchyovkas*, which became a hallmark of Soviet urban housing. The urban environments formed around these developments were typically large, functional *microdistricts* — neighbourhoods designed to

accommodate a significant number of residents with integrated social facilities such as schools, kindergartens, clinics, and recreational clubs, all within a 15-minute walk from homes (Demin, Naimark & Fomin, 1961).

In 1956, responsibility for the construction and reconstruction of cities in the Soviet Union was transferred to territorial authorities, which established departments for planning and construction under the Chief Architect of the City. This shift marked a significant advancement in town planning culture, as residential areas were no longer seen as secondary to industrial and transport zones, but as essential components of urban development (Hyrych, 2008). From this period on and up to the urban planning reform of 2011, Chief Architects have played a key role in shaping both urban policy, overseeing the development and implementation of master plans, and the physical appearance of cities, approving architectural projects and ensuring a balance between the preservation of architectural heritage and new development.

Overall, during this period, town planning and design became more centralised and comprehensive, encompassing all aspects of urban development, industrial growth, infrastructure, and housing construction, all under state control. Specialised teams within multiple state Design or R&D institutes managed regional, industrial, town and rural planning, design and construction projects through technically segmented structures, where diverse specialists - architects, engineers, estimators, economists, urban planners, technologists, surveyors and land managers, and others - worked in parallel.

For projects involving residential or public buildings, supervision was provided by the Chief Project Architect (CPA) and the Chief Project Engineer (CPE). In spatial and town planning projects, despite their complexity, there was no single "chief planner" overseeing all activities. Instead, leadership was divided by project focus, with the CPA overseeing architectural aspects and the CPE managing engineering and technical details. In addition, specialists from various fields were involved in the projects — including economists, transport engineers, public health experts, historians, sociologists, and others — each contributing to a comprehensive planning approach (Gosstroy, 1970).



Figure 3: Khrushchyovkas - buildings with simple, repetitive designs, often grouped into large complexes. Photo: Kievinform.



Figure 4: Microdistricts of Donetsk, 1961, archive of State Scientific Architectural and Civil Engineering Library named after V.G. Zabolotny.

Standardisation and cost-effective construction methods played a key role in addressing the housing crisis in the Soviet Union, driving urban population growth and the formation of urban agglomerations. However, this emphasis on efficiency and mass production led to a decline in the role of architects, resulting in the creation of monotonous identikit Soviet cities and a decrease in the overall quality of projects, especially in mass housing developments (Filvarov, 2002; Posats'kyi, 2007; Markovskiy, 2020). As a result, professions became more technocratic, prioritizing speed and efficiency over creativity and quality. This shift led to the emergence of new specialisations, such as urban construction engineer, environmental engineer, hygienist, engineer-technologist, landscaping and amenity engineer. At the same time, there was a growing trend toward specialisation within existing professions, with architects and engineers focusing on specific areas such as town planning, industrial design, and residential or public buildings.

Independence and the post-Soviet transition (1991-2000): Ukraine's independence in 1991 marked a shift from centralised control to a market-driven economy, bringing significant changes to town planning. This period saw the emergence of a real estate market, legislative reforms, and the expansion of the private sector. However, deregulation and chaotic privatisation in the 1990s led to the erosion of the city as an integrated, complex system (Posats'kyi, 2007). As a result, town planning became increasingly driven by the private sector, with both the public and local government viewing cities primarily as collections of real estate assets. This shift fuelled large-scale reconstruction projects and the rapid development of new residential and commercial properties.

A decline in industrial construction and a growing emphasis on creating more aesthetically appealing and humanized urban environments (Moiseienko, 1995) led to the development of new professions, including urban, landscape and interior designers, real estate experts, project management specialists. Private workshops, design bureaus, construction firms, and enterprises sprang up, but all had to demonstrate the presence of specialists on staff in order to obtain a company license to operate in the field.

Urbanisation and capitalisation (2000-2008): The early 2000s saw significant urbanisation and capitalisation of cities in Ukraine, leading to a construction boom and the emergence of developers. Most of the large state-owned R&D institutions continued to operate,

trying to adapt to the decline in state orders and the need to compete with private firms, including small personal architectural or engineering design bureaus. The financial crisis of 2008 halted the credit-fuelled construction boom, leading to a downturn in town planning and construction.

Post-crisis adaptation and deregulation (2009 - 2014): A pivotal shift in Ukraine's built environment sector occurred with the 2011 town planning reform, introduced by the Law of Ukraine "[On Regulating City Planning Activities](#)" (№ 3038-VI, 2011). Before the reform, city chief architects and departments of architecture and urban planning played a central role in shaping urban policy, approving architectural projects, and ensuring the coherence of the urban environment. However, the reform reduced their influence by limiting their administrative authority, decentralizing decision-making, and increasing private sector involvement in construction and planning. As a result, the positions of chief architects in cities and communities were often filled by people without formal architectural education, further weakening professional oversight and town planning standards (Kyrii, 2024). In addition, mandatory town planning councils—where projects were previously discussed with residents—were abolished and reduced to an advisory function.

The reform further allowed private organisations to conduct project expertise and develop town planning documentation, significantly increasing competition in the field. While this opened new opportunities, many post-Soviet design organisations, accustomed to state-controlled planning, struggled to adapt to the market-driven system, leading to their decline.

Deregulation in the construction sector also streamlined approval processes for developers. The introduction of a declarative method for obtaining building permits eliminated multi-agency project approvals, reducing bureaucratic delays. To counterbalance this, the government implemented mandatory personal qualification certificates for Chief Project Architects and Chief Project Engineers, along with significant fines for non-compliance. This measure ensured that only certified professionals could hold these key positions, formalizing the qualification process and raising industry standards.

Additionally, the option to work as a self-employed entrepreneur—introduced in 1999 (Koziy, 2021)—allowed architects and other professionals to operate independently and offer services directly to clients.

This marked a shift away from the state-dominated structure of the Soviet period.

While these reforms aligned with European integration efforts following the Revolution of Dignity, a crucial component—professional liability insurance—was never implemented. This absence created a significant imbalance among industry stakeholders, leaving gaps in accountability and risk management (Kyrii, 2024).

Modern period of European Union alignment (since 2014): In response to global changes in urban development approaches, technologies, and the European integration process, Ukraine has undergone significant transformations in its administrative structure, urban planning, infrastructure management, and environmental protection (see section *Built-environment practice*). As Ukraine increasingly aligns with EU standards, particularly in urban development and environmental protection, demand for specialists who meet these requirements is growing.

The adoption of digital technologies, including Geographic Information Systems (GIS) and Building Information Modelling (BIM), has become integral to modern town planning, design, and construction, giving rise to new professional roles such as GIS specialists, BIM designers, and BIM managers. Recognizing the importance of these advancements, the Ukrainian government initiated a comprehensive reform of the town planning sector, focusing on the digitalisation of town planning and architectural design documentation, as well as streamlining the process for obtaining construction permits and related services (Eurasia, 2025). As a part of this reform, the Ministry of Digital Transformation of Ukraine is implementing a Unified State Electronic System in the construction sector, a key initiative aimed at enhancing transparency, accountability, and inclusivity in infrastructure reconstruction, construction, and real estate projects (Opengovpartnership, 2025).

Professionals in the field of built environment are increasingly focusing on sustainable development and energy efficiency, integrating green technologies, renewable energy sources, and circular approaches into their projects. Particular attention is being paid to ensuring accessibility for people of all ages and abilities, contributing to the creation of resilient and inclusive urban spaces. These shifting priorities highlight the evolving role of the built environment specialists in shaping cities that are sustainable, equitable, and adaptable to future challenges—ultimately enhancing the well-being of all citizens.

CONCLUSION

The evolution of built environment professions in Ukraine has been shaped by broader economic, political, and technological transformations. From the organic and loosely defined roles of the pre-industrial era to the centralised and highly structured Soviet period, professions have continually adapted to emerging challenges. The post-independence transition introduced market-driven dynamics, privatisation, and deregulation, which reshaped the role of built environment professionals and expanded the industry's scope.

The introduction of personal qualification certificates and legislative reforms in the 2000s marked a significant step toward aligning with international standards. Today, in the context of Ukraine's integration with the European Union, the focus has shifted toward sustainable development, energy efficiency, and inclusivity. This ongoing evolution reflects a broader trend of increasing specialisation, interdisciplinary collaboration, and a growing role for the private sector in shaping the human-made environment.

Current laws and regulations

NATIONAL LEGISLATIVE FRAMEWORK

The framework governing town planning professionals in Ukraine consists of the Constitution of Ukraine, the Civil, Commercial, and Land Codes of Ukraine, as well as various legislative acts and normative-legal acts. Among the laws, several define the activities of professionals in the field of the built environment, namely:

- The Law of Ukraine ["On the Principles of Town Planning"](#) (№ 2780-XII, 1992) is a key legislative act that defines town planning as a purposeful activity encompassing the forecasting of territorial development, the design and construction of town planning objects, the preservation of cultural heritage, and the creation of infrastructure for settlements. It establishes the legal and organisational foundations for carrying out these activities.
- The Law of Ukraine ["On Architectural Activity"](#) (№ 687-XIV, 1999) defines the objects of architectural activity as residential, civil, communal, industrial, and other buildings and structures, their complexes, landscaping elements, objects of landscape architecture, monuments and monumental-decorative art, as well as the territories of administrative units and settlements. It also regulates the professional activities of architects, setting requirements for their professional training and certification.
- The Law of Ukraine ["On the Protection of Cultural Heritage"](#) (№ 1805-III, 2000) regulates planning and construction activities in the protection zones of cultural heritage sites.
- The Law of Ukraine ["On Land Management"](#) (№ 858-IV, 2003) defines the role of certified land survey engineers and their responsibility for the quality of land management work.
- The Law of Ukraine ["On Construction Standards"](#) (№ 1704-VI, 2010) regulates standardisation in the construction sector and sets requirements for the design, construction, reconstruction, and operation of buildings and structures.
- The Law of Ukraine ["On Regulating of City Planning Activities"](#) (№ 3038-VI, 2011) establishes the legal and organisational foundations for territorial planning, design, construction, reconstruction, and major repairs of objects; delineates the powers of central and local authorities, as well as defines the duties and responsibilities of specialists involved in the implementation of urban development processes.
- The Law of Ukraine ["On Environmental Impact Assessment"](#) (№ 2059-VIII, 2017) outlines the roles and responsibilities of economic entities and authorized bodies, as well as establishes qualification requirements for experts and the procedure for maintaining a register of environmental impact assessment specialists.
- The Law of Ukraine ["On Strategic Environmental Assessment"](#) (No. 2354-VIII, 2018) establishes requirements for assessing the environmental impact of urban planning documentation.
- The Law of Ukraine ["On Energy Efficiency"](#) (№ 1818-IX, 2022) defines the roles and responsibilities of various entities, including government authorities, local self-government bodies, economic entities, and experts in the field of ensuring energy efficiency.
- Resolution of the Cabinet of Ministers of Ukraine (№ 554-2011-п, 2011) ["On some issues of professional certification of performers of certain types of works \(services\) related to the creation of architectural objects"](#) regulates the procedure for the professional certification of individuals performing specific types of work (or services) related to the creation of architectural objects.
- State Construction Norms (DBN) are mandatory documents that establish technical requirements for building, reconstructing, and repair of structures and settlements.

In addition to the above-mentioned acts, the Law of Ukraine ["Responsibility of Enterprises, their Unions, Establishments and Organisations for Violations in the Sphere of Town Planning"](#) (№ 208/94-BP, 1994) outlines administrative, civil, and criminal liability for enterprises and professionals for violations of town planning legislation.

Since 2010, further attempts have been made to codify town planning legislation in Ukraine. In 2023 a process of creating a **new Town Planning Code** began under the leadership of a working group of the parliamentary committee headed by Hanna Bondar and became one of the first laws to **undergo broad public and professional discussion** (Bondar, 2023).

As can be seen, the Legislative Framework of Ukraine covers various aspects of the formation and development of the built environment, requiring expert knowledge from **specialists in various fields**. This framework covers a wide range of professions, each of which plays an important role in urban development. Key specialists include:

- **Architects:** design buildings and structures, their complexes, landscape architecture objects, monumental and monumental-decorative art, as well as territories.
- **Town and Regional Planners:** develop strategies and concepts for territory development, create town planning documentation at state, regional, and local levels, and plan zones for residential, commercial, and industrial buildings.
- **City Chief Architects,** along with other officials from designated town planning and architectural authorities, are actively involved in the development of town planning documentation.
- **Urban Infrastructure and Amenities Engineers:** design city infrastructure, including water supply, sewerage, energy systems, and transport networks.
- **Internal Network Engineers:** design the internal engineering systems of buildings, such as electrical, water supply, sewerage, and ventilation networks.
- **Structural Engineers:** design and verify the structures of buildings and other constructions to ensure their strength and safety.
- **Civil engineers:** design and construct buildings and structures, conduct technical assessments, oversee construction processes, and ensure compliance with building regulations.
- **Land survey engineers:** develop land management projects, perform cadastral work, establish boundaries of land plots, conduct geodetic and topographic measurements, and prepare technical plans and documentation.
- **Geodesists and Cartographers:** measure and map the earth's surface, ensuring accurate representation of physical and spatial characteristics of the territory.

- **Environmental engineers:** design, develop, and implement systems and solutions to protect and preserve the environment.
- **Public health specialists:** focus on improving the health and well-being of communities.
- **Geoinformation Specialists (GIS Analysts):** collect, process, and analyse spatial data for town planning and management.
- **Landscape Designers:** design and implement green areas.

Only architects and town planners (architects focussing on town planning), structural and civil engineers, and land survey and geodetic engineers can receive certificates of responsible executors, making them legally accountable for the documentation they develop. These professions are continuously evolving, with most having established professional bodies in Ukraine responsible for registration and regulation, as well as educational programmes to train and certify highly qualified specialists.

The standards and roles of these professions are more precisely outlined in the National Classification System of Ukraine, which provides detailed definitions and guidelines.

PROFESSIONAL QUALIFICATIONS AND STANDARDS

Professional standards and qualifications in Ukraine are the basis for determining the skills, knowledge and experience required of workers in various industries. They not only help to ensure that specialists meet the needs of the labour market, but also guarantee the safety and quality of work, which is especially important in areas such as town planning, architecture and construction. The state regulates professional standards through the implementation of the National Qualifications System (NQS), control of educational programmes, and the attestation and certification of specialists. The NQS regulates the training of workers, ensuring that their qualifications meet the requirements of the labour market through the National Classification of Occupations (NCO).

In addition to the NCO, the National Qualifications Framework (NQF) was introduced in 2011 as a 10-level structure aligning Ukrainian qualifications with international standards, including the European Qualifications Framework for Lifelong Learning (EQF)

(European Training Foundation, 2021). The 2014 Law on Higher Education aligned higher education qualifications with the NQF, promoting international recognition and mobility of Ukrainian professionals. For more details, refer to the [Comparison report of the European Qualifications Framework and the Ukrainian National Qualifications Framework](#).

As part of the new NQF, professional standards are being developed to define the specific knowledge, skills, and competencies required for each occupation. These standards serve as the foundation for designing educational programmes that are closely aligned with labour market needs. The development process involves collaboration between employers, professional associations, and educational institutions, and is regulated by the Labour Code of Ukraine (Cabinet of Ministers of Ukraine, 2017). The National Qualifications Agency (NQA), established in 2019 as a tripartite collegial body involving the government, social partners, and the professional community, is responsible for the development, updating, and administration of these standards and maintains the official online [Register of Qualifications](#).

As stated in the European Commission's 2023 "Comparison report of the European Qualifications Framework and the Ukrainian National Qualifications Framework", standards and recommendations from the European Qualifications Framework (EQF) and Validation of Non-Formal and Informal Learning (VNFIL) have clearly influenced both Ukrainian legislation and practices. By aligning with these European frameworks, Ukraine has made significant strides in modernizing its education and training systems. The integration of EQF principles has fostered a more transparent and coherent structure for qualifications, enhancing their recognition and mobility within the European labour market.

In the field of town planning, there are already professional standards for such specialists as chief project engineer, structural engineer, consulting engineer, technical supervision engineer and construction expert (National Register of Qualifications, 2025).

Currently, professional standards are being developed governing architects and chief project architects, but without the involvement of the Union of Architects of Ukraine, the country's foremost professional body. Instead, the task is being pursued by an association of Design Engineers (Chyzhevs'kyi, 2024). This

raises significant concerns because, according to both Ukrainian and EU regulations, professions that directly impact the safety of citizens are considered "sectoral" regulated professions (Martyn, 2024; European Commission, n.d.). Architecture is one such profession where clear standards are essential to ensure safety and high-quality construction (European Training Foundation, n.d.). It is crucial that architects themselves are actively engaged in the development of the standards by which they will be regulated, to ensure they accurately reflect the needs of practitioners, and the wider sector, and keep step with modern requirements and developments.

The ongoing development of professional standards based on the needs of the labour market contributes to the updating of training programmes, reducing the gap between education and market requirements, and increasing the competitiveness of the national economy.

CONCLUSION

Ukraine's legal framework for professionals in the built environment regulates urban development through provisions of the Constitution, codes, and specialised laws. It defines the responsibilities of architects, planners, and engineers, ensuring accountability via certification and professional regulation. Key legislative acts address architectural and town planning activities, land use, environmental protection, and cultural heritage preservation, reflecting the multidisciplinary nature of the field.

Attempts to codify town planning legislation—including the development of a Town Planning Code—demonstrate the state's commitment to effective governance and sustainable development. The National Qualifications Framework (NQF) aligns professional training with European standards, enhancing workforce mobility, while the National Qualifications Agency oversees the creation of professional standards in collaboration with labour market stakeholders.

Although key built environment professions have established standards, concerns persist over architectural qualifications being developed without architects' input. Given the sector's impact on public safety, active professional engagement is crucial. Strengthening professional standards helps close skills gaps, improve education, and boost Ukraine's competitiveness.

Built-environment education

FORMATION AND DEVELOPMENT OF THE VOCATIONAL EDUCATION SYSTEM

Ukraine's current system of professional education relating to the built environment has deep roots dating back to the eighteenth century, developing in line with European trends (Kondel-Perminova, 2006, 119). It has changed in response to political, economic and social needs, gradually adapting to global changes, and continues to develop in today.

Let us consider the main stages of its formation:

Formation of the First Vocational Education Institutions

In the 18th and 19th centuries, the development of science and technology, as well as the growing importance of education, contributed to the formation of the first vocational education institutions. The architectural school in Kharkiv dates back to 1768, when a training institution for architects and land surveyors was established at the Kharkiv Collegium. In 1805, with the founding of the Imperial Kharkiv University, the Department of Architecture was established (Buriak, 2022). Architecture was also taught at the Kyiv-Mohyla Academy and the Volyn Lyceum, and in 1842 the Department of Architecture was founded at St Volodymyr's University in Kyiv (Kondel-Perminova, 2006, 117). In 1844, the Imperial Royal Technical Academy in Lviv began to teach architecture and engineering disciplines. In 1913, the department of town planning was established there, which marked the beginning of the development of this speciality in Ukraine. In Chernivtsi, architects have been trained since 1873 (Mylko, 2019, 438).

Technical universities were opened in the Ukrainian provinces of the Russian Empire, such as Kharkiv Technological (1885), Kyiv Polytechnic (1898), and Katerynoslav Polytechnic (1916). In 1915, the Kyiv Polytechnic Institute (KPI) trained specialists in ten specialities, including municipal management (Kondel-Perminova, 2006, 120). Secondary vocational schools also operated, including in Odesa (1891) and Kyiv (1900) for foremen in the construction sector (Dobrovolska, 2024, 99). In addition, real schools – technical secondary education institutions intended to prepare students for industry, commerce, and practical professions – began to be established from 1875 onward.

Post-Revolutionary Developments (1917-1920)

With the proclamation of the Ukrainian People's Republic in 1917, aspirations to develop national culture were embodied in the foundation of the Ukrainian Academy of Arts in Kyiv, the first higher state art educational institution. A year later the Architectural Institute (Vrona, 1928) and the Odessa Polytechnic with the Faculty of Civil Engineering were also founded.

Transformation of Education and Focus on Industrialisation 1921-1929

After the establishment of Soviet rule in 1921, the vocational education system underwent changes, focusing on industrialisation through education and work ethic (Seletsnyi, 2012). The priority was to develop lower vocational education: real schools were transformed into vocational schools, factory training schools were established, and worker faculties were created at technical universities (Likarchuk, 1996).

In the 1920s, universities were replaced by specialised institutes to train personnel for the new industry, while technical schools became a new form of higher education (Fedosova, 2013). Art schools were transformed into higher art institutions, in particular, the Ukrainian Academy of Arts merged with the Architectural Institute to form the Kyiv Art Institute (Nikulenka, 2015a). Kharkiv became a leading centre of avant-garde artistic and technical education: the Kharkiv Art College (from 1927, the Institute) and the Kharkiv Institute of Municipal Economy were founded here (Smolenska, 2017).

Standardisation and Restriction (1930-1940s)

During this period, under centralised Soviet direction, progressive educational ideas were restricted, education systems unified and common standards introduced. To provide qualified personnel for the construction sector in Ukraine, several civil engineering construction institutes were established, including the Dnipro, Kyiv, Odesa, and Kharkiv Engineering and Construction Institutes, as well as the Poltava Institute of Agricultural Construction, with a six-year program of study (Savyts'kyi, 2020; Solushenko, 2020). In cities lacking specialised universities, branches of these institutes were opened in the form of Higher Engineering and Construction Courses.

In 1930, research and design institutes began to form, which became an important part not only of the employment system, but also of postgraduate education and scientific research. Two of the first such institutes were Dipromisto (Giprograd), founded in Kharkiv to lead spatial and town planning, and Kharkiv PromstroyNIIproekt to lead research, design and construction of industrial areas (Gosstroy, 1970).

Reconstruction and Urbanisation Post-WWII (1941-1953)

During the Second World War, all educational institutions in Ukraine ceased to operate, their material and technical facilities were destroyed, and their staff evacuated. After the war, the USSR experienced new industrialisation and urbanisation. The shortage of specialists to rebuild the country stimulated the development of vocational education. At the end of 1943, the Civil Engineering Institute was reopened in Kharkiv, and in 1945, a faculty of the Lviv Polytechnic Institute was reopened. In 1946, a resolution was passed to develop part-time education for working people.

An important innovation of that period was the system of Labour Reserves, which mobilised young people to train them as skilled workers and assign them to strategic enterprises. This led to the organized migration of about 750,000 people from rural areas to the cities of Eastern Ukraine, helping drive urbanisation of the region (Korol, 2022).

New research and design (R&D) institutes were also established, playing a crucial role in the country's reconstruction and advancing scientific research in the built environment. These institutes allowed professionals to combine practical design work with scientific research, bridging applied practices and academic theory. Many also offered postgraduate programmes, enabling professionals to earn advanced degrees while gaining practical experience. Notable among these were the Ukrainian Research Institute of Structures (1943), the Academy of Architecture of the Ukrainian SSR (1945), the Research Institute of Design and Reconstruction, the Rural Construction Design Institute (1945), the Research Institute of Town Planning (1946), and the Scientific Research Institute of Construction Production (1947) (Centre for Archival Documentation of Ukraine, 2013).

Technocratic Shift in Soviet Architecture and Town Planning (1954-1964)

After 1954, Soviet architecture began to move away from its artistic roots, increasingly aligning with the demands of the construction industry. This change reflected the planned economy of the totalitarian system (see Section *Evolution of professions*). As a result, town planning and design became more technocratic and most architectural faculties across Ukraine were temporarily closed, except for the Kyiv Civil Engineering Institute (Solushenko, 2020, 18). Moreover, the Academy of Architecture was replaced by the Academy of Construction and Architecture, which came under the control of the USSR State Construction Committee (Bondarenko, 2003; Markovskiy, 2020).

Stable Development and International Cooperation (1964-1990)

This was a period of stable development of engineering education in Ukraine and the former USSR. The country's change of leadership led to the suspension of reforms and a new wave of repression in Ukrainian culture, but large infrastructure projects continued, promoting the development of education in engineering and town planning. At this time, the educational programmes of universities and technical schools were improved, new faculties and specialities were opened to meet the requirements of industrialisation (Holodenko, 2017). Cooperation with countries of the socialist commonwealth was developing, which facilitated the exchange of students and experiences.

In the field of lower vocational education, secondary vocational schools were established in 1959, training workers and junior technical staff in standardised programmes (Likarchuk, 1999, 143).

An important stage in transitioning to 'working life' was compulsory employment immediately after graduation, where the top students had the opportunity to select their jobs, while others had to choose from available options, often far from their hometowns (Shevchuk, 2013). This system also functioned as a post-degree specialisation and upskilling opportunity. R&D institutes, established in previous periods, also played an important role in postgraduate training and retraining, as well as in scientific and practical research.

Thus, the centralised Soviet education system standardised training across the USSR, ensuring uniform qualifications for professionals. While this efficiency was useful for maintaining cohesion, it also limited flexibility in curricula, preventing adaptation to global advancements in the field. As a result, Soviet professionals struggled to keep up with new technologies and international trends (Nichkalo, 2008). The system also promoted rigid design approaches, focusing on mass production and state-driven ideologies, limiting creativity and regional diversity (see Section *Evolution of professions*). This centralisation reinforced the state's political control, while the compulsory employment system restricted career mobility and stifled innovation. In essence, while the system produced a large, unified workforce, it lacked flexibility, hindered progress, and suppressed individuality and autonomy.

Post-Independence Transformation (1991-2000)

After Ukraine gained independence, the economic crisis and the reduction of state funding for construction led to a substantial decline in support for education, science, and design activities. This resulted in the deterioration of research efforts, the closure of specialised institutes, and contributed to the liberalisation and commercialisation of education, which remained the sole centre of scientific activity (Buriak, 2021). Private educational institutions emerged, new programmes were introduced (for example, Urban design specialisation in Architecture), and contractual education was implemented in state institutions. However, the lack of transparency mechanisms across all levels of the education system contributed to growing corruption and a decline in educational quality (Filiatreau, 2011). Weak state regulation and the absence of effective quality assurance frameworks led to a rapid and uncontrolled expansion of higher education institutions (HEIs) in Ukraine—from 184 in 1983 to 979 by 1999. Ukraine became among the most educated societies in the world with a tertiary gross enrolment ratio (GER) of 83 percent (UNESCO, 2014).

Transition to European Standards (2000-2013)

In 2000, Ukraine ratified the Lisbon Recognition Convention, and by 2005, it became a full member of the Bologna Process, enabling the education system to adapt to world standards. The introduction of an Anglo-Saxon-style Bachelor and Master's degree structure replaced the Soviet-style Diploma of Specialist and Junior Specialist programmes, improving student mobility and the mutual recognition of diplomas. However, this also contributed to an increased brain drain. External independent testing after high school changed university admission criteria, and reforms led to a reduction in the number of HEIs from 979 to 334 by 2013 (Halakh, 2014). During this period, a new specialisation in "landscape architecture" emerged within Architecture and Town Planning (Shebek, 2019).

Autonomy, International Collaboration, and Modernisation (2014-2021)

From 2014 to 2021, the conflict in eastern Ukraine and the annexation of Crimea forced many educational institutions to relocate to safer regions, causing significant losses in infrastructure. Despite these challenges, efforts were made to align Ukrainian education with international standards. The 2014 Law of Ukraine "On Higher Education" granted universities more autonomy, enabling them to implement their own academic programmes (Holodenko, 2017).

The 2017 Law on Education introduced key reforms, including the adoption of the European Credit Transfer and Accumulation System (ECTS) to support individual learning paths and the reclassification of higher education institutions into universities, academies, and institutes with increased autonomy and accountability. The new law strengthened cooperation with business, improved quality assurance, and introduced changes such as reduced teaching loads, fewer required student credits, and stricter plagiarism penalties. State funding was restructured to promote competition for top students. The law also modernized vocational education by implementing dual education, combining academic study with enterprise-based training (Osvita.ua, 2014).

Between 2016 and 2020, Ukrainian higher education institutions (HEIs) participated in 230 EU Horizon 2020 projects, involving 323 participants who were particularly active in researcher mobility, energy, climate, and transport sectors (Eastern Partnership University Cluster, 2025). This international cooperation, combined with a new law granting higher education institutions greater autonomy, supported the modernisation of built environment curricula.

In 2017, the Kyiv National University of Construction and Architecture (KNUCA) introduced two renewed master's programs: "Architectural and Town Planning" and "Architectural and Landscape Design." The Faculty of Urban Construction was also renamed the Faculty of Urban Studies and Spatial Planning (Mamedov, 2017). In 2021, KNUCA launched additional master's programs in Urban and Spatial Planning and Public Administration in Urban Development (KNUCA, 2024).

Despite the growing autonomy of HEIs, the Ministry of Education and Science of Ukraine (MESU) continues to play a central role in setting educational priorities and integrating European and international standards into curricula (see Section *Regulation of educational programmes*).

The period from 1991 to 2021 marks a complex transition from a rigid, centralised Soviet model to a more liberal and internationally-oriented system, enabling the development of new specialisations in urban planning, architecture, and built environment governance, along with greater institutional autonomy for universities.

CONCLUSION

The cumulative experience of previous periods demonstrates the resilience of the Ukrainian education system and its capacity to adapt to global changes, even amidst profound internal and external challenges. As Ukraine continues the modernisation of its educational framework, the lessons learned will be crucial in shaping the future of town planning education. This ongoing evolution will help ensure that the growing demands of a rapidly changing built environment can be met, addressing not only technical requirements but also the governance of urban spaces, infrastructure, and resources in an increasingly complex and interconnected world.

Contemporary educational programmes and their regulation

REGULATION OF EDUCATIONAL PROGRAMMES

In Ukraine, educational standards and qualifications are legislated through primary laws - the [Law on Education](#) (№ 2145-VIII, 2017) and the [Law on Higher Education](#) (1556-VII, 2014), with the Law on Vocational Education and Training still under development.

In the period from 1995 to 2005 the Ministry of Education and Science of Ukraine (MESU) implemented a number of large-scale measures to create a new regulatory framework for national higher education in Ukraine: The Law of Ukraine "On Higher Education" was adopted in 2002, followed by the Presidential Decree "On Measures to Improve the System of Higher Education" in 2004 (Yatsenko, Kozlova, 2014). In 2000, Ukraine ratified the Lisbon Recognition Convention, and by 2005, it became a full member of the Bologna Process (Holodenko, 2017, 19).

In 2014, following the adoption of the new Law on Higher Education, the regulation and standardisation of educational programs, particularly in the built environment, saw significant improvement. The National Agency for Higher Education Quality Assurance (NAHEQA) was established as the primary body responsible for overseeing the quality of educational programmes in Ukraine (National Agency for Higher Education Quality Assurance, 2024). The NAHEQA manages accreditation and ensures that programmes comply with international standards. It cooperates with professional associations and academic institutions to develop and enhance higher education standards, while also collaborating with international organisations to implement European practices in curricula. The NAHEQA also maintains a [Unified State Electronic Database on Education](#) (USEDE), which contains key information on educational institutions, accreditation, diplomas, and study programmes across Ukraine.

In December 2016, the Cabinet of Ministers of Ukraine (CMU) approved an action plan for the implementation of the National Qualifications Framework for 2016-2020, an important step in reforming the educational system (Cabinet of Ministers of Ukraine, 2016).

The 2017 Law on Education further strengthened the scientific and methodological support of education in Ukraine. It designated the central executive body

in education and science, along with the National Academy of Sciences of Ukraine, national sectoral academies of sciences, and other relevant institutions, to work together with enterprises, creative unions, and public organisations to enhance the education system (Law of Ukraine, 2017).

In 2020, the MESU approved recommendations for the development of higher education standards and the List of Regulated Specialties, including speciality Architecture and Town Planning. In 2021, in line with the EU-Ukraine Association Agreement (Resolution of the Cabinet of Ministers of 25 October 2017), the Regulation on the Qualifications Register was approved.

The Resolution of the CMU No. 1021 in August 2024, amended the list of fields of knowledge and specialties for higher and professional higher education. These changes aim to adapt curricula to the evolving labour market and international educational standards. The amendments provide a clearer definition of specialties, allowing curricula to better align with professional needs and current technologies in fields like architecture, construction, engineering, and environmental protection. It is explicitly stated that regulated specialties, such as "Architecture and Town Planning", cannot be interdisciplinary due to the special requirements necessary for forming professional competencies. As a result of these changes, educational institutions must align their programmes with the new standards and update their licenses for educational activities according to the revised list of specialties.

In 2024 the MESU announced its intention to eliminate several qualification levels and specialisations in architectural education, including the "Junior Bachelor" level and the "Architectural Design Technician" specialty, which sparked strong opposition within the Ukrainian architectural community (Cheremys, 2024). Later, in 2025, the Ukrainian government identified [44 specialties across 6 areas](#) of knowledge to receive special support (Osvita.ua, 2025). These include fields such as Environmental Protection Technologies, Construction and Civil Engineering, and Horticulture, but Architecture and Town Planning are notably absent (Homon, 2025), echoing past Soviet priorities emphasizing construction over architecture and town planning (see Section *Evolution of professions*).

OVERVIEW OF EDUCATIONAL LEVELS AND PROGRAMMES

In Ukraine, the professional education structure in the built environment aligns with the National Qualifications Framework (NQF), the European Qualifications Framework (EQF) for Lifelong Learning and with the International Standard Classification ISCED-F 2013 (Cabinet of Ministers of Ukraine, 2024).

Table 1: The system of vocational and specialised academic education in Ukraine and the EU

EQF (EU)	NQF (Ukraine)	Formal Education Qualifications		
		Vocational education and training	Pre-higher professional education	Higher education
8	8			Doctor of Philosophy / Doctor of Arts
7	7			Master
6	6			Bachelor
5	5	Skilled Worker Diploma / Certificate	Professional Junior Bachelor (formerly Junior Specialist)	Junior Bachelor

Source: European Commission, 2023

The educational structure includes various levels designed to ensure comprehensive training, from entry-level vocational education to postgraduate research degrees (table 2).

Table 2: Ukrainian professional education structure

Education Level	Duration	Eligibility	Roles & Specialisation
Vocational Education (Skilled worker diploma)	1-3 years	Open enrolment at vocational schools	Primary vocational training; retraining of workers; vocational and technical education for occupations such as mason, electrician, construction technician, etc.
Professional Qualification (Junior Bachelor)	2-3 years	Completion of vocational education	Basic roles such as construction or building design technician
Higher Education (Bachelor's Degree)	3-4 years	Complete secondary education (11 grades)	In-depth study for roles as civil/urban/landscaping engineer, architect, construction manager, horticulturist, surveyor, public administrator, etc. Basic degree for a certification as responsible executor
	1-2 years	Based on Junior Bachelor's degree	
Higher Education (Master's Degree)	1-2 years	Bachelor's degree	Advanced specialisation in the field
Academic Level (PhD, Doctor of Science)	2-4 years	Master's / PhD degree	Research and teaching in higher education institutions
Postgraduate Education & Advanced Training	Varies	Professional experience	Upskilling, certification, specialisation for professionals

Ukraine also has a system of academic titles, including Associate Professor, Professor, and Senior Researcher. According to the Ministry of Education and Science of Ukraine Order No. 13 (2016), obtaining an academic title requires candidates to demonstrate significant achievements in research and teaching. Key requirements include holding a PhD or Doctor of Science degree, having at least five years of teaching or research experience, publishing in peer-

reviewed journals such as Scopus or Web of Science, possessing a B2 language proficiency certificate, having proven international experience (through study, internships, work, or participation in OECD/EU projects), and teaching in the state language or an OECD country language at a high level, as confirmed by the department (Ministry of Education and Science of Ukraine, 2016).

Ukrainian higher education institutions offer various programmes related to the built environment, tailored to national and international standards. They cover architecture and town planning, construction engineering and management, land surveying and geodesy, landscaping and gardening, as well as economic geography, regional studies and public

governance, ensuring that graduates are equipped with interdisciplinary knowledge to address modern urban development challenges. More detailed descriptions, including the educational institutions involved, their number and geographical location (taking into account the relocation in 2014-2022 due to the conflict) are covered below.



Figure 5: Specialty G17 vocational and HEIs. Map by Fedir Gontsa (Source: USEDE)

Specialty G17 (191): Architecture and Town Planning

This is a regulated specialty (see Section *Professional qualifications and standards*) that trains professionals in the design of architectural and town planning objects (see Section *National legislative framework*).

Areas of study and practice: buildings and structures, their interiors; urban planning complexes; landscaping and public space design; elements of landscape architecture and applied decorative arts; urban and territorial development; restoration and reconstruction of architectural heritage.

Professional fields: architecture and urban planning

firms, landscape and restoration companies, environmental and spatial design studios, construction enterprises, public authorities, and educational institutions. The curriculum includes architectural and urban history and theory, design, composition, drawing and painting, building materials and structures, engineering systems, and digital technologies (MESU, 2020, 2022).

Master's programs offer specialisations: Architecture of Buildings, Town Planning, Urban/Interior Design, Landscape Architecture.

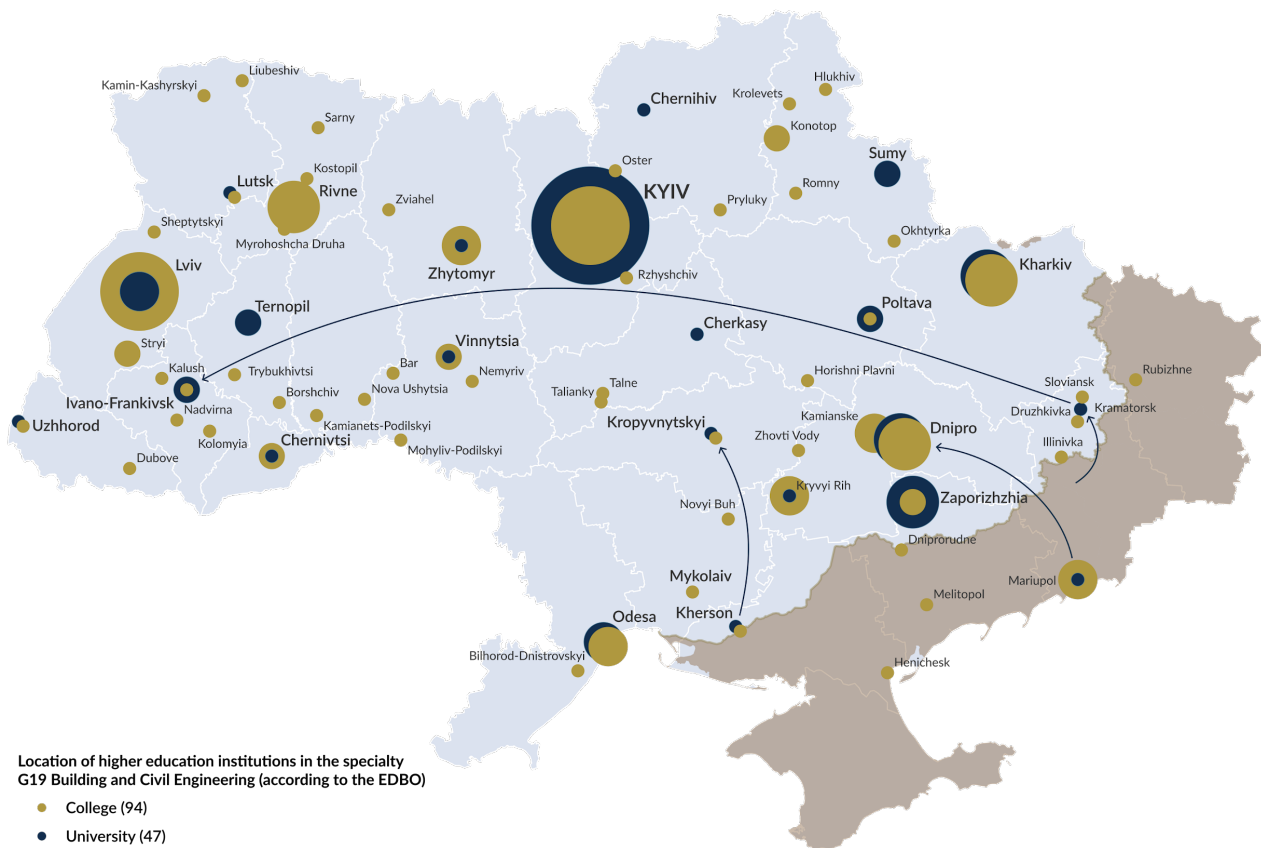


Figure 6: Specialty G19 vocational and HEIs. Map by Fedir Gontsa (Source: USEDE)

Specialty G19 (192): Construction and Civil Engineering

This is an interdisciplinary specialty that trains professionals in the field of construction and civil engineering, covering the design, construction, operation, renovation, and maintenance of buildings, engineering structures, utilities, and urban infrastructure (MoES, 2021).

Areas of study and practice include: buildings and structures, engineering networks, transport and urban infrastructure, and the processes of their design, construction, operation, and renewal.

Professional fields: design and construction companies, government agencies, municipal services,

and sectors of industrial, urban, rural, and road construction.

Bachelor's and master's programs offer a wide range of specialisations, including: Structural Engineering, Design of Buildings and Structures, Construction Management, Street and Road Construction, Urban Development and Infrastructure, Industrial and Civil Construction, Agricultural Construction, Water Use and Environmental Protection, Water Supply and Wastewater Management, Heating, Gas Supply, and Ventilation.



Figure 7: Specialty G18 vocational and HEIs. Map by Fedir Gontsa (Source: USEDE)

Specialty G18 (193): Geodesy and Land Management

This specialty trains professionals in the legal, economic, and technical aspects of land use and spatial organisation.

Fields of study and activity include: the Earth's surface, land plots, utility networks, cadastral objects, geospatial databases; technologies for developing geospatial data infrastructure; topographic and geodetic surveying, cartography, cadastral operations, land management, land monitoring and evaluation (MESU, 2023).

Professional fields: public and municipal institutions (cadastral agencies, local governments), private land management and design firms, construction, agriculture, environmental and archaeological sectors, research institutions and educational establishments. The curriculum includes geodesy, land management, topography, cartography, satellite geodesy, photogrammetry, remote sensing, geographic information systems (GIS), cadastre, and spatial planning.



Figure 8: Specialty H3 vocational and HEIs. Map by Fedir Gontsa (Source: USEDE)

Specialty H3 (206): Horticulture (Gardening and Landscaping)

This specialty prepares professionals in the design, creation, and maintenance of landscape and urban green infrastructure.

Fields of study and activity include: gardens, parks, squares, green roofs, urban farms, recreational spaces, and landscape features that support environmental balance and sustainable development.

Professional fields: municipal landscaping services,

landscape design studios, environmental and agricultural projects, urban horticulture companies, and ecological restoration sites. The curriculum covers landscape design, dendrology, garden and park planning, soil science, agronomy, sustainable urban development, climate-resilient landscape strategies, mitigation of urban heat islands, and air quality improvement.



Figure 9: Specialty C6 vocational and HEIs. Map by Fedir Gontsa (Source: USEDE)

Specialty C6 (106): Geography and Regional Studies

Training of specialists capable of conducting research on the natural and socio-territorial components of the Earth's geographical shell, solving complex scientific and applied problems in the fields of environmental management, urban and regional development, and spatial planning.

Subjects of study and professional activity include: natural and socio-geographical systems, their components and interrelations, spatial processes, and forms of territorial organisation (MESU, 2020b, 2021b).

Professional fields: national, regional, and urban

governance, spatial planning, scientific research, environmental protection, analytics, consulting, business, and outsourcing. The curriculum covers theories and concepts of geospatial organisation of territories, as well as the patterns of formation and functioning of natural and socio-economic systems.

Available specialisations: Physical Geography, Economic Geography, Recreation and Tourism Geography, Geography and Regional Studies, Spatial Planning, Regional Development.

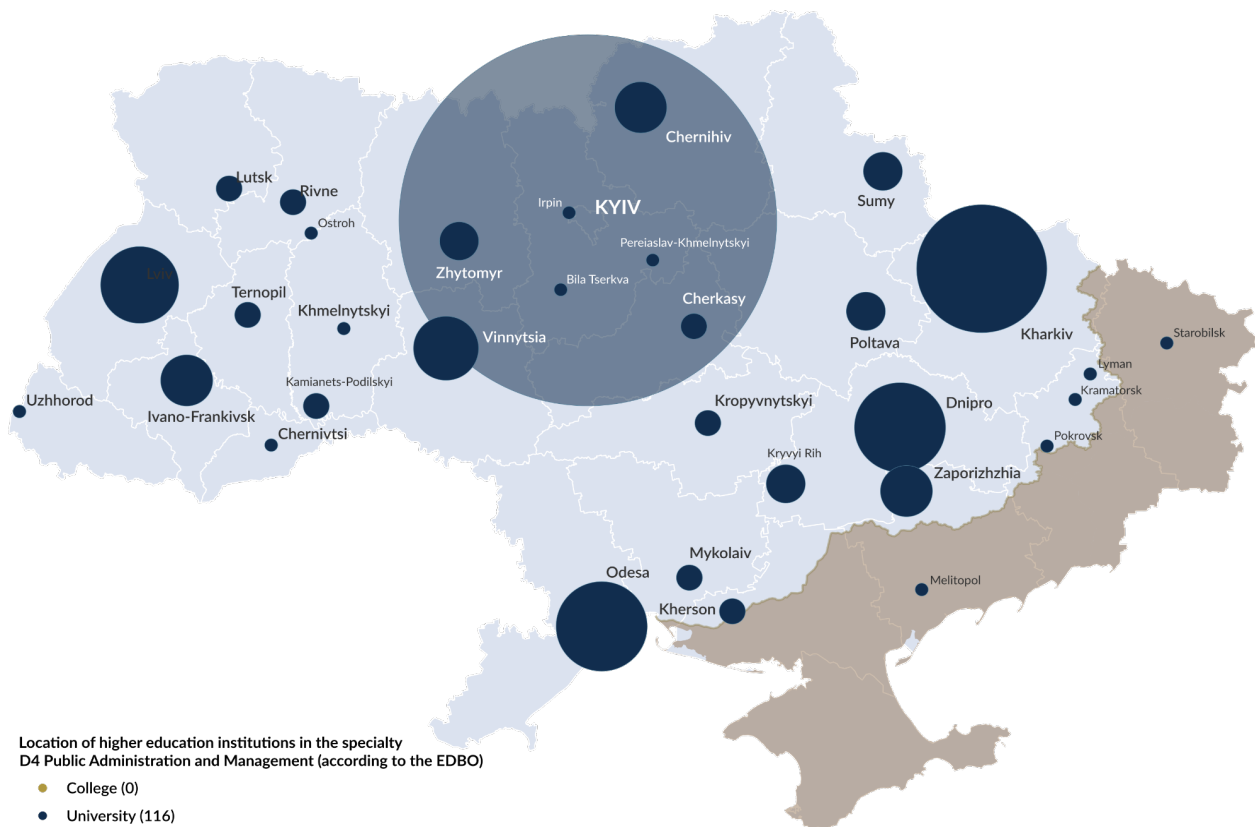


Figure 10: Specialty D4 vocational and HEIs. Map by Fedir Gontsa (Source: USEDE)

Specialty D4 (281): Public Management and Administration

This educational programme trains professionals capable of solving complex tasks in the field of public administration, particularly in the context of urban development.

Subjects of study and activity: principles and patterns of functioning of the public administration system; institutions of state power, local self-government, and civil society; relations, processes, models, and mechanisms of governance at the national, regional, and local levels.

Professional fields: central and local government bodies, local self-government authorities, state-owned

enterprises and institutions, public organisations, charitable foundations, international organisations, and their representations. The curriculum includes courses in management, law, economics, human resource management, communications, digital governance, and strategic territorial development planning.

Available specialisations: Public Administration in Urban Development, Urban Studies and Regional Development, Post-Conflict Governance, Community Governance, Local Self-Government, Regional Administration and Self-Governance.

Every year, specialists of various levels graduate from the above-mentioned programs. The dynamics of the number of graduates can be seen in the table 3:

Table 3: Number of people who have completed their studies by speciality in 2021 and 2024

Speciality	Year	Junior Bachelor	Bachelor	Master	Total
G17 (191) Architecture and Town Planning	2021	485	1509	703	2697
	2024	399	1204	766	2369
G19 (192) Construction and Civil Engineering	2021	3225	4379	1889	9493
	2024	3140	2039	3703	8882
G18 (193) Geodesy and Land Management	2021	615	1455	718	2788
	2024	609	1040	1046	2695
H3 (206): Horticulture	2021	377	360	170	907
	2024	298	265	288	851
C6 (106): Geography and Regional Studies	2021	no studies	154	149	303
	2024	no studies	223	98	321
D4 (281): Public Management and Administration	2021	no studies	1233	4850	6083
	2024	no studies	1238	4865	6103

Source: USEDE

As shown in table 3, the full effects of the conflict and mass emigration on the number of graduates are not yet apparent. Students who enrolled in 2021 are now completing their four-year bachelor's degrees, while those who finished their bachelor's studies have progressed to master's programs. It is not possible to differentiate between C6 and D4 graduates who specialize in urban development, since the USERE database does not have detailed information on specialisation (and therefore the location maps of the HEIs and colleges are not shown).

CONCLUSION

The formation and development of education in the built environment in Ukraine reflect a complex history of adaptation, disruption, and political influence. While Ukraine has made significant strides in modernizing

its education system, a need to balance the technical focus with more creative, interdisciplinary approaches to urban development remains. Recent reforms and the push toward European integration provide hope for future progress, yet substantial efforts are still required to overcome the lingering effects of the Soviet-period educational system, which prioritized standardisation and technocratic solutions over creativity, and regional and cultural diversity.

In the long term, Ukraine's ability to foster innovation and produce a new generation of architects, engineers and town planners who can navigate the challenges of post-war reconstruction will depend on its ability to continue evolving its education system, integrating global trends, and embracing new pedagogical approaches that prioritize practical experience and creativity alongside technical expertise.

Built-environment practice

PROFESSIONAL BODIES, UNIONS AND GUILDS: HISTORICAL DEVELOPMENT

In Ukraine, as in other post-socialist countries, the process of professionalisation was not always driven by professional groups, but largely depended on state regulation. During the Soviet era, the state played a key role in shaping professional institutions and controlling the functions and boundaries of professions (Abramov, 2014). Socio-professional groups such as 'intellectuals', 'professionals' and 'workers' were organised into trade unions with limited autonomy (Mrowczynski, 2012).

In the 1930s, the USSR created a system of 'creative unions' to unite professionals. One such entity was the **Union of Architects of the Ukrainian SSR**, which served both professional and bureaucratic functions. It exercised ideological control by enforcing the principles of socialist realism—promoting architecture that combined beauty and utility for the collective good (Architecture of the Country of Socialism, 1947, 5). However, the period of ideological unity and centralised professional relations was preceded by the activities of various creative societies and associations of architects, which originated in the revolutionary year of 1918 and thrived during the constructivist 1920s.



Figure 11: Veterans of the architectural front in front of the Central House of Architects in Kyiv. Photo: Yuriy Khudyakov, 1995 (from the archive of Nadiia Pantiukhina)

In the post-war years, the members of the Union of Architects - architects and urban planners, made significant contributions to the reconstruction of cities and villages in Ukraine that had been devastated during World War II. They played a pivotal role in the creation of new cities and the construction of numerous residential and public buildings, helping to reshape the urban landscape of the country in the aftermath of the war. Their work not only focused on rebuilding physical structures but also on designing spaces that reflected the evolving needs of society, contributing to the growth and modernisation of Ukraine in the mid-20th century (National Union of Architects of Ukraine, 2012).

The new era of Ukraine's development also marked a turning point for the architectural community. In August 1990, the Union of Architects of Ukrainian SSR withdrew from the Union of Architects of the USSR and declared itself an independent creative organisation. Following Ukraine's independence, the [National Union of Architects of Ukraine](#) (NSAU) became the successor to this organisation, solidifying its role as an independent institution.

As of 2024, the NSAU has more than 3,000 members and has an extensive structure that includes numerous branches throughout the country (Chyzhevs'kyi, 2024). The main purpose of its activities is to promote the development of creative trends in architecture, protect the copyrights of its members, preserve historical and natural heritage, as well as develop international cooperation between architects and improve architectural education in Ukraine (HCAU, 2012). The NSAU is an associate member of [the Architectural Council of Europe](#) since 2022 and a member of [the International Union of Architects](#) since 1993.

In 2018, [the Architectural Chamber](#) was established as a structural unit of the NSAU, consisting only of certified architects, which currently has 2,600 members. According to the [Statute](#), the Architectural Chamber promotes the social role of an architect, ensures high quality services in the field of architectural activity and town planning, and protects society from possible negative consequences of unprofessional actions (National Union of Architects of Ukraine, 2022). The NSAU has also conducted advanced training and professional certification for architects and architects-urban planners for over a decade, gradually integrating into EU legislation and the European market (Chyzhevs'kyi, Kyrii, Chuyko, 2023).

Founded after the Second World War, the Academy of Architecture of the Ukrainian SSR (from 1956 - the Academy of Construction and Architecture of the Ukrainian SSR) functioned as an association of scientific and practical intellectuals. Following Ukraine's independence, this organisation split into two separate academies:

[Academy of Architecture of Ukraine \(AAU\)](#)

Re-established in 1992, the AAU is a public scientific and creative association of practicing architects, architectural theorists and historians that promotes the development of architectural science, theory and practice, and organizes scientific conferences, training and interaction between architects. It has carried out over eighty complex scientific research projects, legislative drafts for Ukrainian laws, national programmes, and pilot projects. However, it faces several challenges, including internal organisational changes, the need to modernize communication through digital platforms, and the ongoing task of strengthening its influence on policy and governance (Puchkov, 2021).

[Academy of Construction of Ukraine \(ACU\)](#)

Established in 1993, the ACU is a prestigious, non-governmental organisation that unites professionals, scientists, and experts from various sectors of the construction industry both in Ukraine and abroad. Its primary goal is to consolidate the creative potential of the sector to enhance the scientific and technical level of building production. The ACU plays a vital role in advancing education and research, developing construction standards, and fostering innovation in building materials and construction technologies. Operating through territorial branches across Ukraine, the ACU collaborates with governmental bodies, educational institutions, and industry professionals to address key challenges in construction and urban infrastructure. While large businesses may have some influence, the Academy primarily focuses on professional standards and education, aiming to improve the quality, safety, sustainability, and energy efficiency of the industry.

Professional organisations, such as the National Union of Architects of the Ukrainian SSR and the Academy of Construction and Architecture, were historically embedded in the Soviet centralised system, operating in a top-down manner with little autonomy or accountability. With Ukraine's transition to a market economy and democratic governance, these institutions faced the challenge of adapting to a new

landscape. The move toward self-regulation—where professional organisations establish and enforce their own rules, standards, and ethical codes—became a defining aspect of this transformation. It has been argued that the competitiveness of the Ukrainian professional school largely depends on the level of development of professionalism institutions, which, in turn, is determined by the professional community's capacity for effective self-organisation (Buriak, 2021).

SELF-REGULATORY PROFESSIONAL UNIONS ROLES AND RESPONSIBILITIES

The Concept of Reforming the Institution of Self-Regulation, approved by the CMU in 2018, reflects the government's strategy to reduce bureaucratic oversight and transfer responsibility for professional standards to industry-specific organisations. As part of a broader deregulation effort, this approach aims to make industries more self-sufficient and adaptable by allowing professional organisations to set and enforce their own rules, standards, and certification processes instead of relying on state authorities.

Under this self-regulation model, self-regulatory organisations (SROs) are entrusted with several key responsibilities:

- **Regulation of Activities:** SROs establish and enforce professional standards, including codes of conduct, quality benchmarks, and ethical guidelines that members must follow in their practice. They also conduct professional certification and advanced training to maintain high competency levels.
- **Delegated Powers:** The state transfers specific monitoring and regulatory functions to SROs, allowing them to oversee compliance with building codes, safety standards, and other industry-specific regulations.
- **Legislative Functions:** SROs gain the authority to propose updates to professional standards and regulations, ensuring that industry-specific rules remain relevant and aligned with market needs.

By granting professional organisations a greater role in regulation and governance, this model seeks to foster industry-led development while reducing excessive state intervention. However, the effectiveness of this framework depends on the actual enforcement of powers and whether SROs can exercise real influence beyond their formal mandates.

SROs are particularly important in urban development and construction because they are granted significant responsibilities in maintaining professional standards and quality control in the sector. Only SROs can be delegated the authority of the Ministry for the Development of Communities and Territories of Ukraine to conduct professional certification, which gives the organisation the right to: control professional activities; conduct professional certification and advanced training; defend the interests of members of the organisation; issue, exchange and revoke qualification certificates. SROs with delegated powers receive both responsibility and opportunities to influence professional activities in the industry and ensure high quality standards.

The legal status and responsibilities of SROs in architecture and construction are defined by key legislative and regulatory acts, including:

- **Law of Ukraine No. 3038-VI (2011)**
On Regulation of City Planning Activities.
- **Law of Ukraine No. 687-XIV (1999)**
On Architectural Activity.
- **Cabinet of Ministers Resolution No. 554 (2011)**
Professional Certification of Responsible Executors of Certain Works Related to Architectural Objects.
- **The Ministry of Regional Development, Construction, and Housing Order No. 93 (2011)**
On Regulation on the Certification Architectural and Construction Commission.
- **The Ministry of Regional Development, Construction, and Housing Order No. 137, (2014)**
Procedure for Registration of SROs in Architecture.
- **The Ministry of Regional Development, Construction, and Housing Order No. 282, (2014)**
Procedure for Delegation of Powers to SROs.

These legal provisions formalize the role of SROs in regulating the architectural and construction industry, reinforcing their importance in professional certification, oversight, and standard-setting. In 2025, Ukraine's architectural and construction industry recognizes several SROs registered in the [Register of Construction Activities](#). These include: the Association of Expert Organisations of Ukraine, the National Union of Architects of Ukraine, the All-Ukrainian NGO 'Guild of Designers in Construction', the All-Ukrainian NGO 'Guild of Engineers for Technical Supervision of Construction of Architectural Objects' and the All-Ukrainian NGO 'Association of Construction Industry Experts'.

Self-regulation in Ukraine represents a crucial step toward a more efficient, flexible, and professionalised approach to managing industries such as construction and architecture. By shifting governance to professional organisations, the model seeks to empower industry experts while maintaining high standards. However, while Ukrainian regulations grant SROs authority to oversee compliance, revoke qualification certificates, and propose legislative changes, these powers are largely ineffective in practice. Certificate revocation, as defined by Resolution No. 554, is reactive—dependent on court rulings or control bodies decisions—rather than a proactive enforcement tool.

The Ukrainian model of SROs also differs significantly from the European model due to the absence of mandatory membership and limited regulatory authority. In Europe, professional associations play a central role in maintaining industry standards, enforcing accountability, and shaping regulations. In contrast, Ukrainian SROs function more as voluntary associations, lacking strong collaboration with state institutions and the power to effectively enforce compliance (Chyzhevs'kyi, Kiry, Chuyko, 2023).

CONCLUSION

The evolution of professional organisations in Ukraine reflects a broader shift from a state-controlled system to one emphasizing self-regulation. Historically, unions and guilds operated within the rigid framework of Soviet oversight, serving both bureaucratic and professional functions. However, with Ukraine's transition to a market economy and democratic governance, these institutions faced the challenge of redefining their roles. The emergence of self-regulatory organisations (SROs) was intended to decentralize authority, granting industry professionals greater autonomy over standards, certification, and compliance. While this model aligns with European practices in theory, its implementation remains incomplete. The absence of mandatory membership and limited regulatory authority weaken the influence of Ukrainian SROs, preventing them from fully enforcing industry standards. For self-regulation to function effectively, stronger legal mandates and institutional collaboration with the state are necessary. Without these reforms, SROs risk remaining advisory bodies rather than genuine regulators capable of shaping and maintaining professional excellence.

Certification and professional development

CERTIFICATION SYSTEMS AND TOOLS

The system of attestation and professional certification in Ukraine represents a form of state oversight designed to ensure the quality of urban development, including development of town planning documentation, architectural and engineering design, technical expertise and supervision, engineering surveys and land management.

In accordance with the Law of Ukraine “On Architectural Activity” (1999), responsible executors of certain types of works (services) related to the creation of architectural objects are subject to professional certification. A certified architect (engineer) is a specialist who, following attestation, has obtained a certificate granting them the right to practice independently in the field of architecture and is legally responsible for the results of their work. Design work may be performed without a qualification certificate only if the projects are not implemented or do not require a building permit. All other work must be performed under the supervision of an architect/engineer with a valid qualification certificate. The [list](#) of such works and the [certification procedure](#) are defined by the Cabinet of Ministers of Ukraine (CMU, Resolution No. 554, 2011).

The types of work (services) related to the creation of architectural objects, for which responsible executors must undergo certification, include:

- Development of town planning documentation.
- Architectural and engineering design.
- Expertise and inspections in construction.
- Technical supervision.
- Engineering activities in the construction sector related to coordinating the actions of all participants in the construction process.
- Conducting technical inventory of real estate objects.

As outlined in the Law on Architectural Activity, architects are responsible for designing buildings, structures, complexes, landscape architecture, monumental art, and territories. However, current legislation permits certified engineers to undertake the same tasks. This lack of clear distinction between architects, town planners, and engineers undermines the quality of projects and their adherence to established standards.

Certification is typically carried out by the Ministry for the Development of Communities and Territories of Ukraine (MDCTU) or delegated to SROs in the field of architecture (for the current list of SROs see Section *Built-environment practice*). These SROs, upon receiving the delegation of powers from the central executive authority, can perform certification tasks, including determining whether individuals meet the requirements for certification. The criteria for certification include holding a relevant university degree, having at least three years of professional experience, and passing an examination.

According to CMU Resolution No. 554, positions that require professional certification include architects, engineers, technical supervision engineers, and construction experts. The certified individuals are responsible for key tasks such as developing urban and spatial planning documentation, architectural and construction design, expertise of documentation and construction, technical supervision and coordinating construction activities. Professional certification ensures that individuals involved in these roles meet the necessary standards for safety and quality control in urban development projects, reflecting the evolving approach to accountability in Ukraine’s built environment sector.

The qualification certificate remains valid indefinitely as long as the responsible professional does not have a gap in their work for more than three years and participates in continuing professional education every five years. Information on compliance with these requirements is entered into the [Online Register of Construction Activities](#) of the [Unified State Electronic System in the Construction Sector](#) (UESCS).

In Ukraine, professionals in other fields related to urban development, such as land surveyors and engineers in land management, also play important roles in ensuring the quality and success of construction and town planning projects. According to Article 66 of the Law of Ukraine ‘On Land Management’, these professionals are also subject to certification, ensuring that they meet the necessary standards for public and private sector involvement.

Foreign professionals, such as architects, engineers, and urban planners, can work in Ukraine but must meet specific requirements. Their qualifications need recognition by Ukrainian authorities, which may involve certification or exams. Foreign professionals often need to partner with local firms, especially for public contracts, and international firms must establish a local branch. They must also comply with licensing and national standards. Therefore, foreign professionals must navigate regulatory requirements and collaborate with local experts to practice in Ukraine.

ACCOUNTABILITY

Prior to 2011, design and engineering companies operated as limited liability companies, with the license being issued to the legal entity. However, with the introduction of personal qualification certificates, the accountability for urban development projects shifted from the legal entity to the individual, specifically the responsible contractor. This change means that individuals, rather than organisations or authorities, are accountable for ensuring the accuracy and compliance of project documentation with relevant policies, legislation, and standards. They are subject to legal and criminal liability if the project does not meet the necessary requirements or if violations occur during the project lifecycle. The drawback of this model is that private contracts can be awarded to contractors without mandatory requirements regarding company size, the number and qualifications of staff, financial turnover, or relevant industry experience.

In town planning, municipalities, when commissioning planning projects, do not bear legal responsibility for the results, which instead falls on the certified professionals who develop the documentation. There are also inconsistencies in the legislation: Chief City Architects and town planning officials can participate as authors or co-authors, but municipalities act only as customers, exerting influence without legal responsibility. At the same time, chief architects of a city or territorial commune approve key projects in historical and significant areas (On Architectural Activity, Law No. 687-XIV, 1999, Art. 14). This imbalance, aggravated by the lack of mandatory professional liability insurance, places the full risk on certified professionals, while protecting public authorities from liability (Kirii, 2024).

The State Inspectorate of Architecture and Urban Development of Ukraine (DIAM) is the only body responsible for conducting state architectural

and construction control over clients, enterprises, architects, and other entities in the field of town planning, as well as supervising the compliance with urban planning legislation, building codes, and standards by territorial bodies of DIAM, authorized urban planning and architecture bodies, structural subdivisions of city state administrations, and executive bodies of local governments.

OPPORTUNITIES AND CHALLENGES OF CONTINUOUS PROFESSIONAL DEVELOPMENT.

Continuous professional development (CPD) is increasingly essential for professionals in the built environment to adapt to the rapidly changing landscape of urban development, reconstruction, and emerging challenges, particularly in post-conflict scenarios. The shift from specialists to generalists highlights the need for broad expertise to tackle complex urban projects.

According to CMU Resolution No. 554 (2011), SROs and educational institutions responsible for professional development create training programs aligned with professional certification requirements. These programs must be approved by an SRO (if granted delegated authority) or the Ministry of Regional Development and published on the electronic system portal, the Ministry's official website, and relevant SRO or educational institution websites.

From 2011 onward, the National Union of Architects of Ukraine (NSAU), the sole SRO for architects, held responsibility for managing professional development programs and certification exams for architects. However, in 2022, the Ministry for the Development of Communities and Territories of Ukraine excluded NSAU from this process (Chyzhevs'kyi, 2024). Since 2023, specialised higher education institutions, such as the Kyiv National University of Construction and Architecture (KNUCA), Lviv Polytechnic National University, and Kharkiv National University of Municipal Economy named after O.M. Beketov, have taken on the responsibility for professional development and certification exams. According to Deputy Minister Nataliia Kozlovskaya (Kozlovskaya, 2023), the Main Department of State Construction and Architecture evaluates institutions for compliance with education standards and anti-corruption measures, and the plan includes transitioning to online exams through the [USESCS](#) to automate verification and the issuing of certificates, and to register updates.

Continuous professional development is essential for engineers—including civil, structural engineers and experts—to keep pace with evolving technologies, industry standards, and safety regulations. To maintain personal certificates and remain compliant with legal and technical requirements, engineers must regularly update their qualifications through courses provided by self-regulatory organisations such as the Guild of Designers in Construction, the Guild of Engineers for Technical Supervision, and the Association of Construction Industry Experts.

Similarly, geodetic engineers and land surveyors must undergo refresher training every four years through the Qualification Commission of Geodetic Engineers and the Qualification Commission of Land Survey Engineers to maintain personal certificates in this field.

In addition to the aforementioned organisations, professionals have access to a wide range of short-term courses, seminars, and webinars offered by local universities and institutes, as well as various international programs available in both in-person and online formats. Each year, such opportunities continue to grow thanks to the active efforts of the Ukrainian diaspora and support from the EU and international organisations (see Section *Role of diaspora*). These programs cover both national and international developments in urban planning, architecture, engineering, and construction, enabling professionals to stay informed about current methodologies and challenges. However, the acquired knowledge and skills are not recognized for the renewal of personal certificates.

While opportunities for learning are plentiful, they are often not systematized, making it difficult for

professionals to navigate the myriad options and integrate new knowledge into practice effectively. The growing demand for specialised knowledge in urban reconstruction, sustainable development, and socio-ecological planning emphasizes the need for CPD to be more structured and accessible, for example, via online platforms like USESCS. Through a combination of government oversight, educational institutions, and self-regulation, advanced CPD will create a pathway for professionals to remain competent, adapt to emerging challenges, and contribute to higher-quality outcomes in post-war urban development and reconstruction projects.

CONCLUSION

The Ukrainian certification system ensures quality control in urban development by regulating key professionals such as architects, engineers, land surveyors. However, the lack of a legal distinction of responsibilities between architects, engineers and town planners reduces the quality of project documentation. In addition, responsibility for project failures has shifted from customers and organisations to individual professionals who bear legal and criminal liability. The absence of liability insurance exacerbates this problem. Although the certification system improves quality and accountability, a clearer distribution of responsibilities is needed—both among professions and between clients and practitioners.

To address the growing demand for specialised knowledge in urban development, structured Continuous Professional Development (CPD) through platforms like USESCS will help professionals adapt and improve outcomes in the built environment field.

Availability of qualified specialists

The full-scale invasion of Ukraine in 2022 led to a sharp decline in employment and a rise in unemployment. Despite this, 77% of surveyed companies continued hiring, although 30% reported difficulties in finding suitable candidates (Ukraine Crisis Analysis Team, 2023). This trend is consistent across all regions of the country. Employers cited key barriers such as a shortage of candidates (33%), insufficient qualifications (23%), and a mismatch between salary expectations and offers (15%). The shortage is particularly acute in engineering and skilled trades, especially among construction workers. The situation is further exacerbated by workforce displacement due to migration and military mobilisation. Tallying with companies’ difficulty in attracting people with adequate

qualifications, potential employees also reported a strong need for vocational training to acquire the necessary qualifications.

ARCHITECTURE AND TOWN PLANNING

Despite the comparatively stable annual number of graduates in the field (see table 3 in Section *Regulation of educational programmes*) and competitive salary levels, Ukraine is experiencing a decline in the number of professionals working in architecture and urban planning (see table 4 below), which poses a serious challenge given the urgent need for reconstruction and modernisation.

Table 4: Comparison of the number of graduates in specialty Architecture and Town Planning with the number of employed and certified professionals in 2021 and 2024

Year	Graduated	Employed, by age				Median salary, \$	Certified	
		25-64	16-24	65+	Total		Persons	Salary, \$
2021	2,697	19,491	933	1,514	21,938	700	4,554*	760
2024	2,369	15,960	583	1,560	18,103	730	4,528	730

*data for 2020. Sources: USERE, Institute of Professional Qualifications, USESCS, work.ua.

According to the Register of Construction Activities (EDES, 2025), Ukraine currently has only 4,528 certified architects and town planners, a remarkably low number in a country of almost 40 million people, especially compared to the EU where the average ratio of architects to population is 1:1000 (see tables 5 and 6 below; Architects’ Council of Europe, 2025). Additionally, while 85% of specialists specialize in architectural design, only 15% (680 people) hold certificates for town planning, indicating a critical shortage of professionals qualified in strategic urban development.

Table 5: Ratio of registered Architects in Commonwealth countries (2018), EU, USA and Ukraine (2024)

Region / Country	Total Population	Registered Professionals	Architects per 1,000 Population	Urban Growth (%)
Commonwealth countries in:				
Africa	343,250,250	13,708	0.033	3.00
Asia	249,382,290	102,039	0.058	1.40
Caribbean & Americas	286,640	10,265	0.263	0.70
USA	345,426,571	121,368	0.350	1.1
Europe	66,972,520	44,585	0.654	2.20
EU (average)	580,000,000	580,000	1.000	0.8
Ukraine	37,860,221	4,528	0.119	-3.91
Pacific	30,761,350	15,510	0.504	1.80

Sources: Oborn, P. and Walters, J., 2020, NCARB, USESCS, 2024, Architects’ Council of Europe, 2025.

Table 6: Ratio of registered Town Planners in Commonwealth countries (2018), EU, USA and Ukraine (2024)

Region / Country	Total Population	Registered Professionals	Town Planners per 1,000 Population	Urban Growth (%)
Commonwealth countries in:				
Africa	343,250,250	3,411	0.01	3.00
Asia	249,382,290	2,005	0.013	1.40
Caribbean & Americas	286,640	6,246	0.161	0.70
USA	345,426,571	17,000	0.049	1.1
Europe	66,972,520	22,009	0.327	2.20
Ukraine	37,860,221	680	0.018	-3.91
Pacific	30,761,350	5,501	0.179	1.80

Sources: Oborn, P. and Walters, J., 2020, APA, USESCS, 2024.

A survey conducted by the National Union of Architects of Ukraine (NSAU) in cooperation with the Architectural Chamber in 2024 assessed the state of the architecture and urban planning sector under martial law. Of the 668 responses collected, 96% of participants held higher education degrees and were of working age. Despite the challenging circumstances, 60% reported continuing their professional activities, while 40% had to change their profession—indicating a significant loss of specialists in the field.

The situation is further complicated by the fact that 40% of architects were unable to validate their professional experience over the past two years, which resulted in the temporary suspension of their professional certificates. This increases the risk of further outflow of qualified professionals from the sector. According to Anna Kyriy, 80% of architects have been negatively affected by the war due to a decline in commissions, military mobilisation, and forced evacuation (Vechirniy Kyiv, 2025).

Architects and urban planners in Ukraine often have limited influence over project-related decisions. Developers tend to prioritize cost-effective, high-density developments that may appear visually impressive but often lack professional depth. The key decision-maker is typically the client—whether a company, municipal authority, or private individual—who directs the project based on budget and market demand, reducing the architect's role to that of a technical executor (Kyriy, 2017). Combined with constantly changing regulations,

low remuneration, and inefficient public procurement policies, this dynamic is pushing professionals out of a highly competitive and critically responsible market into less demanding and more profitable areas of work.

CONSTRUCTION AND CIVIL ENGINEERING

The construction industry has long faced a shortage of labour, which has been significantly exacerbated by the simplified access to the EU labour market for Ukrainians under temporary protection. According to the Confederation of Employers of Ukraine, the number of officially registered workers in the construction sector has decreased by 25.4% over the past two years, currently sitting at around 300,000 individuals. The problem has been further aggravated by the low popularity of construction professions among youth and mobilisation during the war. As a result, since the beginning of 2023, companies have actively been seeking replacements for workers who have moved abroad or been mobilised ([Labour market of Ukraine, 2022-2023](#)).

Despite a slight decrease in the number of graduates in the “Construction and Civil Engineering” field (see Section *Regulation of educational programmes*), statistics from 2021-2024 show a reduction of 15,000 employed engineers and almost 96,000 construction workers. At the same time, a significant increase in salaries for engineers and surveying professionals has been recorded.

Table 7: Comparison of the number of employed and certified specialists in Construction and Civil Engineering in 2021 and 2024

Year	Employed, by age				Median salary, \$	Certified	
	25-64	16-24	65+	Total		Persons	Salary, \$
Civil Engineering & Testing							
2021	58,578	2,805	3,171	64,554	650	30,119	1000
2024	50,941	1,873	3,530	49,284	850	32,151	1100
Construction							
2021	345,848	16,518	12,910	375,276	750	-	-
2024	255,395	10,059	13,926	279,380	780	-	-

*data for 2020. Sources: USERE, Institute of Professional Qualifications, USESCS., work.ua

Compared to other countries, Ukraine holds a leading position in terms of the number of engineers, trailing only behind the United States, as shown in table 8 below.

Table 8: Ratio of registered Engineers in Commonwealth countries (2018), EU, USA and Ukraine (2024)

Region / Country	Total Population	Registered Professionals	Town Planners per 1,000 Population	Urban Growth (%)
Commonwealth countries in:				
Africa	343,250,250	24,480	0.217	3.00
Asia	249,382,290	2,019	0.064	1.40
Caribbean & Americas	286,640	186	0.376	0.70
USA	345,426,571	931,640	2.697	1.1
Europe	66,972,520	42,141	0.63	2.20
Ukraine	37,860,221	32,151	0.849	-3.91

Sources: Oborn, P. and Walters, J., 2020, NSPE, USESCS, 2024.

While job vacancies have risen with the acceleration of efforts to rebuild devastated settlements and infrastructure, the labour shortage remains severe. Since May 2023, wages have increased by 20%, as companies struggle to attract and retain skilled workers (Solovei, 2023). The demand for construction workers and engineers is expected to surge in the post-war period, as Ukraine embarks on large-scale rebuilding projects.

ECONOMIC AND ADMINISTRATIVE GAPS

The ongoing reconstruction and recovery efforts in Ukraine have intensified the demand for skilled town planners and built-environment specialists. However, many graduates in architecture, engineering, and town planning are pursuing careers in alternative sectors such as services, trade, or IT, often due to higher wages and potentially more favourable working conditions. This trend contributes to a shortage of professionals in the town planning sector. Additionally, prior to the conflict, the sector faced systemic administrative and

educational shortcomings, including the decline of key town planning institutes (see Section *Evolution of professions*), the transfer of strategic planning power to business and political interests and the rise of unqualified private firms (Yatsenko, 2018; Didichenko, Markina, 2025). These challenges stem from gaps in educational programs, market regulation, and professional standards, further complicating urban development and reconstruction efforts.

INTERDISCIPLINARY CHALLENGES IN URBAN DEVELOPMENT

In the field of built environment, effective collaboration among various professions is crucial for the successful implementation of projects. However, as many practitioners point out (CANactions, 2019; Ro3kvit, 2023; Biliavska, 2024), Ukraine faces numerous challenges and gaps that complicate this process. These issues stem from differences in education, knowledge, regulatory frameworks, and professional practices, which can hinder the coordination and

successful execution of urban development initiatives. Regulatory gaps also mean that some professions, such as spatial planners and landscape architects, lack standardized education and certification, leading to legal uncertainties and unclear responsibilities in project execution. Experts emphasize that a clearer delineation of curricula and practical responsibilities is crucial.

CONCLUSION

Ukraine faces a critical shortage of qualified specialists in architecture, town planning, and construction, which threatens the efficiency of ongoing and future reconstruction efforts. The war has intensified pre-existing challenges, including workforce displacement, mobilisation, and the brain drain of architectural and engineering graduates. Low wages and regulatory unpredictability further contribute to professionals leaving the sector. To address these challenges, it is essential to support activities of self-regulatory organisations (SROs) modelled after European systems, adjust administrative and criminal liabilities among stakeholders, reform pricing and public procurement policies, and implement insurance mechanisms for certified professionals. Creating a stable policy framework that supports these professions is crucial for sustainable development and adherence to EU standards.

The number of certified architects and town planners remains disproportionately low compared to the country's needs, with a significant skills gap in strategic planning of cities and territories. The construction industry is also suffering a labour deficit, exacerbated by emigration and declining interest among younger generations. While demand for professionals has surged, recruitment remains difficult due to a mismatch between skills and salary expectations. Efforts to address these challenges must focus on workforce retention, professional training, and policy reforms to attract and support skilled specialists essential for Ukraine's recovery and sustainable urban development.

Interdisciplinary collaboration in urban planning is impaired by inconsistencies in education, regulation, and professional standards. The absence of standardized training and certification for key roles, such as spatial planners and landscape architects, further complicates project execution. Addressing these challenges requires systemic reforms in education, regulation, and professional integration to ensure a well-coordinated and effective approach to rebuilding Ukraine's urban landscape.

Impact of war

MIGRATION AND SKILLED LABOUR SHORTAGES

Even before the full-scale invasion, Ukraine's construction sector was experiencing a severe shortage of skilled labour (Studennykova, 2024). Russia's armed aggression, which began in 2014, resulted in significant human losses and the mass displacement of millions of people both within the country and abroad. As of 2025, Ukraine hosts approximately 4.6 million people who have been internally displaced, while nearly 4.3 million Ukrainians are residing in European countries as refugees - see fig.12 (Ministry of Social Policy Data Centre, Eurostat, 2025).

Mobilisation, the outward migration of professionals, and the large-scale destruction of infrastructure have significantly reduced the number of built environment specialists while also shifting the nature of their work (see Section *Availability of qualified specialists*). Rather than designing new developments, professionals have been redirected toward restoring damaged buildings, creating safe public spaces, and rebuilding critical infrastructure (Kyiv School of Economics, 2024). In 2022, the volume of construction work completed fell by 56% compared to 2021, amounting to UAH 113.8 billion. The most dramatic decline occurred in frontline regions—up to 90%—while central regions experienced a 70% decrease. In contrast, construction activity in western regions grew by 15%, driven by business relocation, availability of labour due to arrival of people displaced from elsewhere in the country, and the development of resort real estate in the Carpathians.

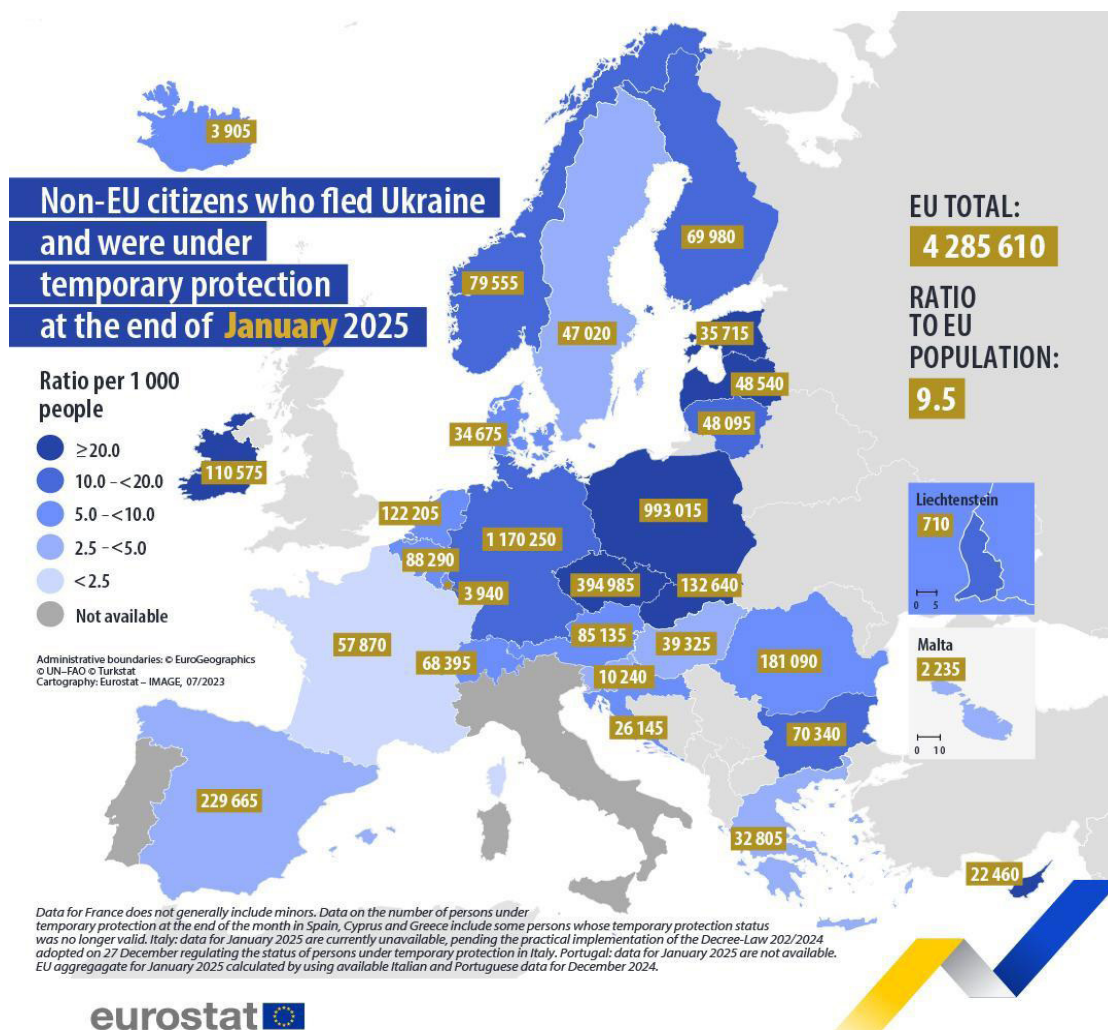


Figure 12: Number of Ukrainians under temporary protection in EU countries. Source: Eurostat, 2025.

The primary reason for declining labour availability on construction sites is mobilisation: a 31% drop in the workforce was projected for the second quarter of 2024 (BDO Ukraine, 2024). Only employees in sectors deemed critical to wartime operations are exempt from conscription and many construction professionals have been drafted, emigrated, or changed careers. Over the past two years, the sector as a whole has lost more than 100,000 workers (see table 7 in Section *Availability of qualified specialists*), while the total number of officially employed individuals has decreased by 1.5 million (Kyiv School of Economics, 2024).

GENDER IMBALANCE

According to the 18th National Survey “Psychological Markers of War” (Sociological Group “Rating”, 2022), women are disproportionately affected by unemployment, with 41% of women being jobless compared to 26% of men. Only 51% of women continued working remotely or in-person, compared to 62% of men, indicating persistent gender inequality in the labour market. At the same time, the Pension

Fund of Ukraine recorded a slight increase in female employment — by 1% in 2022. Women remain over-represented in health care, education, hospitality, and finance sectors (over 60%), while their share in construction, industry, and agriculture ranges from 17% to 35%. Employment has also increased among those aged 60 and above (from 4.2% to 8.9%), while declining among those aged 36–60 (from 64.6% to 59.5%).

Due to the war and broader demographic trends, Ukraine’s population as a whole has declined by 10 million, exacerbating the labour shortage projected to intensify by 2030. The demand for workers in the recovery sector has already returned to pre-war levels, driving wages up by 20–40% (Property Forum, 2023). However, the shortage of skilled workers — particularly engineers and technicians — significantly hinders reconstruction efforts (see Section *Availability of qualified specialists*). It is estimated that 25–60% of male construction workers have been mobilised, creating major workforce gaps and further deepening the gender imbalance (State Employment Service, 2023).

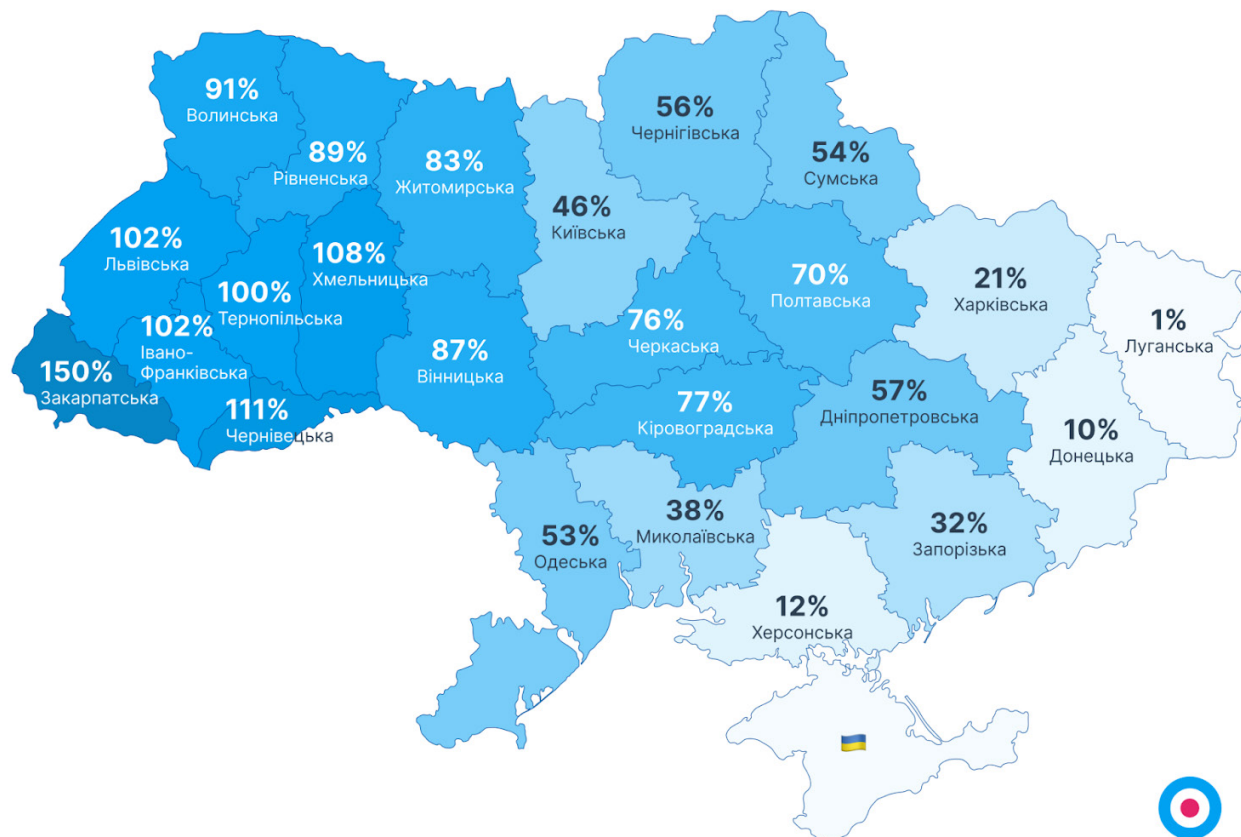


Figure 13: Labour market recovery statistics in 2023. Source: Work.ua, 2023.

In this regard, international organisations such as the European Bank for Reconstruction and Development (EBRD) support initiatives aimed at preserving jobs and developing professional skills through financial support, training and improving educational programmes (EBRD). One important initiative is the Skills Alliance for Ukraine programme, which helps citizens acquire new skills in construction, transport, IT and healthcare for the country's post-war reconstruction (BMZ and Ministry of Economy of Ukraine, 2024).

CHANGING PROFESSIONAL ACTIVITIES AND THE NEED FOR NEW SKILLS

Many professionals, particularly in urban planning and architecture, have experienced significant changes in their work. Instead of focusing on the construction of new buildings, they have been forced to shift towards the restoration of damaged structures, the creation of safe spaces, and the reconstruction of critical infrastructure (Kyiv School of Economics, 2024). Before the war, their work centred on the development of new urban spaces, but now the focus has shifted to rebuilding hospitals, schools, transport networks, as well as creating temporary housing, bomb shelters, and civil protection facilities, taking into account the needs of people with disabilities (Melnyk, 2024; Khmarochos, 2022). This requires not only architectural and engineering expertise but also knowledge in urban resilience, eco-building, BIM technologies, humanitarian recovery, and disaster risk management (Chernysh and Voronina, 2020).

The demand for specialised professionals in these fields remains high. Ukraine's recovery largely depends on international cooperation and strengthening internal potential.

The future of new professions in Ukraine will largely be shaped by the reconstruction of its infrastructure and industrial base. Urban planning, engineering, and construction will require not only qualified workers but also specialists in emerging fields such as smart city technologies, sustainable construction, and digital infrastructure (National Qualifications Agency, 2024).

ECONOMIC RECESSION AND IMBALANCE BETWEEN EDUCATION AND JOBS

One of the key post-war challenges in Ukraine is the mismatch between the skills of displaced or unemployed workers and the needs of the evolving labour market. Critical sectors such as construction, energy, and transportation are experiencing acute labour shortages. Many highly skilled professionals have either switched industries or left the country (see Section *Availability of qualified specialists*). Meanwhile, demand is growing for engineers, technicians, healthcare workers, and specialists with skills in infrastructure repair and construction (Khanin, 2024).

Mobilisation has led to an unprecedented increase in women's participation in the labour market. This shift requires robust public policy to improve employment conditions for women with children, including accessible childcare and flexible work arrangements. Special attention is needed for women with lower levels of education, who are typically less engaged in the workforce. Policies must encourage upskilling and access to further education for this group (International Labour Organisation, 2023).

In response to these challenges, initiatives such as the *Skills Alliance for Ukraine* and *Skills for Recovery* have been launched. These programs focus on retraining internally displaced persons, veterans, women, and people with disabilities whose previous professions have become obsolete due to the war. Special emphasis is placed on high-demand sectors like construction, IT, engineering, and healthcare. Implementation includes partnerships with employers and the modernisation of vocational education and training (BMZ and Ministry of Economy of Ukraine, 2024).

Vocational education and training (VET) has a vital role to play in addressing labour shortages, particularly in urban development. The government, in cooperation with international partners, is reforming the VET system to better align it with current labour market demands. Priority is given to the development of

qualification frameworks and new learning pathways to meet the demand for skilled workers in construction and related industries. The expansion of online learning platforms has significantly increased access to education for veterans, people who have been internally displaced, and others affected by the war.

CONCLUSION

The war in Ukraine has severely disrupted the labour market, intensifying skills shortages and widening the gap between the available workforce and economic

demands. At the same time, recovery efforts present an opportunity to reform workforce development through reskilling and upskilling. Government-led programs like *Skills4Recovery* and the *Skills Alliance for Ukraine* are essential for reintegrating displaced workers and building the human capital needed for long-term recovery. According to the International Labour Organisation (ILO), without significant productivity growth, Ukraine will need to mobilize an additional 8.6 million workers over the next decade to meet its reconstruction goals (ILO, 2023).



Impact on educational institutions

According to the Institute of Educational Analytics, the hostilities that began in 2014 and escalated into a full-scale war in 2022 have had a significant and devastating impact on the educational process in Ukraine (Institute of Educational Analytics, 2022). This led to massive displacement of people participating in education both within Ukraine and abroad, destruction

of infrastructure, interruptions in education, and the transition to distance education, all of which have posed serious challenges for the national system (Shkarlet, 2022). One of the main tasks has been to ensure equal access to education and to protect the lives of those in education (Hryhoriieva & Bilhorodska, 2022).

Table 9: Education and science: Damage, loss, and needs by oblast (US\$ million)

Oblast	Damage (US\$ million)	Loss (US\$ million)	Needs (US\$ million)
Cherkaska	2.2	240.1	247.7
Chernihivska	289.2	215.4	934.5
Chernivetska	-	220.0	243.8
Dnipropetrovska	438.9	674.0	1,256.2
Donetska	2,525.2	591.3	5,039.9
Ivano-Frankivska	-	320.2	232.4
Kharkivska	3,830.3	634.2	7,489.5
Khersonska	436.5	235.2	1,199.6
Khmelnyska	51.5	281.8	334.5
Kirovohradska	106.8	202.5	437.5
Kyiv (City)	930.3	957.0	1,995.4
Kyivska	608.9	546.3	1,368.7
Luhanska	1,242.8	217.8	2,749.4
Lvivska	347.5	572.5	937.9
Mykolaivska	724.9	292.9	1,746.4
Odeska	971.0	750.9	2,253.9
Poltavska	3.2	274.6	286.1
Rivnenska	0.5	330.2	244.8
Sumska	329.9	227.0	1,012.5
Ternopil'ska	31.0	225.1	287.2
Vinnytska	166.0	330.4	656.5
Volynska	0.5	288.2	233.4
Zakarpatska	-	333.5	232.4
Zaporiz'ka	369.8	353.4	1,096.3
Zhytomyrska	5.4	277.4	290.3
Nationwide (no specific region)	-	37.0	114.5
Total	13,412.4	9,628.9	32,921.5

Source: World Bank, 2024

Educational institutions have faced deteriorating communications due to the lack of electricity and internet, reduced practical programmes, and overworked teachers (Kurapov, 2022), whilst students' motivation has been undermined by constant stress and uncertainty (CEDOS, 2025). These together have negatively affected the quality of training of potential future town planning professionals (Hryhoriieva & Bilhorodska, 2022).

In response, the MESU is developing a post-war education strategy that includes the creation of an adult education system (Sharov, 2024), the introduction of dual education in 50 universities, and further integration into the European educational and research space, increasing academic autonomy and promoting international cooperation (Erasmus Plus, 2024).

Legislative initiatives, such as amendments to laws on the development of scientific work and individual educational trajectories, will also contribute to the modernisation of the education system, allowing an increased focus on high-quality training for specialists (Koziiivska, 2024). Some initiatives, however—for example the unification of HEIs covering town planning—are causing concern among some professionals who fear changes like this could lead to the loss of important regional universities and institutional memory (USEDE, 2025). Reforming the network of higher education institutions is a matter for serious debate, affected as it is by demographic changes in Ukraine, a decrease in the number of school

graduates, and the need to reduce the number of HEIs to increase efficiency and funding (Vinnytskyi, 2024).

The lack of up-to-date demographic data and population censuses remains a serious problem for predicting the future development of education and reconstruction of cities and regions (Hladun, 2025). Other alarming signals in the education system include the cancellation of a number of specialties, such as the educational level “Professional Junior Bachelor” for the specialty “Architectural Design Technician”; the specialty “Theory of Architecture, Restoration of Architectural Monuments”; and the specialty “Art History” which now no longer has the status of a field, specialty or educational programme (Cheremys, 2024).

CONCLUSION

The ongoing conflict in Ukraine has severely disrupted the educational system, causing displacement, infrastructure damage, and a shift to distance learning. These challenges have impacted the quality of education, particularly for future town planning professionals. In response, the Ministry of Education and Science of Ukraine (MESU) is developing a post-war education strategy, including adult education systems, dual education programs, and integration into the European educational space. Legislative reforms aim to modernize the education system, but concerns remain regarding the consolidation of higher education institutions in the absence of official demographic data and the elimination of certain academic disciplines.

Impact of democratisation and association with the EU

UKRAINE'S DEMOCRATISATION AND EU ACCESSION ON EDUCATION AND PRACTICE

The democratisation processes in Ukraine and its integration into Europe, particularly the country's obtaining of EU candidate status in 2022, have accelerated reforms aimed at aligning with European standards (such as the Bologna Process in education), integrating sustainable urban practices, and introducing democratic values into curricula for architects, urban planners, and other professionals.

Noteworthy innovations in education include new approaches in town and spatial planning. In 2022, new specialisations were launched at public HEIs, including the Public Management of Community and Territory Development at Taras Shevchenko National University of Kyiv (TSNUK) and a similar program at Kharkiv National University of Urban Economy named after O.M. Beketov. That same year, the private Kharkiv School of Architecture (KhSA) introduced its Architecture and Urbanism programs, with courses to promote citizen involvement in town planning and strengthen local governance. In 2023, the private Kyiv School of Economics (KSE) introduced a master's program in "Urbanism and Post-War Reconstruction," integrating sustainable development principles. In 2024, Kyiv National University of Construction and Architecture (KNUCA) introduced a specialisation in State Governance for Post-War Infrastructure Reconstruction and TSNUK in Urban studies and Regional Development.

European integration has also influenced scientific activity in the field of the built environment by providing access to international research platforms such as Web of Science and Scopus. Ukraine's participation in the Horizon Europe programme has opened up new opportunities for funding educational and practice-oriented research, as well as for implementing

sustainable practices in the built environment sector. Legislative support, in particular the ratification of the Association Agreement with the EU, has contributed to the integration of Ukrainian scientists into international projects, supporting the modernisation of urban planning in the country.

Despite these advancements, citizen involvement in town planning activities remains limited and is often supported by non-governmental organisations and programs (such as "Rethinking Cities in Ukraine," aimed at community capacity building and engagement in planning) rather than by state authorities. Involving citizens in urban development processes is crucial for fostering a sense of ownership and responsibility towards their environment, ultimately enhancing people's quality of life (Ivanyuta, 2016). It's not just that Ukrainian architects and planners lack the necessary knowledge on public participation; there are insufficient legislative mechanisms to mandate or encourage citizen participation (Hanna Kyrij, 2025). According to Kyrij the lack of legal frameworks is the key reason for limited public involvement.

CONCLUSION

Ukraine's EU integration and democratisation, particularly its 2022 EU candidate status, have spurred reforms in education and urban planning to align with European standards. New academic programs in urbanism, post-war reconstruction, and public management reflect this shift towards sustainable urban development and democratic values.

However, citizen involvement in urban planning remains limited due to the lack of legal frameworks mandating public participation. While initiatives like "Rethinking Cities in Ukraine" aim to improve community engagement, the absence of legal support continues to restrict the broader public involvement vital for enhancing urban development and quality of life.

Integration with European standards and sector reforms

Ukraine's integration with European standards and urban development sector reforms are crucial for adapting to modern requirements and increasing competitiveness. Key aspects include the introduction of innovative technologies, environmental standards, and modernisation processes that align with sustainable development principles. The New European Bauhaus (NEB) initiative is supporting Ukraine's post-war reconstruction by promoting sustainable, energy-efficient, and inclusive urban development projects. In 2024, NEB recognized Ukrainian projects for the first time. The creation of new professions related to "green recovery" and environmental compliance is also significant. The New European Bauhaus Academy (NEBA) was launched in 2024 to retrain and upskill professionals in the construction sector, involving various stakeholders from educational institutions to government authorities.

Additionally, the Cities4Ukraine initiative, part of the Swedish Polaris programme, aims to build partnerships between Ukrainian and European municipalities, supporting Ukraine's EU membership aspirations and post-war recovery by facilitating experience sharing and relationship building.

In the context of "green recovery," several new professions will become essential. For instance, renewable energy consultants will design, implement, and maintain solar, wind, and other renewable energy systems, ensuring a sustainable energy future; green building experts, including architects, engineers, and builders, will specialize in using eco-friendly materials and technologies to create sustainable and energy-efficient structures. Additionally, climate risk management engineers will assess the impact of climate change on various sectors of the economy and develop strategies for adapting to new environmental conditions. These roles are crucial for promoting sustainability and addressing environmental challenges in the built environment sector.

In integrating the principles of the New European Bauhaus in Ukraine, the Ministry for the Development of Communities and Territories of Ukraine has actively supported recovery efforts based on sustainability, energy efficiency, and social inclusion. Pilot projects include the use of biomaterials and the digitalisation of construction, along with the introduction of new standards for government officials, architects, and

engineers, such as those promoted by the [Prompyrlad Foundation](#) and [UNBROKEN Ukraine](#).

Equally important is the role of professionals in preserving and restoring cultural heritage. One such initiative is the CPD Ukraine programme for architects and urban planners, organized by Architects Sweden and the National Union of Architects of Ukraine within the UREHERIT project. Participants in this programme have the opportunity to learn modern methods of cultural heritage preservation and apply a democratic approach to town planning (Sveriger Arkitekter, 2024).

With the development of "green recovery," Ukraine is increasingly in need of highly skilled professionals with expertise in sustainable development, ecology, and the preservation of cultural and historical heritage. It is crucial that the professional training of such specialists in Ukraine meets European standards, not only to enhance competitiveness but also to ensure sustainable development and the preservation of the environment for future generations.

CONCLUSION

Ukraine's integration with European standards and urban development reforms is essential for sustainable reconstruction and competitiveness. Key initiatives like the New European Bauhaus (NEB) and Cities4Ukraine promote energy-efficient, inclusive projects and foster collaboration with European municipalities. The rise of "green recovery" professions—such as renewable energy consultants and green building experts—highlights the need for specialised training aligned with European sustainability principles. Strengthening policies on biomaterials, digital construction, and heritage preservation will further support Ukraine's modernisation efforts.

Ensuring successful urban development will require an increase in the number and quality of certified architects and town planners. This can be achieved through continuous learning initiatives and professional retraining, facilitated by Self-Regulatory Organisations (SROs) and the industry associations overseeing project approvals. By strengthening SROs and institutions, and aligning training with European standards, Ukraine can build a resilient, skilled workforce capable of driving sustainable urban transformation.

Role of diaspora and transnational professional networks

The Ukrainian diaspora, estimated at 20 million people, plays a pivotal role in advocating for national interests, providing humanitarian aid, and offering financial support, particularly since the full-scale invasion (Malynovska, 2025). Beyond immediate relief, the diaspora and its partners are essential to post-war recovery by mobilizing resources, influencing policy, and maintaining ties with displaced populations. This engagement often facilitates “brain gain” through international partnerships with academic and business sectors, potentially easing the eventual return of professionals to Ukraine (ICMPD, 2024). Furthermore, women and children—who comprise the majority of displaced individuals—are playing a central role in rebuilding communities and driving social development (Udovyk & Domènech, 2024).

PROFESSIONAL SUPPORT AND KNOWLEDGE TRANSFER INITIATIVES

In response to the 2022 invasion, international organisations of built environment professionals have rallied to support their Ukrainian counterparts through several key initiatives:

- **Ro3kvit Urban Coalition for Ukraine:** A coalition of over 100 professionals from Ukraine and beyond, dedicated to creating knowledge and methodologies for rebuilding urban and rural areas. By addressing urgent needs through design and research, Ro3kvit connects immediate action to future strategies, utilizing studies of other post-war countries to develop future-oriented urban design and sustainable development methods.
- **ReThink:** A leading voice in Ukraine’s transition to a circular economy since 2017. In the context of reconstruction, ReThink promotes the sustainable management of demolition waste and the reuse of materials, ensuring that the rebuilding process aligns with European Green Deal standards and minimizes environmental impact.
- **Restart Agency:** An initiative focused on the coordination of international architecture and planning aid. RE-START works to synchronize the efforts of foreign experts with the specific local needs of Ukrainian municipalities, ensuring that international “top-down” assistance effectively meets “bottom-up” community requirements.
- **The Ukrainian Rebuilding Action Group (URAG):** Created by the International Division of the American Planning Association, this

volunteer organisation develops [Environmental Sustainability Planning Guidelines](#) and fosters collaboration between Ukrainian and American planners, educators, and students to provide technical assistance to municipalities.

- **The Ukraine-Netherlands Urban Network (UNUN):** Founded to bridge the gap between Ukrainian professionals and the Dutch labour market, UNUN collaborates with partners like *BRIGHT Cooperative*, *FABRICations*, and *ReThink* to enhance the competencies of Ukrainians in sustainable recovery and urban planning.

BILATERAL RECONSTRUCTION PARTNERSHIPS

Complementing professional networks, national development agencies provide the high-level institutional and financial frameworks necessary for large-scale reconstruction.

- **The German Agency for International Cooperation (GIZ) GmbH** GIZ supports urban resilience and digital education through the “Integrated Urban Development in Ukraine II” program. Operating in cities such as Lviv, Vinnytsia, and Mykolaiv, GIZ focuses on aligning national policies with EU standards and enhancing municipal capacities through digital systems and sustainable urban strategies (GIZ, 2023).
- **The Japan International Cooperation Agency (JICA)** JICA provides technical cooperation and Official Development Assistance (ODA) aimed at economic stability and autonomous governance. As of 2025, JICA has expanded its focus to cover critical gaps in the energy and infrastructure sectors, ensuring that reconstruction projects remain viable and sustainable (Volkita, 2025).
- **The United States Agency for International Development (USAID)** was a cornerstone of Ukraine’s recovery through its [HOVERLA](#) and [ERA](#) programs. These initiatives focused on strengthening local governance, supporting decentralisation, and restoring critical energy infrastructure. By providing direct technical assistance to municipalities, USAID helped local leaders manage reconstruction projects, improve public services, and foster economic stability in war-affected regions.

CONCLUSION

The Ukrainian diaspora has emerged as a cornerstone of national resilience, systematically addressing knowledge gaps and sustaining the professional development of displaced built-environment experts through distance learning, remote employment, and international educational exchanges. By providing these pathways, diaspora-led initiatives ensure that the country's human capital is not only preserved but enhanced during the conflict.

The rise of international coalitions demonstrates a shift toward highly coordinated, future-oriented reconstruction. These groups are successfully integrating global best practices in environmental sustainability and circular economy into local town planning strategies. Ultimately, the diaspora serves as a critical conduit between Ukraine and global expertise. Whether through direct professional engagement, policy advocacy, or the facilitation of bilateral technical support from agencies like USAID, GIZ, and JICA, these networks are reinforcing the foundations for a sustainable, inclusive, and modern recovery.



Conclusion

Ukraine has repeatedly demonstrated resilience, recovering from two World Wars by rebuilding infrastructure and revitalizing its educational and scientific institutions. This history reflects the strength of the Ukrainian spirit and its ability to adapt and modernize in times of crisis.

Definition and Regulation of Built Environment Professions

The evolution of urban planning professions in Ukraine has transitioned from a centralised Soviet model to a market-oriented system following independence. The professional sector is governed by a complex regulatory framework that includes provisions of the Constitution, laws, state building codes, and certification requirements. The National Qualifications Framework aims to align workforce training with European standards and support the mobility of labour. However, concerns remain over the development of architectural standards without sufficient involvement of the professional community, potentially undermining environmental quality, safety, and professional integrity.

Education and Training

Built environment education in Ukraine is gradually adapting to contemporary trends, though it still bears the legacy of Soviet-era rigid standardisation. As post-war reconstruction advances, achieving a balance between technical competence, creativity, and interdisciplinary skills will be crucial.

Professional Organisations and the Market

Built-environment professions in Ukraine are in a critical moment, facing a severe shortage of certified specialists, emigration, mobilisation, and a lack of effective mechanisms for career development. Stabilizing the sector requires strengthening the role of self-regulatory organisations (SROs), reforming the systems of certification, public procurement, and professional liability insurance, and aligning these processes with EU standards. It is also essential to establish clear differentiation of professional roles within the National Qualifications Framework, enhance interdisciplinary collaboration, and ensure the official recognition, regulation, and certification of such specialisations as spatial/urban planning and landscape architecture.

Impact of War and Economic Challenges

The war has intensified labour market issues, causing a brain drain and labour shortages that threaten the effectiveness of reconstruction efforts. Programs like Skills4Recovery are helping to reskill displaced professionals. The ongoing conflict has also disrupted the education system, and the Ukrainian government is already developing post-war reforms to integrate European standards into the education system.

EU Integration and Democratic Reforms

Ukraine's EU candidacy has accelerated reforms in urban planning and education. However, public participation in planning remains limited due to a weak legal framework. The full EU integration process may be long and complex, but programmes like "New European Bauhaus" and "Cities4Ukraine" are promoting sustainable city development, while strengthening SRO rights and standardizing education in line with European requirements.

Role of the Ukrainian Diaspora

The Ukrainian diaspora plays a key role in bridging knowledge gaps through remote learning and reconstruction initiatives. Organisations such as Ro3kvit and URAG are supporting rebuilding efforts, but cultural and organisational barriers still limit the effectiveness of professional collaboration.

Areas for further Research

- **International cooperation and educational reforms:** Future research could assess how international cooperation and educational reforms influence post-conflict recovery, particularly in the context of restoring professional networks.
- **Teaching methods and labour market changes:** Future studies could evaluate the integration of new teaching approaches and innovations that align with the evolving demands of the labour market, especially in urban planning.
- **Impact of technological and environmental changes:** Research could explore how educational programs and practices in urban planning are adapting to challenges such as climate change, sustainability, and digitalisation, with a focus on the role of technological innovations.

References

Legal references

Cabinet of Ministers of Ukraine (2011). *Certain Issues of Professional Certification of Executants of Specific Types of Works (Services) Related to the Creation of Architectural Objects*, Resolution No. 554 (23 May 2011). Available at: <https://zakon.rada.gov.ua/laws/show/554-2011-%D0%BF#Text> (accessed 25 March 2025).

Cabinet of Ministers of Ukraine (2016). *On the Approval of the Action Plan for the Implementation of the National Qualifications Framework for 2016–2020*, Order No. 1077-r (14 December 2016). Available at: <https://www.kmu.gov.ua/npas/249663048> (accessed 17 March 2025).

Cabinet of Ministers of Ukraine (2020). *On the State Inspectorate for Architecture and Urban Planning of Ukraine*, Regulation No. 1340. Available at: <https://zakon.rada.gov.ua/laws/show/1340-2020-%D0%BF?find=1&text=%D0%BD%D0%B0%D0%B3%D0%BB%D1%8F%D0%B4%D1%83+#Text> (accessed 25 March 2025).

Cabinet of Ministers of Ukraine (2024). *On Amendments to the List of Fields of Knowledge and Specialties for Higher and Professional Pre-Higher Education*, Resolution No. 1021 (30 August 2024). Available at: <https://zakon.rada.gov.ua/laws/show/1021-2024-%D0%BF#Text> (accessed 4 March 2025).

Verkhovna Rada of Ukraine (1999). *On Architectural Activities*, Law of Ukraine No. 687-XIV, current version – as of 15 November 2024, based on 4017-IX. Available at: <https://zakon.rada.gov.ua/laws/show/en/687-14?lang=uk#Text> (accessed 17 March 2025).

Verkhovna Rada of Ukraine (2003). *On Licensing of Economic Activities*, Official Bulletin of the Verkhovna Rada of Ukraine (OBVR), No. 24, Art. 174. Available at: <https://zakon.rada.gov.ua/laws/show/222-19#Text> (accessed 11 March 2025).

Verkhovna Rada of Ukraine (2010). *On Construction Norms*, Law of Ukraine No. 1704-VII. Available at: <https://zakon.rada.gov.ua/laws/show/1704-17#Text> (accessed 17 March 2025).

Verkhovna Rada of Ukraine (2014). *On Higher Education*, Official Bulletin of the Verkhovna Rada of Ukraine (OBVR), No. 37–38, Art. 2004. Available at: <https://zakon.rada.gov.ua/laws/show/1556-18#Text> (accessed 4 March 2025).

Verkhovna Rada of Ukraine (2015). *On Trade Unions, Their Rights and Guarantees of Activity*, Official Bulletin of the Verkhovna Rada of Ukraine (OBVR), No. 29, Art. 264. Available at: <https://zakon.rada.gov.ua/laws/show/1045-14#Text> (accessed 11 March 2025).

Verkhovna Rada of Ukraine (2017). *On Education*, Law of Ukraine No. 2145-VIII. Available at: <https://zakon.rada.gov.ua/laws/show/2145-19#Text> (accessed 4 March 2025).

Verkhovna Rada of Ukraine (2019). *On Professional Pre-Higher Education*, Official Bulletin of the Verkhovna Rada of Ukraine (OBVR), No. 30, Art. 119. Available at: <https://zakon.rada.gov.ua/laws/show/2745-19#n949> (accessed 4 March 2025).

Ministry of Regional Development, Construction, and Housing and Communal Services of Ukraine (2009). *On approval of the Regulation on the Architectural and Construction Certification Commission*, Order No. 212 (27 May 2009). Available at: <https://zakon.rada.gov.ua/laws/show/z0622-09> (accessed 25 March 2025).

Ministry of Regional Development, Construction, and Housing and Communal Services of Ukraine (2011). Order No. 93 of 25 June 2011, *On approval of the Regulation on the Architectural and Construction Certification Commission*. Registered with the Ministry of Justice of Ukraine on 15 July 2011 under No. 878/19616. Available at: <https://zakon.rada.gov.ua/laws/show/z0878-11#Text> (accessed 28 March 2025).

Ministry of Regional Development, Construction, and Housing and Communal Services of Ukraine (2014). Order No. 282 of 13 October 2014, *On approval of the Procedure for delegating powers to self-regulatory organisations in the field of architectural activity*. Registered with the Ministry of Justice of Ukraine on 30 October 2014 under No. 1369/26146. Available at: <https://zakon.rada.gov.ua/laws/show/z1369-14#Text> (accessed 28 March 2025).

Ministry of Regional Development, Construction, and Housing and Communal Services of Ukraine (2014). Order No. 137 of 13 May 2014, *On approval of the Procedure for registering self-regulatory organisations in the field of architectural activity*. Registered with the Ministry of Justice of Ukraine on 29 May 2014 under No. 573/25350. Available at: <https://zakon.rada.gov.ua/laws/show/z0573-14#Text> (accessed 28 March 2025).

Ministry of Education and Science of Ukraine (MESU, 2018). Order No. 1172 of 29 October 2018, *Higher Education Standard of Ukraine: First (Bachelor's) Level, Degree – Bachelor, Field of Knowledge 28 – Public Administration, Specialty 281 – Public Administration*.

Ministry of Education and Science of Ukraine (MESU), Order No. 808 of 16 June 2020, On the Approval of the Higher

Education Standard for Specialty 191 – Architecture and Urban Planning for the First (Bachelor's) Level of Higher Education.

Ministry of Education and Science of Ukraine (MESU), Order No. 805 of 16 June 2020, *Higher Education Standard of Ukraine: First (Bachelor's) Level, Bachelor's Degree, Field of Knowledge 10 – Natural Sciences, Specialty 106 – Geography.*

Ministry of Education and Science of Ukraine (MESU), Order No. 333 of 18 March 2021, *On the Approval of the Higher Education Standard for Specialty 192 – Construction and Civil Engineering for the First (Bachelor's) Level of Higher Education.*

Ministry of Education and Science of Ukraine (MESU), Order No. 519 of 11 May 2021, *Higher Education Standard of Ukraine: Second (Master's) Level, Master's Degree, Field of Knowledge 10 – Natural Sciences, Specialty 106 – Geography.*

Ministry of Education and Science of Ukraine (MESU), Order No. 418 of 20 May 2022, *On the Approval of the Higher Education Standard for Specialty 191 – Architecture and Urban Planning for the Second (Master's) Level of Higher Education.*

Ministry of Education and Science of Ukraine (MESU), Order No. 835 of 10 July 2023, *Higher Education Standard: Second (Master's) Level, Master's Degree, Field of Knowledge 19 – Architecture and Construction, Specialty 193 – Geodesy and Land Management.*

United Nations Sources

UN-Habitat, (2013). *Planning Sustainable Cities: UN-Habitat Practices and Perspectives.* Available at: https://unhabitat.org/sites/default/files/download-manager-files/1404131088wpdm_Planning%20Sustainable%20Cities%20UN-HABITAT%20Practices%20and%20Perspectives.pdf (Accessed: 2 March 2025).

UN-Habitat, (2016). *HABITAT III New Urban Agenda: Quito Declaration on Sustainable Cities and Human Settlements for All.* UN-Habitat, Quito.

UNESCO, (2017). *Education for Sustainable Development Goals: Learning Objectives.* UNESCO, Paris.

European Union Sources

Eastern Partnership University Cluster (n.d.). *Opportunities.* Available at: <https://eapuc.eu/EAPUC-10.html> (Accessed: 17 March 2025).

ECTP-CEU (2017). *Complete Charter: International Agreement and Declaration by the National Institutes and Associations of Professional Town Planners within the European Economic Community.* Available at: www.ectp-ceu.eu/index.php/en/about-us-2/founding-charter?id=89 (Accessed: 1 March 2025).

European Commission (n.d.). *Regulated Professions in the EU: Profession 12406.* Available at: <https://ec.europa.eu/growth/tools-databases/regprof/professions/generic/profession/12406> (Accessed: 4 March 2025).

European Commission (2023). *Comparison Report of the European Qualifications Framework and the Ukrainian National Qualifications Framework.* Luxembourg: Publications Office of the European Union. Available at: <https://europass.europa.eu/system/files/2023-02/Comparison%20report%20final%20rev%2023-02-2023%20EN.pdf> (Accessed: 17 March 2025).

European Court of Auditors (2024). *The Recognition of Professional Qualifications in the EU: An Essential Mechanism, but Used Sparsely and Inconsistently,* Special Report No. 10. Luxembourg: Publications Office of the European Union. Available at: <https://data.europa.eu/doi/10.2865/543068>.

European Training Foundation (2021). *Ukraine: Enhancing Skills for a Competitive Workforce.* Available at: https://www.etf.europa.eu/sites/default/files/2021-11/ukraine_ua.pdf?utm_source=chatgpt.com (Accessed: 4 March 2025).

Europass (n.d.). *Recognition of Skills and Qualifications.* Available at: <https://europass.europa.eu/en/recognition-skills-and-qualifications> (Accessed: 15 March 2025).

Publications

Abramov, R. (2014). *The History of Sociological Research on Occupations and Professions in the USSR 1960–80s: Ideological Frameworks and Analytical Resources*. Higher School of Economics. Research Paper, WP BRP 40/SOC/2014. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2430178.

Academy of Construction of Ukraine (n.d.). *History of the Academy of Construction of Ukraine*. Available at: <https://abu.in.ua/istoriya-abu/> (accessed: March 19, 2025).

AESOP (1995). *Core Requirements for a High-Quality European Planning Education*. Available at: www.aesop-planning.eu/en_GB/core-curriculum (accessed: March 4, 2025).

Alekseyenko, A. (2016). *Sources for the Study of the History of Science, Industry, and Architecture of Odesa in the Holdings of the Central State Scientific and Technical Archive of Ukraine*. *Actual Problems of the History of Science*, 2, pp. 25–29. Available at: https://archive.od.gov.ua/wp-content/old-files/PUBLIC/books/2016_ais-2/2016_ais-2_0025-0029.pdf (accessed: March 16, 2025).

American Planning Association International Division (2024). *Environmental Sustainability Planning Guidelines: A Product of Ukraine Rebuilding Action Group*. Available at: <https://sustainability.urag.org/home> (accessed: March 4, 2025).

Architects' Council of Europe (2025). *The Architectural Profession in Europe: 2024 Sector Study*. April 2025. Research by Mirza & Nacey Research Ltd. Available at: <https://ace-cae.eu/wp-content/uploads/2025/03/2024-ACE-Sector-Study-EN-01042025.pdf> (accessed: April 5, 2025).

Architecture of the Country of Socialism (1947). *Architecture of the USSR, 1917–1947*. Moscow: Union of Soviet Architects.

Australian Government (2023). *Australian Government Response to the Inquiry into Support for Ukraine*. Available at: <https://www.pmc.gov.au/sites/default/files/resource/download/australian-government-response-to-inquiry-into-support-for-ukraine.pdf> (accessed: March 29, 2025).

BDO Ukraine (2024). *Ukrainian Construction Market in 2024*. Available at: <https://www.bdo.ua/en-gb/insights-1/information-materials/2024/ukrainian-construction-market-in-2024> (accessed: March 3, 2025).

BMZ and Ministry of Economy of Ukraine (2024). *Launch of the International "Skills Alliance for Ukraine" at URC2024* (Online). Available at: <https://www.bmz.de/en/news/press-releases/launch-of-the-international-skills-alliance-for-ukraine-215342> (accessed: March 4, 2025).

Bondarenko, R. I. (2003). *Academy of Construction and Architecture under the State Construction Committee of the Ukrainian SSR*. In: *Encyclopedia of the History of Ukraine*, vol. 1, p. 688. Kyiv: National Academy of Sciences of Ukraine. Available at: http://www.history.org.ua/?termin=Akademiia_budivnytstva_t (accessed: March 1, 2025).

Buriak, O. P. (2021). *Design Market, Architectural Education, and Channels of Reproducing Professionalism*. *Scientific Bulletin of Construction*, 103(1), pp. 5–11. Available at: <https://doi.org/10.29295/2311-7257-2021-103-1-5-11>

Buriak, O. P., Khoroyan, N. P. and Kutsenko, T. D. (2022). *Historical Milestones in the Formation and Development of the Kharkiv School of Architecture*. *Modern Problems of Architecture and Urban Planning*, 62, pp. 15–28. DOI: <https://doi.org/10.32347/2077-3455.2022.62.15-28>

CEDOS (2025). *Secondary and Higher Education in the Ukraine Recovery Plan: Opportunities and Risks* (Online). Available at: <https://cedos.org.ua/researches/serednya-ta-vyshha-osvita-u-proyekti-planu-vidnovlennya-ukrayiny/> (accessed: March 4, 2025).

Center for Archival Documentation of Ukraine (2013). *"Inflexible Kyiv in the Invincibility and Radiance of the New Days of Recovery, Revival (Projects from the Funds of the Central State Historical Archives of Ukraine)"*. Ukrainian Archival Portal. Available at: <https://web.archive.org/web/20131209001128/http://www.archive.gov.ua/rus/viewexhibitions/54.html> (accessed: March 16, 2025).

Cheremys, V. (2024). *Will There Be Fewer Architects? Ministry of Education and Science Announces Cancellation of Several Specialties and Educational Levels in the Architecture Field*. PRAGMATIKA.MEDIA, March 1. Available at: <https://pragmatika.media> (accessed: March 19, 2025).

Chyzhevs'kyi, O., Kiri, A., Chuyko, K. (2023). *Why Self-Regulation is Important for the Development of Architecture and Cities*. Lb.ua (Online). Available at: https://lb.ua/blog/anna_kyrii/585956_chomu_samoregulyuvannya_vazhlive.html (accessed: March 5, 2025).

Chyzhevs'kyi, O. (2024). *Address of the National Union of Architects of Ukraine (NSAU) to the National Qualification Agency regarding the development of professional standards for architects, and the priority of NSAU in preparing these standards.* National Union of Architects of Ukraine, October 25. Available at: http://nsau.org/2024/11/13/zvern_nsau_agentstvo_kvalifikatsiii/ (accessed: March 4, 2025).

Chyzhevs'kyi, O. (2024). *Report of the President of NSAU, Oleksandr Chyzhevs'kyi, at the XXII National Reporting-Electoral Congress of NSAU.* National Union of Architects of Ukraine, January 14. Available at: <http://nsau.org/2024/01/14/%d0%b4%d0%be%d0%bf%d0%be%d0%b2%d1%96%d0%b4%d1%8c-%d0%be%d0%bb%d0%b5%d0%ba%d1%81%d0%b0%d0%bd%d0%b4%d1%80%d0%b0-%d1%87%d0%b8%d0%b6%d0%b5%d0%b2%d1%81%d1%8c%d0%ba%d0%be%d0%b3%d0%be-%d0%bd%d0%b0-%d1%85/> (accessed: March 4, 2025).

Demin, M. M., Naimark, Y. I. and Fomin, I. O. (1961). *Urban Planning in the Ukrainian SSR during the Seven-Year Plan.* Kyiv, pp. 22–25.

Demin, M. M., Mishchenko, O. D. and Synhaivska, O. I. (2009). *Discipline "Urban Planning and Improvement". Urban Planning and Territorial Development: Scientific and Technical Digest*, 32, pp. 13–30. Kyiv: KNUCA. Available at: <https://files.znu.edu.ua/files/Bibliobooks/Inshi71/0051976.pdf>

Dobrovolska, V. A. (2024). *Activities of the Odessa Branch of the Imperial Technical Society in Organizing a Foremen's Construction School (Late 19th – Early 20th Century).* *Studies in History and Philosophy of Science and Technology*, 33(1), pp. 94–103. Available at: <https://doi.org/10.15421/272410> (accessed: March 1, 2025).

Eingorn, A. L. (1937). *Experience in Urban Planning in Ukraine.* In: Y. K. Milonov (ed.), *Problems of Architecture: Collection of Materials: Vol. II, Book 1*, pp. 153–182. Moscow: Publishing House of the All-Union Academy of Architecture.

Eurasia (2025). *Digitalisation of the Construction Sector: Simplifying Business and Paving the Way for Transparent Post-War Reconstruction of Ukraine.* Available at: <https://www.eurasia.org/success-stories/digitalisation-of-the-construction-sector-simplifying-business-and-paving-the-way-for-transparent-post-war-reconstruction-of-ukraine> (accessed: March 17, 2025).

European Training Foundation (2021). *National Qualifications Framework – Ukraine.* Available at: <https://www.etf.europa>

[eu/sites/default/files/2021-11/ukraine_ua.pdf?utm_source=chatgpt.com](eu/sites/default/files/2021-11/ukraine_ua.pdf?utm_source=chatgpt.com) (accessed: March 4, 2025).

Fedosova, I. (2013). *The System of Higher Technical Education in Ukraine in the 1920s. Natural and Humanitarian Studies*, 1.

Filvarov, H. (2022). *Problems of Urban Culture Ecology. Experience and Prospects of City Development in Ukraine.* Issue 2. Kyiv, p. 32.

Frank, A., Mironowicz, I., Lourenco, J., Franchini, T., Ache, P., Finka, M., Scholl, B. and Grams, A. (2014). "Educating Planners in Europe: A Review of 21st Century Study Programmes." *Progress in Planning*, 91, pp. 30–94.

GIZ (2023). *Supporting Resilient Cities and Reconstruction in Ukraine: Strengthening Urban Resilience in the Areas of Supply Infrastructure and Housing* (Online). Available at: <https://www.giz.de/en/worldwide/137964.html> (accessed: March 17, 2025).

Gosstroy (1970). *Giprograd: 40 Years. A Brief Review of the History and Creative Work, 1940–1970.*

Hladun, O. (2025). *Corresponding Member of the NAS of Ukraine Oleksandr Hladun on the Demographic Situation in Ukraine Before the Full-Scale War, Today, and in the Future.* Main Portal of the National Academy of Sciences of Ukraine. Available at: https://nas.gov.ua/media_about_us/chlen-korespondent-nan-ukrani-oleksandr-gladun-pro-demografichnu-situaciyu-v-ukrani-do-veliko-viyni-zaraz-i-v-maybutnomu (accessed: March 4, 2025).

Homon, O. O. (2025). *Modernisation of Architectural Education in Ukraine: Challenges, Trends and Prospects.* Scientific and Practical Conference Dedicated to the 95th Anniversary of KNUCA, the 35th Anniversary of the Department of Architectural Environment Design, the 35th Anniversary of the Department of Architectural Theory and Design, and Cooperation with the Department of Urban Design and Planning of Darmstadt Technical University (9 April 2025, Kyiv). Kyiv: KNUCA, p. 51.

Holodenko, I. (2017). *Main Stages of Formation and Development of the Higher Education System in Ukraine.* *Legea și Viața* (online), pp. 16–20. Available at: https://ibn.idsi.md/sites/default/files/imag_file/16_20_Osnovnye%20jetapy%20stanovlenija%20i%20razvitiya%20sistemy%20vysshego%20obrazovanija%20v%20Ukraine.pdf (accessed: March 1, 2025).

Hryhoriieva, V. B. and Bilhorodska, O. Ye. (2022). *Contemporary Challenges in Architectural and Artistic Education. Regional Problems of Architecture and Urban Planning*, 16, pp. 241–248. DOI: 10.31650/2707-403X-2022-16-241-248.

Institute of Educational Analytics (2022). *Education in Ukraine under Martial Law*. Available at: https://iea.gov.ua/wp-content/uploads/2022/08/education-of-ukraine_2022.pdf (accessed: March 4, 2025).

International Labour Organisation (2023). *Prospects for Achieving Ukraine's 2032 GDP Target: A Labour Market Perspective* (Online). Available at: <https://reliefweb.int/report/ukraine/prospects-achieving-ukraines-2032-gdp-target-labour-market-perspective-september-2023> (accessed: March 17, 2025).

Ivanyuta, A. (2016). *How Children and Teenagers Are (Not) Involved in Urban Governance in Ukraine* (Online). Available at: <https://mistosite.org.ua/uk/articles/yak-v-ukraini-ne-zaluchaiut-ditei-ta-pidlitkiv-do-miskoho-upravlinnia> (accessed: March 17, 2025).

Johnson, B. J., Korniyenko, G., Pantiukhina, O. and Hutson, N. M. (2026). Democratizing Town Planning Education: A Comparative Study of U.S. and Ukraine Planning Programs. *Journal of Public Affairs Education*. (in press).

Khanin, S. (2024). *Labour Shortage. What is Happening in Ukraine's Labour Market During the War* (Online). Available at: <https://dif.org.ua/article/kadroviy-golod-shcho-vidbuvaetsya-na-rinku-pratsi-ukraini-pid-chas-vyni> (accessed: March 17, 2025).

Khmarochos, (2022). *Architects Have Developed a Temporary Housing Project for Artists to Be Built Near Uzhhorod*. Available at: <https://hmarochos.kiev.ua/2022/04/20/arhitektory-rozroblyly-proyekt-tymchasovogo-zhytla-dlya-mytziv-yake-zvedut-bilya-uzhgoroda/> (accessed: March 17, 2025).

Kondel-Perminova, N. M. (2006). *On the History of Architectural and Construction Education in Ukraine. Current Problems of Art Education in Ukraine*, 2, pp. 107–126. Available at: http://nbuv.gov.ua/UJRN/Spkho_2006_2_28 (accessed: March 1, 2025).

Korniyenko, G., Pantiukhina, O. (2025). Incorporating disability justice into post-war spatial development in Ukraine: Gaps and recommendations. *European Journal of Spatial Development (EJSD)*, 22(3), 51–63. <https://doi.org/10.5281/zenodo.17349631>

Korol, V. M. (2022). *Activities of the State Labour Reserves System as a Factor of Urbanisation in Post-War Ukraine (1945 – Early 1950s)*. *Shliakh do Yevropy*, 38, p. 57. Available at: <https://doi.org/10.21272/shaj.2022.i38.p.57>.

Koziy, O. (2021). *1999: How the Simplified Taxation System Appeared | History of Ukrainian Business*. *Forbes*, July 19. Available at: <https://forbes.ua/30-rokiv-ukrainskogo-biznesu/1999-rik-yak-zyavilis-fop-istoriya-ukrainskogo-biznesu-19072021-1984> (accessed: March 17, 2025).

Kurapov, A., Pavlenko, V., Drozdov, A., Bezliudna, V., Reznik, A. and Isralowitz, R. (2022). "Toward an Understanding of the Russian-Ukrainian War Impact on University Students and Personnel." *Journal of Loss and Trauma*, 28(2), pp. 167–174. <https://doi.org/10.1080/15325024.2022.2084838>

Kozlovska, N. (2023). "This Year, 207 Architects Have Upgraded Their Qualifications Through Specialised Universities." Ministry of Communities, Territories and Infrastructure of Ukraine. Available at: <https://mtu.gov.ua/news/34752.html> (accessed: February 19, 2025).

Kyiv School of Economics (n.d.). *Master's Programme "Urban Studies and Post-War Reconstruction"* (Online). Available at: <https://university.kse.ua/magistratura/mur> (accessed: March 17, 2025).

Kyrii, A. (2017). *What Is Wrong with Contemporary Architecture in Ukraine*. *Ukrainian Pravda. Life*, September 8. Available at: <https://life.pravda.com.ua/columns/2017/09/08/226345/> (accessed: March 29, 2025).

Kyrii, A. (2024). *Urban Planning Legislation of Ukraine*. In: *Ukraine: Democratic Recovery*. Danish Association of Architects, National Union of Architects of Ukraine, Dreyer Foundation, Gehl, pp. 24–44. ISBN 9788797420898. Available at: <https://pragmatika.media/danska-krov-ian-hejl-ta-vijna-zamiskyj-prostir-notatky-z-prezentatsii-posibnyka-pro-vidbudovu>

Kyrii, A. (2025). *Architecture without Architects: How Pressure on the Professional Community Deprives It of Its Voice*. *Vechirniy Kyiv*, March 11. Available at: <https://vechirniy.kyiv.ua/news/109687/> (accessed: March 19, 2025).

Likarchuk, I. L. (1996). *Problems of Vocational Training in Ukraine (1920–1929)*. Kyiv: Institute of Pedagogy and Psychology of Vocational Education of the Academy of Pedagogical Sciences of Ukraine.

Likarchuk, I. L. (1999). *Management of Systems for Training Skilled Workers in Ukraine: Pedagogical Aspect (1888–1998)*. Doctoral dissertation, Institute of Pedagogy and Psychology

of Vocational Education, National Academy of Pedagogical Sciences of Ukraine.

Livitska, A. (2021). "Construction in Post-Soviet Countries 2021: Ukraine." *Asters Lawyers*, January 19. Available at: https://www.asterslaw.com/press_center/publications/construction_in_postsoviet_countries_2021_ukraine/ (accessed: March 17, 2025).

Malynovska, O. (2025). *International Experience of State Diaspora Engagement Policy*. National Institute for Strategic Studies (NISS), Centre for Economic and Social Research. Available at: <https://niss.gov.ua/doslidzhennya/sotsialna-polityka/mizhnarodnyy-dosvid-derzhavnoyi-polityky-zaluchennya-diaspory>.

Markovskiy, A. I. (2020). *Three Stages of Transition from "Stalinist Empire Style" to Modernism in Kyiv*. Urban Development and Spatial Planning. DOI: 10.32347/2076-815x.2020.75.249. Available at: http://mtp.knuba.edu.ua/article/view/221093/pdf_27.

Martyn, Yu. (2024). *Why Professional Standards Should Be Developed by Employers and Professional Associations*. In: *Architects of Qualifications: Who Drives the Standard Development Process*. Available at: <https://osvita.ua/blogs/94009/> (accessed: March 4, 2025).

Ministry of Education and Science of Ukraine (n.d.). *Ukraine's Reconstruction Plan: Education and Science as the Foundation for Human Potential Development* (Online). Available at: <https://mon.gov.ua/ua/news/plan-vidnovlennya-ukrayini-osvita-ta-nauka-yak-fundament-rozvitkulyudskogo-potencialu> (accessed: March 4, 2025).

Mironowicz, I. (ed.) (2015). *Planning Education, No. 3: Excellence in Planning Education: Local, European and Global Perspective*. AESOP: Wroclaw.

Moiseienko, Z. V. (1995). *Revival of the National Identity of Ukrainian Architecture*. In: *Architectural Heritage of Ukraine*, Issue 2: *National Features of the Architecture of the Ukrainian People*, pp. 230–237. Kyiv: NDIIAM.

Mrowczynski, R. (2012). "Self-Regulation of Legal Professions in State-Socialism: Poland and Russia Compared." *Rechtsgeschichte (Legal History)*, No. 20, pp. 170–188. Available at: http://rg.rg.mpg.de/en/article_id/802.

Mykhailyshyna, D. and Teleton, A. (2020). *How to Promote University–Business Cooperation?* Centre for Economic Strategy. Available at: [https://ces.org.ua/wp-](https://ces.org.ua/wp-content/uploads/2020/08/Як_сприяти_співпраці_між_університетами_та_бізнесом.pdf)

[content/uploads/2020/08/Як_сприяти_співпраці_між_університетами_та_бізнесом.pdf](https://ces.org.ua/wp-content/uploads/2020/08/Як_сприяти_співпраці_між_університетами_та_бізнесом.pdf) (accessed: March 4, 2025).

Mylko, V. (2019). *From Walls to Boulevards: The Making of the Modern City in Ukraine (Late 18th – Early 20th Century)*. Kyiv: Institute of History of Ukraine.

Mylonov, Yu. K. (1937). *Problems of Architecture: Collection of Materials: Volume II, Book 1*. Moscow: Publishing House of the All-Union Academy of Architecture.

National Agency for Higher Education Quality Assurance (2024). *NAQA Milestones*. Available at: <https://en.naqa.gov.ua/wp-content/uploads/2024/03/NAQA-Milestones.pdf> (accessed: March 17, 2025).

National Council of Architects, Planners, Landscapers and Conservationists (n.d.). "Guidelines for Providing Opportunities for Ukrainian Architects and Architecture Students with Italian Professional Firms." Available at: <https://www.architettiecooperazione.org/en/guidelines-for-providing-opportunities-for-ukrainian-architects-and-architecture-students-with-italian-professional-firms/#toggle-id-8> (accessed: March 17, 2025).

National Qualifications Agency (2020). *History of the Development of the National Qualifications Framework: A Retrospective* (Online). Available at: <https://nqa.gov.ua/news/istoria-stanovlennja-nacionalnoi-ramki-kvalifikacij-ekskursu-v-minute/> (accessed: March 4, 2025).

National Qualifications Agency (2024). *Global Skills of the Future. Human Capital 2030* (Online). Available at: <https://drive.google.com/file/d/1XHZzW0b4NwPFgl1Wa7XOeCT1Ml6mqD6c/view> (accessed: March 17, 2025).

National Union of Architects of Ukraine (2012). *About the National Union of Architects of Ukraine*. A+C, 3–4, pp. 4–5. Available at: <http://nsau.org/про-насу/> (accessed: March 4, 2025).

National Union of Architects of Ukraine (2022). *Regulations on the Architectural Chamber of the National Union of Architects of Ukraine*. Available at: <http://nsau.org/2022/01/27/положення-про-архітектурну-палату-на/> (accessed: March 19, 2025).

National University "Lviv Polytechnic" (n.d.). *Origins and Development Stages of the National University "Lviv Polytechnic"*. Available at: <https://lpnu.ua/istoriia-universytetu/vytoky-ta-etapy-stanovlennia> (accessed: March 1, 2025).

Nichkalo, N. (2008). *Transformation of Vocational Education in Ukraine*. Kyiv: Pedahohichna dumka. Available at: <https://lib.iitta.gov.ua/id/eprint/711148/1/12.pdf>.

Nikulenکو, S. I. (2015a). *Formation of the System of Higher Art Education in Ukraine in the Post-Revolutionary Years*. Pedagogy of Forming a Creative Personality in Higher and General Education Institutions, 43, pp. 40–45.

Nikulenکو, S. (2015b). *On the History of Higher Art Education in Kharkiv (1921–1927)*. Image of the Modern Pedagogue, 9.

NV.ua (2024). "Australia Commits New Aid to Ukraine for Reconstruction and Energy Support." Available at: <https://english.nv.ua/nation/australia-pledges-support-for-ukraine-s-reconstruction-with-a-66m-donation-50475284.html> (accessed: March 28, 2025).

Osiotrin, M. (2009). *Training Specialists in "Urban Construction and Economy" Under the Two-Level Engineering Education System*. Urban Planning and Spatial Planning: Scientific and Technical Digest, 32. Kyiv: KNUCA.

Osvita.ua (2014). *Higher Education Reform in Ukraine: Changes and Innovations*, October 20. Available at: <http://osvita.ua/vnz/reform/43404/> (accessed: March 17, 2025).

Osvita.ua (2025). "Specialties That Have Special State Support." March 6. Available at: <https://osvita.ua/consultations/bachelor/68927/> (accessed: March 17, 2025).

Oborn, P. and Walters, J. (2020). "Planning for Climate Change and Rapid Urbanisation: Survey of the Built Environment Professions in the Commonwealth." *Commonwealth Association of Architects*. Available at: [www.comarchitect.org](http://comarchitect.org) (accessed: March 29, 2025).

Open Government Partnership (2025). "Commitment: UA0101." Available at: https://www.opengovpartnership.org/members/ukraine/commitments/ua0101/?utm_source=chatgpt.com (accessed: March 17, 2025).

Pantiukhina, O. (2025). Scenario design for post-conflict cities: experience of an international student studio. Theory and Practice of Design, (36), 93–102. <https://doi.org/10.32782/2415-8151.2025.36.9>

Pedersen, K. W., Pharo, E., Peterson, C. and Clark, G. A. (2017). "Wheels of Change in Higher Education: A Collaborative, Multi-Stakeholder Project as a Vehicle for Sustainability Education." *International Journal of*

Sustainability in Higher Education, Vol. 18, No. 2, pp. 171–184.

Posats'kyi, B. (2007). *Urban Space and Urban Culture at the Turn of the 20th–21st Century*. Lviv: National University "Lviv Polytechnic". ISBN 978-966-553-585-0.

Puchkov, A. (2021). *On the History of the Functioning of the Academy in 1945–2021*. Academy of Architecture of Ukraine (Online). Available at: <https://yaa.com.ua/history/>.

RTPI (2016). "Skills and Competencies for Planners." Available at: www.rtpi.org.uk/education-and-careers/cpd-for-rtpi-members/cpd-requirements/skills-and-competencies-for-planners/ (accessed: March 4, 2025).

Rubryka (2025). "Skills4Recovery Retrains Ukraine's Workforce for Reconstruction and Resilience: On Mental Health and Accessibility." Available at: https://rubryka.com/en/article/yak-pratsyuye-programa-skills4recovery/?utm_source=chatgpt.com (accessed: March 4, 2025).

Ro3kvit (2023). "Trends in Spatial Planning in Reconstruction Processes: Research Results and Experience of the Professional Community." Available at: <https://ro3kvit.com/projects/trends-in-spatial-planning-in-reconstruction-processes> (accessed: March 19, 2025).

Savyts'kyi, M. (2020). *1930–2020 – DBI – DIBI – PDAFA – YEARS, EVENTS, PERSONALITIES* (Online). Available at: <https://pgasa.dp.ua/pryvitannya-z-90-richchya/>.

Scholl, B. (ed.) (2012). *HESP - Higher Education in Spatial Planning – Positions and Reflections*. vdf Hochschulverlag, AG.ETH Zürich: Zürich.

Sharov, O. (2024). *Strategy for the Development of Higher Education in Ukraine for 2022–2032: The Draft Operational Plan for 2025–2028* (Online). Available at: https://erasmusplus.org.ua/wp-content/uploads/2024/10/2_sharov-pershyj-proyekt-op-srvo-2025-2028-2024-09-23.pdf (accessed: March 17, 2025).

Shebek, N. (2019). *Concept and Prospective Development Plan for the Department of Urban Planning for 2019–2024*. Kyiv: Kyiv National University of Construction and Architecture.

Shevchuk, S. (2013). *Analogies. Education in Ukraine During the Tsarist Period, USSR, and Today*. Inpress.ua (Online). Available at: <https://inpress.ua/ru/society/17117-analogii-obrazovanie-v-ukraine-pri-tsare-sssr-i-segodnya> (accessed: March 1, 2025).

Seletskyi, A. (2012). *Professional Training of Skilled Workers in Ukraine (1920–1959)*. Kyiv: Publishing House of the Institute of Vocational Education of the National Academy of Pedagogical Sciences of Ukraine.

Sletto, B. (2010). "Educating Reflective Practitioners: Learning to Embrace the Unexpected through Service Learning." *Journal of Planning Education and Research*, Vol. 29, No. 4, pp. 403–415.

Smolenska, S. (2017). *The Architecture of Avant-Garde Modernism in Ukraine: Genesis and Legacy* (PhD Dissertation in Art History). Kharkiv.

Sociological Group "Rating" (2022). *Eighteenth National Survey "Psychological Markers of the War" (October 8–9, 2022)* (Online). Available at: https://ratinggroup.ua/research/ukraine/vosemnadcatyy_obschenacionalnyy_opros_psihologicheskie_markery_voyny_8-9_oktyabrya_2022.html (accessed: March 4, 2025).

Solovei, O. (2023). "Shortage of Hands for Reconstruction: What's Happening in Ukraine's Construction Market?" *Property Forum*. Available at: <https://www.property-forum.eu/news/shortage-of-hands-for-reconstruction-whats-happening-in-ukraines-construction-market/17005> (accessed: March 19, 2025).

Solushenko, O. (2020). *KHIIB – KDTUBA – KNUCA: 90 Years of History*. Our Collegium, 102(4), pp. 14–23. DOI: <https://doi.org/10.30837/nc.2020.4.18>

Stanislavsky, A. I. (1971). Planning and construction of Ukrainian cities. – K.: Budivelnik, 1971.

Studennykova, I. (2024). *Labour Market in War Conditions: Demographic Challenges for Ukraine*. VoxUkraine, September 25. Available at: <https://www.ukrinform.ua/rubric-politics/3909003-rinok-praci-v-umovah-vijni-demografichni-vikliki-dla-ukraini.html> (accessed: March 4, 2025).

Today.ua (2023). "Plans to Close Some Universities and Colleges in Ukraine: Statement by the Ministry of Education." Available at: <https://today.ua/v-ukraine-planiruyut-zakryt-chast-universitetov-i-kolledzhej-zayavlenie-mon/> (accessed: March 4, 2025).

Udovyk, O. and M-Domènech, R. (2024). "Feminist Urban Futures: Envisioning the Future of Ukrainian Cities through the Lens of the Displaced Community in Valencia (Spain)." *Futures*, 164, 103504. <https://doi.org/10.1016/j.futures.2024.103504>.

Ukraine Crisis Analysis Team (2023). "The Changing Face of Employment in Ukraine: Challenges and Opportunities." August. Available at: <https://uacat.org/posts/the-changing-face-of-employment-in-ukraine-challenges-and-opportunities?> (accessed: March 28, 2025).

Ukraine Rebuilding Action Group (URAG) (2022). "About" (Online). Available at: <https://www.urag.org/english/about> (accessed: March 17, 2025).

Union of Soviet Architects (1947). *Architecture of the USSR 1917–1947*. Moscow: Union of Soviet Architects.

Utekhin, I., Paperno, S., Nakhimovsky, A., and Ries, N. (2025). "Housing in the USSR." *The World of the Soviet Citizen: Communal Living in Russia*. Available at: <https://kommunalka.colgate.edu/cfm/essays.cfm?ClipID=376> (accessed: March 28, 2025).

Vinnytskyi, M. (2024). *Modernisation of the Higher Education Network: Principles and Criteria for Decision-Making*. Available at: <https://osvita.ua/blogs/91166/> (accessed: March 4, 2025).

Vinnytskyi, M. (2025). *Only Large and Powerful Institutions Will Be Able to Compete with European Universities. The Government Reform Aims to Create a Network of Strong HEIs*. Available at: <https://osvita.ua/blogs/91424/> (accessed: March 4, 2025).

Vrona, I. V. (1928). *Kyiv Art Institute. Art and Technical Institute*, 8. Available at: https://uartlib.org/downloads/MisteckoTehnichnyy_uartlib.org.pdf (accessed: March 1, 2025).

Volokita, V. (2025). "Japanese Agency Seeks to Replace USAID in Some Ukrainian Projects." *Pravda.com.ua*, March 5. Available at: <https://www.pravda.com.ua/eng/news/2025/03/5/7501418/> (accessed: April 1, 2025).

Work.ua (2023). One Year of War: Employers Successfully "Recaptured" 60% of the Labour Market and Are Moving Eastward, 22 February. Available at: <https://www.work.ua/news/ukraine/2337/> (Accessed: 6 March 2025).

World Bank (2024). "Ukraine - Fourth Rapid Damage and Needs Assessment (RDNA4): February 2022 - December 2024." Washington, D.C.: World Bank Group. Available at: <http://documents.worldbank.org/curated/en/099022025114040022> (accessed: March 28, 2025).

Yankovska, O. and Bachynskyi, D. (2013). *Reforms in the Ukrainian SSR in the Social Sphere (1950s–1960s): Housing Provision. History of Ukraine: Interdisciplinary Studies*, 18, pp. 132–148. Available at: http://history.org.ua/JournALL/xxx/xxx_2013_18/16.pdf.

Yatsenko, V. and Kozlova, Y. (2014). *The Education System of Ukraine and its Adaptation to the International Standard Classification of Education (ISCED). Contemporary Issues of Architecture and Urban Planning*, 35, pp. 249–257.

Yatsenko, V. (2016). *Preconditions and the Beginning of Regional Planning in Ukraine. Contemporary Issues of Architecture and Urban Planning*, 42, pp. 252–258. Kyiv: KNUCA. Available at: [https://repository.knuba.edu.ua/server/api/core/bitstreams/1e94e506-8461-4357-8b04-](https://repository.knuba.edu.ua/server/api/core/bitstreams/1e94e506-8461-4357-8b04-269a13573703/content)

[269a13573703/content](https://repository.knuba.edu.ua/server/api/core/bitstreams/1e94e506-8461-4357-8b04-269a13573703/content).

Yatsenko, V. (2018). *Transformation of the Paradigm of Urban Planning in New Socio-Administrative Conditions. Urban Planning and Territorial Development*, 66, pp. 681–689. Kyiv: KNUCA. Available at: http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN=UJRN&IMAGE_FILE_DOWNLOAD=1&image_file_name=PDF/MTP_2018_66_80.pdf.

Yerofalov-Pylypchak, B. L. (2010). *Architecture of Soviet Kyiv*. Kyiv: A+C Publishing House. Available at: http://nsau.org/wp-content/uploads/2023/12/Sov-kiev_sborka-web-colour_cropped_web.pdf.

Databases

State Statistics Committee of Ukraine (2001). All-Ukrainian Population Census. Available at: <https://2001.ukrcensus.gov.ua/> (accessed: March 7, 2025).

Unified State Electronic Database on Education (USEDE) (2025). Register of Educational Activity Entities. Available at: <https://registry.edbo.gov.ua/search/?qid=&q=%D0%B1%D1%83%D0%B4%D1%96%D0%B2%D0%BD%D1%8F> (accessed: March 4, 2025).

Ministry of Economy of Ukraine. Classifier of Occupations. Available at: <https://me.gov.ua/Profession/List?lang=uk-UA&id=d4162ef8-2771-4ac5-99ef-1d4b6f5336af&tag=Klasifika>

torProfesii-Poshuk (accessed: March 4, 2025).

Qualification Map of Ukraine, Directory (n.d.). National Classifiers: Classification of Types of Economic Activity (DK 009:2010), Professional Classifier (DK 003:2010). Available at: <https://www.futureskills.org.ua/ua/directory> (accessed: March 4, 2025).

Construction Activity Register. Unified State Electronic System in the Field of Construction (USESC). Available at: <https://e-construction.gov.ua/reestri> (accessed: March 7, 2025).

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