

CROSSING BORDERS: ACTIONABLE KNOWLEDGE FOR INTEGRATED URBAN DEVELOPMENT PLANNING IN UKRAINE

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Abstract

This paper explores various initiatives that have been implemented with a view to strengthening integrated urban development in Ukraine. It emphasises the importance of actionable knowledge and international academic cooperation and it highlights the challenges posed by Ukraine's political decentralisation and war-related crises; both have strained urban planning capacities. Programmes such as Ukraine Digital and German-Ukrainian partnerships address these needs through digital education, scholarships, and joint courses. The Competence Platform for Integrated Urban Development presented here offers modular courses, tools, and case studies that promote interdisciplinary learning. Teaching modules include lectures, seminars, design studios, and workshops focused on urban resilience, reconstruction, and participatory planning. These initiatives aim to prepare students and municipalities for sustainable and resilient development. Future goals include establishing dual degree programmes and expanding international cooperation to comprehensively rebuild Ukraine's cities, in line with the principles of the New Leipzig Charter.

Keywords:

Capacity building; urban planning study programmes; integrated urban development; reconstruction; digital learning .

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1. Introduction and Overview

In order to successfully manage a targeted and sustainable reconstruction in Ukraine in line with the “Building Back Better” framework, there is a need to establish and/or empower suitable institutions that are capable of taking action. A key factor in this empowerment will be the provision and transfer of instrumental and methodological knowledge for practical application by relevant actors at Ukrainian universities. Among other areas, this need also applies to urban planning, which is a tool for managing infrastructural and spatial development, especially at the local level. Urban planning also plays a central role in the implementation of sustainable and integrated urban development, as outlined in the European Leipzig Charter – and Ukraine is already engaged in EU accession negotiations (BMI 2024).

The implementation of an integrated urban development approach poses particular challenges for relevant actors in Ukraine. This is for two primary reasons. First, since the political upheavals in Ukraine in 2014, there has been an increased shift of competencies and decision-making powers to municipalities as part of the decentralisation process, although the simultaneous development of corresponding professional capacities has almost not kept pace. Second, decentralisation has transferred new requirements to the municipalities including the creation of integrated urban development concepts; a completely new technical and methodological approach to spatial planning for many of the municipalities. Moreover, the implementation of these partly informal planning instruments and their integration into the planning culture remains a challenge. The role of their steering effect as non-formal instruments is viewed critically, their function is often limited to participation functions, and they are not regarded as genuine “real” spatial plans (Steinkemper, Vlasenko 2024).

Given this context, various initiatives have arisen in Ukraine since the outbreak of the war to support planning capacities and knowledge. There is a growing community in Ukraine that is driving the establishment of new courses and initiatives to build actionable knowledge for integrated planning and reconstruction. Such initiatives include, amongst others,

- “New European Bauhaus Lab “Actions for Ukraine” which has been organised by the Ukrainian partners Ro3kvit,
- “ReThink”, the Covenant of Mayors East and the Architects’ Council of Europe (New European Bauhaus, 2023),
- “Urban Recovery Guide” by the non-profit civil society organisation “Urbanyna” (Urbanyna 2023).

As a further development of these initiatives, existing and future degree programs in urban planning will play an important role in shaping the development of planning culture and expertise. They impart methodological and technical knowledge while also contributing to the reflection and further development of planning practice. However, there are still no complete bachelor’s and consecutive degree programs in urban and regional planning in Ukraine. In particular, there are no programs that comprehensively collect and disseminate planning knowledge and go beyond a purely design- or economically-determined distribution of functions and forms in space. In some European countries, urban planning has been and continues to be integrated into degree programs such as architecture, civil engineering, or geography. The advanced approach of our own programs should serve as an example, with initial developments such as those at KNUBA pointing the way forward.

Against this background, this paper presents a practice-oriented case study based on the experiences gained through Ukrainian-German cooperation projects in the field of integrated urban development planning. It explores how the insights gained from these experiences can inform and support the future development of planning curricula at Ukrainian universities. The paper illustrates the same via reference to and consideration of projects carried out in programmes funded by the German Federal Government through the German Academic Exchange Service (DAAD) and the German Agency for the International Cooperation (GIZ), and also presents measures that have been implemented through international cooperation that has occurred between several universities. The authors, representing three German planning schools, have worked intensively with six universities in Ukraine offering urban planning courses in the panforukraine network (www.panforukraine.de) since summer 2022. They are part of the «Reconstruction Modules project funded by the DAAD emergency aid programme «Ukraine digital», through which joint courses in various formats on integrated urban development planning and reconstruction have been held over the last two years.

The article begins with an overview of the DAAD programme “Ukraine digital,” and outlines its goals to support digital learning and academic continuity during wartime. This is followed by a section focused on needs assessment and a survey of Ukrainian universities which identifies key gaps in urban planning education. The article then shifts to practical responses, and describes the development of collaborative teaching modules as well as the creation of a digital competence platform. Multiple examples of lecture series, seminars, design studios, and workshops illustrate how these modules have been applied. The article concludes by reflecting on the role of actionable, and transdisciplinary knowledge in transformative planning, before highlighting the importance of sustained international cooperation, digital tools, and localised content for rebuilding Ukraine’s cities and planning education system.

2. Actionable Knowledge for Integrated Urban Development in Ukraine

2.1 DAAD Programme Ukraine digital - Ensuring academic success in times of crisis

International exchange and cooperation offer institutions and individuals opportunities to expand their knowledge and experiences beyond their own horizons and may also promote intercultural competences. In addition, such initiatives are essential for building communities of responsibility to solve common problems and global challenges. In this context, university cooperation projects, such as those funded by the DAAD, are used specifically to develop new options and support joint learning that goes beyond the individual benefits which can be accrued for students and teachers. In May 2022, the DAAD launched the emergency funding programme ‘Ukraine digital - Ensuring student success in times of crisis for the first time. The Russian war of aggression against Ukraine has hit universities hard: Many university buildings have been deliberately destroyed, and many teaching staff and students have either had to flee, or been conscripted into the military. Despite these pressures, most Ukrainian universities have managed to maintain their study programmes in digital form. The DAAD funding programme aims to support Ukrainian universities in maintaining and expanding digital teaching via a virtual learning platform. The specific objectives of the programme are: To identify needs for digital teaching within current study programmes in Ukraine; the expansion of digital teaching programmes; making the same available to students; integrating academics and university lecturers, particularly those who are refugees, into the initiated teaching programmes; and establishing the necessary skills and structural framework conditions for the continued digitalisation of the participating German and Ukrainian universities.

In addition, scholarships have been awarded to Ukrainian academics and students, especially refugees. The programmes created lasting connections that are important not only for reconstruction, but also future German-Ukrainian university cooperation.

2.2 Demand and needs for future urban planning programmes

In addition to the range of structures, tools, and financing available in international and cooperative study and exchange programmes, content development that generates added value for participants and responds to existing demand is an essential component.

The concept of actionable knowledge refers to information or insights that can be directly applied to decision-making or practical tasks, and lead to tangible outcomes. In the field of urban planning, and especially with regard to integrated planning, the link between knowledge and demands – often from different sectors – as well as concrete actions and decisions are an essential basis. The framework for action and decision-making is characterised by collective processes and the existence of a direct link to implementation and application.

For these reasons, the requirements for knowledge transfer and practical skills in urban planning study programmes have developed strongly towards trans- and interdisciplinary methods over recent decades. New formats, in particular for practice-oriented teaching and learning, have been developed; for example, in so-called integrated project studies. A main basis for the accreditation of planning study programs in Germany is the criteria formulated by the Association of urban planning study programs (Akkreditierungsverbund für Studiengaenge der Architektur und Planung ASAP) which encompass knowledge, skills, social competencies,

and independence. These criteria are set out in a qualification framework and supplement general accreditation standards (ASAP 2022). Experience from the introduction of standalone urban planning programmes in other countries was also evaluated. The implementation of urban planning studies at Polish universities such as Gdansk and Wroclaw in the 2000s shows that there are general elements such as urban development, urban regeneration and urban design which are connected with theoretical and legislative fundamentals as well as sectoral links. However, it is also evident that each country must find its own approach within its own existing higher education system (Frank; Kurth; Mironowicz 2012/ Frank; Kurth 2010). Besides the challenges in war regions, we are facing a number of other urgent challenges including: a turning point in the use of land and construction, the mobility transition, issues pertaining to climate protection and biodiversity, migration, and social cohesion. It is high time to develop a pathway towards transformative planning and develop processes and instruments for implementation of the same across the board. In order to achieve this, universities and planning practise need to change their existent values and also adjust their t goals, planning, and decision-making processes. Approaches pertaining to transformative teaching and research, as a productive contribution to science, have already been outlined by the German Advisory Council on Global Change (WBGU) in 2011, the New Leipzig Charter 2020, and the 'House of the Earth' at international and European levels. In Germany, the Association of German Architects (BDA) has formulated positions for climate-friendly architecture in the city and countryside as well as recommendations for teaching. The Academy for Territorial Development in the Leibniz Association (ARL) named concrete implementation steps for sustainable spatial planning in 2021, and there has also been analysis of the situation pertaining to transformative aspects in the curricula of planning studies "The Great Transformation for Sustainable Spatial Development as a Challenge for University Education" (Wagner et al 2024). First paths of action for readjusting activities at urban and regional planning levels can be found in the DASL Berlin Declaration from 2022 and – focusing on education and universities - the Basel Theses 2024. Universities and colleges play key roles as educational centres for future experts in transformative planning: they promote cultures of social, ecological, and economic responsibility; prepare future decision-makers and designers for the tasks ahead; generate the necessary knowledge; draw conclusions for application in planning; and test pioneering concepts.

2.3 Surveys and exchange to analyse needs

In order to respond to the above-mentioned requirements in the future design of study programmes in urban planning, various forms of needs assessment - with a specific focus on the existing programmes at the partner universities in Ukraine - were carried out as part of the cooperation.

At the end of 2022, the seven universities involved in the DAAD partner project (see Figure 1) were contacted with a detailed questionnaire. The questionnaire included a general survey on the structure of urban planning programs and the number of students engaged upon the same, the consequences of the war for the implementation of those programs, the organisational requirements and needs for cooperation, and the specification of thematic priorities. The question categories were divided into four to six sub-questions, which each answered in written form by the partner universities in free text responses. The answers were provided by those involved in the program or those responsible for it, or by the respective deans, and in one case by the International Office. For this article, a qualitative analysis of two master's programs from 2018, which was carried out as part of a peer exchange between lecturers, was also taken into account. The survey was enriched by expert interviews and various online expert workshops organised by our group. In addition, the real-world labs conducted at the end, which were prepared together with colleagues from Ukraine and students from both countries, provided additional insight into the experiences gained, particularly in the implementation of interdisciplinary and transdisciplinary formats.

The results and assessment presented below identify a range of focal points as well as indications for the further development of urban planning programmes in Ukraine. They are the results of practical cooperation and concrete case-based activities undertaken by a selection of cooperation partners. Despite these methodological and qualitative limitations, it is possible to generate an initial orientation for the future direction of the programmes.

2.3.1 Findings from Cooperative Development of Master's Degree Programmes

The cooperative development of masters' degree programmes in urban planning in Ukraine, which took place in 2018, provided initial insights into which topics and content could be relevant for Ukrainian programs. The exchange at that time took place with and on the planning study programmes in Poltava and Chernivtsi and compared their approaches with German curricula.

The general structure of study programmes varied across disciplines. For instance, planning theory was less intensively integrated into the curricula at the universities in Poltava and Chernivtsi, with both planning processes and the social role of urban planning receiving only limited attention. Significant discrepancies existed between universities in Ukraine and those in Germany regarding interdisciplinary teaching; notably, social science approaches and methods were not explored to the same extent. Similarly, planning law and planning management issues were not regarded as integral components of the curriculum. In general, the universities placed a strong emphasis on urban design, and focused predominantly on the construction of large new developments, while the redevelopment of existing buildings and the critical evaluation of established urban structures received little attention. There was some overlap in teaching content between the institutions, particularly in urban planning and building theory, and with regard to aspects of sustainable urban planning - especially those related to energy efficiency. In discussions with colleagues about the existing subjects in their curricula and in relation to the challenges of urban development, the need for transdisciplinary research and the importance of integrating research findings into practical and academic work was identified. This process, a two-way exchange between science and everyday practice, has largely not taken place in Ukraine to date.

2.3.2 Results of a Survey of Needs and Challenges of Teaching at Ukrainian Partner Universities

Another source for identifying needs was the survey conducted at the beginning of the DAAD project 'Digital Learning Platform - ReConstruction Modules and Integrated Urban Development'. The question was in which thematic key areas German universities could support Ukrainian partners in addressing the educational challenges during the war.

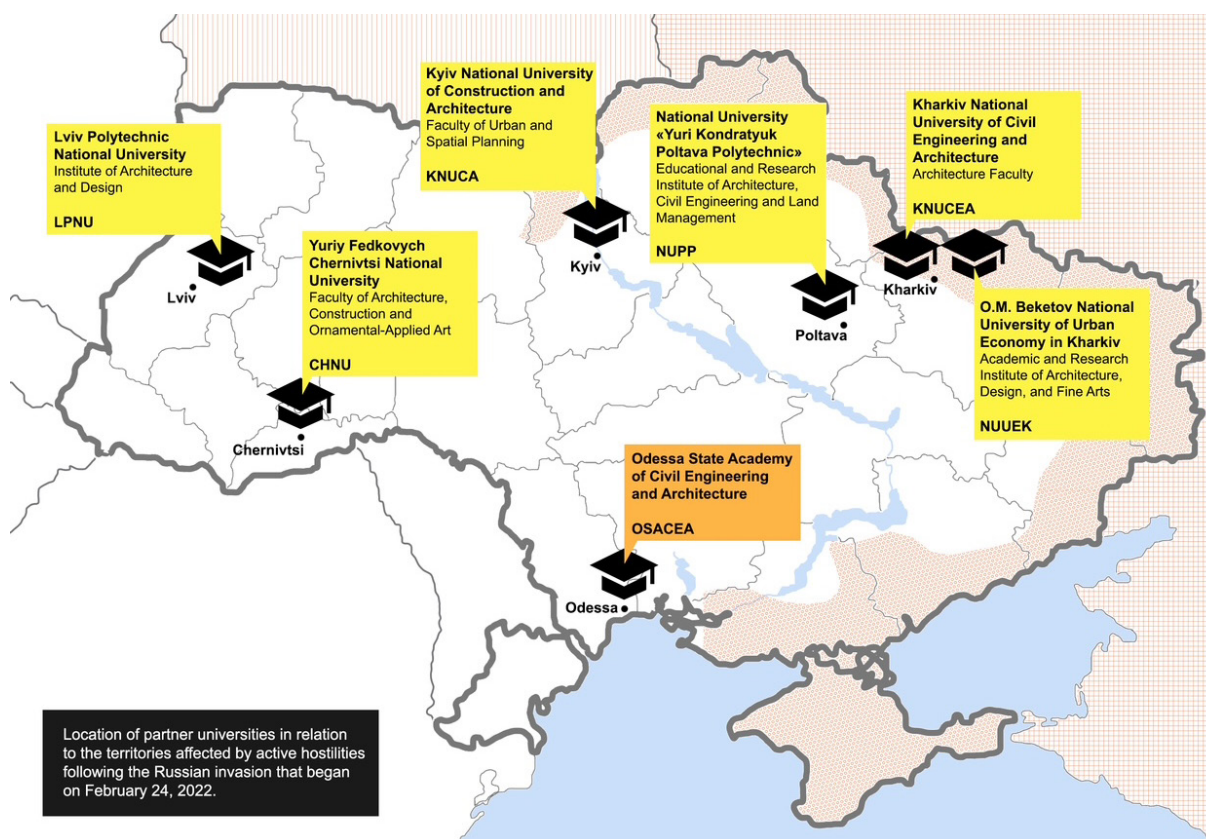


Fig. 1: Ukrainian Partner Universities (Source: Authors).

Since the full-scale Russian invasion, four universities have switched completely to online learning with a further have switched partially; this has enabled displaced students and staff to continue their education. The technical infrastructure and skills developed by universities, faculty, and students during the COVID-19 pandemic enabled a rapid transition to digital learning under wartime conditions. However, persistent challenges such as permanent bombardments, unstable internet connectivity, and power cuts continue to hinder educational processes.

Since 24 February 2022, the number of active students at universities located in the regions of Ukraine most affected by military hostilities has decreased. This reduction is primarily due to their forced displacement to western and central Ukraine or their relocation abroad. This has particularly affected students from Kyiv, Odesa, and Kharkiv universities (Fig.2).

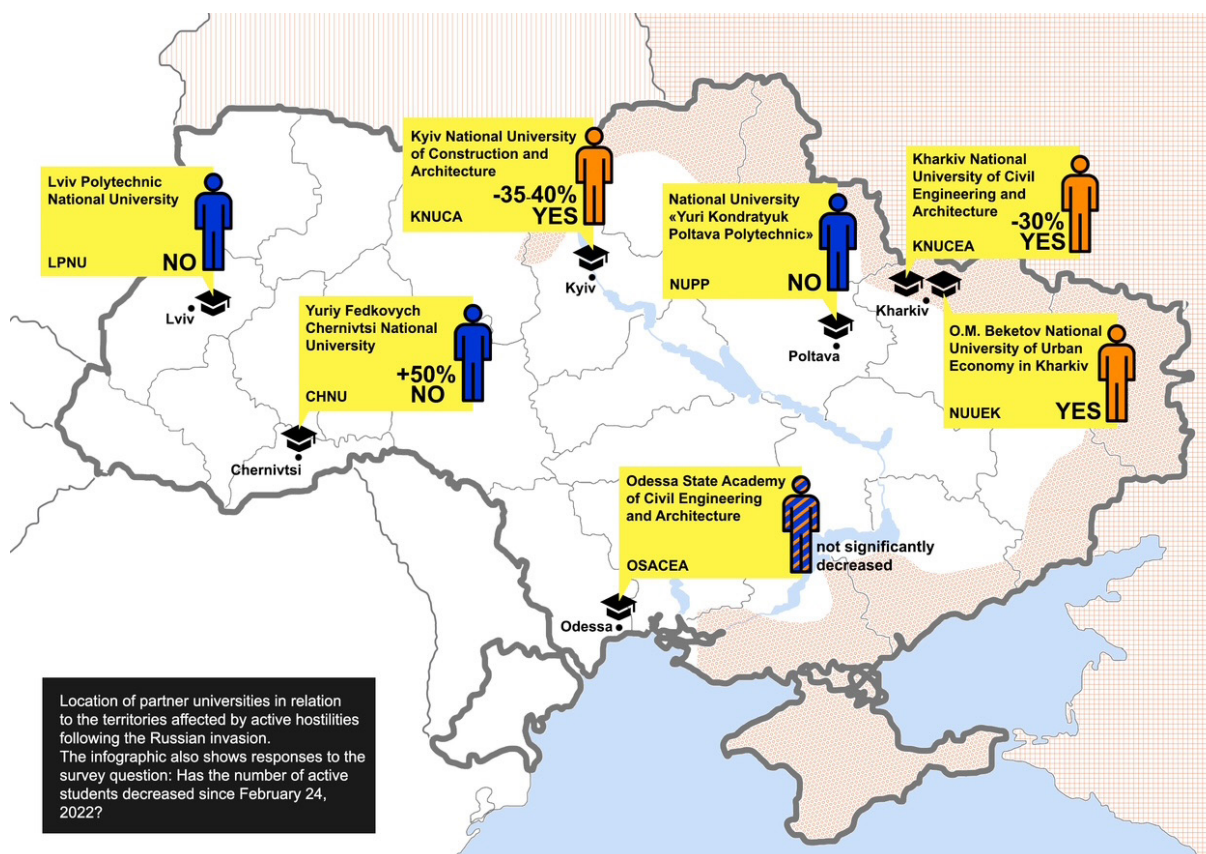


Fig. 2: Statistics on the number of active students in Ukrainian universities as of 24 February 2022 (Source: Authors).

All participating institutions expressed a strong interest in collaboration and identified several urgent training needs. These include post-conflict urban reconstruction and rehabilitation, integrated urban planning strategies, housing solutions for internally displaced persons (IDPs), sustainable and resilient urban development, and enhancing public participation in spatial planning processes.

To address these needs, the institutions proposed joint student consultations on diploma projects, the integration of German academic content into existing curricula, and faculty development through targeted workshops. Ukrainian universities also reported significant gaps in their curricula, particularly in areas such as urban rehabilitation strategies; modern planning models like those outlined in the Leipzig Charter; participatory approaches to urban development; and the principles of sustainable and resilient city planning.

In addition, there was a marked interest in gaining deeper insights into the German planning system. This included a want for greater understanding of planning laws and instruments, exploration of urban development methods and theories, and learning about non-formal instruments used in urban development practices.

The survey showed that, while all partner universities were largely able to maintain their teaching digitally, there were also shortcomings due to a lack of teaching staff.

On the basis of the results of the two surveys, the intensive interviews undertaken, and expert workshops held with the Ukrainian partner universities, formats and content for collaborative Teaching Modules for Integrated Urban Development were developed and implemented with the support of funding. This included the awarding of scholarships for students and teachers to implement the teaching modules. In addition, a second GIZ-funded programme established a digital Competence Platform for Integrated Urban Development to provide knowledge and self-learning offers. Both are briefly described in the following section.

3. Capacity Building Projects and Activities for Integrated Urban Development

3.1 The Competence Platform for Integrated Urban Development

Digitalisation in the education sector is generally considered to play an important role in supporting the task of transformation (ref). It enables access to knowledge and skills regardless of time and place, and is therefore particularly suitable in crisis situations as a complementary or substitute for education. In addition to the physical activities of the co-operation described below, a brief overview of the competence platform developed as part of the activities is given. The competence platform is a digital learning environment that offers teaching and learning courses on key topics in the field of integrated urban development and reconstruction in Ukraine. It is available to all interested parties for further development and use. It is available in two languages, Ukrainian and English. The platform is designed to be modular and expandable; enabling it to be used according to educational interests and different needs. It can be flexibly adapted and used for both curricula development in university study programmes and in continuing education within municipalities.

In the first development phase, the focus of the platform is on its use in the context of further education. To this end, four courses have been developed; they are modular and consistent in their internal structures. The first topics identified for the four courses were: Processes and Formats of Spatial Planning, Integrated Urban Planning and Development, Urban Design and Urban Regeneration and Reconstruction.

The platform consists of several courses as well as a collection of tools and a series of case studies. Each course includes a theory sections, tools, and case studies. The theory component includes lectures and assigned readings; the tools section provides essential resources for integrated urban development; and the case study section showcases Ukrainian and international good practices. All three sections are closely interconnected and run concurrently throughout the courses. All tools and case studies used and presented in the courses are collected in the tool and case study collections.

The courses consist of 8 chapters; each divided into theoretical sections, tools, and case studies. Each chapter has a total length of 60 to 90 minutes, and is divided into several lessons. A lesson consists of a video of 10-15 minutes and/or a text/reading part of 10-15 minutes. Each chapter ends with a short summary, and a review and test section. The tools used and presented in the courses are collected in the Tool Collection. The tools are briefly described in 5 -15 minutes videos.

The cases used and presented in the courses are collected in the Case Study Collection. The case studies are briefly described in 5 - 15 minutes videos. The platform primarily presents case studies from Ukraine.

In close coordination with the identified needs for integrated urban development in Ukraine, the content was created by mixed teams of two experts; one German/international expert and one Ukrainian expert. Depending on the focus of the specific content, selection was made from either the academic or the practical field. Graduates of the modules can continue to use the modules independently with other groups (e.g. from administrative units), and are supported by a peer-to-peer exchange. Thanks to the open approach, the platform offers the possibility of establishing a community of practice which, by evaluating the questions, may provide additional insights for the further development of teaching and learning opportunities (e.g. new master's level programmes) in Ukraine.

3.2 Examples of Teaching Modules for Integrated Urban Development

The project involved more than 100 students who received DAAD scholarships. Different teaching modules were developed for them, and these are also open to other students and academics. The modules were divided into the following different formats as lecture series, seminars, urban design studios and workshops.

3.2.1 Lecture series

Every semester, an online lecture series was held to provide a basic understanding of the main topics of integrated urban development and urban reconstruction. It took place every two weeks for students, researchers and academics from Ukraine and Germany. Experts from academia and practice enriched the discourse with their invaluable perspectives from global projects as well as the Ukrainian and German contexts. There was meaningful dialogue on the pressing challenges and prospects for Ukrainian cities.

During the lecture series, the necessary concepts and procedures for the other modules were presented, supplemented by concrete case studies and related to planning practice in Ukraine. At the final event of each lecture series with the Ukrainian partner universities, the students present the results of their work.

3.2.2 Seminars

Several seminars focused on post-disaster reconstruction strategies, resilience strategies, refugee shelters, and public space design. They were based on the 'Build Back Better' approach, which aims not only to rebuild disaster-affected areas, but also to increase their future resilience through holistic and long-term reconstruction strategies. International and diverse case study comparisons identified institutional capacity and commitment, as well as public trust in these institutions as key factors for successful and truly 'better' reconstruction. Such trust may be achieved, among other things, through early action to strengthen social cohesion and social capital in the long term.

Students also explored different tools and case studies for reconstruction, with a focus on affordable housing. Questions arose pertaining to which established instruments could be optimised, and how innovative and short-term measures could meet acute housing needs. Flexible models of refugee accommodation were analysed to determine their suitability as permanent housing. They also compared different models of affordable housing and analysed alternative housing models. As the housing market in Eastern Europe is almost exclusively owner-occupied, recommendations were developed for more rental housing, as well as more social housing.

The course «Town and House: Reconstruction of Historic Cities» sought to familiarise students with the complex aspects of urban reconstruction, particularly in war-affected areas of cultural significance, as part of an integrated urban development process. The course consisted of seven biweekly online sessions in which students received input from academics from partner universities. These lectures covered several interrelated topics, including: urban morphology, the logic of cities, urban renewal, participatory planning, building back better, and integrated recovery planning. Throughout the semester, students worked on assignments linked to the lectures, such as analysing urban and morphological structures, assessing the current state of planning, conducting stakeholder analyses, and studying international case studies. The final aim was to formulate recovery visions and guidelines for selected case study areas in Ukraine.

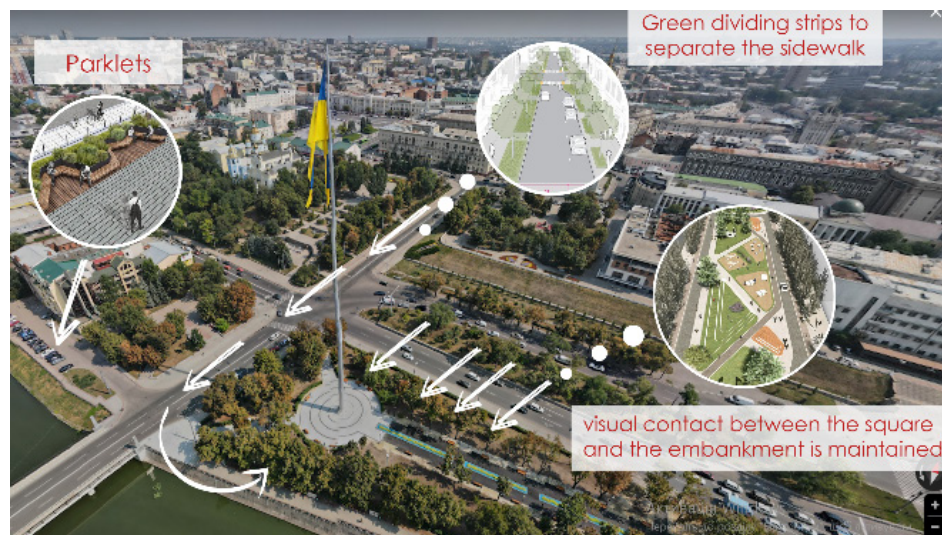


Fig. 3: Student practice on post-war recovery planning of Kharkiv's historic area as a potential to enhance public spaces (Source: Authors).

Another course, delivered in a hybrid format, focused on linking integrated urban development planning with urban design in the context of Chernivtsi. Given the challenges posed by the ongoing war, the course aimed not only to respond to immediate needs, but also to shape long-term visions for a resilient and sustainable city. The central theme was the redevelopment of the area around Chernivtsi's main railway station, including the creation of a new mobility hub, strengthening connections between the station and the old town, and the transformation of a nearby industrial area into a mixed-use neighbourhood.⁷

A key strength of the course was its combination of face-to-face workshops with online lectures and consultations. The first workshop in Chernivtsi, open to Ukrainian students, focused on surveys, mapping, and analysis. The second workshop in Mannheim brought together Ukrainian, German, and international students to not learn from a similar case in Mannheim, but also develop concrete and contextualised design proposals for Chernivtsi. For many Ukrainian students used to studying mainly online, these face-to-face workshops provided opportunities for direct engagement and multicultural exchange. Beyond the academic collaboration, the involvement of city officials from Mannheim and Chernivtsi enhanced the practical impact of the course, and allowed the students' proposals to contribute to real urban development discussions.

3.2.3. Urban Design Studio New Housing for IDP

There were various urban design studios on topics such as new housing, urban regeneration, and public spaces. Most of the meetings took place online, but there were also some week-long face-to-face workshops in Ukraine and Germany. These in-person workshops were very important for enhancing personal understanding and analysis of the local genius of the project area.

An urban design studio entitled 'Resilient urban neighbourhoods - strategies for the development of a medium-sized city to overcome the housing shortage' was offered for the city of Drohobych in 2023. This city is located in western Ukraine and is facing a housing shortage due to the large number of refugees who have arrived in it from war zones. After a detailed analysis of the city as a whole, a site was selected for the development of an innovative and sustainable urban district; students developed alternative scenarios and an urban design for the same. The students first created visions for the area before starting to develop urban design concepts. The studio was accompanied by a series of lectures on the basics of urban planning. Important initial findings for resilient urban development were: the need for an autonomous energy supply, the need for protective structures to protect the population and critical infrastructure, the need to establish mixed use developments with regard to the productive city, as well as ensuring that it was decentralised, reused redundant structures, and the development of a circular economy.

7 The results of this course can be found here: https://miro.com/app/board/uXjVLuezvic=?share_link_id=324665856613



Fig. 4: Future vision for city of Drohobych (Source: Authors).



Fig. 5: Future vision for city of Drohobych (Source: Authors).

3.2.4 Urban Design Studio Common Spaces with IDP

Another studio for the city of Drohobych, Common Spaces, focused on the design of public spaces and street furniture. The main guiding principles of the project were to support the integration of IDPs in the new city so as to enhance social resilience and create new narratives in the city for new arrivals whilst also preserving the self-identity of the IDPs, and establishing a trilateral exchange between 'new' citizens, existent local citizens and local authorities.

Dialogue between IDPs and locals usually takes place in public spaces. It is in this space that new narratives can emerge - it is the 'living room' of a city, where every resident, regardless of age, gender or status, feels integrated and identifies with it. The hypothesis was that IDPs would become 'new' residents through the use

of co-designed spaces and participation in workshops and project implementation. By contributing their ideas and resources to the redesign of public spaces, they are given an environment that becomes part of their new history. Students learned to design public spaces based on participatory processes and potential conflicts, as well as how to realise street furniture together.

The project showed that, in times of crisis, public space can be used as a place where IDPs and residents can meet and create new urban identities for their future. Participants not only worked on the theory and design of public spaces, but also discussed and built street furniture on site, which will enhance and revitalise the city centre in the long term.



Fig. 6: Students design and built street furniture for city of Drohobych (Source: Authors).



Fig. 7: Collaborative built street furniture for as a new meeting point (Source: Authors).

3.2.5 Workshops with young lecturers

In addition to the digital teaching programmes, a series of face-to-face workshops were organised for young lecturers and academics in Cottbus and Berlin. These workshops focused on topics such as integrated urban development and urban regeneration. The primary aims of the programmes were to foster personal exchange among participants, deepen the thematic content of the accompanying lecture series, and explore the process-oriented implementation of integrated urban development in greater detail.

The structure of the workshops was built around several core components including: preparation and inventory, the development of visions, objectives, scenarios, and guidelines, as well as aspects of communication, participation, and urban governance. Spatial and detailed planning were also integral parts of the programme. These themes were initially introduced through expert presentations and thereafter explored during guided city walks to selected urban development projects in Cottbus and Berlin. The workshops provided opportunities for critical reflection, particularly through the sharing of examples and experiences by the Ukrainian participants.

The in-person format proved especially valuable, as the small-group city walks encouraged meaningful engagement and spontaneous discussions. These interactions highlighted the importance of direct, face-to-face exchanges as complementary aspects of digital learning formats, as well as their importance in enriching overall educational experiences.



Fig. 8: Workshop at TU Berlin 2022 (Source; Authors).

All of the classes were recorded and made available on the digital learning platform. In addition, the Ukrainian-language offering will be continuously expanded in order to overcome language barriers and to enable translation of specialist vocabulary in the field of integrated urban planning into a glossary. The aim of collaboration in presence and online is to intensify exchanges with the Ukrainian partner universities and to jointly develop a stable (digital) learning infrastructure. This will provide the basis for a transition to long-term cooperation after the withdrawal of the Russian occupying forces, with face-to-face workshops (as before the war) and projects being undertaken to help mould and shape a sustainable and democratic future for an independent Ukraine. In the medium term, there are plans to create double degree master's programmes in urban planning and reconstruction in Germany and Ukraine which will be based on existing teaching modules.

5. Conclusion and Outlook

At its core, this article addresses the issue of actionable knowledge for integrated urban development and examines how this knowledge can be implemented within the Ukrainian context. The needs analysis conducted at Ukrainian planning universities highlighted the importance of complementary programs - especially non-formal planning along with its associated processes and instruments. The article also suggests that new methods for reconstruction and urban regeneration have to be developed in the context of destruction and urban resilience.

By showcasing two examples of a competence platform and different teaching module formats, the article has provided practical solutions to the challenges mentioned above. With regards to the same, emphasis has been placed on localising these formats to suit the Ukrainian context and ensuring their relevance. Localisation is achieved on the digital learning platform through the selection and application of case studies based on projects in Ukraine, whilst collaborative teamwork further strengthens the connections that exist between learning content and the practical work environment of the learners; thereby fostering actionable knowledge.

The diverse courses and formats within the teaching modules underscore the necessity of face-to-face interactions. Such interactions are vital for both ensuring the critical and creative exchange required to develop solutions for spatial problems, and for the practical learning and application of transdisciplinary approaches in urban development; all are aspects that are hard to implement in wartimes. A characteristic feature of transdisciplinary projects is that the problem definition is the result of a joint effort by all participants from science and practice. The teams working on such issues can be multidisciplinary, and they are expected to generate transformative knowledge, i.e., insights that are helpful for integrated development. Transdisciplinary integration addresses the implementation of the insights gained and refers to both dissemination of xxx, and the measures that practitioners can take.

Moreover, this article has shown that, addressing the issues and needs of different population groups - whether through direct participation in activities or through the integration of teaching activities into municipal planning via on-site workshops and project studies - has emerged as a crucial area for the ongoing development of planning education in Ukraine.

As the New Leipzig Charter states, urban development is highly complex, and the added challenges of wartime are so critical, that a specific integrated, comprehensive urban planning approach is needed to rebuild Ukrainian cities: Whilst, in times of crisis, immediate action is necessary to rebuild cities and municipalities, there is also a need to take a more strategic and measured approach. In the study modules, we tried to address this contradiction and parallelism by establishing implementation-oriented development concepts. In such a dynamic situation, finding the right approaches is not easy; all participants must remain flexible and sensible.

The further introduction and development of expertise in integrated development planning to complement and expand traditional urban planning training will, alongside many others, remain an important task in the future. Crossing Borders means creating exchanges between different countries and their planning cultures, so as to enable the transfer not of ready-made solutions, but of problem definitions and possible strategies for dealing with them. Crossing Borders also means overcoming sectoral boundaries in the sense of the Leipzig Charter and seeking effective solutions through transdisciplinarity exchanges between science and practice.

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