

UNITED BUSINESS FOR UKRAINE

Sustainable reconstruction of Ukraine



Global Compact
Network Poland



Global Compact
Network Ukraine



UNOPS



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Sustainable

Reconstruction of Ukraine



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Network Poland



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OUR MISSION:
**MOBILIZE A GLOBAL
MOVEMENT
OF SUSTAINABLE
COMPANIES
AND STAKEHOLDERS
TO CREATE
THE WORLD
WE WANT**

THE TEN PRINCIPLES OF THE UNITED NATIONS GLOBAL COMPACT



HUMAN RIGHTS

- 1 Businesses should support and respect the protection of internationally proclaimed human rights; and
- 2 make sure that they are not complicit in human rights abuses.



LABOUR

- 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- 4 the elimination of all forms of forced and compulsory labour;
- 5 the effective abolition of child labour; and
- 6 the elimination of discrimination in respect of employment and occupation.



ENVIRONMENT

- 7 Businesses should support a precautionary approach to environmental challenges;
- 8 undertake initiatives to promote greater environmental responsibility; and
- 9 encourage the development and diffusion of environmentally friendly technologies.



ANTI-CORRUPTION

- 10 Businesses should work against corruption in all its forms, including extortion and bribery.



Jorge Moreira da Silva

Under-Secretary-General and UNOPS Executive Director

Sustainable Reconstruction of Ukraine should start now – and UNOPS is proud to be part of it

Over one and a half years into the invasion of Ukraine, planning for sustainable reconstruction amid active armed conflict is not only necessary but also urgent.

In addition to tremendous human suffering, this war has resulted in a tragic scale of devastation, with reconstruction and recovery needs currently estimated at US\$ 411 billion. Attacks on Ukraine's energy infrastructure alone have caused an excess of 10 billion US dollars in damage. Over 1.2 billion US dollars are urgently needed for emergency repairs. And Ukraine has now become one of the world's largest minefields. These losses will take generations to recover from, and to rebuild.

Yet the past year has also shown the international community the tremendous resilience of the Ukrainians, and their determination to build back better. And the international community owes it to the Ukrainians to provide additional support that both addresses immediate needs and delivers for the future sustainable development of Ukraine.

Since the start of the conflict, UNOPS has worked hard to provide crucial assistance with a focus on emergency response and early recovery, in close collaboration with the Ukrainian local, regional and national authorities, the UN and many other partners. With partners such as the EU, Denmark, and Japan, we have delivered significant volumes of essential equipment and supplies for vulnerable communities. We are on the ground, supporting early recovery and reconstruction, with a focus on advancing sustainable development. This work includes the repair of over 70 schools, 20 multi-apartment buildings, and the provision of infrastructure to ensure access to reliable and affordable energy in households, hospitals and schools.

As infrastructure experts within the UN, we know that infrastructure, a main pillar of Ukraine's recovery, underpins sustainable development. Research carried out by UNOPS with the University of Oxford has shown that infrastructure influences 92 per cent of all targets across the Sustainable Development Goals. It is also central to addressing climate change: infrastructure accounts for 79 per cent of all greenhouse gas emissions. Infrastructure projects are costly – and time-consuming. Their impact will lock in development trajectories far into the future – both positively and negatively.

Take the energy system as an example. While the immediate focus of the Ukrainian government and international partners is on repairing, restoring and defending critical energy infrastructure, the move towards a green recovery will make the energy system more sustainable. It will also strengthen energy security, given Ukraine's current reliance on imported fossil fuels.

Across other sectors too, the immense scale of Ukraine's recovery and the reconstruction needs offer an opportunity – and a responsibility – to build a more sustainable, resilient and inclusive future for Ukrainians. Making sure Ukraine's recovery goes hand in hand with biodiversity and climate efforts is not just good for Ukraine, it also helps broader green transition efforts globally.

Ukraine's journey of recovery and reconstruction - and our role in supporting it - requires a focus on long-term sustainable development. Civil society and the private sector have a major role to play here. How this process is done can be as important as the extent of the work, with anti-corruption and transparency considerations at its heart. It is for this reason that we have joined forces with the United Nations Global Compact and have jointly prepared another report to demonstrate the important role of business in reconstruction processes and how important cooperation between countries is in the face of war and humanitarian crises. The Polish-Ukrainian solidarity and support clearly manifests this importance.

UNOPS - and the entire UN system - stands ready to support the Ukrainian government in their journey to build the country back in a way that advances the country's progress towards the Sustainable Development Goals, while becoming fully integrated with European standards.





Katarina Mathernova

Ambassador of the European Union to Ukraine

The values at the cornerstone of the European project are being defended now in Ukraine

It's almost 10 years since the protests erupted at the Independence Square (Maidan Nezalezhnosti) in Kiev. The date of 21 November 2013 is worth remembering as it largely explains what the current war is about and why it is important for Europe.

The (then) President Viktor Yanukovich gave in to Russia's pressure and decided not to sign the European Union–Ukraine Association Agreement. The choice in favour of Eurasian Economic Union was a civilizational one. And Yanukovich took this decision despite the fact that Ukraine's parliament, the Rada, had overwhelmingly approved the finalisation of the Agreement with the European Union.

All dramatic events that followed were consequences of this choice. Choice made against the popular expectations and despite the legitimate vote of Ukrainian people's legitimate representation. The story is really that simple. The war today – as the clashes in 2013 and the uprising in early 2014 – were about the same: Europe vs. Eurasia.

The story of Ukraine and its current heroic battle is not only about geography or geopolitics. It is about values. It is about the question whether a society is composed of citizens with rights and obligations – or just subjects expected to follow instructions. Should a society be governed by agreed upon and enforced principles, the rule of law, or by authoritarian interpretation of what is right and what is wrong? Are the democratic institutions and structures a foundation of the society – or just a window dressing used by corrupt elites to promote oligarchic interests.

The threat of a prosperous and democratic Ukraine to autocratic regimes such as Russia is real. It could inspire the desire for rule of law-based society in Russia itself. And that is the reason why the stakes today are so high on both sides.

This is the reason why the EU Member States and EU institutions are firmly behind Ukraine. This is also why the current report is important. The war will end one day – and we all hope it will be soon. But the real stakes are in winning the peace. In completing the EU orientation and civilizational choice of the Ukraine society that has started at Maidan. Reconstructing the country and preparing it for its future in the European Union. It means meticulous work on the harmonisation of the Ukraine's legal framework with the EU body of laws and regulations, restructuring the economy in the direction and in line with the EU's Green deal, internalisation by a critical mass of the society of key values and principles that might be remote from many post-Soviet patterns still present today. And continuing the strong efforts to transform Ukraine into a pluralistic democratic society based on the rule of law which has succeeded in its fight to overcome the legacy of corruption. Many steps in this direction have already been taken. But the road ahead is still long. The European Union and its Member States will continue its support to Ukraine to accompany it on this road.



Kamil Wyszowski

Representative/Executive Director, UN Global Compact Network Poland

The reconstruction of Ukraine cannot wait until peace agreements are signed. It should continue despite the ongoing war, first and foremost because it is an important element of the response to the attempts to weaken Ukraine through attacks on energy infrastructure, roads, bridges, schools, hospitals, or historic and residential buildings. Weakening Ukrainian economy to the extent possible and destabilizing the Ukrainian currency and credibility on financial markets is Russia's goal. Rebuilding and improving the economy now is a key element of countering strategy against this goal. It cannot be delayed.

Through attacks on the population and civilian objects, Russia is violating international law and humanitarian law. It is trying to achieve, as it were, a chilling effect on investment and economic processes, causing a further decline in GDP and the international credibility of Ukraine. By prolonging the war in Ukraine and devastating the country's economy, Russia is deepening the labour crisis, boosting inflation through attacks on the population and civilian objects, and encouraging migration. Seen from this angle, any delay in Ukraine's reconstruction, economic stabilization, and development programs would be Russia's gain and small advance in its fight against the democratic societies.

But contrary to Russian propaganda claims, the reconstruction of Ukraine is underway. Any day brings more countries, international organizations, development banks, business, humanitarian and non-business organizations joining in.

The reconstruction of infrastructure is particularly important for a number of reasons. Of course, it provides jobs in Ukraine, makes logistics networks more efficient and is restoring energy supplies. But beyond that, it is restoring the sense of justice and gives people hope. The ongoing reconstruction restores the value of concepts, such as solidarity in the face of injustice.

The scale of the war damage in Ukraine is enormous, and rebuilding the ruined country will be a multi-year challenge, requiring direct involvement of the UN and the international community. According to the World Bank, the reconstruction of Ukraine will consume no less than US\$ 411 billion. The reconstruction of Ukraine's energy sector alone, which has been horribly damaged by constant shelling, is an outlay of approximately US\$ 47 billion.

Raising Ukraine from the devastation will cost no less than US\$ 50 billion annually, and for at least a decade. The war in Ukraine has also magnified the impact of the climate crisis and led to environmental losses estimated at around US\$ 51 billion. The damage and stress on the environment and lost species should be also taken into consideration.

That's what this report is about.

I thank my boss Sanda Ojambo, Assistant Secretary-General; Executive Director & CEO of the UN Global Compact, for her trust and support. I thank my colleagues at UNOPS, in particular Jorge Moreira da Silva, Tim Lardner and Jens Wandel, for their cooperation on the report, great partnership and trust. I thank our brave friends at the UN Global Compact Network Ukraine, led by Tatiana Sakharuk. Thank you to my great team. In particular Magda Krakowiak, Marta Rogalska, Aleksandra Tuszyńska, Inga Katsevych, Jakub Konieczny, Anna Rzepa, Aleksandra Chrabota.

Finally, I would like to especially thank Andrey Ivanov for his coordination and substantive work on the report. Without you, Andrey, it would not have been possible to produce such a great result.

Glory to Ukraine!



Tatiana Sakharuk, PhD, LLM

Executive Director, UN Global Compact Network Ukraine

Together towards a sustainable future

The UN Global Compact's mission is to unite and mobilize business for a better world. Responsible businesses cannot remain silent in the face of injustice and crime; they have the ability and responsibility to take immediate action.

Russia's grave military aggression against Ukraine has resulted in extensive infrastructure damage, environmental pollution, and economic and social crises. 817,000 residential units were damaged only between February and August 2022. This number is growing. At least 73% of IDPs had been affected since the start of the full-scale war due to job loss, salary cut, and reduced working hours. According to the latest World Bank's Rapid and Damage Needs Assessment, Ukraine's longer term reconstruction needs are estimated at US\$ 411bn. Mitigating the effects of these hostilities on Ukraine's territory will take considerable time and effort and will require strong cooperation between international companies and governments. The optimistic message is that a number of national and international stakeholders are preparing for the reconstruction already. We, at the UN Global Compact Network Ukraine, are proud to be at the forefront of these initiatives. In partnership with the governments of Ukraine and the United Kingdom, the UN Global Compact Network Ukraine has launched the Ukraine Business Compact. This platform allows leading international companies to demonstrate their support for Ukraine's recovery, its drive to modernize, build a resilient and adaptable economy, and emerge from the war as a more robust and prosperous nation.

Hard work for Ukrainian victory is our new way of life. Hard work for Ukrainian victory should become a lifestyle of all countries, businesses, and individuals who want to live in a free and democratic world. Already, more than 500 companies from 42 countries and 21 major economic sectors have endorsed the Ukraine Business Compact. Many of them are participants in the UN Global Compact. They have pledged to support Ukraine's recovery through concrete actions such as trade and investment engagement, peer-to-peer expertise sharing, pro bono work, and various business activities. A broad coalition of local and international stakeholders united in Ukraine Energy Initiative aim to accelerate the recovery and reform of the Ukrainian energy sector away from carbon – and dependency from Russia. There are more such examples. We are grateful for this support and highlight the most impressive international sustainable projects at the Partnership for Sustainability Award UN Global Compact Network Ukraine every year.

The current report is another example of how important our partners' and friends' hard work is. Our colleagues from the UN Global Compact network in Poland were among the first to respond with humanitarian support the next day after Russia's aggression. Today, when Ukrainian people are moving from the humanitarian phase to reconstruction, they are at the frontline of response again, providing a highly needed analysis of the needs, challenges, and opportunities for the future sustainable reconstruction. Rooted around the perspective of the businesses, it provides practical insights that will inform future decisions so that the efforts and resources invested yield sustainable results. This is exactly what we all need at the moment because sustainability is at the heart of Ukraine's reconstruction efforts and Global Compact's initiatives.

As the war continues and Ukrainian cities are still being devastated, the people of Ukraine remain determined to build a sustainable future. Together, we can make that future a reality.



Dr Andrey Ivanov

Coordinator and editor of the report

Sustainable reconstruction with clear EU perspective

This is the second report of a series devoted to the role of businesses in addressing the implications of Russia's aggression against Ukraine. In September 2022, the UN Global Compact office in Poland released the report "United Business for Ukraine" – an analysis of the support Polish businesses provided during the first months of the war and their intentions for the future. At that point, the most common expectations that the war would end fast and open the way for rebuilding the lives of those affected by the war and the rebuilding of Ukrainian's economy.

It was logical to expect that the topic of the next report would be the rebuilding of Ukraine post-war. However, the optimistic expectations did not factor in the determination Putin's regime to continue along the path that is disastrous for society – but underpinned by perverse logic of its own.

It took some time for policymakers and experts to realise that the war itself is neither about Ukraine nor the restoration of the former Russian empire. Nor it is an ordinary postcolonial war every collapsing empire goes through. It is about undoing Peter the Great's legacy of pro-European orientation and pivoting Russia back to Asia. Not being capable – or willing – to play and compete under democratic principles and the rule of law, Putin chose to enter the club of similar autocratic-minded leaders recalibrating the old "North-South" divide into a caricature of the former Communist International.

This is what makes the war in Ukraine a cultural war, a war about values.

Did the evolution of the events (on the battlefield in Ukraine and in global politics) affect the concept of the report? Surprisingly, to a minimal extent. Indeed, the expectations for a long war replaced the hopes for a swift peacemaking. This change, however, doesn't alter the overall message: governments, donors, citizens and businesses should not wait for the end of the war to start planning for the reconstruction. They should start now.

Moreover, the planning should not be for **any** reconstruction but for a **sustainable** one with "sustainability" defined by two criteria: sustainability of the process and sustainability of the results. In other words, the efforts, methods, and technologies engaged in the reconstruction should be people-centred, inclusive of local communities, in line with the requirements of low-carbon development and have minimal environmental footprint. With regards to results, the reconstruction efforts should go beyond the immediate needs of the people and communities and should fit into a long-term vision for building the economic and normative base of a low-carbon human development, a society governed by the rule of law and a state meeting all criteria for becoming a member of the European Union.

It is easier said than done. Difficult compromises between meeting the immediate needs and longer-term vision would need to be struck. However, outlining the ultimate objectives would assist in finding optimal choices for these compromises. Informing the debate on these parameters is the purpose of the current report.

Addressing and conceptualising these issues was the key intention of the UNGC Poland team. Similar to 2022, the report this year is academic research but evidence-based analysis focusing on Polish businesses'

perspectives on the future reconstruction of Ukraine. Contrastingly to 2022, this year's edition goes further: it presents this perspective in a broader context of the priority areas that the future reconstruction would need to address and of the key partnerships that are expected to facilitate the process.

Respectively, the structure of the report reflects this logic. After a brief introduction into the conflicts of the 21st century and their implications for the UN system, Part I presents the implications of the war on human development and human capital in Ukraine, the challenges and opportunities related to the reconstruction of the energy sector, the situation on the labour market, the natural environment and the dilemmas regarding the reconfiguration of the logistics chains and the reorientation of Ukraine's economy to the West. These areas are not the only relevant ones from the reconstruction perspective – but they are particularly important from the point of view of the business' engagement, which is the subject of Part II. It summarises the results of comprehensive research (a combination of quantitative data analysis and qualitative research) outlining Polish companies' perception of the opportunities and challenges.

The overall picture emerging from the analysis is of moderately optimistic attitude – with a realistic assessment of the risks and opportunities. The important message is clear: Ukraine has the chance of using the reconstruction for establishing the foundations of a new, modern and carbon-neutral economy – and not rebuilding the old post-Soviet model. Entrepreneurs' insights on the issues of corruption, human capital constraints, the role of local level actors and SMEs or the need for broader societal reform to internalise EU normative frameworks and procedures are worth considering.

Various actors will have different roles in the process of reconstruction. Therefore, the partnerships at various levels are critical. This is the focus of Part III of the report. Similar to Part I, the list is not extensive. The web of partnerships necessary for completing Ukraine's path to EU Membership is too complex to address in the limited scope of a single chapter. This is why issues such as Ukraine's path to the EU or the needed reform of the UN system have been assigned to more comprehensive analysis in the future.

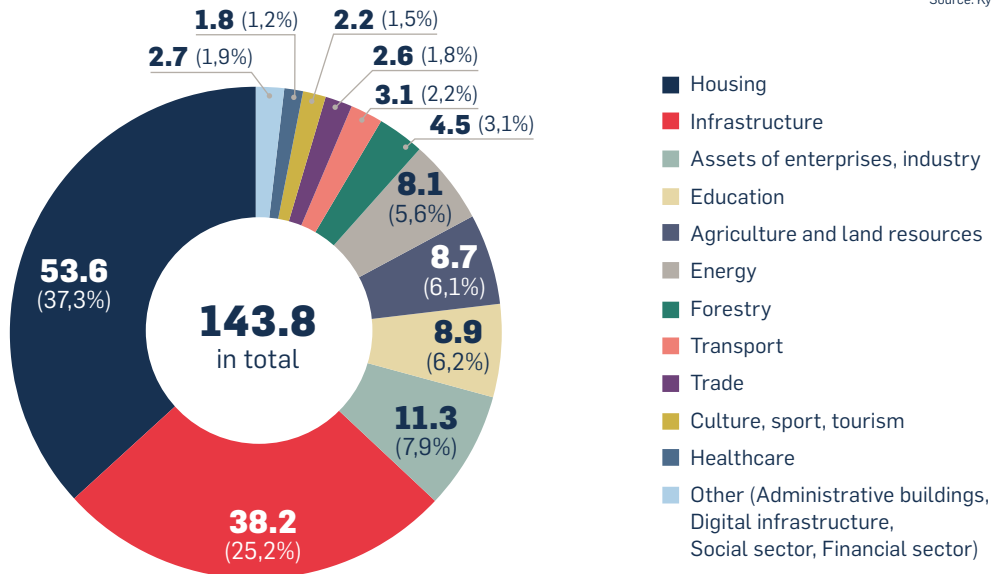


INTRODUCTORY DATA

THE DAMAGE OF THE WAR IN INFOGRAPHICS

Estimate of direct damage – total and by type of property, US\$ bn

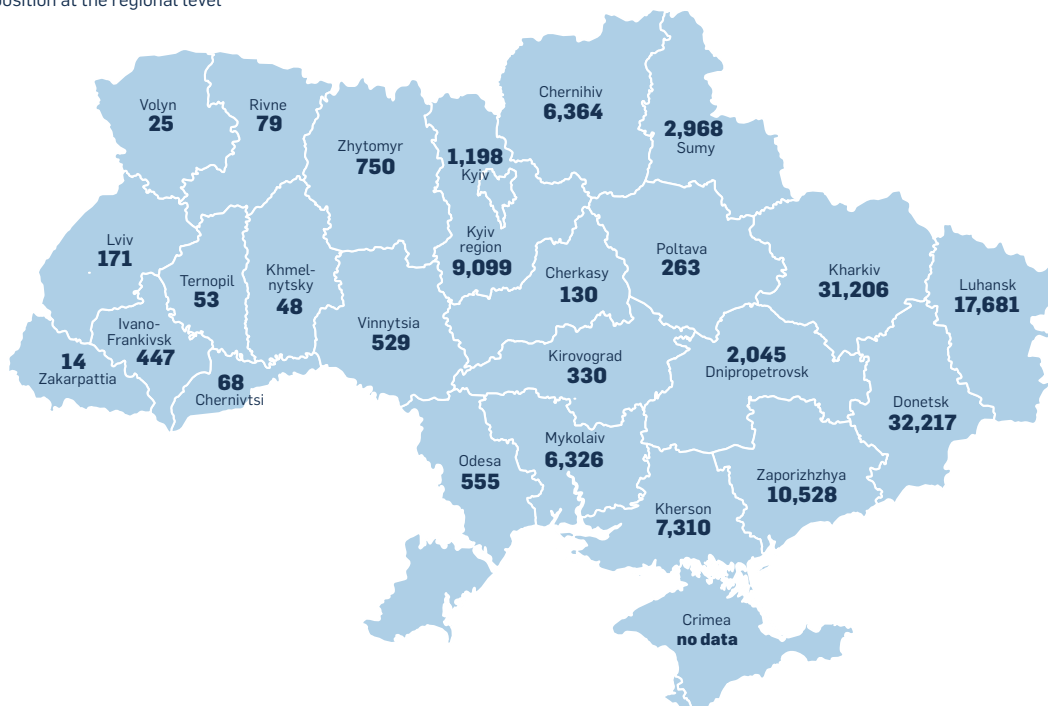
Source: Kyiv School of Economics



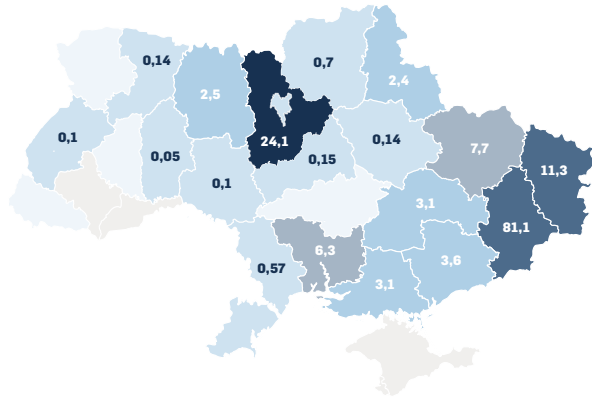
Total estimated direct damages by region in monetary terms as of February 2023 (US\$ mln)

*Not all categories of damage are subject to decomposition at the regional level

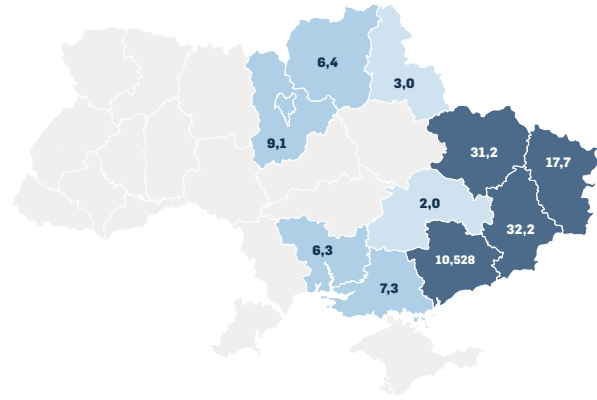
Source: Kyiv School of Economics



Regional distribution of the number of destroyed or damaged housing units (thousand)

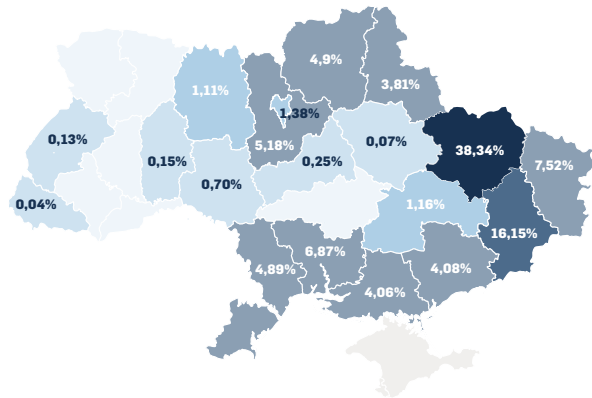


The 10 most affected regions of Ukraine, US\$ bn

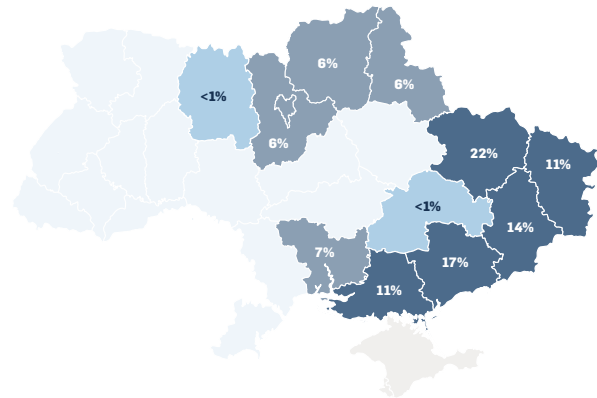


Source: Kyiv School of Economics

Distribution of the number of the damaged cultural and religious sites by region as of February 2023

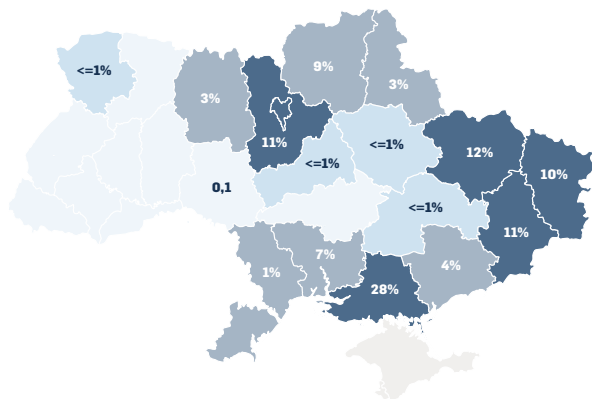


Distribution of direct monetary damages to roads by region

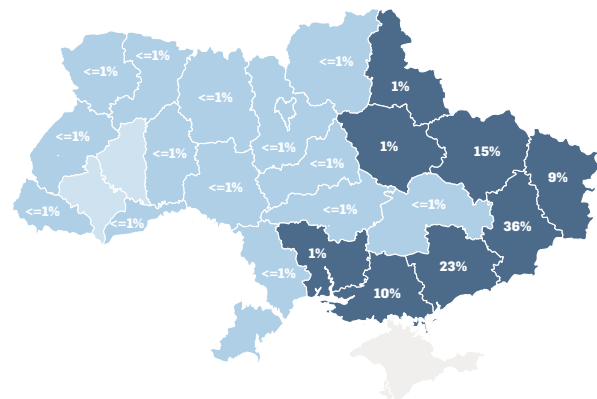


Source: Kyiv School of Economics

Distribution of direct monetary damages to bridges and bridge crossings by region



Distribution of direct monetary damages to the railways by region



Source: Kyiv School of Economics

INTRODUCTORY DATA

Number of IDPs by region, thousand people

Source: Ministry of Social Policy of Ukraine



Ukrainian ports during the war

Source: UA War Infographics



3 x Work as usual

3 x Partially resumed work

3 x Don't work

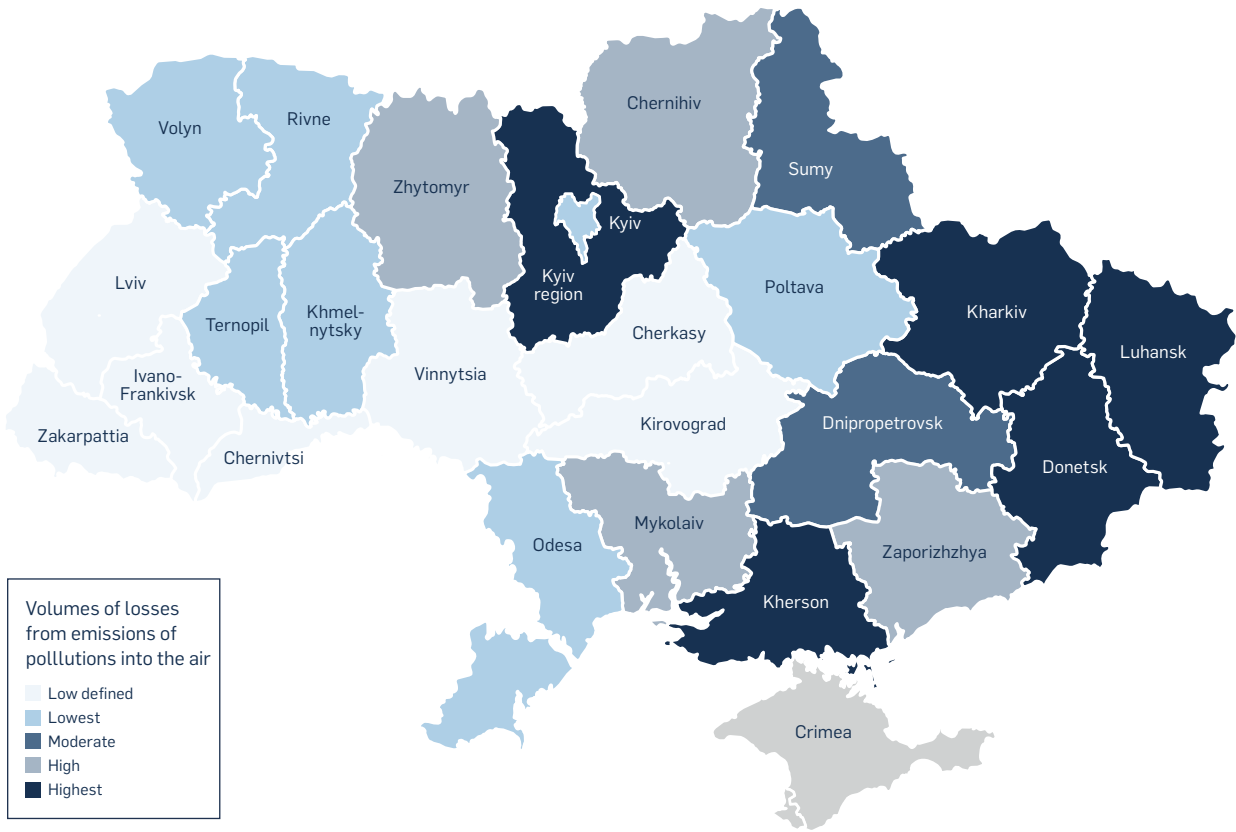
1 x Will work as logistics center

3 x Entry and exit is not possible

5 x Occupied since 2014

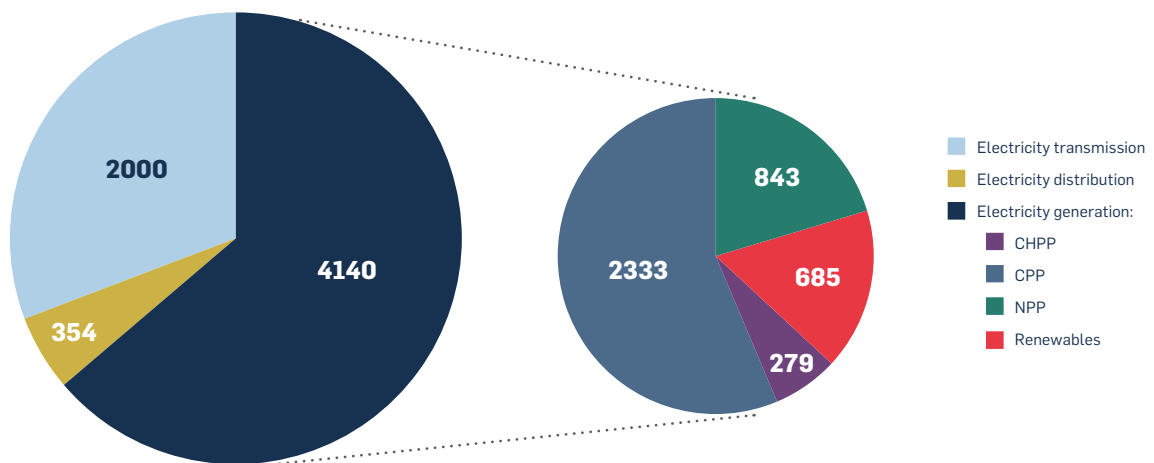
The scale of damage from pollutant emissions into the air, caused by military operations

Source: Kyiv School of Economics, Zoi Environment Network



Direct infrastructure damage to electricity facilities, US\$ million

Source: Kyiv School of Economics based on data from the Ministry of Energy of Ukraine, The Energy Charter Secretariat, energy companies, open data





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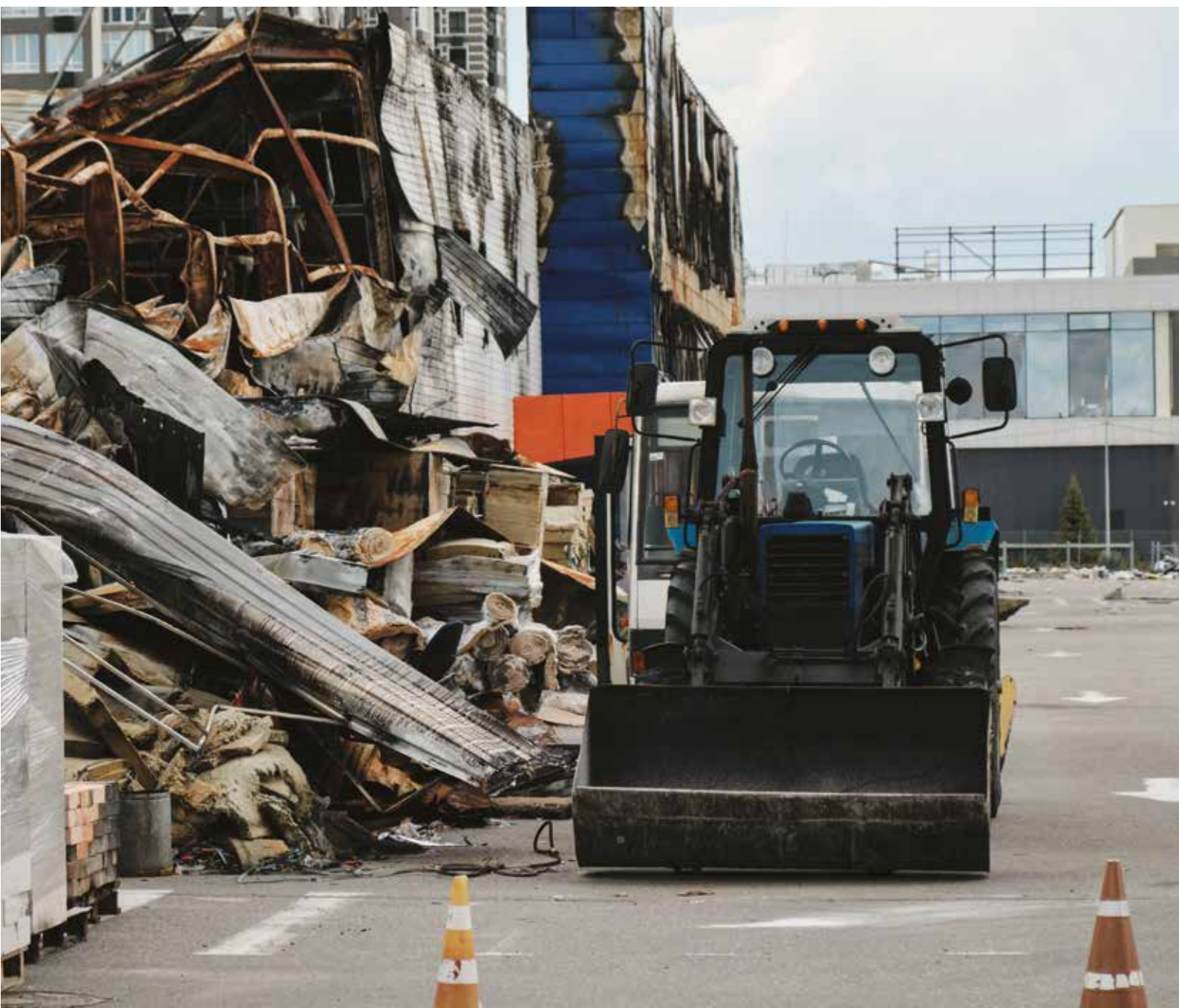
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I. The impact of the war and perspectives of sustainable reconstruction

Prof. Bartłomiej E. Nowak
United Nations Association in Poland

MILITARY CONFLICTS IN THE 21ST-CENTURY AND THE CHALLENGES FOR THE UNITED NATIONS SYSTEM

A quarter century ago, the mood on developments of international conflicts was quite optimistic. The wave of democratisation worldwide, trade opening and increasingly globalised markets proved that the logic of cooperation prevailed over the logic of conflict. Following this optimism, Steven Pinker (2011) argued why violence had declined and that we relied on “better angels of our nature.”

The last decade, however, undermined that level of optimism. On many levels, the world is more dangerous than in the past. There is more violence than there used to be and conflicts are rising. The willingness for cooperation between major powers towards resolving international conflicts declines. New technologies intensify conflicts, and climate change has become one of the most important underlying factors that can systemically strengthen the impact of all these unresolved problems. The analysts coined the word “polycrisis” to describe the world in which “shocks are disparate, but they interact, so that the whole is even more overwhelming than the sum of the parts.” (Tooze, 2022). “Four horsemen of the apocalypse” called by the UN Secretary General, Antonio Guterres, are: the highest geopolitical tensions since the collapse of communism, an existential climate crisis, a growing global mistrust and the dark side of technological advances (Guterres, 2020).

Additionally, the growing interdependence, which in the 1990s was considered beneficial for a globalising world and induced humans to cooperate, has revealed new dangerous features. Risks and threats are also interdependent and could be transmitted quickly in the connectivity century. We live in an age of unpeace, as Mark Leonard argued (2022), where the boundaries separating war and peace are diluted. Everything becomes war, and the military becomes everything (Brooks, 2017). Reality and interdependence became weaponised (Farrell, Newman, 2019; Galeotti, 2022).

The 2022 Russia’s full-scale invasion of Ukraine happened when global political and economic systems were dramatically under strain, while the social fabric of humanity

was undergoing a profound transformation. For the West, the shocking discovery was that there was no unanimous worldwide condemnation of Russia. According to the “transactional” or “new nonaligned world” (using the Economist-introduced term, Economist 2023), it is the Europeans’ war, NATO’s expansion provoked Russia, the West committed duly similar crimes in the past (for example, by attacking Iraq), and there are many conflicts in the world that desperately need engagement. But the West, they argue, does not even pay attention to these conflicts.

This chapter follows up and elaborates particularly the last argument. It examines strategic trends and characterisations of conflicts globally and the consequences coming for the 21st-century UN system, paying attention to the conflicts and problems that are often forgotten, i.e. are not on the radar of global public opinion. Therefore, the chapter will consist of two parts: an analysis of trends in conflicts globally, characteristics of risks in the last decades, and the challenges for international conflict resolution. The second part will investigate the impact of the changing global order and great powers’ competition on international conflicts. It will conclude with recommendations for the UN system.

INTERNATIONAL CONFLICTS: KEY GLOBAL TRENDS AND CHARACTERISTICS OF RISKS IN THE RECENT DECADES

Last year (2022), global security sharply deteriorated in comparison with ten years ago. This was reflected in more wars worldwide, increasing war casualties, higher military spending, growing rivalry of great powers, and severe food insecurity (SIPRI, 2023; PRIO, 2023). Additionally, the developing economies in many areas (such as health care, economic, social, and educational) were still dealing with the consequences of COVID-19, rising food and energy prices and the devastating impact of climate-related catastrophes. According to SIPRI, in 2022 global military expenditures rose for the eighth consecutive year. They reached the highest-ever level of US\$ 2240 billion. The arms trade has also continued to rise steadily since 2015. Both qualitative analysis and quantitative data show evidence that we live in a more dangerous world than in the past. The Global Peace Index (2022) also finds out that countries recorded much faster deterioration of peace factors than they achieved improvement. Fifteen out of twenty-three indicators deteriorated in the period of 2008-21. Peacefulness has declined over the last four-teen years. This deterioration has been mostly driven by the Middle East region.

In 2022, Ukraine was one of 56 countries that experienced an armed conflict. Overall, in 2022 there were five more armed conflicts than in 2021. However, this war, in particular, brought profound systemic consequences. The subsequent deterioration of relations between the great powers resulted in the incapacity of major international organisations to manage international conflicts. Furthermore, Russia's export blockade of Ukrainian grain caused food insecurity in many parts of the world. Russia also triggered an energy crisis and caused the environmental degradation in Ukraine that will be felt and recovered for decades.

Four of these 56 armed conflicts resulted in more than 10 000 estimated battle-related casualties in the last year: in Ethiopia, Ukraine, Myanmar and Nigeria. The other fifteen armed conflict cases involved 1000-9999 deaths (Mexico, Colombia, Brazil, Mali, Burkina Faso, Cameroon, Sudan, South Sudan, Congo, Somalia, Yemen, Syria, Iraq, Pakistan, Afghanistan). Most armed conflicts happen in Africa, although many cause less than a thousand conflict-related deaths. Africa also experienced two coups d'état in 2022.* Unfortunately, Africa is also the leader in non-state conflicts, although the deadliest occur in Latin

America due to the violence in Mexico, which pushes up the regional average.

The PRIO (2023) finds out that in 2022 there were more battle-related deaths (more than 204 000) than per annum for almost 40 previous years. Ethiopia recorded the highest number in this rank (more than 100 000) since the 1988 Iraq offensive against Kurdistan. Approximately 15-20% of conflicts exceed the threshold of 1000 battle deaths a year, and a few high-intensity conflicts drive the overall number.

The geographical distribution of conflicts and fatalities has nonetheless changed. The Afghanistan, Yemen and Syria wars have been suspended for some time or are less intense. Thus, the number of deaths dropped. Afghanistan and Syria can be called now conflicts, not wars. At the same time, battle-related deaths skyrocketed in the case of Ukraine and almost doubled in Myanmar. One must remember, however, that most victims of the conflict are not because of battles but the ensuing hunger or disease. Therefore, by some estimates, Ethiopia's real number of war casualties could overall amount to 600 000 in the last years.

With hindsight, we witnessed a rise in countries (from 29 to 38) experiencing violent conflict in 2008-22. The conflicts are longer: in the 1980s they lasted – intensifying or decelerating – approximately 13 years. Now they are prolonged to 20 years. During the first decade of the 21st century, only 5 countries had two or more conflicts simultaneously per annum. Now it is fifteen. The number of civil wars involving foreign forces rose 12-fold since 1991 (Economist 2023b).

Furthermore, violence is costly. In 2021, the economic impact of violence amounted to US\$ 16,5 trillion in purchasing power parity (PPP) terms, and it increased by 12.4% year-to-year. Syria, South Sudan and the Central African Republic have lost 80, 41 and 37% of GDP respectively. The average impact in the ten countries most affected by violence amounted to 34% of GDP.

At the beginning of the 21st century, the popular conception suggested that state conflicts worldwide declined to almost zero (World Bank, 2011). The use of force by Russia against Georgia (2008) seemed to be just an exception,

* Two in Burkina Faso. Unsuccessful attempts happened in Gambia, Guinea Bissau, and Sao Tome. For comparison, in 2021 there were six attempts in Africa, four successful.

but in general, interstate conflicts have been at a single-digit level.

The dominating form of conflict worldwide was civil conflict, which has been growing since the 1970s, achieving a peak with the moment of collapse of the communist system. Since then, these conflicts have been on a down-

ward trend for more than two decades. From 2013 onwards, the conflicts increased again, caused by the Islamic State (IS) expansion from Iraq to Lebanon and Syria. Visibly, a rapid increase of internationalised civil conflicts and battle-deaths resulting from this have outnumbered those coming from non-internationalised civil conflicts (Palik, 2020).



Characteristically, we observe the return of the state as one of the key actors of conflicts. Interstate armed conflicts are still rare today: in 2021, we noticed three (India-Pakistan and Kyrgystan-Tajikistan border tensions, Armenia-Azerbaijan), in 2022, only Russia-Ukraine. But according to the PRIO calculations, state-based conflicts (in which a state is actively involved) are at a historic high in the period from the end of WWII until COVID-19. The trend is worrying: each of the past eight years notes more than 50 state-based conflicts (PRIO, 2023). At the same time, the number of peace agreements declined, and the number of non-state conflicts has been immensely higher than a decade ago (SIPRI, 2023).

Most of the conflicts are nonetheless not noticed by the global public opinion. The Norwegian Refugee Council (NRC, 2023) pays attention to the most neglected dis-

placement crisis every year* and introduces a methodology for the measurement of such crisis. It considers three crucial factors: lack of international political will, media attention and international aid. Under all three pillars, the war in Ukraine showed a strong commitment by the international community. It is because the stakes go beyond the national or regional level. In some instances, the future of the world order is played now on Ukrainian soil. Here, the Western leadership has been tested and has proved resilient and more united than in the past. The US realises that their engagement in Ukraine will profoundly affect what can happen soon in South-East Asia. None of the other conflicts implies such immense systemic consequences. Therefore, other conflicts suffer from neglect. Some would call them “forgotten conflicts.” In table 1, the NRC ranks the ten most neglected crises causing displacement.

Table 1: The World’s Most Neglected Displacement Crises, 2022

Country	Characteristics
Burkina Faso	For the 1st time, the most neglected crisis. Increasing violence and displacement have left nearly 25% of people needing aid. Due to violence, 830 000 people are cut off the water access, and 6200 schools have been closed
DR Congo	Instability, violence and conflict. 5,7 million displaced people, 27 million people in need of aid
Colombia	Three critical interrelated crises: the continuation of the 60-year-old armed conflict, the ongoing refugee and migrant crisis, the impact of climate change and extreme weather events
Sudan	15,8 million people in need of humanitarian assistance, the number of people who starve is growing continuously, large armed conflict outbreak in 2023
Venezuela	7,2 million people have left the country in search of international protection, 20 million people need humanitarian assistance and 1/3 of the population in food insecurity. A protracted conflict
Burundi	One of the poorest countries on Earth, 52% of children under 5 are stunted. The World Food Programme announced in 2023 that the food ratios for refugees would be halved due to a lack of funding
Mali	7,5 million people in need of humanitarian aid, more than 500 000 children out of schools, violence and cuts in humanitarian funding
Cameroon	4,7 million people in need of humanitarian aid, and the Northwest and Southwest regions are under a protracted armed conflict that uprooted 600 000 people from their homes
El Salvador	Several devastating humanitarian crises driven by violence, recurrent extreme weather events and widespread poverty and inequality
Ethiopia	Series of severe humanitarian crises, 2 million people displaced and 20 million in need of aid, heavy civilians casualties due to armed conflict that killed approximately 600 000 people, dramatic impact of climate change

Source: own compilation on the base of Norwegian Refugee Council. 2023

* For 2022 the NRC finds 39 crises in which over 200 000 people have been displaced. Globally, the number of forcibly displaced persons increased from one million in 2008, to almost 89 million in 2022.

Under-reporting of conflicts constitutes one of the three factors of the above methodology. However, it is the one to be critical, as it usually reduces the international community's political will to act to resolve such a conflict and

to provide sufficient aid. According to CARE International (2023), assessed by media under-reporting, the most severe humanitarian crises are:

Table 2: The most under-reported humanitarian crises of 2022

Rank and Country	Characteristic	Indicators
Angola	Drought, hunger and displacement	The worst drought in 40 years; 3,81 million people do not have enough to eat; 114 000 children under five malnourished
Malawi	Cyclones, cholera and hunger	5,4 million people do not have enough to eat; over 37% of children are malnourished; 10% of the population is infected with HIV
Central African Republic	Conflict, violence and climate crisis	3,1 million people in need of humanitarian aid; average life expectancy is 53,3 years – one of the lowest in the world; the number of refugees fleeing the country – over 740 000; gender-based violence continues to rise
Zambia	Poverty, HIV and violence	More than 50% of the population live on less than PPP \$ 1,9 a day; the Average age of the population is 16,9 years; More than 10% of people infected with HIV
Chad	Unrest and floods	1,7 million children acutely malnourished; second highest maternal mortality rate in the world; more than 465 000 hectares destroyed by devastating floods
Burundi	Between natural disasters and economic crisis	1,8 million people need humanitarian aid; more than 70% live below the poverty line; more than 50% of children under five are malnourished
Zimbabwe	Between droughts and flash floods	7 million people need humanitarian aid; 50% of the population lives in extreme poverty; climate crisis exacerbates lack of food
Mali	Hunger, conflict and climate crisis	Eight-highest child mortality rate in the world; 7,5 million people need humanitarian aid; more than 3,9 million children need humanitarian aid
Cameroon	From crisis to crisis	3,9 million people in need; 1,8 million people have no safe access to drinking water and sanitation; over 3 000 schools closed due to conflict
Niger	Crisis in the heart of the Sahel	Almost 50% of children under five are chronically malnourished; more than 4,4 million people are acutely food insecure; 580 000 people forcibly displaced

Source: own compilation, based on CARE International, 2023

If the conflict does not have systemic triggers, it can be trapped into a vicious circle of deepening humanitarian crisis and violence. The World Bank (2011) found that 90% of violence recurs in places where it has already happened. It is caused by the existing resentments, injustices and the negative impact of conflict on economic growth (Collier et al., 2003). Therefore, these conflicts are of protracted longevity and usually low-intensity nature. Van

Creveld (1991) described them as a “non-trinitarian model of war”.

Additionally, such conflicts tend to involve multiple crises at the same time. Madej and Proninska (2020: 325), comparing the contemporary and past wars, find an increased overlap of socio-economic, ethnic and political factors that become the catalyst of conflict and the fact that they

are particularly dangerous due to the weakness of the state and state failure. The growing complexity of conflicts makes them even more difficult to resolve.

The statelessness of wars causes them to become “community wars” between different ethnic or religious groups, driven by “identity politics” (Madej, Proninska. 2020: 327). Civilians constitute the majority of conflict victims, approximately 80%. The spread of fear has become intentional. From the perpetrators’ point of view, it is even rational, as not very costly. Thus, it is now part of the strategy (Kaldor, 2012, pp. 32-59). Not surprisingly, the non-state conflicts skyrocketed since 2010. In 2022, there were 82 (a year before - 76), affecting 19 countries, the largest number of this type present again in Africa.

Taking a neglected conflict out of the shadow is tough. The lack of the international community’s attention is usually combined with domestic limitations of freedom of the press and lack of access by external actors to the areas in need. The only hope in this type of country is long-lasting peace that requires inclusive political solutions and continuous international engagement. The international community must realise that neglecting a conflict is a choice. Suffering is not inevitable, and neglect can be reversed.

There are other challenges facing resolution of international conflicts in the coming decade. Wallensteen (2019) points out four: dealing with one-sided violence, gendering international affairs, facing climate challenges, and searching for the so-called “quality peace” for a better world order.

One-sided violence means that an armed actor (state or non-state) “uses violent measures against unarmed civilians for political reasons.” (Wallensteen, 2019: 323). The situation is, however, often vague, below the threshold of war, and asymmetrical. Terrorist attacks, for example, are under this heading. Most such cases happen in the non-Western world, particularly in the so-called MENA region (Middle East and North Africa), followed by Sub-Saharan Africa. In 2022, the number of non-state actors who perpetuated one-sided violence was higher than in the past. Characteristically, the governments (PRIO, 2023) are also increasingly responsible for one-sided violence. In 2022, sixteen governments were committing this type of act.

Gender equality is one of the fundamental social trends globally (Welsh, 2018). It is already well witnessed that societies better associated with peace pose greater gender equality. They are less likely to violate human rights, to go to civil or inter-state wars (see UNDP 2023). Protracted

wars dramatically reduce the influence of women in society, while democracy, if it is not combined with high levels of gender equality, does not necessarily contribute to less violence (Wallensteen, 2019: 341). Furthermore, gender equality is one of the essential factors of what Wallensteen calls “quality peace”.

Climate challenges connected with international conflicts are related to climate warming and “nuclear winter”. In 2021, approximately twenty-four million people worldwide were displaced by extreme weather. The World Bank predicts that by 2050, up to 216 million people in Africa, Asia, Latin America, Eastern Europe and the Pacific Islands could be moving within their own countries. By some estimates, regions where 3.5 billion people live can become uninhabitable if the world temperature grows 4-C hotter by 2100 (Vince, 2022). Many studies show that a one-standard-deviation increase in local temperature can increase the risk of intergroup conflict by 11% on average (Hsiang, 2013) The relationship between climate change and conflicts was recognised through the award of the 2007 Nobel Peace Prize to the IPCC and a former US vice-president, Al Gore. However, there is yet too little documented research on how these factors impact each other.

The “nuclear winter” scenario in that field is related to the recently increasing nuclear risk. Besides the consequences of the deployment of nuclear weapons, we need to consider the planet’s cooling down after such event, when radioactive dust blocks the access of solar energy to the Earth.

Finally, the “quality peace” according to Wallensteen (2019, p. 375) means “conditions after a war (whether through victory or a peace agreement) that make a recurrence of war the least likely.” This type of peace needs to ensure standards of both human dignity (including human and minority rights) and human security (both in a physical sense and economically). The Global Peace Index (2022: 39) calls it “positive peace” and defines it as “the attitudes, institutions and structures that create and sustain peaceful societies”. It is bound by socio-economic factors, such as higher income, greater economic stability, and more inclusive, efficient and transparent governance.

The analysis of contemporary trends suggests that achieving quality peace should be the central aim of conflict resolution. Recent trends in international conflicts suggest, unfortunately, the reverse. Quality peace becomes even more difficult to work out in today’s world. The second part of the chapter will argue why this is the case.

THE UN SYSTEM, CONFLICTS AND THE CHANGING GLOBAL ORDER

The increasingly dangerous world is becoming even more hostile due to growing rivalry and competition between great powers. The so-called “unipolar moment” of the 1990s and the dominance of the United States have passed away. This is evident not only in the material distribution of power and wealth but also in the ideational underpinnings of the global order. The normative consensus, which formed the bedrock of the United Nations system, is crumbling. The erosion is particularly evident in the area of human rights, democracy, rule of law, and freedom of media. There are also new problems which only recently appeared on the agenda of global governance, thus, solutions to them have not been invented yet. Common ground has not yet been found globally.

At the moment, when global cooperation is needed the most, there is a gridlock in many areas of global governance. The institutions created post-WWII are not reformed at the speed necessary to make them up-to-date with the problems they were designed to solve. Effective multilateral institutions are of utmost importance for maintaining peace processes globally. A certain level of cooperation between global powers, likewise. The narrative on “deglobalisation”, “de-coupling”, a “new cold war”, or a “multipower” world is leading the globe to a dangerous zone. Regional integration and cooperation were among the most promising institutional arrangements to decrease chances for conflict recurrence. Thus, Ukraine’s integration with the European Union and NATO offers a relatively bright perspective. Nonetheless, it is not always a recipe for success. The EU and NATO are unique organisations, but they cannot be simply copied elsewhere. Even in Europe, the long integration of Western Balkans with the EU structures presents a mixed picture. The situation remains tense, and the possibility of a new eruption of conflict is again on the international agenda.

The fact that the crime of aggression and many other fundamental international crimes were committed by the permanent member of the UN Security Council, raises the basic question about the future of the UN system. Nobody invented something better than the UN. Maintaining the world’s peace and avoiding conflict between the great powers were major tasks for this “parliament of men.” Today we observe a “conflict overload”, when too many issues demand attention simultaneously. The major assumption of the UN Charter is in peril.

In the public discussions, the need for a serious overhaul of the UN system is often stressed. It is easier said than done. The serious reforms that would result in UN Charter reforms seem unlikely. One of the conclusions from the “Our Common Agenda” document by the UN Secretary General and the consultations on the 75th UN anniversary is that there is no need to create new institutions. Instead, it is argued, we should focus on incrementally strengthening and reforming the existing ones, where much can be done (Our Common Agenda, 2021). This effort would revamp the United Nations towards the UN 2.0, ‘a new version that is able to offer relevant and system-wide solutions’ to the challenges we face (Our Common Agenda, 2021: 76).

The UN Secretary General also proposed a new agenda for peace (Our Common Agenda, 2021: 60–61) covering six core areas:

- Reduction of strategic risks
- Strengthening international foresight and capacities to identify and adapt to new peace and security risks
- Reshape international community responses to all forms of violence
- Investment in prevention and peacebuilding
- Support for regional prevention
- Putting women and girls at the centre of the security policy.

Worth remembering that the “peace, justice and strong institutions” is one among seventeen UN Sustainable Development Goals. Here, the complex nexus between conflict and development is at the centre, which demands a multi-level and multi-dimensional approach to conflict resolution.

Table 3: Sustainable Development Goals: goal sixteen

Goal 16	Peace, justice and strong institutions: targets
16.1	Significantly reduce all forms of violence and related death rates everywhere
16.2	End abuse, exploitation, trafficking and all forms of violence against and torture of children
16.3	Promote the rule of law at the national and international levels and ensure equal access to justice for all
16.4	By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets, and combat all forms of organised crime
16.5	Substantially reduce corruption and bribery in all their forms
16.6	Develop effective, accountable and transparent institutions at all levels
16.7	Ensure responsive, inclusive, participatory and representative decision-making at all levels
16.8	Broaden and strengthen the participation of developing countries in the institutions of global governance
16.9	By 2030, provide legal identity for all, including birth registration
16.10	Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements
16.A	Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime
16.B	Promote and enforce non-discriminatory laws and policies for sustainable development

Source: own compilation, based on CARE International, 2023

There is also a larger perspective, without which little can be achieved. Alex Bellamy (2019: 177-178) introduced three critical building blocks indispensable to heading into world peace. The first one is a modern state which is fundamental for securing peace in everyday practice. The second one is building peace in our minds, a rational calculation that peace pays, while wars are “development in reverse.” The third one is peace in our hearts. This means putting more ethics and compassion into thinking about the world.

“It isn’t enough to talk about peace. One must believe in it. And it isn’t enough to believe in it. One must work at it” – Eleanor Roosevelt famously stated. Peace has to be organised and the institutional structures transformed for this. Peace and war are choices. Willingness to act for conflict resolution is also a choice. We are living on a single planet. No conflict deserves to be forgotten. Sooner or later, these conflicts will all together reverberate.

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HUMAN CAPITAL AND HUMAN DEVELOPMENT IN UKRAINE: THE IMPACT OF THE WAR

The invasion of Russia on Ukraine and the outbreak of the full-scale war have significant implications on the human capital development in Ukraine and hence, the Human Development Index (HDI). In 2021 the value of HDI in Ukraine was 0.773, which ranked the country at 77th place, among countries with high human capital development. As compared to the leader – Switzerland, the gap in life

expectancy was 12.4 years and the GNI per capita, measured by PPP was five times smaller (Table 4).

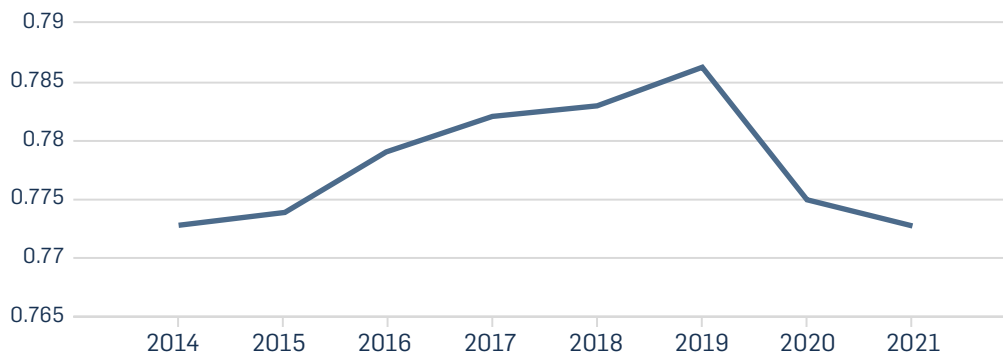
The evolution of the HDI in recent years, presented in Figure 1, shows the decline of the index already observed in 2020 and 2021.

Table 4: HDI of Ukraine compared to the leader of the ranking and Poland

HDI rank	Country	Human Development Index (HDI)	SDG3	SDG4.3	SDG4.4	SDG8.5	HDI rank
		Value	Life expectancy at birth	Expected years of schooling	Mean years of schooling	Gross national income (GNI) per capita	
		2021	(years)	(years)	(years)	(2017 PPP \$)	2020
1	Switzerland	0.962	84.0	16.5	13.9	66 933	3
34	Poland	0.876	76.5	16.0	13.2	33 034	36
77	Ukraine	0.773	71.6	15.0	11.1	13 256	78

Source: UNDP database

Figure 1.
HDI in Ukraine, 2014-2021



Source: UNDP database

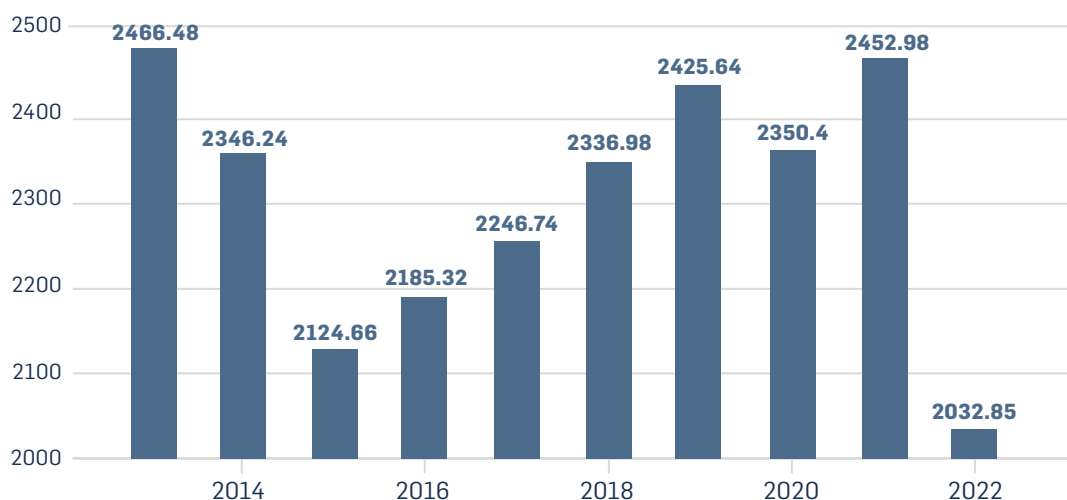
This chapter focuses on the assessment of the consequences of the war on the human development and human capital in Ukraine.

The profound consequences of the war include the sharp drop of GDP per capita, which is one of the dimensions considered in the calculation of the HDI. According to the estimates, in 2022 Ukraine's GDP contracted by 29.1% (Reuters 2023). The GDP decline was related, among other things, to the population movements and massive

emigration, particularly of women. Total employment has dropped by around 3.5 million, and the unemployment rate, including refugees, is around 30 per cent, which is three times the level observed before the war, according to the National Bank of Ukraine (EBRD, 2023).

These developments will have a significant impact on the HDI, as the 2022 GNI per capita is comparable to the one of countries that were 20 or more places below Ukraine.

Figure 2.
Ukraine GDP per capita



Source: <https://tradingeconomics.com/ukraine/gdp-per-capita>

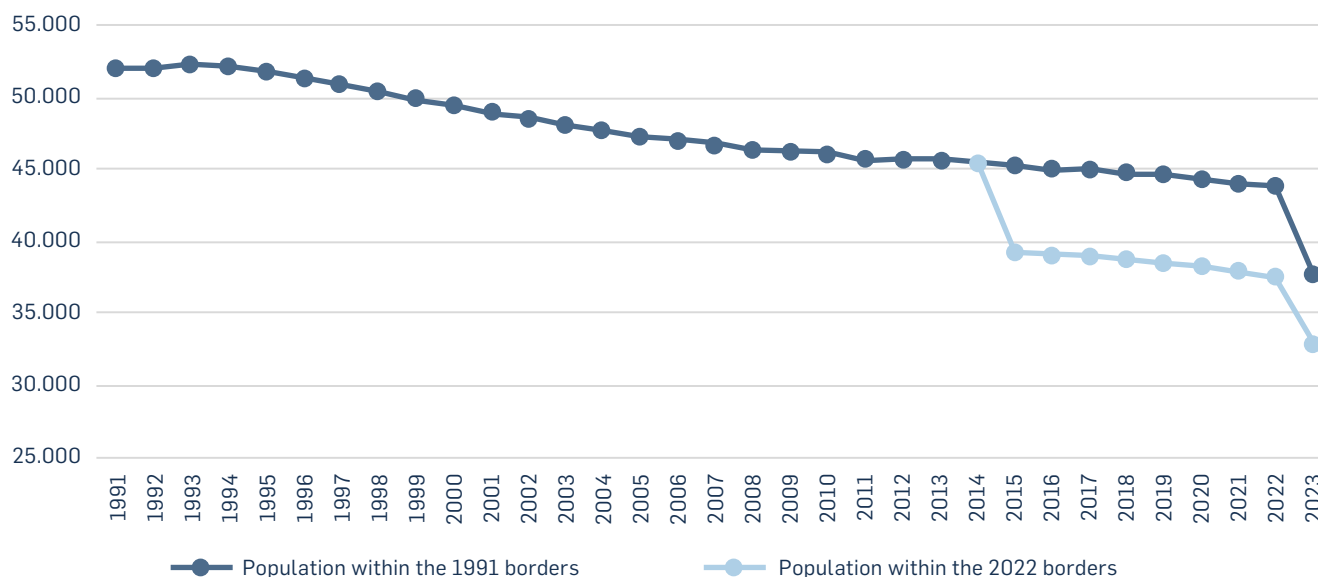
DEMOGRAPHIC DEVELOPMENTS

One of the direct consequences of the war on the Ukraine's population was its sharp decline. As of January 1, 2023, 37.6 million people were estimated to live within the 1991 borders of Ukraine, 32.6 million within the 2022 borders, and 31.1 million in the territories currently controlled by the Ukrainian government (Figure 3).

The 2023 brought a sharp decline of the population, mainly due to the migrations. According to the Ukrainian border service, between February 24, 2022, and May 24, 2023, 1.7 million more people left the country than entered. According to Eurostat (data as of April 30, 2023), almost 4 million Ukrainians who left Ukraine after February 24, 2022, were registered under the law on temporary protection in EU countries. Most of them are registered in Germany (1.1 million), Poland (1.0 million), and the Czech Republic (0.3 million). Approximately half of those who

fled the war are women aged 20–64 and one-third are children and adolescents (Libanova, 2023). At least half of the refugees are expected to return to Ukraine, despite the awaiting risks. However, the propensity to return, depends also on the economic and labour market developments. In the case of high unemployment and poor employment prospects, the risk of further migration of educated young people, including men, remains high.

Figure 3.
Size of the Ukrainian population (in thousand persons at the beginning of each years)



Source: Libanova (2023)

Ukraine also faces very low fertility that leads to further population ageing. The total fertility rate (TFR) in 2021 was 1.2, and for 2022 it is expected to be 0.9. The births planned before the war were still delivered in 2022 (though some of them abroad, i.e. almost 14,000 in Po-

land). Further dramatic drop in fertility rate is expected in 2023: it will most probably achieve 0.7, and this level will remain at least until the end of the war (Libanova, 2023). Return of the TFR to the pre-war levels may take more than a decade.

HEALTH

The effects of the war on health are both direct and short-term, and indirect, expected in the longer term. The immediate effects are the wounded and killed people, not only soldiers but also civilians. There are also long-lasting effects, including the treatment and rehabilitation of those who were wounded, but also consequences for physical and mental health, that will likely have an impact on individuals and entire generations surviving the war. This includes the post-traumatic stress disorders, depression, and anxiety.

Furthermore, detrimental effects on children will also affect the future generation. This includes prenatal stress, foetal and postnatal underdevelopment.

The negative impact on the health has many causes. One of the outcomes of the Russian invasion is the sharp increase of the food prices and limited access to nutrition, turning into the food security and nutrition crisis. Reduced access to clean water, sanitation, and a stable food supply increases the likelihood of infectious diseases

such as COVID-19 to re-emerge and proliferate (German Caruso, 2023).

There are also losses related to the healthcare infrastructure. The World Health Organisation (WHO) has verified more than 1000 attacks on healthcare in Ukraine since the invasion by the Russian Federation, which poses a challenge to the delivery of necessary healthcare support, both routine and emergency (WHO 2023). The Ministry of Health estimates that damage or destruction was reported in 15.9 percent of public facilities (1,574 facilities) as of February 24, 2023 (The World Bank et al., 2023).

According to WHO, the primary healthcare remains widely available in war-affected regions, but health costs have been increasing from the beginning of 2023. Surveys conducted by WHO indicate that nearly a third of the population is finding it difficult to afford certain health services. Due to these developments, Ukraine has the fourth highest incidence of tuberculosis in the WHO European Region and the fifth-highest number of

confirmed cases of extensively drug-resistant tuberculosis in the world. The continuity of care and access to medicines is at risk given the war, especially for the 6 million internally displaced population.

Human losses (i.e., deaths, including the direct losses of the military and civilians due to hostilities and indirect losses caused by lack of timely medical care in the occupied territories, especially in the areas of active hostilities

and shelling) also affected the average life expectancy (ALE). For 2023–24, the ALE will remain critically low: 70.9 years for women and 57.3 years for men. Again, the return to the pre-war levels can take at least a decade and the population loss is irreversible (Libanova, 2023). Such level of life expectancy is noted for countries around 100th and lower positions in the HDI ranking. This again shows an expected decline of the HDI of Ukraine as a result of the Russian invasion and the war.

EDUCATION

The war also has profound consequences on the education system. Until the beginning of September 2023, 3,758 education institutions have suffered bombing and shelling, and 363 of them have been destroyed completely. The estimates of the damages to the education system are USD 4.4 billion, while the losses add additional 0.8 billion. There are also losses in learning and scientific outcomes and in the psychosocial well-being of students, educators, and researchers. After the outbreak of the war, the education moved mainly to the on-line mode. Currently, schools progressively resume in-person education, but only those that have bomb-shelters. Various modalities of teaching are applied, which also depends on the local security situation. The reconstruction and recovery needs for the education system are estimated at USD 10.3 billion (The World Bank et al., 2023).

Among the migrants, there were around 665,000 students at different stages of education, as well as some 25,000 educators. Students can attend their education on-line and/or take up education in the host country. In Poland, where a significant share of migrants fled to, there are 150,000 Ukrainian students attending schools.

Analyses conducted by the Centre for Civic Education indicate that many schools pursued an assimilation approach (Tędziągolska et al., 2023) which neglected the actual needs of Ukrainian students. As a result, Polish and Ukrainian students are frequently functioning apart. This evidence shows that it is important to develop and implement a model that allows for more integrating and inclusive education, taking account of the students' needs.

Estimates of learning losses due to the Russian invasion suggest that learning outcomes are now below the lowest-performing countries in Europe, which is a result of the school closures first due to the COVID-19 pandemic, followed by the closures due to the Russian invasion. The World Bank estimates (German Caruso, 2023) learning losses in Ukraine of around 1.25 years of learning loss (due to a combination of extended COVID-related closures and the war). PISA scores are expected to drop from 466 (about a year behind international average or OECD average, of about 500) to about 435 points, which is much closer to low-performing countries. This will result in future earnings losses of more than 10 per cent a year per student after transiting from education to employment.

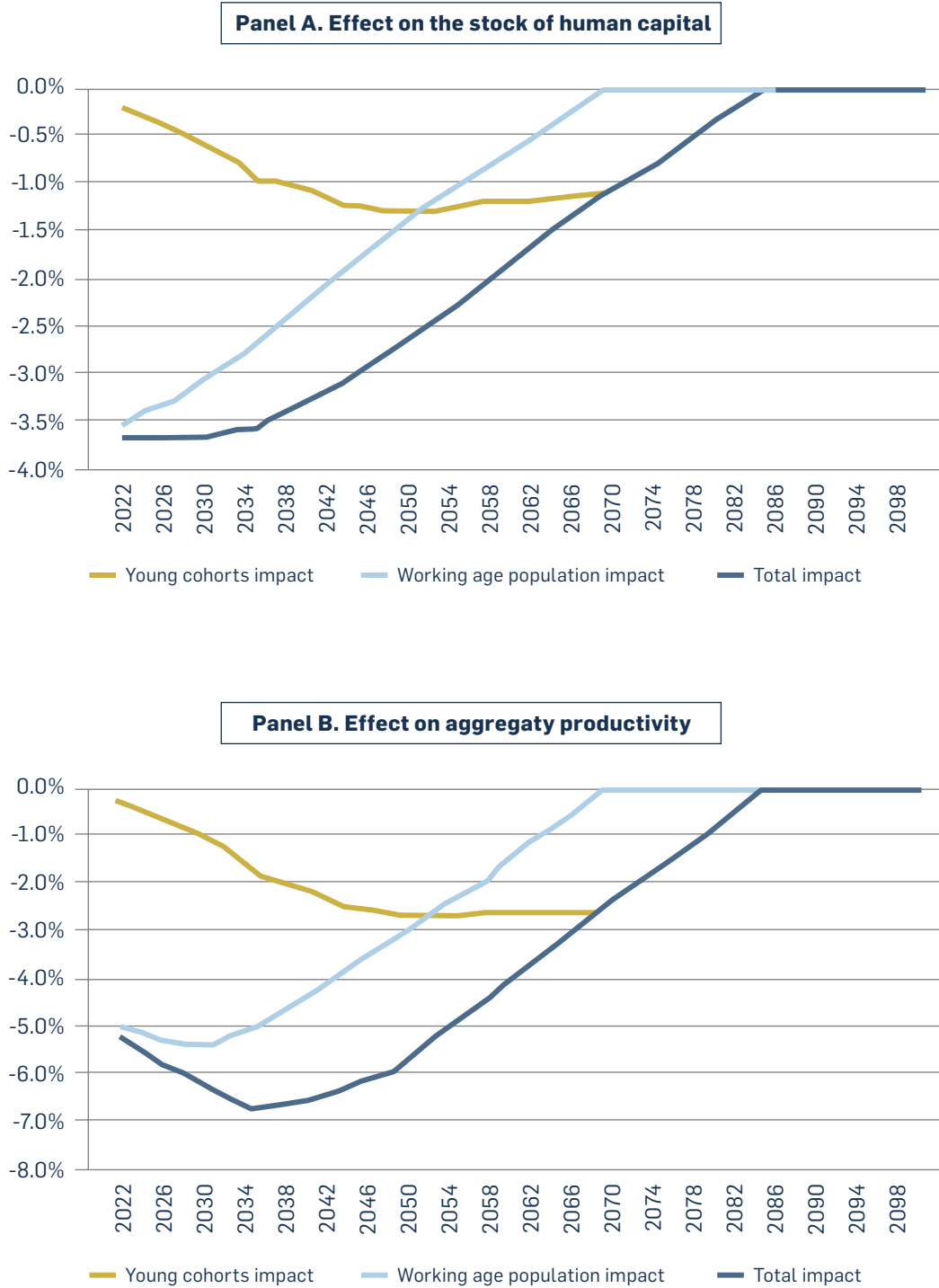
HUMAN CAPITAL

The war will have long-term consequences, among which are losses in human capital. This will have an impact on Ukraine's development prospects, labour market and productivity for many years ahead. A team of OECF experts developed a new measure of human capital to calculate the negative war effects on human capital (Égert et al., 2022). This measure combines mean years of schooling, capturing the quantity of education, OECD data from the Programme for International Student Assessment (PISA), representing the quality of education, and the Programme for the International Assessment of Adult Competencies (PIAAC), reflecting adult skills. The stock measure of human capital is based on the idea that adult test scores (PIAAC) can be used to calculate a cohort

weighted stock measure of human capital. In this case, as PIAAC had not been conducted in Ukraine, the method was adjusted.

Figure 4 presents the estimated effects of a 2-year war on human capital and productivity. First, the adverse effect related to the working age population impact is visible, resulting from the loss of skills caused, among other things, by the job loss, unemployment and shift to economic inactivity. In the long run, the adverse effect due to the impact on young cohorts (assuming loss in the years of schooling and decline in the learning outcomes) will be prevailing. The adverse effects are likely to be visible in the coming decades.

Figure 4.
The adverse effect of a 2-year war on human capital and productivity in Ukraine



Source: (Egert & de la Maisonneuve, 2023)

CONCLUSIONS

The effect of the war on the human development and human capital in Ukraine is profound. Population loss, migrations, damages and disturbances in functioning of healthcare and education systems will have a long-lasting effect. As a result, the Human Development Index value for Ukraine is expected to decline sharply.

The consequences of the war are not only immediate, but also long term. The immediate consequences include the casualties of the war, the wave of migrations, job destructions and unemployment, that have led to the loss of human capital, skills and productivity. Losses of infrastructure in the healthcare and education sector, school closures, shift to the online learning further lead to the reduced ability to maintain and improve health of individuals, as well as develop skills and competences of students. Finally, long-term consequences of the war also include mental and physical health problems that will last beyond the end of the war.

The recovery from the war requires human capital. Therefore, there is a need to prepare for the extensive human capital recovery and investment in the future, which is already being discussed, among others, by international organisations which monitor the current developments (EBRD, 2023; European Training Foundation, 2023; The World Bank, 2022; The World Bank et al., 2023). In such strategy, the actual measures applied should take into account the advances related to globalisation and tech-

nological change, as mentioned for example by (Novikova et al., 2022).

Such strategy needs to take into account:

- Policies stimulating return migration combined with the labour market policies focusing on creating jobs related to recovery and development of Ukraine;
- Social investment policies that ensure early access to ECEC for children, that will also be conducive to supporting female employment;
- Family-friendly policies that encourage decisions to have children in order to improve very low fertility levels;
- Rebuilding and development of the healthcare sector; Developing national public health programmes, focusing on improving mental health and physical health, particularly for people that suffered from war;
- Rebuilding and development of the educational sector, with a focus on developing skills important for the improvements of productivity;
- Programmes of developing/updating adult skills, particularly among those who lost their skills due to the lack of job during the war.



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UKRAINE'S ENERGY TRANSFORMATION: DECOUPLING FROM FOSSIL FUELS AND RUSSIA

After Ukraine regained its independence in 1991, an oligarchic socio-economic system emerged in the country. It has been common although not universal for the post-communist countries to become locked in a “partial reform equilibrium” economy (Hellman 1998). To a certain extent, this was the case in the post-Soviet states in Europe (Russia, Ukraine, Belarus) or central Asia (Uzbekistan, Kazakhstan, Tajikistan and others) where powerful socio-economic and political elites did not oppose the reforms entirely, but frequently attempted to block specific advances that could eliminate monopolies they could financially gain from. The overall development strategy in these countries was based on the unrealistic assumption of energy abundance kept through substantial subsidies

and unrealistically low energy prices that had little to do with real production and recovery costs. This system privileged inefficient energy-intensive industries exercising significant market power due to diminished competition that would have had little chance of survival under competitive market economy. Unlike the central European states that joined the European Union*, these countries did not undertake substantial institutional and economic reforms leading to a boost to the market competition and introduction of realistic energy prices that incentivized enterprises to increase their domestic and international competitiveness through both improved productivity and energy efficiency.

THE POST-SOVIET LEGACY IN UKRAINIAN ENERGY POLICY

Ukraine chose the pattern of other post-Soviet states marked by higher energy intensity and lower productivity of its economy than both Western and Central European members of the EU. This was not entirely a deliberate choice. The decades of shared Soviet legacy, inherited infrastructure and production chains that evolved in an ‘integrated’ federal state contributed to it – as well as myths and nostalgic memories of shared history. But over the years, the control over the Ukrainian economy and in particular its energy sector exercised by powerful oligarchs not interested in demonopolization and market competition was emerging as a major impediment to the country’s modernization. This pattern was mirroring the system established in Russia after the dissolution of the Soviet Union.

The oligarchic system began to form in the country immediately after the collapse of the Soviet Union, and was firmly established under Leonid Kuchma’s presidency in 1994-2004 (Matuszak 2012). Unlike Poland that promoted privatization through stock-exchange, direct sales to foreign investors or private self-made men in distributed

fashion, Ukraine privatized its state-owned assets by handing them over to a small group of well-connected individuals that acquired control over major industrial companies at significantly discounted prices. This was associated with the close cooperation between Ukraine and Russia in the field of natural gas that was characterized by opacity and – as it became clear later – by little (if any) economic rationale, both from the perspective of a gas sector in particular or the broader economy and its long-run competitiveness in general. The energy policy was de facto serving primarily the financial interests of the oligarchs who often made profits by taking control over key intermediaries. A prominent example is the company RusUkrEnergo, which was importing natural gas from Russia’s Gazprom to resell it to Ukraine’s Naftogaz (Dubien 2007, 11). Kuchma’s term as president resulted in the consolidation of power and wealth in the hands of political and business elites, who exerted considerable influence over Ukraine’s energy policy.

The oligarchic influence over Ukraine’s energy sector was impeding competition or transparency, increasing

* The first “bid bang” enlargement of the EU took place in 2004 when Poland, Czechia, Estonia, Hungary, Latvia, Lithuania, Slovakia, and Slovenia joined the Union followed by Romania and Bulgaria in 2007 and Croatia in 2013.

its vulnerability to external pressures (Balmaceda 2013). Ukraine's heavy reliance on imports of natural gas from Russia was limiting its ability to pursue an independent energy policy further, particularly in the context of the energy transition. In fact, Russia had used its control over natural gas supplies as a political lever to exert influence over Ukraine hampering its energy security on a number of occasions. In particular, disputes with Russia over gas prices and transit fees had led to several gas supply disruptions, notably in 2006 and 2009, which had severe economic and social consequences for Ukraine.

The political and economic power of oligarch started to shrink over the last decade. The pro-European protests of 2013-2014 known as Euromaidan, the economic crisis that was the consequence of the annexation of Crimea, and the war in Donbas reduced the value of their assets and influence. While in 2008, the combined wealth of Ukraine's 50 richest oligarchs equalled a staggering 85% of the country's GDP, in 2013 it was down to 45% (Kuzio 2008). Following the Euromaidan, then-President Petro Poroshenko brought "de-oligarchization" to the political agenda, targeting, among others, Rinat Akhmetov – Ukra-

ine's richest man and owner of DTEK (Ukraine's largest commercial energy operator). However, these changes weakened but did not eliminate the oligarchic system per se that remained largely in control over the direction of the country's political and economic reforms until 2021 when, under Zelensky's presidency, the Parliament approved new anti-oligarchic acts (Konończuk 2017). At the same time, Ukraine's energy security was challenged by the loss of jurisdiction over Crimea, the onset of military action in the easternmost parts of the country and Russia's aggression in 2022. The curtailment of coal production in the Donbass basin was particularly challenging (IEA 2021a, 15), followed by the loss of many energy-related assets (including important power plants) as a result of Russia's occupation of eastern and southern territories of Ukraine. Already before the war, the country was forced to suspend its project to explore and extract its shale gas reserves at the Yuzivska gas field which is estimated to hold about 4 trillion cubic meters of gas and has the potential of decreasing Ukraine's dependence on the import of Russian gas.

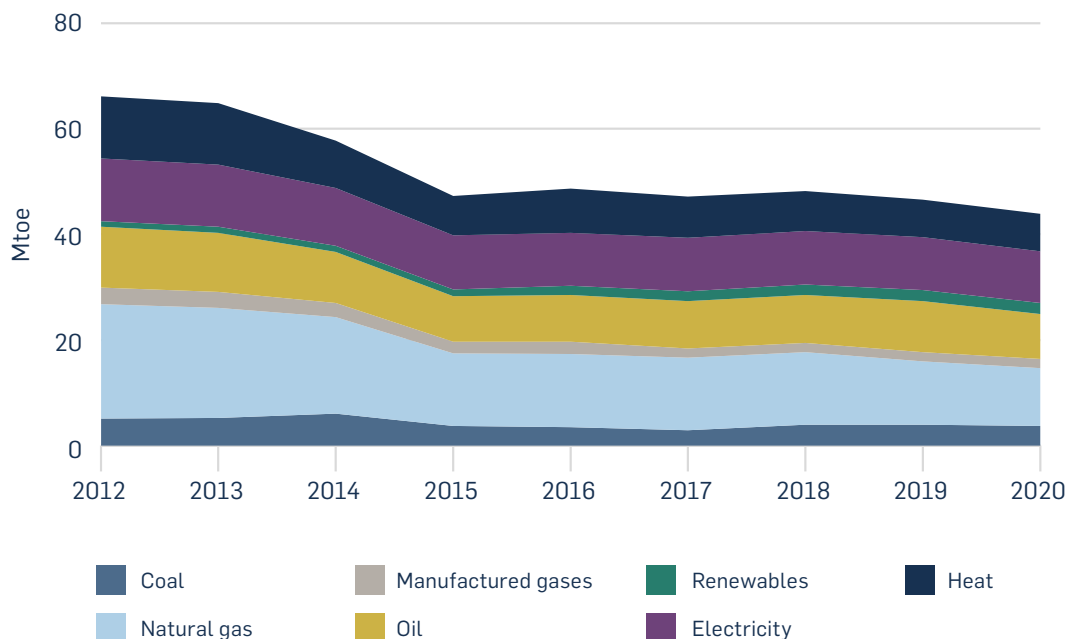
UKRAINIAN ENERGY DEPENDENCE ON RUSSIA: THEN AND NOW

Ukraine is heavily dependent on fossil fuels, which accounted for nearly 70% of its primary energy sources in 2021 (EIA 2021). At the same time, it possesses substantial reserves of coal, oil, and natural gas. Its hydrocarbon reserves are concentrated in three regions: the Carpathian region in the west; the Dnieper-Donetsk region in the east; and the Black Sea-Sea of Azov region in the south. Despite these reserves, in 2021 Ukraine imported around 83% of its oil consumption, 33% of natural gas and 50% of coal (IEA 2021a, 7). However, it is important to look not only at imported volumes, but also at the possibility of diversification of supply and dependence on a single supplier when considering energy dependency (N-1 criterion). Historically, most of the energy imported to Ukraine came from the Russian Federation and Belarus (EIA 2021) largely due to the infrastructure availability built already during the Soviet period. Moreover, most of the Ukrainian coal is located in the Donbas region in Donetsk, Luhansk, and Dnipropetrovsk. The Dnieper-Donetsk basin accounts also for approximately 90% of gas production. Currently, a significant share of these regions – where most of Ukraine's natural resources are concentrated – are under Russian military control. Ukraine also has significant offshore gas resources in Crimea that are no longer accessible due to Russia's annexation of the region in 2014 (IEA 2021a, 14).

Before 2014 (or even 2022), Ukraine had a relative advantage over the in regards dependence on energy imports – 34.1% compared with 57.5% in the EU (Eurostat 2022). The war largely this advantage was largely as both fossil fuel reserves and nuclear power plants were located mostly in conflict areas whereas the production of energy that remained under Ukrainian control was heavily disturbed by Russian missile attacks.

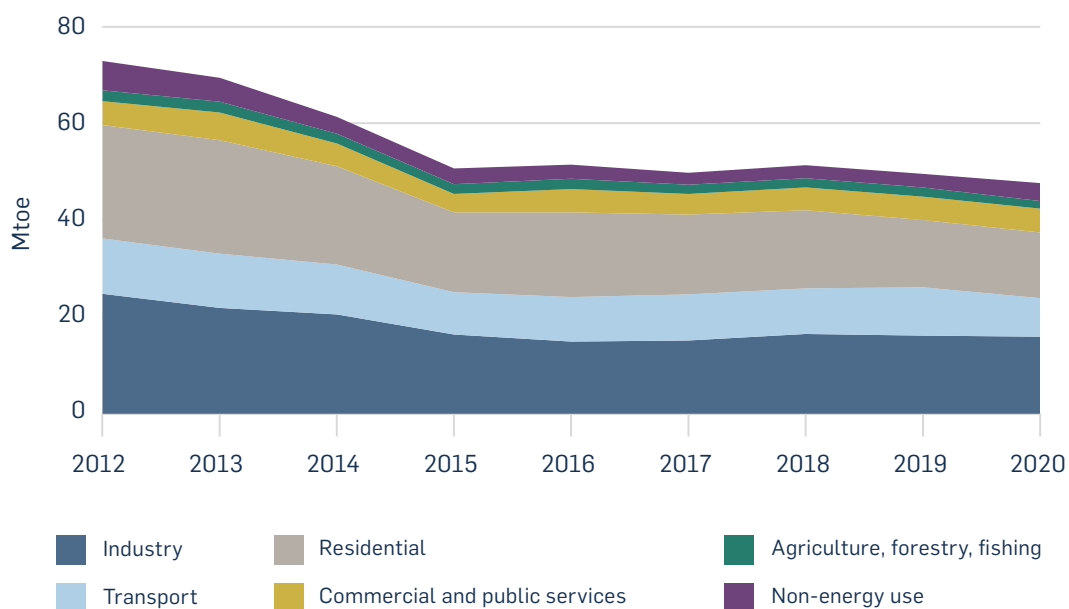
Over the last decade, little has been done to change the structure of the energy mix and final energy consumption (Figure 5). Industry remains the main consumer followed by residential sector (Figure 6). The data indicate that there has been a significant decrease in energy consumption in the period to 2015, however, only one-third of the decline is attributed to efficiency improvements, with the rest due to a drop in activity in 2014-15 and structural changes in the economy (IEA 2021a, 38).

Figure 5.
Final energy consumption in the years 2012-2020 by source



Source: Eurostat

Figure 6.
Final energy consumption in the years 2012-2020 by sector*



*Data for the years 2014-2020 excludes temporarily occupied territories of Autonomous Republic of Crimea, Sevastopol and part of the temporarily occupied territories in the Donetsk and Luhansk regions, including non-energy use)

Source: Ukrstat

Ukraine's role as a transit country on the way to the European gas market is an important factor that was and – to some extent – still is limiting its energy dependence on Russia. In 2020, Ukraine transited more natural gas than any other country in the world, playing a pivotal role in delivering Russian gas to Europe. Following the Russian invasion on Ukraine in February 2022, the volume of transited gas decreased by 50% from 42 bcm to 20 bcm per year (Matuszak 2023). This reduction was largely due to the EU policy that decided to replace most of the Russian gas with import from other directions. Nevertheless, Ukraine still remains one of the key transit routes for Russia's gas export to Europe (now mainly to Austria, Slovakia, Italy, and Hungary that – up to date – haven't subscribed to the diversification strategy of

Poland, Germany or the Baltics). Current transit volumes through Ukraine still account for more than half of the total annualized Russian gas pipeline supplies to the EU giving Ukraine some leverage over Russia in this respect. The transit contract between Russia's Gazprom and Ukraine's Naftogaz and the Gas Transmission System Operator of Ukraine expires on 31 December 2024. It remains unclear whether it will be extended considering the ongoing war. It is worth noting however that previous contract negotiations included in-person engagement of the leaders of Ukraine, Russia, France, Germany, and the European Commission – who – at the moment – are unlikely to meet in person, let alone conduct constructive negotiations following Russia's invasion (Corbeau and Mitrova 2023).

HAND IN HAND: THE SHARED PATHS OF INDEPENDENCE AND SUSTAINABILITY

It is difficult to imagine a scenario in which Russian-Ukrainian ties return to business as usual once the war is over. Apart from the mutual hatred fuelled by Russian aggression and the Russian propaganda, the pivoting from Europe towards China erodes the case for restoring (or even continuing) Russia's decades-long business relations with Europe. Faced with these broken relations and at the same time with a clear gap in the import of fuels, Ukraine must look for mid- and long-term solutions to ensure energy security. In the short term, it will be crucial to preserve domestic production capacity and secure adequate import volumes from other suppliers. Now, due to the war, the demand for both energy and electricity in general is significantly lower, which offsets destroyed capacities and supply constraints. However, immediately after the war, when the reconstruction of Ukraine begins, the energy needs will likely increase – and the energy system must be prepared for that.

Ukraine's long-term energy security should follow four complementary priorities:

1. security of supply at an affordable price
2. security of energy carriers supply
3. resilience to external factors
4. competitive markets

The country faces an unprecedented reconstruction challenge involving all of the above areas. Devastated transmission and distribution systems, reduced or even cut-off fuel imports from Russia, and completely destroyed, damaged or looted generating units are and will continue to be a major challenge for Ukraine's economy.

The same applies to the competitiveness of the Ukrainian energy market that, despite oligarchs' weakening influence, still requires substantial reforms that could help the country not only to achieve energy security but also to power up the entire economy that will have to grow fast if the broader socio-economic goals are to be achieved once the war ends (Minakov 2022). So how do we get Ukraine to rebuild by ensuring its security of supply and energy independence while at the same time making it resilient to external shocks?

The answer is through an energy and economic policy based on market principles and geared towards sustainability and decoupling from fossil fuels. Climate policy is often mistakenly contrasted with a general energy security, but in fact, its objectives are perfectly in line with ensuring the long-term energy resilience of the state, bringing independence from fossil fuels in the long run. Such a policy can build on four key blocks:

1. improving energy infrastructure
2. development of renewable sources
3. supporting energy efficiency and electrification of the economy
4. ensuring reliable supply and affordable prices for households and industry

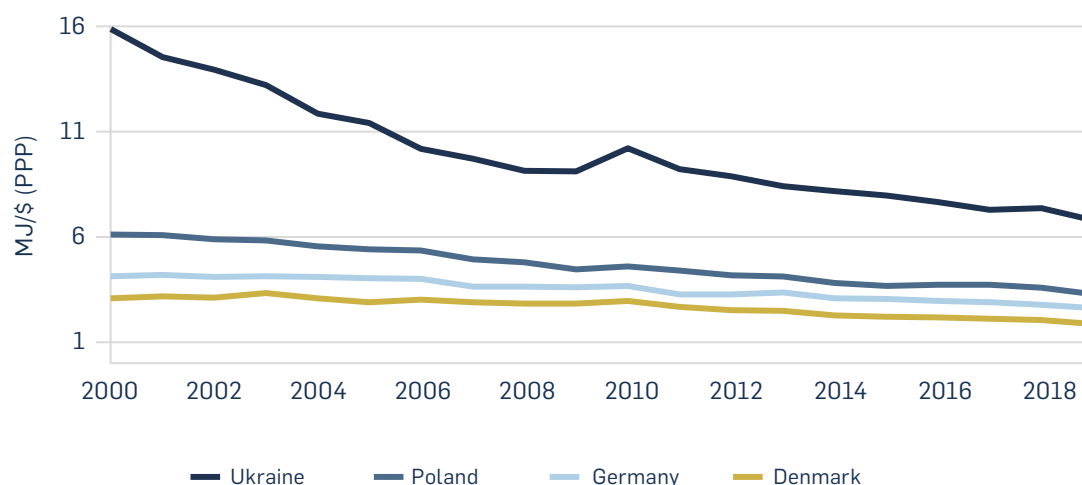
High energy intensity of Ukraine's economy is among the most important specific problems, significantly differentiating it from other European countries (Figure 3). It is a result of two factors: (i) artificially low energy prices over the last 30 years and (ii) weak economic growth associated with the underdevelopment of energy-efficient sectors

both in the industry and services. As a result, Ukraine is using around 2-3 times more energy per unit of product than the EU Member States including central European countries like Poland or Romania (WorldBank 2023). Their lower energy intensity is partially due to the transition to a more service-oriented economy but is also strongly linked to the significant gains in industrial productivity over the last 30 years and improvements of energy efficiency incentivised by unsubsidized energy prices for businesses.

Improving energy efficiency of Ukrainian economy would result in large savings that could be redirected to other economic areas supporting reconstruction and economic

growth in the post-war Ukraine. The high untapped potential of energy efficiency in Ukraine is confirmed by the IEA (IEA 2021, 28). The report indicates three most important areas for future improvement: (1) industry (34% of the total potential), (2) the residential sector (33%) and (3) energy transformation at coal-fired power plants (22%). Thus, the energy efficiency improvements can be brought on two levels: supply of energy (efficiency improvements in fossil fuel power plants, efficient district heating networks) and demand of industries and households – improved industrial production efficiency and various forms of energy savings (residential buildings renovation, thermo-modernisation, replacement of windows, energy-efficient lighting and appliances, etc.).

Figure 7.
Ukraine's energy intensity in the years 2000-2019 in comparison with selected countries



Source: World Bank (indicator ID EG.EGY.PRIM.PP.KD)

This can be supported further by the accelerated electrification of the Ukrainian economy. The use of electricity for heating insulated buildings or the electrification of transport is far more efficient than relying on traditional carbon-intensive alternatives. According to IEA, heat pumps currently available on the market are three to five times more energy efficient than natural gas boilers (IEA 2022, 11), and electric vehicles (EVs) are two to four times more efficient than internal combustion engines vehicles (ICE) (IEA 2021b, 91), allowing at the same time a reduction in energy demand and decarbonisation of supply, thereby contributing to a reduction in the need for fossil fuels.

The electrification of Ukrainian economy will bring a reduction in total primary energy consumption. However,

part of the economy will shift to electricity, increasing its share of final energy consumption. Electricity accounts for about 23% of total final energy consumption in the EU and 22% in Ukraine (Figure 5). With a similar starting point, the challenge to electrify its economy is similar in Ukraine as in the EU. On the other hand, successful reconstruction of Ukrainian economy after the war as well as potentially fast economic convergence with the EU over the next few decades may make it more challenging for Ukraine because the country will have to not only electrify existing energy consumption but also to provide new generation capacities for a growing economy. Nevertheless, forecasts indicate that in decarbonized economies electricity consumption could constitute as much as 55% of the final energy demand by 2050. In this

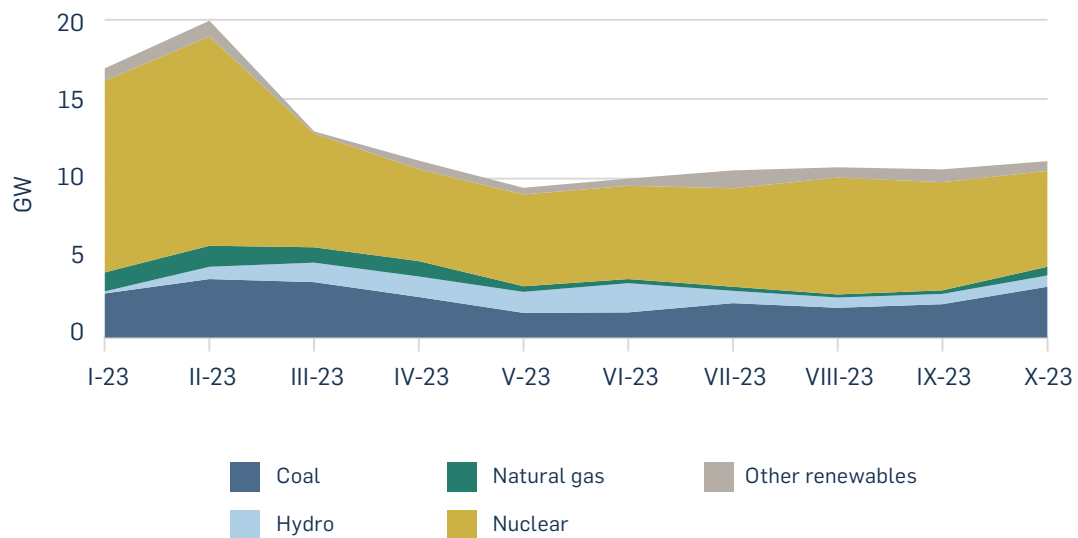
period, absolute electricity consumption could increase by about 40% in the EU (McKinsey 2010) and even more in Ukraine. According to latest presentations of Ukrainian 2050 strategy, Ukraine officials declare that they can reach up to 700 TWh (nearly 5 times its current demand) annually with a significant portion of electricity intended for export or to make export products such as hydrogen, ammonia or basic materials.

Before the war, most of electricity generation was consolidated in three companies: Energoatom with 53-58% of electricity generation, DTEK Group with 23%, and Ukrhydroenergo with 7% (OECD 2020a). All three relied on an aging fleet of conventional power plants and infrastructure. It had however a relative excess of capacity, to certain extent due to the decreasing demand for electricity caused by weak economy and shrinking population. Total electricity production in 2021 amounted to 156.5 TWh and was fairly diversified. Nuclear power plants were responsible for 55.1%, thermal power plants (primarily coal-fired) - 29.3%, hydroelectric - 6.7%, whereas solar - 4.9% and wind - 2.47% (Ember 2023).

Ukrainian electricity demand has dropped by around 40% after the start of the war due to the drop in production and large number of refugees fleeing the country (Figure 8). At the same time, Russian aggression has caused extensive damage to both the grid infrastructure

and energy generators, which Russia chose as one of its main targets. As a result, the available capacity of Ukrainian power plants dropped from 36 GW to 13.9 GW excluding RES and small regional CHP (UNDP 2023, 4). The lost capacities are either under Russian control or have been destroyed in attacks. The most recent destruction was that of a hydroelectric power plant in Zaporizhzhia. The incident also affected a nuclear power plant that was already shut down, but its cooling infrastructure was fed indirectly from the hydro-plant upper reservoir, so restoring it will require extensive repairs. Both of these power plants represent more than 7 GW of firm power capacity. At this stage, it is hard to estimate the economic value of these losses, but according to some sources they may amount to at least EUR 10 billion (UNDP 2023, 6).

Figure 8.
Ukraine's average electricity demand in January-October 2022



Source: International Energy Agency. Ukraine Real-Time Electricity Data Explorer



Therefore, after the war, Ukraine will have to focus on rebuilding lost energy capacity and infrastructure. From an energy security point of view, the system would need to be rebuilt in such a way that it:

1. meets the growing demand for electricity after the war
2. secures low prices for the growing economy
3. reduces the demand for fossil fuels
4. creates an energy system that is resilient to future attacks

This is why Ukraine needs a relatively rapid development of non-fossil fuel sources which can be fulfilled by the smooth deployment of renewable energy sources that are not only low-carbon, but also represent the cheapest solution available on the market in terms of the levelized cost of electricity (LCOE). In addition, the production of electricity from RES does not require fuel import, which will contribute to the reduction of fossil fuel consumption in Ukraine and, respectively, to the country's energy security objectives. Due to their modularity and mass production capabilities, they can be developed and controlled by a diverse group of investors, thus democratising the energy sector, enabling a wider range of individuals, communities, and small businesses to access energy production improving the competitiveness of the overall energy market and lowering the prices.

RES are currently the fastest growing generation capacity segment in Europe and can be built faster than conventional power plants. In addition, their distributed energy model (i.e. with fewer centralised, large units and large

number of smaller, dispersed installations) increases the resilience of the entire system against external attacks especially from distance.

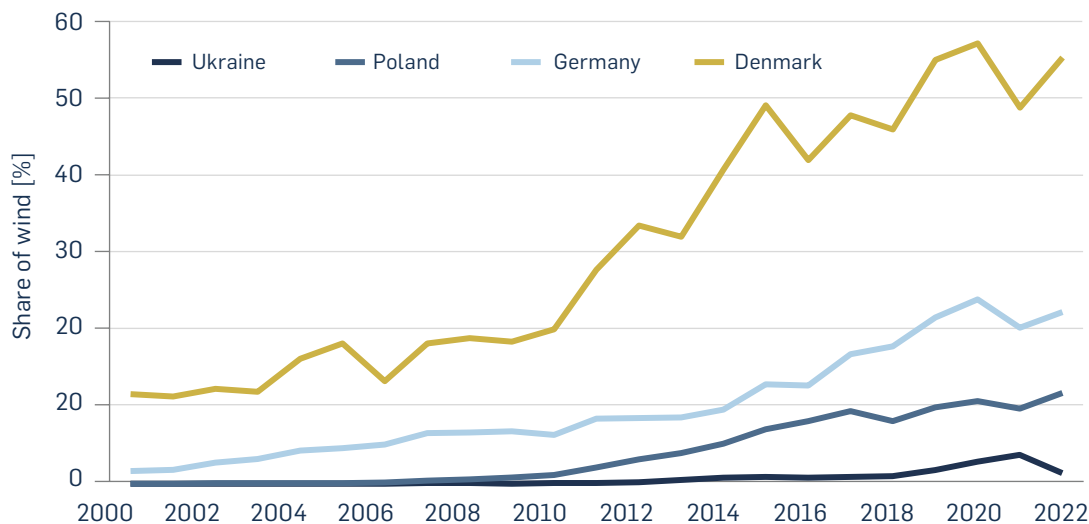
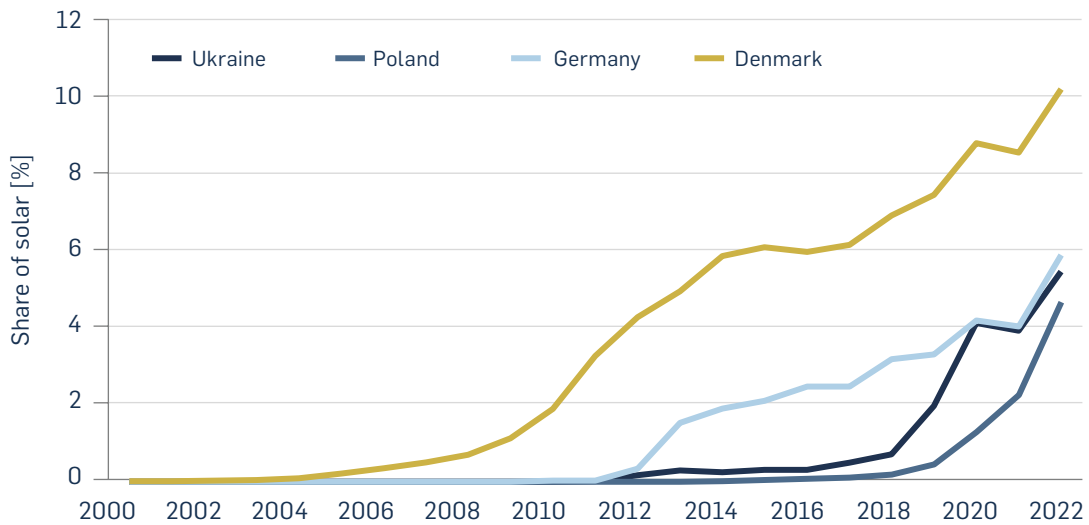
At the same time, the drawbacks of renewable energy sources should not be neglected. The variable production of energy or the necessity to develop relevant grid infrastructure connecting dispersed sources to the entire energy system and allowing for it to operate despite the variability of supply makes the grid development and operation much more challenging. However, the benefits far outweigh any disadvantages and – as the example of many EU countries shows – arising problems can be solved even in systems that rely in 50%–60% on solar and wind. On the positive side, Ukrainian energy sector has the key elements necessary for balancing a grid with high share of RES: large indigenous production of natural gas to power gas-fired plants, relatively high capacity in hydroelectric power plants (even after the Zaporizhzhia dam destruction) and operational nuclear power plants – all of which can provide dispatchable, zero-emission power.

Nuclear power plants, which produce the majority of electricity in Ukraine today, will certainly remain a key factor in Ukraine's reconstruction process. Regardless of whether the country will develop its nuclear programme further, the existing capacities must be maintained for the foreseeable future. Unsurprisingly, Ukraine has recently (2022) signed a contract with US-based Westinghouse to supply fuel to the Ukrainian fleet, ultimately breaking the nuclear fuel supply chain with Russia (World Nuclear Association 2023).

Ukraine lags behind many EU countries in the adoption of renewables, despite the large potential in terms of the vast amount of available land with good solar and wind conditions. The dynamics of RES development have, however, significantly increased a few years before the war (especially photovoltaics) mainly due to lucrative Feed-In-Tariffs (FIT) that have encouraged investment in these sources. As a large country with a low population density, Ukraine has a large untapped potential in both solar and wind energy. In 2020, the country installed the total amount of 7.3 GW of solar and 1.4 GW of wind capacity

and the share of these renewable sources in the total energy generation was respectively 4% and 2.2% (Figure 9). In 2022, the installed capacity of solar reached 7.6 GW and 1.462 GW of wind capacity. But the gap to the EU – particularly frontrunner countries such as Denmark or Germany – is still very large. Seen from a positive angle, this is an opportunity to benefit from other countries' positive experience and negative lessons learnt, particularly given the fast pace of technological progress in the renewable industry that leads to constantly falling prices of newly installed capacities (BloombergNEF 2022).

Figure 9.
Generation share of solar and wind in annual electricity generation in selected countries



Source: Ember Electricity Data Explorer

RECOMMENDATIONS TO UKRAINE REGARDING SUSTAINABLE RECOVERY AND DEVELOPMENT

Bearing in mind the overlap of challenges the country is facing (future reconstruction efforts, the need to strengthen energy security and to decarbonize the energy

sector), Ukraine's energy transition should be based on the following pillars:

Pillar 1: Strategic approach

The Ukrainian government must be ready for a fundamental reform of its energy sector and to carry out a sustainable energy transition based primarily on three pillars: (1) moving away from fossil fuels and (2) reducing energy demand (3) improving competitiveness of the energy market. Consequently, this approach shall be based on developing renewable energy sources, improving energy efficiency and electrification, and building institutional framework that will support the transition. The use of existing resources and infrastructure, both for fossil fuels and nuclear energy, will be a crucial element of this strategy in the short and medium term. To achieve the goals of energy transition, an adequate and harmonized strategy is needed to guide the policy developments. Ukraine's energy strategy has thus been dispersed across several documents and has lacked integration and cohesion needed in long-term strategies. Moreover, some of its targets have become obsolete or inadequate, especially in the context of the current and future implications of Russia's invasion on Ukraine's energy sector.

In 2017, Ukraine adopted its Energy Strategy until 2035 (ESU 2035), representing a step towards a more systematic approach to its energy sector reform. Despite it being a significant effort, a report by the OECD found "a number of structural weaknesses" that threatened the quality of implementation. Notably, the study found that the strategy was not systematically aligned with Ukraine's National Renewable Energy Action Plan (NREAP) until 2020 – another key document adopted in 2015 and which outlined an overall target of achieving an 11% share of RES in final energy consumption. It was also identified that the ESU 2035 lacked effective mechanisms and procedures for monitoring its implementation – a tool necessary for the achievement of long-term strategic objectives (OECD 2020b, 8). In 2018, Ukraine also submitted its Low Emission Development Strategy to the United Nations Framework Convention on Climate Change. In 2021, the government of Ukraine adopted its National Action Plan for Energy Efficiency until 2030, which sets two overarching targets: a 22.3% reduction in primary energy consumption and a 17.1% reduction in final energy consumption (compared to the baseline scenario). In view of

the ongoing war and its repercussions, all the documents drafted before Russia's full-scale invasion will have to be updated.

Ukraine needs a high-level strategy that defines its energy pathway towards 2050 and includes concrete indicators of how specific goals will be achieved. While it is desirable that long-term strategies are drafted for individual objectives (e.g., for energy efficiency or the development of RES), it is pivotal that narrower strategic documents are systematically aligned by the overarching framework. In June 2023, at the Ukraine Recovery Conference in London, representatives from the Ukrainian government presented some insights from the recently adopted Energy Strategy of Ukraine until 2050 (ESU 2050) – a document that would supersede the ESU 2035. Modelled on the European Green Deal, the document sets out a blueprint for the country's decarbonization and sustainable development. According to the available information, the country aims to increase the share of renewable energy in its power generation to 50% by 2035. The strategy is to provide a simultaneous development of nuclear and renewable power generation capacity, as well as plans to modernize and automatize Ukraine's transmission and distribution systems. Importantly, Ukraine aims to join the European network of electricity transmission system operators (ENTSO-E) to strengthen its energy security and it gained Observer Member status in April 2022. It has also been a member of the Energy Community since 2010. Ukraine's new strategy is notably more ambitious than its predecessor (the Energy Strategy of Ukraine until 2035). The document envisages Ukraine achieving climate neutrality by 2050 and is well-aligned with the objectives of the EU Green Deal, thus representing a further convergence of the Ukrainian governance framework with that of the European Union.

Pillar 2: European integration and robust policy framework for renewable development

Cooperation between the Ukrainian government and EU institutions will play a pivotal role in Ukraine's energy transition, its further integration with the EU, and ultimately in its possible accession to the Union. The European Union-Ukraine Association Agreement, in effect since 2017, largely frames the cooperation between the two parties and represents their commitment to the convergence of economic policy, legislation, and regulation. In 2023, the Energy Community Secretariat committed to supporting Ukraine in the preparation of a National Energy and Climate Plan to define its decarbonization pathway and strengthen its EU integration in this regard (Energy Community 2023). The recently adopted ESU 2050 and the forthcoming National and Energy Climate Plan represent steps in the right direction and demonstrate that Ukraine intends to follow the European path of energy transition. The two documents may help in harmonizing the policies and ensuring a sufficient level of cohesion across targets and policies.

Ukraine should work towards a harmonization of its governance framework in a way that reflects EU-level objectives. The Ukrainian government does not need to reinvent the wheel - the European Union has, over the past two decades, created a robust legal framework to achieve climate policy objectives. The key legislations currently supporting energy efficiency improvement measures on EU level are EED (Energy Efficiency Directive), IED (Industrial Emissions Directive), EPBD (Energy Performance Building Directive), Ecodesign Directive implementing various measures such as obligations, standards, audits, energy-efficient technologies etc. In terms of promoting renewables development, such as RED (Renewable Energy Directive), but also the EU Taxonomy, Net-zero Industry Act etc. Renewables are primarily supported through various schemes (fewer FITs and more competitive auctions for differential contracts), guarantees of origin, prosumer energy development, simplified permitting, the EU ETS imposing a climate levy on credits,

a competitive energy market, and the promotion of the growing cPPA (*corporate Power Purchase Agreement*) segment.

Importantly, regulation aimed at eradicating corruption will be key in creating an environment that is conducive to foreign investment - crucially needed for e.g., rebuilding and modernizing Ukraine's transmission and distribution networks and expanding its low-carbon capacities.

In July 2023, a key law improving the conditions for RES development in Ukraine is being processed by the government. The changes concern:

- introduction of new definitions into the law
- establishment of guarantees of origin for RES
- net-billing - a way of accounting for owners of small installations
- introduction of an auctioning system.

This law is an important step towards support of these sources and further integration with the law of the European Union and individual Member States. In the medium term, Ukraine must also finalize the introduction of an emissions trading scheme equivalent to the EU ETS. This will bring a further impetus to decarbonization, and additional revenues to the budget which can be redistributed for transformational purposes.

Moreover, a competitive, transparent market and greater regulatory certainty are also needed for the proper development of renewables. As the OECD points out, despite a generally pro-competitive market framework, the status quo is unsatisfactory and characterized by high regulatory uncertainty, reduced liquidity due to market segmentation and excessive interventionism like price caps or inadequate tariffs (OECD 2023). Considering the above, further transformation to more competitive, EU electricity markets is needed.

Pillar 3: Comprehensive support for energy efficiency on supply and demand side

Ukraine is one of the least energy-efficient countries in terms of energy consumed per GDP. As recognized by the European Commission, Ukraine is in the process of alignment to EU's energy efficiency standards, but still needs implementation acts to put the law into practice (EC 2023a, 48). Ukraine has a flagship building renovation programme, the Energy Efficiency Fund (EEF), assessed as well functioning. End-user efficiency will need scaling up efforts within a fund such as this, as well as in

the context of public buildings. Building renovation also refers to changing heat sources to more efficient ones. In the context of large-scale industrial or energy installations, there is still untapped potential for efficiency gains, but so far, they have not been cost-effective. The EU and the Member States have a proven track record of successful regulation in this area through regulations such as the IED, the ETS (indirectly or directly encouraging investments in energy efficiency) as well as, for example,

the white certificate schemes. Even a seemingly small increase in energy conversion efficiency in the case of coal-fired power stations (i.e. improvement of thermodynamic parameters, retrofit of generator section, automation,

etc.) or process efficiency in industrial installations, given the volumes of energy carriers consumed, translates into significant reductions in fuel consumption.

Pilar 4: Rebuilding and expanding infrastructure and capacities

Rebuilding and expanding infrastructure, particularly in the energy sector, in a war-affected country like Ukraine that is also aiming for swift decarbonization and integration with the EU, is a complex endeavour that needs a well-designed policy framework. The first step should be a comprehensive assessment of the damages to infrastructure and the current and future energy needs of the country. This will help in identifying the scale and type of infrastructure projects required and might be challenging because of the uncertainties caused by large-scale population movements and emigration caused by the war. The need to rebuild the infrastructure is an opportunity to do it in a way that adapts it to the future distribution energy system through an appropriate grid expansion and reinforcement planning, and the application of smart grid solutions. This must happen in parallel with the development of regulation and appropriate market design that will promote increased flexibility on the demand side and local balancing to avoid bottlenecks. Therefore, Ukrainian government will have to set clear and quantifiable goals for infrastructure development and its decarbonization taking into account the EU's energy and climate goals and considering the unique challenges and opportunities of Ukrainian power producers that may arise if export opportunities to the EU open. The policy should aim for the modernization of energy infrastructure, including the digitization of the energy grid and aim to improve efficiency, reliability, and the integration of renewable energy sources as well as increase export capacities to the EU through Polish, Romanian, Slovakian and Hungarian borders.

The policy framework should identify sources of funding for infrastructure projects. This might include government funding, private investments, and international aid or loans. The EU and international financial institutions like the European Investment Bank, European Bank for Reconstruction and Development or the World Bank could be potential sources of funding. At the same time public support can be crucial for the success of infrastructure projects and energy transition of Ukraine while the lack of transparency might create a major obstacle not only for swift execution of infrastructure investment but also for the acquisition of funds from international lenders. Therefore, government policy must aim to secure the transparency of the procurement pro

cesses. In particular clear guidelines and criteria for the selection of contractors should be established, and all decisions should be publicly justified, audited and oversighted.

Assuming that competitiveness of the Ukrainian power market should be one of the goals of the reconstruction programme, policies implemented should be designed to attract private investments into the sector. These could include tax incentives, loan guarantees, and measures to reduce regulatory uncertainty and should not favour either domestic or foreign contractors and energy companies. At the same time, the participatory decision-making is crucial for securing the public support for infrastructure projects and energy transition. Therefore, a wide range of stakeholders should be involved in public consultations of key infrastructure projects and policies should be developed to educate the public about the benefits of the development of renewable energy and energy infrastructure. Potential investors should contribute to the local communities through relevant taxation or fees supporting broader development of regions providing land and workforce for the development of energy projects. Given the large-scale emigration, policies should aim to develop the local workforce for the infrastructure and energy sectors. This might include vocational training programs and initiatives to attract skilled workers from other countries.

Pilar 5: Effective spending of public financial resources

Among experts and major institutional actors, such as the European Union or the World Bank, there is consensus that the reconstruction of Ukraine should be green and aligned with the objectives of sustainable development. At the Ukraine Recovery Conference in London in June 2023, more than 400 companies pledged support to the reconstruction efforts. Ahead of the conference, the European Commission announced a commitment of €50 billion in aid to Ukraine for the period 2024-2027 (EC 2023b). EU countries, the United States, and key institutions such as the World Bank, the International Monetary Fund, or the European Bank for Reconstruction and Development have demonstrated continued financial support to Ukraine since Russia's full-scale invasion in February 2022.

The reconstruction of Ukraine hinges on large-scale financial support from governments and international organizations. To ensure that reconstruction in the energy

sector aligns with the objectives of strengthening Ukraine's energy security (including achieving independence from Russia) and that Ukraine follows an ambitious decarbonization pathway, there will be a need for utmost transparency in how funds are spent. Moreover, Ukraine should develop green public procurement policy based on the EU *acquis*, which should include increasing the role of non-price criteria in procurement processes (Shestopaliuk 2022). Through this and other policies, Ukraine should aim to leverage private capital into the green reconstruction efforts. At the same time, redistribution measures aimed at protecting most vulnerable groups of citizens from the potential negative consequences of the energy transition must be ensured. Finally, Ukraine should ensure, through an adequate policy, that economic activities meet the criteria of EU sustainable finance standards, i.e., the EU taxonomy.

CONCLUSIONS

Burdened with uncertainty due to the ongoing war, Ukraine faces significant challenges in the context of maintaining a functioning energy system and ensuring a sufficient energy supply. At the same time, its government must engage in strategic medium- and long-term planning to ensure energy resilience of the State in the long run. However, Ukraine is not starting from scratch and has consistently engaged in building a policy framework that is aligned with the EU regulation in the past years. Moreover, recent developments (strategies, legislative changes) undertaken with the support of the international community in the midst of the ongoing war display country's potential for rapid and effective reforms. Now and in the future, once it enters full-scale recovery and reconstruction efforts, Ukraine will have to facilitate an effective leveraging of both private and public capital to accomplish its energy transition objectives. To this end, Ukraine will need to create a suitable regulatory and market environment for the development of sustainable solutions, especially in the realms of energy efficiency, electrification, and RES development. Support from the European Union and the broader international community will be pivotal in ensuring the facilitation of said goals. Internationally, especially in the European Union, there is an understanding that support must be multi-faceted: financial, legislative, administrative as well as technical. Thus, investment support should not only take the form of direct financial support, but also assistance in planning programmes, expenditure, technical and operational support. In addition, the EU will provide direct support in the

reform and integration processes, aiming at the unification of Ukrainian law with the community law. Integration and inclusion into the community will also take place at other levels, for example through European programmes (such as Horizon 2021-2027).

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LABOUR MARKET, RETURN MIGRATION AND IMMIGRATION IN THE CONTEXT OF UKRAINE'S POST-WAR RECONSTRUCTION AND MODERNISATION

The outbreak of full-scale war against Ukraine has resulted in the largest post-World War II forced migrations. These concern both the emigration of Ukrainians of a refugee nature, where Poland, Germany and the Czech Republic have become the main host countries, and internal displacement within Ukraine. According to UNHCR data as of the end of July 2023, more than 6.3 million war refugees from Ukraine were abroad of which 5.9 million were in Europe (UNHCR 2023). To this must be added about 5 million people who can be considered internally displaced persons. At the same time, Ukraine was already

experiencing very large outflows of citizens going mainly to other European countries in search for work opportunities. Outside Europe, a significant Ukrainian diaspora can be found in Canada and the USA, while several Central and Eastern European countries have a Ukrainian minority population. Before the outbreak of full-scale war in February 2022, the number of Ukrainian emigrants, mainly economic migrants, could be estimated at around 7 million (Lapshyna 2022). For example, there were approximately 1.3 million Ukrainians in Poland before 24 February 2022 (Duszczek, Kaczmarczyk 2022).

THE IMPLICATION OF THE WAR ON THE LABOUR MARKET

The exodus of citizens, particularly those of working age both before the outbreak of full-scale war (economic emigration) and after 24 February 2022 (refugee migration) may be one of the main impediments Ukraine may face during reconstruction once the war is over. Therefore, timely addressing the challenge of lack of suitably qualified workers appears as a necessary precondition for the future infrastructural and social investments during the reconstruction per se are adequately and timely implemented. These should include both issues of return migration to Ukraine and a properly designed selective immigration policy to make up for labour market shortages, as well as cooperation with the Ukrainian diaspora spread around the world. One should also bear in mind the transnational dimension of migration when many people combine professional and educational activities in Ukraine and the EU countries and develop new mobility patterns previously unknown.

At the same time, the role of employers, who will ultimately create jobs, will be crucial in the process of return migration and immigration policy. The businesses must prove attractive employment opportunities both to Ukrainians who have remained in Ukraine (encouraging them to stay), and those returning (encouraging them to move back). Otherwise, it will be extremely difficult, if possible at all, to reach the ultimate goal of providing the Ukrainian economy with an adequate number of well-prepared

and motivated workers. It should be emphasised that immigration to Ukraine should be complementary to the return of highly qualified well-paid workers who fled the war. That would allow keeping the wage levels high and, respectively, make sure the Ukraine economy stays on the path towards one less dependent on so-called “cheap labour”.

The experience and the additional social capital Ukrainians staying abroad acquire is particularly valuable for the future reconstruction and modernisation of Ukraine. The desired model of the economy and society can benefit not just from new technical skill but also (maybe most of all) from the new patterns of their economic and employment behaviour acquired during their operating in foreign labour markets. The current debate in Ukraine is increasingly focusing more on reconstruction and modernisation – and less on post-war rebuilding.* In this approach, the post-war period is seen not as recreation of the pre-2022 – or even pre-2014 – model, but most of all as an opportunity for complete reconstruction and redefinition of the state, its structures and legal foundation in line with the paradigm of sustainable human development. Taking into account a development model that takes into account the UN Sustainable Development Goals may prove crucial here (United Nations 2023). An additional argument for such an approach is also the need to decouple from Russia, both in terms of energy sources

* In the text, I use the terms “reconstruction and modernisation” of Ukraine, not just rebuilding. According to the position of the Ukrainian Government and my discussions in Ukraine, there is a consensus that the rebuilding of the country alone is not enough. What is needed first and foremost is its post-war reconstruction and modernisation.

(thus building a low-carbon economic base) as well as corporate culture and supply chains. From the point of view of the labour market and migration, including stimulating return migration, it is crucial to include Sustainable Development Goals #4 (Quality Education), #8 (Decent Work and Economic Growth), #9 (Industry, Innovation and Infrastructure) and #16 (Peace, Justice and Strong Institutions) in the future commitments by the Ukrainian state.

A key area for deciding on a model for rebuilding and modernising Ukraine is its demographic situation. According to the Ukrainian Bureau of Statistics, over the last thirty years Ukraine's population has fallen from 52 million in 1991 to around 42 million in 2020 (Ukrainian Bureau of Statistics 2020). This represents a decline of around 20%. This is one of the highest population declines of any cou-

ntry in the world. There are several reasons for this. A key one was high mortality with falling fertility rates and emigration. Russian aggression beginning in 2022 following on from the annexation of part of Ukraine's territory in 2014 has caused another exodus of population. It is estimated that by mid-2023 the population of Ukraine residing in the country was around 30 million, of which 5 million were internally displaced. This scale of demographic loss shows that even after the end of the war, Ukraine will not realistically reach the 2020 population numbers. Demographic projections are also not positive for Ukraine. The anticipated return migration is expected to compensate only partially the further natural decline in population. This means that in reconstruction and modernising Ukraine, the country will have to reckon with a population of between 26 and 32 million people (Rogoża 2023).

POTENTIAL AREAS OF INTERVENTION

The appropriate design and implementation of policy measures aiming at boosting the labour market capacity providing the necessary resources for the reconstruction and modernisation of Ukraine should build on five pillars:

1. **Sound analysis of the causes and the extent of labour emigration from Ukraine before 24 February 2022.**

Understanding the factors behind the pre-2022 trends could inform measures stimulating the return migration. At the same time, it should be borne in mind that a large proportion of these people have been in emigration for several years and have severed their ties with the Ukrainian labour market. Adequately understanding their motives would make the measures to stimulate return migration more realistic. Previous (pre-war) analyses need to be complemented to reflect the impact of the war with Russia on the perspective on migration and possible returns. These updates should be rooted in a comprehensive post-reconstruction and modernisation strategy.

2. **Detailed overview of refugee migration** (distribution by groups, family composition, current location, intentions for return, including the phenomenon of family reunification abroad). This is of particular importance because, with the phenomenon of family reunification that has occurred in several countries previously receiving labour migrants from Ukraine, it is difficult to expect mass return migration. It is also very important to have a similar overview of internal displacement within Ukraine and to examine the extent to which temporary displacement will turn into permanent migration, which may disrupt local labour markets in Ukraine. Updating it on regular basis could inform investment decisions at the local level.

3. **Forecasting the migration and labour market situation** in the context of Ukraine's reconstruction needs. In particular, this includes, on the one hand, preliminary estimates about the number of workers needed and their required skills sets, and, on the other, the potential needs of priority sectors for the reconstruction and modernisation of the Ukrainian economy. This will allow for the creation of evidence-based policies on both return migration and immigration to Ukraine. Moreover, matching both in advance (before the specific investment takes place) would shorten the preparatory phase of the investment cycle (e.g. preparing in advance a pool of skilled workers in a targeted region).

4. **Instruments and actions to stimulate return migration in cooperation with the diaspora.**

The key here is to draw on the experience of countries that have undertaken stimulating return migration – such as Poland or China. Although they have used different types of instrumentation, their experience should not be overlooked. However, it will be necessary to adapt the instruments used there to the Ukrainian specifics.

5. **Diagnosis and description of new patterns of mobility, transnationalism and social capital of migrants.**

It should be noted that migrants, including return migrants have very different mobility patterns. The pattern prior the outbreak of the full-scale war might be reversed and in which some household members might return to Ukraine and some might remain in host countries for economic or security reasons. Furthermore, it is necessary to pay attention to the transfer of social capital that accompanies migration. Ukraine can be a beneficiary of this phenomenon.

NECESSARY PRECONDITIONS FOR SUSTAINABLE RECONSTRUCTION AND MODERNISATION FROM THE POINT OF VIEW OF THE LABOUR MARKET

From the point of view of reconstruction and modernising Ukraine after the war with Russia, it is very important to make use of the time spent in exile – both by war refugees and by those who went abroad before the war. The provisions of the EU Temporary Protection Directive (European Council 2022¹) should be utilised in full in that matter. The directive not only enabled Ukrainians to take up employment on practically equal terms with nationals, but also removed the restrictions for businesses in that matter (there is almost full inclusion of Ukrainians in the free movement of workers and freedom of services).

Most EU Member States, including Poland, have set up special schemes to support Ukrainians in starting a business. As a result, many companies set up by Ukrainians are being established within the EU territory. In Poland, according to data as of the end of June 2023, Ukrainian citizens have created almost 30,000 companies since the end of February 2022. In 2023, one in ten companies established in Poland was Ukrainian.* These companies were established primarily in sectors such as construction, information and communication and various types of services (Polish Economic Institute 2023). They establish business contacts primarily with the entities of the country in which the business is conducted, but at the same time, due to the possibility of operating in the single market, they have the opportunity to cooperate with companies from the entire European Union. Networks of cooperation are therefore being created – and can be extended to Ukraine once the war is over. Such networks bear an important potential not just for the reconstruction and modernisation of the country but, most of all, for its integration into the EU. It must be said, however, that this may be a so-called “theoretical potential”, and there is no guarantee that the companies that emerge in the EU, including Poland, will play a significant role in the Ukrainian economy after the war. Indeed, if they choose not to invest in Ukraine, the profit from their experience that they acquire in the EU will not be realised. Therefore, reflecting on the potential of such networks is extremely important in the context of the preparation and the future negotiations for Ukraine's membership of the European Union.

It is therefore necessary to take measures that will increase the chances of a positive development scenario. This also applies to the issue of employees. It is crucial to avoid a situation in which only Ukrainians are employed by Ukrainian companies. This creates the phenomenon

of ghettoisation of the labour market and severely limits development potential. Therefore, it is very important to convince Ukrainian entrepreneurs that, despite potential stereotypes and diverse mindsets, it is important for them to try to employ Poles as well as foreigners living in Poland. The co-existence of Polish and Ukrainian employees yields benefits for both sides involved. It facilitates the transfer of technical skills and work culture, breaks stereotypes about “otherness” – but also improves Ukrainian employees' awareness of the labour laws applicable in Poland and the EU. With the potential return of these workers to Ukraine, this may provide additional capital for the modernisation of Ukrainian labour law and the standards that apply there.

This pattern has been observed, inter alia, in the case of Poles returning after living and working in countries with a better work and employment culture and, above all, relations between employees and employers. Upon their return, they did not accept the terms or conditions that were offered to them by their employers, in practice forcing a change to more pro-employee ones. We should strive for a similar scenario to occur also in the case of Ukraine. Indeed, it is hard to imagine that Ukrainians will return to Ukraine if they cannot count on employment conditions (not only in terms of salary, but also in terms of work culture) similar to those in the countries where they have worked. But for these potential benefits to materialise, negative phenomena, such as discrimination against foreign workers in their host countries should be addressed. It's modestly promising to see that, as experience to date shows, such incidents gradually become less pronounced, and the working conditions of foreigners improve over time, above all in countries with low labour supply and low unemployment rate. This is currently the situation in Poland and many other EU Member States with Ukrainians.

Another element that can be used in the reconstruction and modernisation of Ukraine is the relocation of Ukrainian companies operating in the EU to Ukraine after the war. Again, the key issue here is that of the workers employed in them. If a particular enterprise relocates with its employees, the gain for Ukraine would be double. This is because not only will there be a transfer of the enterprises, but also the number of employees present on the Ukrainian labour market will increase. But in practice, this might be tricky. Unlike financial or fixed capital, human capital has a free choice and needs incentives

* Data based on Central Registration and Information on Business Activity registers, Ceidg.gov.pl

to move. The immediate benefits associated with such move (e.g. no break in employment when returning to Ukraine and no need to search for a suitable job) might be insufficient compared to opportunities in the current host country. Designing in advance support schemes to incentivise such relocation of labour force together with the company might be a good long-term investment in sustainable reconstruction of the country.

The third element to consider is the question of the acquisition of qualifications in the host country and their recognition in Ukraine. Ukrainian workers are very active in the EU labour markets and acquire many qualifications, often in innovative professions that were not very widespread in Ukraine. One of the few exceptions in this respect is IT, which was and still is very well developed in the country. As a general rule, however, the markets of the Member States are better developed than the Ukrainian market, so it can be assumed that workers employed in various industries acquire qualifications that they would not have acquired in Ukraine. This is an important element of Ukraine's development potential that should be exploited. However, two potential bottlenecks need to be addressed here. Firstly, qualifications acquired in the EU countries, including Poland, must be done in a formal way and should therefore be accompanied by a certificate. Secondly, the recognition of these qualifications should be simplified or even automatic in Ukraine. The system in force in the EU could be used here (it is, however, far from perfect), which would have the additional advantage of preparing Ukraine for the EU membership in this area. In an optimal scenario, Ukrainian workers returning after a period of residence abroad or an EU citizen who has decided to emigrate for work to Ukraine should have their qualifications acquired in the EU recognised automatically or in a simplified manner. This would constitute the removal of another obstacle to the decision to migrate back.

Another issue that may seem politically controversial, but is not a reason to abandon it, concerns Belarusian citizens who are employed in various EU Member States. In a scenario where Belarus remains in Russia's direct sphere of influence for years to come, many Belarusians may be interested in moving to Ukraine after the war is over. The Belarusian diaspora in the European Union can be estimated at around 1 million people.* They are mostly well-educated people who cannot return to Belarus. It is therefore advisable to create instruments aimed at Belarusians so that they consider leaving for Ukraine to be active on the labour market there. Certainly, an important argument in favour of such a solution is the cultural proximity of Ukraine and Belarus, geographical proximity, linguistic community and the fact that in the Ukrainian

armed forces there are units composed of Belarusian soldiers (Skove 2023). It would certainly be necessary to take measures aimed directly at Ukrainian society, so that the presence of Belarusians would not be met with ostracism or even hostility on the part of Ukrainians. Similar measures to those for could be taken for citizens of other eastern European countries and Asian countries that were part of Soviet Russia in the past.

All the measures described above fit very well with the two Sustainable Development Goals aiming to make full use of workers' potentials, namely Goals #8 (Decent Work and Economic Growth) and #9 (Industry, Innovation and Infrastructure).

From the point of view of the reconstruction and modernisation of Ukraine, in line with the objectives of sustainable development, it is also very important to pay attention to Goal #4 (Quality Education). Although it mainly concerns formal education at its various levels, the issue of lifelong learning should not be forgotten in the case of the human capital of Ukrainians on temporary emigration. The period of stay in the EU countries should not be wasted in terms of acquiring new qualifications or retraining. Poland and several other EU Member States have very well-developed systems for the acquisition of qualifications and retraining of workers. Due to the low level of unemployment and the small number of unemployed, the potential of adult training institutions, often built with support from the EU budget, is not fully utilised. Therefore, there is an opportunity to prepare special programmes for Ukrainians so that they can acquire new qualifications or undergo retraining. Such a model is a win/win, i.e. it is profitable in every scenario. If those who undergo training and retraining remain in Poland or other EU Member States, they will certainly find it easier to find their way in the labour market. However, if they decide to return to Ukraine, they will strengthen the chances of innovative programmes for the reconstruction and modernisation of Ukraine.

When it comes to educational issues, formal education, i.e. primary and secondary school pupils and students, should not be forgotten either. A period spent in exile by children and young people should not mean a break or a drop in school attendance. In the meantime, many students only declare to continue their remote learning in accordance with the Ukrainian school curriculum. If one adds the time of the pandemic to the end of the war with Russia, this means that the period of remote learning has already exceeded three years. Ample evidence already suggests that the remote learning model is not as effective as the traditional learning model, both in terms of acquiring knowledge as well as social skills (Hasan et. Al

* Own estimates based on Eurostat, World Bank and United Nations data.

2023) Therefore, there is a growing risk that a considerable share of the student population will not receive formal education at a level that would allow them to continue their education at university or enter the labour market. If these individuals remain in the host countries, they risk being excluded. If, on the other hand, they decide to return to Ukraine, their development potential will be limited anyway, which would require catching up – something that may be very difficult if possible at all.

In the case of higher education, it is necessary to enable Ukrainian graduates of EU Member State universities to have their diplomas recognised in Ukraine and to develop

special instruments to encourage them to return to Ukraine. It would also be advisable to carry out internships in Ukraine during their studies. However, this would require changes to Ukrainian legislation prohibiting men aged 18–60 from leaving Ukraine as per Art. 8, para. 16. Decree No. 64/2022 on the Introduction of Martial Law in the entire territory of Ukraine (Council of Europe 2022). This is because it is difficult to expect that they would be willing to return to Ukraine if it meant that they would be unable to continue their studies abroad. It is necessary here to maintain links between Ukrainian students studying abroad and Ukrainian public and private institutions.

POSSIBLE SPECIFIC MEASURES IN KEY AREAS

Labour market

An analysis of the projects of activities aimed at reconstruction and modernising Ukraine after the war with Russia shows that they mainly focus on identifying economic actors and assessing their potential for participation in economic activities in Ukraine (World Bank 2023). Various databases are being created, industry meetings are being held, including linking companies from the EU Member States with companies from Ukraine (e.g. the Donor Coordination Platform for Ukraine). In Poland, the Polish Investment and Trade Agency plays such a role. In addition, donor meetings are held to pledge financial support for Ukraine after the war. One such meeting took place in London on 21/22 June 2023 (URC 2023). At the same time, issues related to the provision of an adequate number of workers with skills suited to Ukraine's reconstruction and modernisation programmes are only occasionally raised. Unfortunately, as has been pointed out already, there is a risk that even if adequate economic and financial resources for reconstruction are secured, insufficient numbers of workers to carry out the investments may be a hurdle with the potential for delaying the reconstruction and modernisation of the country. The risk that the necessary investments may not be realised is considerable, which would be particularly dangerous in the case of critical infrastructure. It is therefore crucial to integrate labour market issues into modernisation plans. Six important points should be considered:

1.

Government guarantees and insurance schemes should be expanded beyond covering the investments themselves made by entities from Member States or the export of goods to include also the provision of a system of special insurance for workers who decide to go to Ukraine to participate in its reconstruction and modernisation. This should apply in particular to posted workers, i.e. those

employed by a particular company which will take part in investments carried out in Ukraine. At the same time, it is necessary to create preferences for the export of goods and services from Ukraine to the EU. The experience of Ukrainian grain exports in 2023, which led to tensions in relations with Poland, among others, should be used.

2.

Programmes targeting businesses, e.g. those financed by the European Investment Bank, should include the issue of proving capacity in terms of the workforce that would carry out the respective investment. It would also be crucial to show (make them public) the rules for recruiting these workers and the working conditions they will perform. Investment measures should not perpetuate the labour market rules of the past in Ukraine but should be used as a leverage for modernising the pre-war labour market of Ukraine.

3.

Targeted support for small and medium-sized enterprises that generate the most jobs. The modernisation experience of Central and Eastern European countries shows that SMEs are the key players for success. They are the ones with the quickest capacity to adapt to change and create jobs. Therefore, in addition to the focus on large economic players, programmes for job creation in the SME sector are necessary. These efforts should be matched by measures and incentives for businesses to move out from the shadow economy and provide high-quality, formal and secure jobs. The experience of the countries in the region would be relevant to take into consideration so as to avoid the mistakes made, for example, in creating so-called “junk jobs” with low wages and unstable employment.

4.

Setting up a logistics centre for recruiting workers for the reconstruction and modernisation of Ukraine would also make sense. For obvious reasons, it should be established in Ukraine, but should have 'daughter companies' in at least several countries (certainly, in those with a large number of Ukrainians, i.e. Poland, the Czech Republic, Germany and Canada). Such branches could also be planned in countries of the former Soviet Union, such as Georgia or Moldova. In order to hedge the risk that the governments of some countries might be reluctant to establish such recruitment centres, signing bilateral and multilateral agreements or arrangements might be necessary. Securing the support of (or even engaging) the European Commission in the establishment of these centres (maybe under an EU-funded programme) could overcome part of the potential resistance as well as create synergies with investment activities.

5.

Producing a report conceptualising the experience of rebuilding the Balkan states after the end of the war in the 1990s. This example seems the closest from the point of view of use in the reconstruction and modernisation of Ukraine. The post-war reconstruction of Europe after 1945 or the modernisation experience of the central and eastern European countries that have joined the EU could also be useful, although to a lesser extent. Such a report should include a detailed section on the labour market, including post-war returns to regions of previous residence and the effects of reconstruction on the situation of workers and the labour market model.

6.

Building on previous experience with remote (tele)work by Ukrainians living abroad for Ukrainian or international companies operating in Ukraine. Before the outbreak of the full-scale war, Ukraine was already known for its highly developed remote labour market and the spread of so-called teleworking. This experience should be used in the process of rebuilding and modernising Ukraine. Of course, this only applies to some jobs and does not solve the labour shortage, but nevertheless this employment sector should not be forgotten (OCHA 2023).

Return migrations

Return migration has already been mentioned on a number of occasions as an essential element for the reconstruction and modernisation of Ukraine. Three steps in that matter are particularly important. At the outset, it should be pointed out that the experience to date of stimulating return migration is mixed. Some of the solutions applied by different countries have not worked. On

the other hand, there are several approaches that should be considered. In the case of Ukraine, especially in the first months after the end of the war, there may be a phenomenon that has not been observed in other cases of stimulating return migration, i.e. euphoria resulting from having defended the homeland and not having given in to Russian aggression, and sincere and deep patriotism. The analysis focuses only on those instruments that have shown a positive effect of their application in the past. An important source of knowledge is the "Powrotnik" programme aimed at stimulating return migration of Poles who left Poland after it had joined the European Union.

1.

The administrative facilitation that removes obstacles to the return to the country of origin appears to be among most important element of a programme stimulating the return migration. This applies in particular to the transfer of assets accumulated during emigration, recognition of professional qualifications, counting the period of residence and work abroad as a basis for rights or benefits in the country of origin, etc. As a general rule, solutions that remove regulations impeding a genuine return from emigration work.

2.

Return incentives in the form of grants or tax benefits appear as a very frequently used and effective instrument. However, this instrument – with all its potential to stimulate return migration – should be used with caution. In particular, citizens of the country of origin, in this case Ukraine, who have not travelled abroad must not feel discriminated against. Thus, the introduction of this solution must not intensify the potential conflict between those who stayed abroad during the war and those who remained in Ukraine and, above all, those who fought directly at the front. Therefore, financial and tax instruments should only be used to a limited extent targeting specific groups of return migrants, e.g. those with unique skills that are necessary for the reconstruction and modernisation of Ukraine.

3.

Developing a special system aimed at children and young people would be important given the social profile of war refugees (mainly women and children). This should include issues of recognition of the period of education abroad and special reintegration programmes in the Ukrainian school system. The results of the research and the analysis of the experience of the decision to return to the country of origin show that this decision is often made on the basis of considerations regarding the future of children (Gmelch 1980, Duszczyk 2007). Thus, without building an administrative, pedagogical and psychological

system aimed at children returning from emigration, it will be difficult to convince their parents to take the decision to return to Ukraine.

Immigration policy

In parallel to the optimistic assumptions about the return of Ukrainians from emigration, it is also advisable to develop alternative scenarios for an immigration policy aimed at filling the shortage of workers in the Ukrainian labour market during the post-war reconstruction and modernisation. Belarusians and the possibility of their relocation from the countries where they currently reside to Ukraine has already been mentioned – but this is only one element of a potential comprehensive Ukrainian immigration policy built on selective solutions targeting citizens of countries with which Ukraine has positive relations. This would avoid potential tensions between migrants and nationals. It is realistic to assume that Ukraine, even after repelling Russian aggression, will be a country with emotionally loaded social processes that are difficult to control. Ukraine's politics will largely be hostage to the relationships created during the war with a clear cleavage between those who supported Ukraine and those who remained passive (or, worst of all, supported Russia). Therefore, the selection of potential immigrants and the creation of preferences for them must take this fact into account. In the context of immigration policy, it is advisable to recommend three premises for opening the Ukrainian labour market.

1.

Creation of a list of “friendly” countries from which labour immigration to Ukraine would be facilitated. This should include the issue of obtaining an employment permit and the right of residence, but also the issue of equality in terms of taxes and insurance contributions. It may also be crucial for the Ukrainian state to take up the issue of counting the period worked in Ukraine towards pension benefits in the future. For citizens of the EU Member States, this should not be a problem, as the assumption is that Ukraine will become a member of the EU and therefore a part of EU coordination of social security systems. The challenge may be the adoption of this assumption in relation to citizens of third countries, for whom membership of the EU or the settlement of social or pension benefits may be illusory in the medium or even long term.

2.

Development of a list of priority professions necessary for the reconstruction and modernisation of Ukraine. In these professions, immigrants with the right qualifications would be subject to simplified procedures, including

for the recognition of professional qualifications. Ukraine must realise that it has to take part in competition with other countries that need exactly the same workers in their labour markets. At the same time, it is at a disadvantage, in terms of security. It must therefore use innovative solutions to convince workers to come to Ukraine.

3.

Effective reintegration of return migrants and the integration of foreign workers into Ukrainian society. As indicated above, Ukraine's demographic situation is very worrying, if not alarming. Therefore, responsible opening up matched with active integration programmes to avoid the exclusion of foreigners and stimulate immigrants to stay in Ukraine is in the country's best interest. It should be assumed that in a 10- to 20-year timeframe Ukraine will become a multicultural country with a high proportion of immigrants. Only in such a scenario will it be able to have the potential to compete economically and resist a potential next Russian aggression in the future.

A citizen/worker-friendly state

The final element of a comprehensive response to the labour market challenges post-war Ukraine would be facing (directly related to the Sustainable Development Goals) is building a functioning state based on the rule of law in Ukraine. This is SDG #16 (Peace, Justice and Strong Institutions). One of the key elements of building such a state model is the issue of labour rights, including independent control institutions for the respect of labour rights, including health and safety conditions. For this, in the context of labour immigration to Ukraine, it is necessary to build strong institutions focused on respecting the rights of immigrants and not allowing violations of their rights. Paradoxically, Ukraine is currently in a better position to build a new state model than countries that are well-established democracies or are currently undergoing various kinds of turbulence with respect to human rights or the rule of law. This is related to the specifics of a post-war period. However, it is important to realise that this time can also be used to build an authoritarian or even dictatorial state. The actions of international institutions and the governments of the countries that most supported Ukraine during the war should reduce this challenge through diplomatic action, but also through conditionalities by making support for the post-war reconstruction and rebuilding of Ukraine conditional on meeting the requirements for building a pro-Western, democratic and free-market state based on the rule of law.

CONCLUSIONS

This chapter aimed to summarise the key challenges Ukraine's post-war reconstruction and modernisation faces from the perspective of three overlapping areas: the labour market, return migration and immigration. The premise is that demographic problems and emigration to other countries, resulting in shrinking Ukrainian population and the availability of workers, can be a major constraint on Ukraine's social and economic trans-

formation process. Therefore, sustainable response to these challenges requires concerted implementation of a set of mutually related measures. The measures proposed do not exhaust all possibilities, but can be taken as a voice in the discussion on the conditions necessary to be met in the reconstruction and modernisation of Ukraine, so that it is successful.



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THE WAR AND ITS TOLL ON THE ENVIRONMENT

The nature of Ukraine is diverse and rich. However, it is vulnerable and suffering due to significant destruction caused by the war. The main environmental assets such as forests, fresh and marine waters and soils, traditionally used for economic purposes and nature protection, now

losing their quality and quantity determining not only the well-being of the Ukrainian people but also people and their food security and economic situation far beyond of the border of Ukraine.

OVERVIEW OF THE ENVIRONMENTAL ASSETS

Forests in Ukraine occupy about 10 mln ha, which is approximately 16% of the country's area. Forests are unevenly distributed with the highest coverage in the north and the west of the country. The fewest forests are in the south and the east along the coast of the Sea of Azov and Black Sea. 87% of forest areas are state-owned, 13% belong to local communities and less than 1% of forests are privately owned (LUBo 2022). The richest in biodiversity and valuable for nature conservation are old-growth forests in the Carpathians and Polissia, floodplain forests, alder forests on wetlands, oak and other natural groves throughout Ukraine, and natural deciduous forests in ravine and small forest groves of endemic species in the east and south of the country (Міндовкілля 2022).

Freshwater ecosystems. Surface freshwater bodies of Ukraine cover 24,100 sq. km or 4.0% of the country and are dedicated to 9 areas of river basins. Among all the rivers of Ukraine, the Dnipro has the largest catchment area within the country. The average density of the river network is 0.34 km/sq. km. The highest density of the river network is in the Carpathians. The lowest density of the river network is observed in the south. To provide the population and economic sectors with the required amount of water, 1,103 reservoirs with a total volume of over 55 billion cubic metres were built in Ukraine and about 48,000 ponds, 7 large canals with a length of 1,021 km with a supply of 1,000 cubic metres of water per second, large-diameter water pipes that bring water to low-water regions of Ukraine (Міндовкілля 2022).

Coastal areas and marine waters. The length of the coastline of Ukraine along the Black Sea and the Sea of Azov is about 2,700 km (CEOBS 2023). The total area of the territorial sea and exclusive maritime economic zone before Russia's invasion was equal to 137,000 sq. km (Kravchenko 2020). The Azov-Black Sea coast lies at the crossroads of several important flyways connecting bird nesting sites in Eurasia with wintering sites in Africa and the Middle East. Almost 500,000 waterfowl nest in the region. More than 8 mln birds migrate twice a year, stopping, sometimes for a long time. From 400 to 700,000, waterfowl overwinter near the coast of the Azov and Black Seas.

Soil and grasslands. Ukraine is endowed with the largest areas of agricultural land and the most fertile soils in Europe and the world. Of the country's total territory of 60.3 mln ha, agricultural land accounts for 42.7 mln ha (70.8% of the country). Of these, 33 mln ha of land (55% of the country) are arable (Мінагрополітики 2021). Approximately 20% (~8 mln ha) of agricultural land is used as pastures and hayfields (Латифундист медіа 2020). The most fertile lands, chernozems, are located in the south and the east of Ukraine, which belong to the steppe climatic zone, and where chernozems were formed thanks to the vital activity of steppe vegetation and the related fauna (Бурковський et al. 2017).

THE SCALE OF THE DAMAGE AND ITS ECONOMIC IMPLICATIONS

War is among the most dramatic anthropogenic factors impacting the environment. The taxonomy of warfare includes preparations for war, war (violent conflict), and postwar activities. It contains elements such as military

activities, infrastructure, and governance that influence both warfare outcomes and ecological impacts (Machlis and Hanson 2011). Military activities can affect the environment directly and indirectly, intentionally or

unintentionally, destroying or altering natural habitats and resources. Institutional and socioeconomic changes associated with war can have an even more significant impact on the environment than military action (Gaynor et al. 2016).

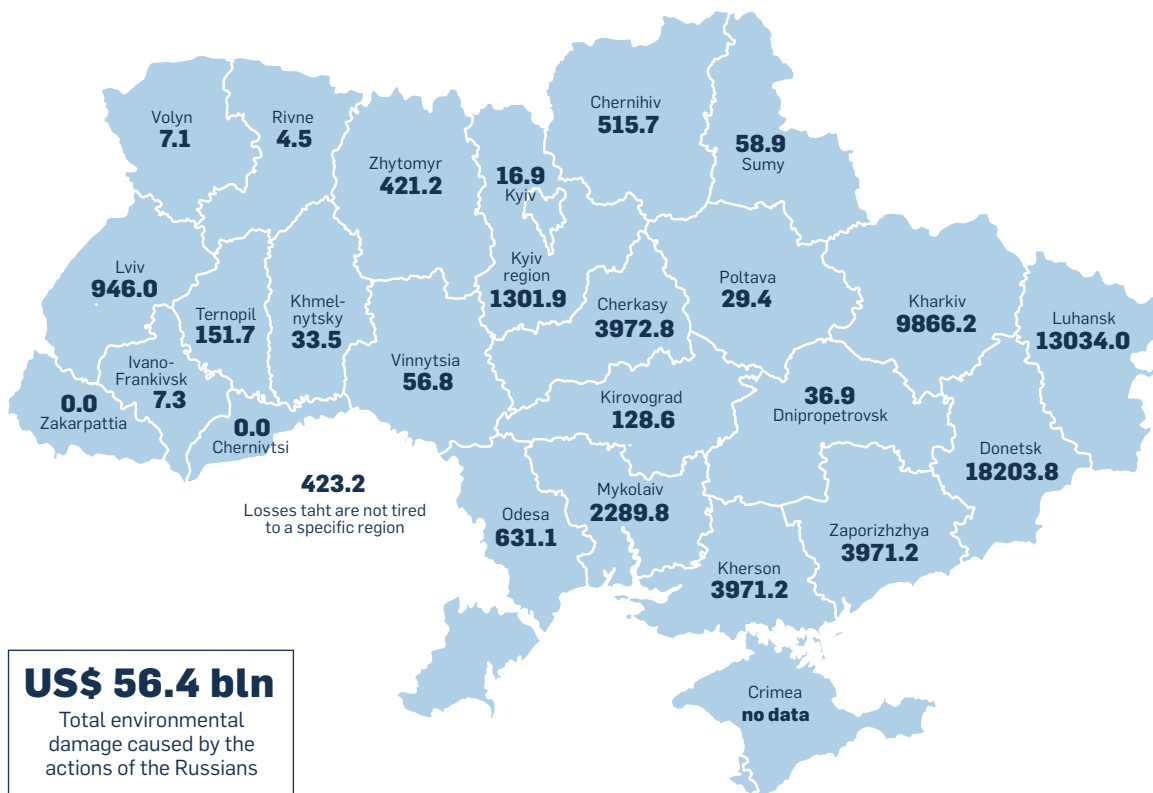
The consequences of the direct impact of combat activities on the environment in Ukraine include devastation caused by the physical impact of fires, explosions, soil damage, etc.; direct mass exposure to toxic chemicals released to the environment by the use of military equipment, ammunition components, explosives, and rocket fuel; destruction of the environment by man-made disasters caused by the shelling of industrial plants and infrastructure. Every fired projectile is a mixture of hazardous substances. A large amount of flooded and buried military equipment and ammunition will decompose for hundreds of years and can poison ecosystems with metals, oil products, etc. (Angurets O. et al. 2023).

The movement of heavy military vehicles, arrangement of army staging grounds, hostilities, artillery and aerial shelling, mining and other military activities destroy vegetation and soil cover, increasing the mortality of animals and the risk of forest (Блага et al. 2017; Василюк et al. 2019; Олег Батурін 2023). Any war causes the mass death of people and animals and a significant number of the casualties are left unburied for a long time or buried shallowly and complicates the epidemiological situation in large areas (Angurets O. et al. 2023).

Some 2,500 crimes committed by the occupiers against the environment have been recorded during the period of the full-scale invasion. The monetary value of the environmental damage is estimated at over 2 trillion hryvnias; 1 day of war causes 4 bln UAH of damage to the environment (Міндовкілля 2023d). Figure 10 visualises the regional distribution of the damage.

Figure 10.
Preliminary financial assessment of damage to the environment (without the destruction of the Kakhovskaya Dam).

Environmental damage caused by Russian aggression during the full-scale invasion*, by region, USD million



Source: TOP LEAD LLC 2023, 11

Forests

With the beginning of Russia's full-scale invasion, many forests turned into battlefields or troops' locations or sites for defence structures, including minefields. Preliminary estimates suggest that approximately 3 mln ha of forests are located in the battle zones and areas occupied by the Russian troops. According to the State Forest Resource Agency of Ukraine (SFRA), the military aggression affected an area of 2.9 mln ha. Some 690,000 ha of forests need demining (Держлісгосп 2022). However, the scale of damage will be most probably bigger given the fact that the full-scale invasion is continuing and because the available data do not cover all areas either because they

serve as battlefields or are still under Russian occupation. An assessment by the World Bank identified 183,000 ha of forest fires during the one year of the war (World Bank Group 2023).

In some cases, the damage to the forests goes back to 2014. This is the case of the forests in the Svyaty Hory (Holy Mountains) National Nature Park located in the Donetsk region, which suffered from combat operations and mine-planting back in 2014. The full-fledged war in 2022 made the already dire situation catastrophic.

The impact of the current war: piling up on the damage from 2014

The Svyaty Hory National Nature Park in the Doneck region was completely occupied by the Russian troops in the spring of 2022 and liberated by the Ukrainian army in the autumn of 2022. The total area of the Park is 40,605.5 ha, of which the forested area is approximately 33,500 ha. According to preliminary estimates, 18,000 ha of forests were damaged by fires or movement of military vehicles, creation of trenches, explosions etc. As a result of the fires, valuable natural forests of the endemic species of chalk pine were completely burned (habitat type G3.4G. *Pinus sylvestris* forest on chalk in the steppe zone), and ancient oak forests were badly damaged. Most of the forests are potentially mined and need to be examined. As of May 2023, only 1% of the Park is surveyed and relatively safe and accessible to park staff. The premises of the Park were badly damaged, and the equipment was destroyed or stolen. Half of the Park workers are internally displaced and have nowhere to return to due to the destruction of their homes. However, the Park is gradually resuming its activities and is primarily focused on restoring the ability to work and identifying dangerous zones and assessing the damage caused by hostilities (Павлій 2023).

The forests in the south part of the country consist mostly of artificial pine plantations, but also there are some areas with very valuable natural oak, birch and alder forests. The importance of all of these forests has been recognised and most of them are included in many parks and reserves. Russian troops used forests in this region to camouflage their positions and equipment from the first days of the invasion. As a result of shelling, fires, and flooding the forests in the Mykolaiv and Kherson regions were significantly damaged (Батурін 2023).

The situation in the forests in the northern part of the country threatens the destruction of valuable forests as a result of shelling from the territory of Russia and complicates the creation of large areas of minefields and the arrangement of borders between Ukraine, Belarus and Russia from both sides, which will have an impact for

a long time in the future. The war puts a heavy toll also on the wildlife in the forests. The erection of fortifications, barbed wire, and minefields makes it impossible for large animals such as European bison, elk, red deer, bear, wolf, lynx, etc. to migrate putting at risk the preservation of one of the largest and most valuable forest and natural areas in Ukraine and Europe (Баран and Кученко 2023).

Freshwater ecosystems

As a result of Russia's invasion, two of the river basin districts, Crimea (since 2014) and the Azov coast, are completely located in the territory controlled by Russian troops. Four areas of river basin districts were partially occupied: approx. 69% of the Don River basin district, 22% of the Black Sea River basin district, and 6% of the Dnipro River basin district. Among critical sources of water: 2 large canals were completely located on currently occupied territory: the North Crimean and Kakhovsky main canals; 1 canal was partially occupied - 40% of the length of the Siverskyi Donets-Donbas canal; a large part of the Siverskyi Donets River (Donbas region); the lower part of the Kakhovka reservoir together with the Kakhovka HPP (Khilchevskiy and Grebin 2022).

The following types of realised impacts were identified: water-transfer interruption surface-water pollution due

to military actions with cases of sunken military objects and release of chemicals as a result of shelling, damage to dams (four at reservoirs and one along the North Crimean canal), mines overflowing, bacteriological pollution due to mass poultry death, and of interrupted operation of hydroelectric power stations. Furthermore, there are impacts on water supply and wastewater treatment systems, including cases of disrupted operation of water and wastewater treatment facilities, disrupted centralised water supply and disrupted operation of wastewater treatment plants. Such impacts are the result of direct attacks, due to power-supply cut-offs, and a combination of both, instances of the pollution of surface waters are from sunken military objects, related to the indirect damage of the water supply system and due to unusual operation conditions (Shumilova et al. 2023).

The most influential destruction of freshwater reservoir

The destruction of the Kakhovka dam and reservoir was the most dramatic with the broadest long-term implications. In November 2022, the dam was partially damaged and mined by Russian troops. The lack of proper water management led to the temporary shallowing of the reservoir in the autumn-winter period and the subsequent excessive filling of the reservoir during the spring (Shumilova et al. 2023). The next destruction of the dam on 6 June 2023 led to catastrophic consequences. Water from the reservoir flooded 88 settlements and 620 sq. km of land. The discharge of fresh water into the Black Sea reached the shores of Romania and Bulgaria. Thousands of tons of grease, fuel, sewage, and fertilisers got into the water. Dozens of people died in the territories controlled by Ukraine. The number of dead on the left bank, which was more affected by the flooding and is under the control of Russian troops, has not been established. The disappearance of the reservoir led to the termination of water supply to the irrigation networks and the North Crimea Canal, which provided drinking water and water for irrigation in the Dnipropetrovsk, Zaporizhzhia, Kherson regions and the Crimea. The Lower Dnieper National Nature Park, whose area begins below the dam and covers the entire Dnieper Delta, has been flooded for three months. The water areas of the two other national parks, which covered parts of the Kakhovka reservoir, have been drained and lost their value. Thousands, if not millions, of fish, amphibians and reptiles, mammals and birds have died due to the sudden shallowing of the reservoir and the flooding of the territories. The restoration of biodiversity will take decades (ConEnvObs 2023; PAX 2023; Міндовкілля 2023a).

Several impacts on freshwater resources and water infrastructure were also recorded in the western regions of Ukraine far from active ground military operations due to the destruction of infrastructure and following pollution of rivers by chemicals and fuel (Shumilova et al. 2023). Moreover, the Pripjat River and the Desna River, which are located in the north of the country on the border with Belarus and Russia and are large tributaries of

the Dnipro River, partially fell into combat zones at the beginning of the invasion and are currently under threat due to construction of defensive structures along the borders, periodic shelling, mining and possible activation military operations on the border zone (ЕПЛ 2023).

Coastal areas and marine waters

Tendencies regarding the creation of a conflict situation around the Black and Azov Seas became evident in 2003 and led to the establishment of state borders and the recognition of the Sea of Azov as internal waters of the Russian federation and Ukraine, contrary to international maritime law (УСТИМЕНКО et al. 2022). Further actions of the Russian federation are related to the annexation of the Crimean Peninsula in 2014 and the occupation of Donetsk, Zaporizhzhia and Kherson regions by a full-scale invasion in 2022. As a result, Ukraine has lost access to the Sea of Azov and a large part of its southern and south-eastern coast of the Black Sea and has lost control over 100,000 sq. km maritime area (CEOBS 2023; Kravchenko 2020).

Major effects of war on coastal and marine ecosystems include chemical and acoustic pollution, reduction and alteration of sea lanes, physical damage to natural habitats, and decline in conservation activities. Civilian and military vessels were attacked from both sides. Coastal and marine ecosystems have been affected by chemical pollution caused by damage and disruption of water supply and drainage infrastructure and increased volumes of wastewater discharges in settlements and industries located upstream of rivers that flow into the sea. War and occupation have resulted in or exacerbated damage and disruption to a range of coastal and marine habitats, many of which are vulnerable or highly sensitive. Minefields were deployed on beaches and coasts to prevent army landings, and sea mines were deployed by Russia and Ukraine. Military actions also hinder environmental monitoring and management of the Black and Azov Seas.

The construction of trenches and fortifications destroys vegetation and increases soil erosion, and garbage and military waste pollute soil and water. With the movement of the front line, the line of physical destruction of natural habitats also shifts, especially where they are subjected to intense shelling. An example of this is the ecologically sensitive wetlands along the Dnieper Delta in the Kherson region, which were used for fortification by Russia after its withdrawal from the city of Kherson. Some valuable wetlands and coastal areas have been turned into military training grounds. In addition to physical destruction, noise pollution is likely to affect bird and mammal species and aquatic species. Zmiiny Island became the site of intense hostilities from February to July with the use of heavy explosives and incendiary weapons. The largest marine nature conservation area in the Black Sea, which was created to protect the restoration of algae, has likely been affected by several oil spills and sinkings of ships, including the cruiser Moskva (CEOBS 2023; Міндовкілля 2023a).

The impact of hostilities on the Dnipro-Buzkyi Estuary

The waters of the Dnipro and Southern Bug rivers form a shallow (average depth of 6-7 metres) estuary between the Kinbur Peninsula and the mainland below the cities of Kherson and Mykolaiv till the town of Ochakiv. These cities have been shelled literally since the early days of the full-scale invasion. After the capture of the Kinburn Peninsula by Russian troops, shelling of the town of Ochakiv and the villages on the right bank of the estuary became almost daily (Козова 2023). The destruction of infrastructure and industry in cities and villages caused the pollution of the estuary waters by domestic sewage, vegetable oil, grease, gasoline, oil, fertilisers and other substances (CEOBS 2023). The consequences of the destruction of the Kakhovka dam had a very extensive impact because a large part of the garbage and chemical pollutants settled on the bottom of the Dnipro-Buzkyi estuary (Міндовкілля 2023a). An important threat to the condition of the estuary is a large number of explosions and unexploded shells that enter the water area almost every day (CEOBS 2023; Міндовкілля 2023a).



Soil and grasslands

The consequences of military actions on the soil environment are often underestimated when compared with the loss of human lives and infrastructure facilities. However, the deterioration of the quality properties of the soil is long-term, which significantly reduces its productive functions. Military actions cause several mechanical, physical and chemical effects on the soil. This includes deformation and compaction of the soil cover, disruption of the sequence of soil layers, cluttering of the surface and contamination of the soil with scrap metal, building materials, household waste, flooding as a result of the destruction of dams or drainage systems, and vice versa drainage due to the destruction of irrigation systems, salinization, erosion processes, pyrogenic degradation, dehumidification, chemical pollution etc. Nevertheless, soils can restore their functional properties and increase productivity interdependently in time on the type of soil, military-technogenic influence and landscape features and vegetation types (Голубцов et al. 2023).

While the loss of forest vegetation is obvious, the effect on grass is ambiguous and less obvious. In particular, for steppe ecosystems, recovery times after fires are shorter, but in such cases, the season during which the fire occurred is a very important factor. If it was late autumn or winter, that is outside the growing season of steppe vegetation, then the impact would be minimal. Because the root systems of steppe plants are adapted to such fires, most insects and other animals hide underground for wintering, and therefore would not be affected. Fires during the growing season often lead to the death of plants and animals that are unable to escape from the fire. An intense fire during the spring months can destroy local populations of some species of plants or animals for decades. Many of them are rare and protected at different levels. This means that the loss of even one population worsens the chances of preserving the entire species (Екодія 2023b).

Chemical pollution of soil

The Donetsk economic district, which includes the Luhansk and Donetsk regions, traditionally belonged to the most developed industrial regions of Ukraine. Even in Soviet times, the ecological condition of the area of Donbas was assessed as a crisis and belonged to the zone of emergency ecological situation.

The war that has been going on in these districts since 2014 has caused new environmental threats in the region. The contrast of anomalies of military and man-made origin increases sharply within industrial agglomerations and is superimposed on the man-made pollution already present there. A comparison of the background values of indicators of the physicochemical properties of the soils of the industrial agglomerations of Donbas before the start of hostilities shows regular changes in the amount of certain microelements and heavy metals. The amount of heavy metals in soil samples taken at the sites of hostilities mostly exceeded the background value by 3–25 times. A systematic excess of 3–6 times was observed for mercury, vanadium and cadmium. In some samples, the amount exceeded background values by more than a hundred times. A comparison of the average indicators of the gross amount of heavy metals in the places of use of small arms, artillery and rocket bombardments with the background ones for Donbas indicates that the highest concentrations are noted for cadmium, lead, copper, zinc, and in some cases mercury (Екодія 2023a).

THE ECONOMIC TOLL OF THE DAMAGE TO THE ENVIRONMENT

Forests

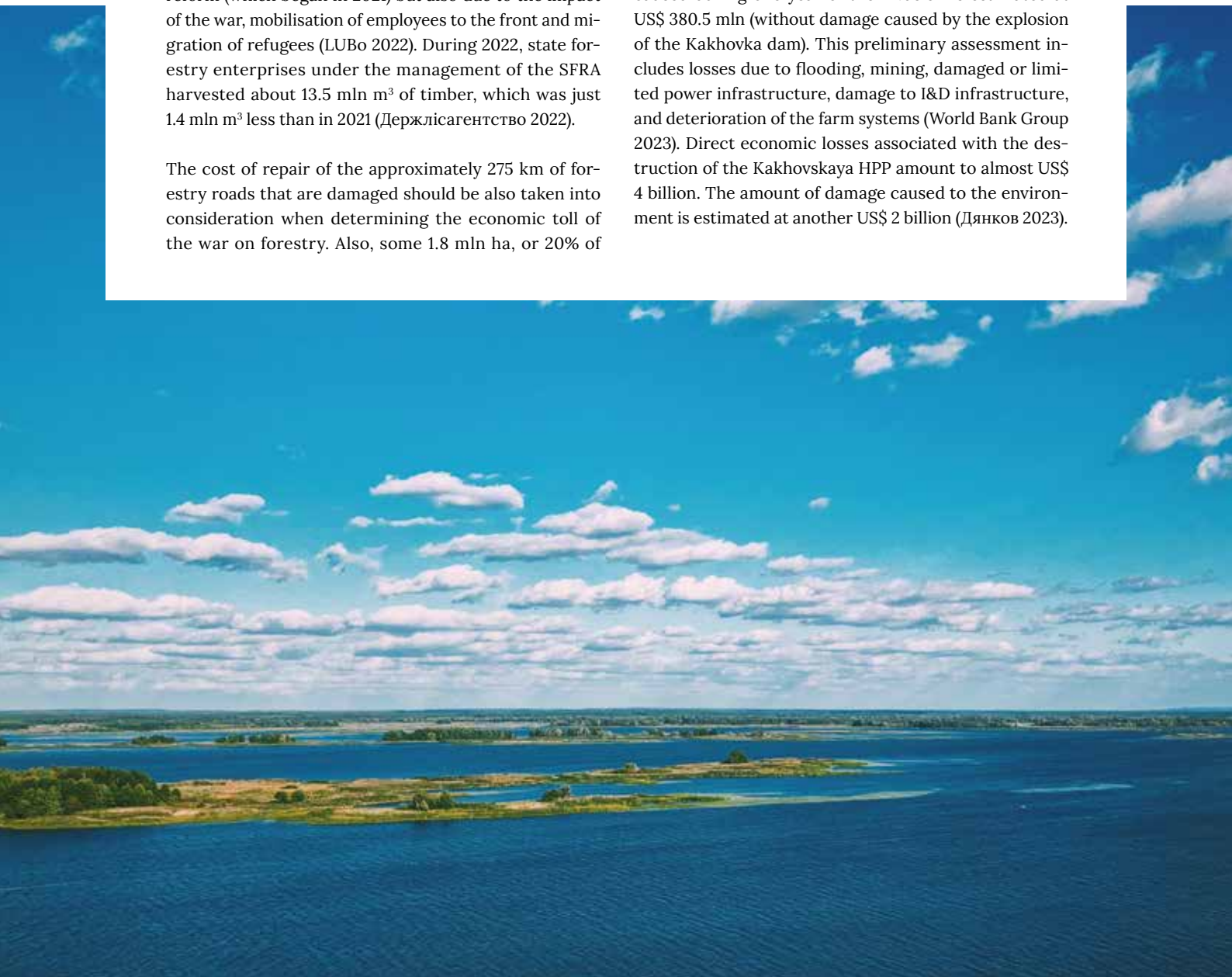
The economic toll of the war on the forestry sector is related primarily to the production of timber. Damage in the forestry sector is estimated at over US\$ 1.5 billion, and losses are estimated at US\$ 523 mln. At 43.1 mln m³, growing stock damage is equivalent to over two years of national harvesting and accounts for 93 % of the US\$ 1.5 billion in financial damage. In the previous year, the forestry sector employed more than 60,000 workers and contributed about 1% of GDP (WWF and BCG 2022). The forest industry was primarily export-oriented. However, with the beginning of the Russia's invasion, exports came almost to an end and were largely offset by the domestic demand for timber and firewood (LUBo 2022). In July 2022, the number of employees in the industry decreased to 35,000 – mainly due to the processes of sector reform (which began in 2021) but also due to the impact of the war, mobilisation of employees to the front and migration of refugees (LUBo 2022). During 2022, state forestry enterprises under the management of the SFRA harvested about 13.5 mln m³ of timber, which was just 1.4 mln m³ less than in 2021 (Держлісагентство 2022).

The cost of repair of the approximately 275 km of forestry roads that are damaged should be also taken into consideration when determining the economic toll of the war on forestry. Also, some 1.8 mln ha, or 20% of

the forest, is now inaccessible due to mine laying. This accounts for 62% of the estimated US\$ 523 mln in financial losses, with the balance relating to the inability of the forest to deliver a variety of ecosystem services (World Bank Group 2023).

Freshwater ecosystems

One year of Russia's full-scale invasion has already resulted in damage to about 724 water infrastructure facilities. To date, more than 800 km of water supply networks have been destroyed, about 71 water pumping stations, 64 sewage pumping stations, 23 sewage treatment plants, and 244 km of sewage networks have been partially damaged or destroyed (TOP LEAD LLC 2023; Міндовкілля 2023b). The damage to the irrigation and drainage sector caused during one year of the invasion is estimated at US\$ 380.5 mln (without damage caused by the explosion of the Kakhovka dam). This preliminary assessment includes losses due to flooding, mining, damaged or limited power infrastructure, damage to I&D infrastructure, and deterioration of the farm systems (World Bank Group 2023). Direct economic losses associated with the destruction of the Kakhovskaya HPP amount to almost US\$ 4 billion. The amount of damage caused to the environment is estimated at another US\$ 2 billion (Дянков 2023).





The total reconstruction and recovery needs in the public sector for a building back better approach to irrigation, drainage, and flood protection assets are estimated at US\$ 8.9 billion (World Bank Group 2023). The need to restore the Kakhovsky Reservoir, like others, is a complex issue and may involve alternative solutions and calculations of the cost of such measures (UWEC Work Group. 2023).

Coastal areas and marine waters

The war significantly affected maritime shipping in the Black and Azov Seas and also changed the system of management and control over fisheries. In particular, since 2014, the Russian Federation has unilaterally reduced the access of Ukrainian fishermen to fishing areas. Analysis conducted by FAO showed that Ukrainian marine fishing fleets were inactive during 2022, losing almost the entire annual catch of fish in the Black and Azov seas (CEOBS 2023; FAO 2023). In monetary value, damages to sea fishery in Khersonska, Odeska and Zaporizka oblasts were reported around US\$ 1 mln per oblast (FAO 2023). Through its own seaports, Ukraine exports more than 70% of all cargo for a total amount of about US\$ 47 billion. Just one day of the maritime blockade of Ukraine causes losses to the domestic economy of about US\$ 170 mln (УСТИМЕНКО et al. 2022).

The Russian Federation continues to violate the norms of international maritime law and carry out illegal economic activities in the waters of the Azov and Black Seas

annexed to Ukraine. The purpose of these actions of the Russian side is to study the shelf in this area for the prospect of mineral extraction and capture of existing deposits, which leads to significant losses for Ukraine (Нацдоповідь, 233).

Soil and grasslands

According to preliminary estimates of the Ministry of Environmental Protection and Natural Resources of Ukraine, the damage caused by soil pollution is estimated at 18 billion dollars (Міндовкілля 2023с).

Indirectly, the economic toll of the war on the condition of the soil and grass vegetation can be assessed through the prism of agriculture which uses these resources. Thus, as of June 2022, about 2 mln ha of agricultured lands were considered damaged. Losses of available cultivated areas are estimated to be more than 25%, irrigated land - more than 70%, berry orchards - about 25%, and gardens - 20% (HPBY 2022b). As of March 2023, 5 mln ha of agricultural lands have been affected by hostilities and mining. These lands require careful survey, demining and reclamation measures (Прес-служба АРПУ 2023). Before the war, Ukraine's agriculture produced 10% of GDP, employed 14% of the labour force, and generated 41% of total exports. The war started just before the start of the 2022 spring planting campaign, hitting the agriculture sector very hard. The damage and losses for Ukrainian agriculture are estimated to reach US\$ 40.2 billion, with losses accounting for 78% of the total (World Bank Group 2023).



POLICY FRAMEWORK

The forestry sector is streamlined in a new direction by the State Forest Management Strategy of Ukraine until 2035 (adopted in December 2021). It envisages increasing the efficiency of forest management, ensuring environmental sustainability and the significant contribution of forests to the development of the economy, providing opportunities for recreation and the development of an open society, research and education. The reform aims at simplifying the system of state forest management and creating an opportunity to attract private investment and conduct private forestry (KMY 2021a). As a result of the reform, which started despite the beginning of Russia's invasion, the state-specialised economic enterprise "Forests of Ukraine" was formed, which united all state forestry enterprises into a single one; 9 interregional territorial authorities of the SFRA were established instead of 25 regional authorities. Several electronic systems for providing services and managing forest resources are being developed and a new procurement system is under development (Держлісагентство 2022). Forestry is included in the "ecological safety" group in the National Recovery Plan, which planned special measures for the restoration of forests and forest management institutions that were destroyed during hostilities, as well as regarding the improvement of anti-fire security in forests and to increase coverage of forest area (HPBY 2022a).

Reforms in the field of **water resources management and water policy** are conditioned by the Association Agreement of Ukraine with the EU and the implementation of norms of relevant EU directives (Верховна Рада України 1995; OECD 2021). Despite the destructive impact of the Russia's invasion, the Ukrainian government, experts and the public continued to work on the implementation of reform in the water sector. Thus, in November 2022, the Water Strategy of Ukraine for the period until 2050 was approved, which is designed to solve the main water problems of the country, ensure equal access to high-quality drinking water that is safe for human health, achieve a "good" ecological state of waters, prevent of droughts, floods and other harmful effects of water, ensure sustainable management of water resources according to the basin principle (KMY 2022). In 2023, the development of river basin management plans is expected to be completed (ДАБПУ 2023). Water ecosystems and water management are included in the "ecological safety" group in the National Recovery Plan, where special attention is paid to diagnosing the condition of water ecosystems, their restoration and rehabilitation, particularly small rivers and wetlands (HPBY 2022a).

The condition of the **coastal ecosystems and seas** caused concern and the need to consolidate efforts at various levels even before Russia's invasion. The Marine Environmental Protection Strategy was adopted by the government in October 2021 (KMY 2021b). New challenges related to the impact of war on marine ecosystems and species, as well as the economic and institutional dynamics associated with war, require a change in approach going forward. The National Recovery Plan includes measures to establish integrated management of coastal areas and achieve a good state of marine waters. Nevertheless, the challenge is to assess the impact of both the war in general and individual events on the condition of marine ecosystems. After all, traces of bombing here are not visible on the surface as on soil, and the search and disposal of unexploded ordnances and mines in huge marine areas will require not only funding but also the development of relevant technologies (HPBY 2022a).

Preservation of the main wealth of Ukraine, **its soil and grasslands** and their restoration after the war is a complex issue. Land reform, which began after the collapse of the Soviet Union, is aimed at privatizing land and giving more and more rights and responsibilities to private owners and local communities, including the assessment of soil condition, need for restoration, reclamation or conservation (KMY 2020a, 2020b, 2023b; Мінагрополітики 2021). The main issues of soil use, both for the development of agriculture and for nature conservation, are defined in the National Economic Strategy for the period until 2030 (KMY 2021c). However, the realities of the war's impact on land resources, the agricultural sector, and the general economic situation make appropriate adjustments. Thus, the National Recovery Plan focuses on mitigating the war impact and restoring the agro-industrial complex after the war. In particular, the identification and reclamation of damaged soils and their return to economic use as soon as possible, financial support for producers and the establishment of new logistics routes (HPBY 2022b).

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CHANGES IN LOGISTICS CHAINS AND THE REORIENTATION OF UKRAINE'S ECONOMY TO THE WEST. THE CASE OF UKRAINIAN RAILWAYS*

The global economic turmoil, coupled with changes in commodity flows, has brought about supply shortages and higher prices, in particular for: food, fertilisers, and energy on global, regional and local markets. These factors are affecting the architecture of global supply chains. Against the background of the aforesaid changes, it is crucial to place a stronger focus on enhancing the coordination of food supply chains, including cereals in particular (The global supply chain, 2023).

The Russia-Ukraine conflict and other disturbances, for example the COVID-19 pandemic, have intensified interest in near-, friend- and reshoring as an alternative strategy. The underlying premise of the aforesaid strategy involves establishing suppliers close to assembly and production sites, thereby reducing the risk of product shortages.

These strategic changes in supply chains will considerably affect transport infrastructure in Europe, the US as well as in Asian and African markets. Additional demand for domestic supply will generate opportunities and threats for different modes and branches of transport. It will be necessary to speed up the implementation of infrastructure improvement projects, as well as to exercise

more effective management of current transport resources. Yet another priority will involve identifying alternative supply channels isolated from political and external influences, which, given the escalating importance of geopolitics, might prove quite difficult. Other alternatives may possibly include developing strategic alliances with African countries – with a view to supplying more reliable sources of essential metals, as well as entering into joint ventures with Australian companies and/or Persian Gulf countries.

Risks surrounding the security of supply of critical raw materials for industrial production stem primarily from export restrictions, bilateral interdependencies, lack of transparency, and persistent market asymmetries, including the concentration of production in a few countries. As far as countries affected by supply chain vulnerabilities are concerned, it is potentially viable to diversify supply sources through expanded production and access to identified reserves of critical raw materials. Nevertheless, there is a necessity for a coordinated and collective approach to the above challenges, while adhering to the principles of security, open markets, and international trade based on these principles (OECD, 2023).

LOGISTICS TRENDS AMID CHANGES IN COMPANIES' BUSINESS MODELS IN THE AFTERMATH OF THE PANDEMIC AND WAR IN UKRAINE

The factors likely to have the strongest impact on the re-configuration of supply chains in 2023, such as the energy crisis, climate crisis, inflation, and the war in Ukraine, are causing changes in companies' business models. However, as the ongoing survey (PIE 2023a, Jll and Reuters 2023) reveals, the strength of the impact of the foregoing factors varies by region, country and industry. Nowadays, risk management is becoming of key concern, while elements like security and continuity of supply make up the resistance to shocks created by an unstable environment. With respect to the preceding 2 years (2021 and 2022), the situation in ports and sea lanes has stabilised, the amplitude of fluctuations in freight prices per

container has decreased, and the level of congestion in ports has also decreased.

The enactment in 2022 of the Free Trade Agreement (RCEP) (E. Radomska, 2022), initiated by China, limited the signatory states' interest in pursuing trade with non-Agreement countries. Preliminary analyses forecast an intra-bloc trade growth rate of 10% over the next five years. Global outsourcing, as an operating model, has today become less cost-effective because of rising wages in Asian countries, rising energy prices, pressure to reduce CO₂, and the propensity for particular regions to close down due to the pandemic. Consumers have be-

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come increasingly focused on regional (local) products, and low-margin industries are already subject to near-and friendshoring, in other words locating supply, production and sales markets closer to each other, in geopolitically friendly regions. Western European countries are relocating some of their production operations to Eastern European countries, thereby creating new growth opportunities for this group of states. The launch of the next phase of the Mobility Package in the EU brings greater protection to the transport internal market of countries considered to have mature economies and limits the opportunities for cabotage and cross-border carriage by eastern European carriers.

22-24 August 2023 witnessed a summit of the BRICS countries (China, India, Russia, Brazil, South Africa), where it was resolved to expand the existing grouping to include six countries (Saudi Arabia, Iran, Ethiopia, Egypt, Argentina, and UAE), with a further 23 countries applying to join the grouping. However, it is still difficult to determine how this will affect the configuration of global supply chains. Trends towards enhanced significance of regional groupings are, nonetheless, far more evident nowadays than in the past, and this may possibly lead to a growing regionalisation in every area – production, sourcing of raw materials, or markets.

A PIE survey (PIE, 2023a) conducted among a representative sample of Polish companies and published in February 2023 reveals that the war in Ukraine exerts the strongest impact on the transport industry with regard to an increase in the cost of doing business (50% of responses), while the impact of the war on the risk of business operations was mentioned by a third of respondents. The severe impact of the war on price increases in the industry was recognised by 36% of companies, which is an average figure in relation to the other industries under analysis, as is the impact of the war on investment (in the case of transport – 26% of mentions). A mere one-fifth of companies identified a decrease in the value of sales, and only 16% saw a decrease in orders due to the war in Ukraine, which is average compared to other industries.

This factor, however, did have a stronger impact on employment (one of the highest number of mentions compared to other industries) in transport as a result of the outflow of Ukrainians, who accounted for a sizeable group among employed drivers. Although the war did not have a major impact on the increase in payment bottlenecks (only 15% of companies indicated this impact as strong), one third of companies were already strongly affected by supply chain shocks. Furthermore, one third of the companies pointed out the strong impact of the war on the deterioration of cooperation with foreign contractors, which was the highest figure among the industries under analysis. An analysis of the correlation between the strong impact of the war on company operations reveals that micro and small companies are the least affected. The author believes, however, that with regard to the transport industry, a better indicator would be whether a company is a sub-supplier to a major logistics company and whether this is its only source of revenues. If this were the case, this impact could be substantial. The conclusion that can be drawn from the above analyses relates primarily to the necessary diversification of risk, both in terms of the company's activities, geographical coverage and the partners (suppliers, customers) with whom the company cooperates (Brdulak, 2023).

Meanwhile, a survey conducted by Reuters in collaboration with JLL in March 2023, on the outlook for the logistics industry in Europe in 2023 (The State of European Supply Chains, 2023), shows that nearly 70% of the companies being surveyed continue to identify events such as the war in Ukraine as having the strongest impact on logistics supply chains. This was followed by energy/fuel costs (66%) and inflation (55%) as well as labour market perturbations (54%). Thus, the aforesaid surveys display variability in terms of the impact of the war in Ukraine as a key determinant of supply chain structure. One might conclude that Polish companies have already become more experienced in this area and have embraced the new ecosystem, while Western companies still perceive the war as having the greatest impact on the configuration of their supply chains.

UKRAINE'S LOGISTICS POTENTIAL AND THE OPPORTUNITIES FOR INTEGRATION INTO WESTERN SUPPLY CHAINS

The share of transport as an industry in Ukraine's value-added generation in 2021 was 7 % (Ukrstat data, PIE 2023b).

Ukraine's railway infrastructure was developed during the Soviet era. The priority direction at the time was the today's countries of the Commonwealth of Independent

States. Currently, the total (usable) length of 1 520 mm railway is 19,786 kilometres. The rail network is nearly half (49%) electrified in the main directions, with two types of power supply used: 3 kV DC and 25 kV 50 Hz AC. The number of traction substations is 1 402. The number of employees employed with "Ukrzaliznytsia" and its subsidiaries exceeds 230 thousand. Before the war, Ukrainian

railways had handled 82% of freight and 50% of passenger traffic within the country (Zubrzycki et al., 2022).

The war triggered a significant re-routing of Ukrainian trade. The European Union firmly consolidated itself as the largest recipient of Ukrainian exports. In 2022, 63% of Ukrainian exports accounted for sales to the EU and 6% to CIS countries. A year earlier, EU countries had been the recipients of less than 40% of exports and the CIS more than 10%. Over the course of 2022, Russia and Belarus disappeared completely from Ukraine's trade partners. In the wake of the Russian invasion in 2022, Poland became Ukraine's principal trading partner in terms of turnover (the largest recipient of exports and the second largest supplier after China). In turn, Ukraine was the 9th recipient of Polish exports (PIE b, 2023). Polish international trade turnover with Ukraine in 2022 increased by 56%, to PLN 74.7 billion, of which PLN 45.6 billion were exports (up 59 % y-o-y) and PLN 29.1 billion were imports (up 52 % y-o-y). The largest increase (by PLN 7.4 billion) was recorded in exports of diesel and other petroleum products (a 74-fold increase). The second major category of export growth was weapons and ammunition; it increased year-on-year by more than 45 times, reaching PLN 3.9 billion. This group features a vast range of products: generators, inverters, batteries and electrical

transformers, domestic appliances, heating apparatus, telephones, and much more. As far as the operation of the state amid wartime conditions was concerned, the electricity generators supplied from Poland were of great importance. The opening of the grain corridor in August 2022 re-established the significant role of maritime transport in the food trade. This allowed Ukraine to regain an efficient way of transporting its agricultural goods to international markets. At the same time, exports via this route were still around half the pre-invasion level (PIE, 2023b).

As far as the territory of present-day Ukraine is concerned, the first train entered the tracks of the Lviv station back on 4 December 1861. It arrived from Vienna, via Przemyśl to Lviv. This day has been celebrated in Ukraine as "Railway Workers' Day" for several years, just as it was during the USSR and as it is still celebrated today in the Russian Federation. Perhaps, this could be yet another reason in favour of the claim that Ukraine is between East and West – not only in a geographical sense. In the eastern lands of what is now Ukraine, intensive railway infrastructure construction began in the second half of the 19th century (1864), with a railway gauge of 1524 mm (west of the borders of the then Russian Empire, the gauge was 1435 mm).

DIAGNOSIS OF THE CONDITION OF TRANSPORT INFRASTRUCTURE IN UKRAINE, WITH A PARTICULAR FOCUS ON RAILWAYS

According to preliminary estimates as at 1 September 2022, the total length of damaged railway lines in Ukraine is 200 km, while the number of damaged stations stands at least 57. Moreover, as at 13 June 2022, there were roughly 1200 km of rail track in "temporarily occupied" areas (after 24 February 2022) (approx. 8% of the total length as at 1 September 2022). At the same time, there are grounds for believing that movable property not previously evacuated from these areas can already be considered to have been completely lost (i.e. destroyed or stolen by the troops of the aggressor state). The value of damage caused by warfare, including damage or destruction to railway vehicles and infrastructure, amounted to €3.1 billion by the end of June (Zubrzycki et al., 2022).

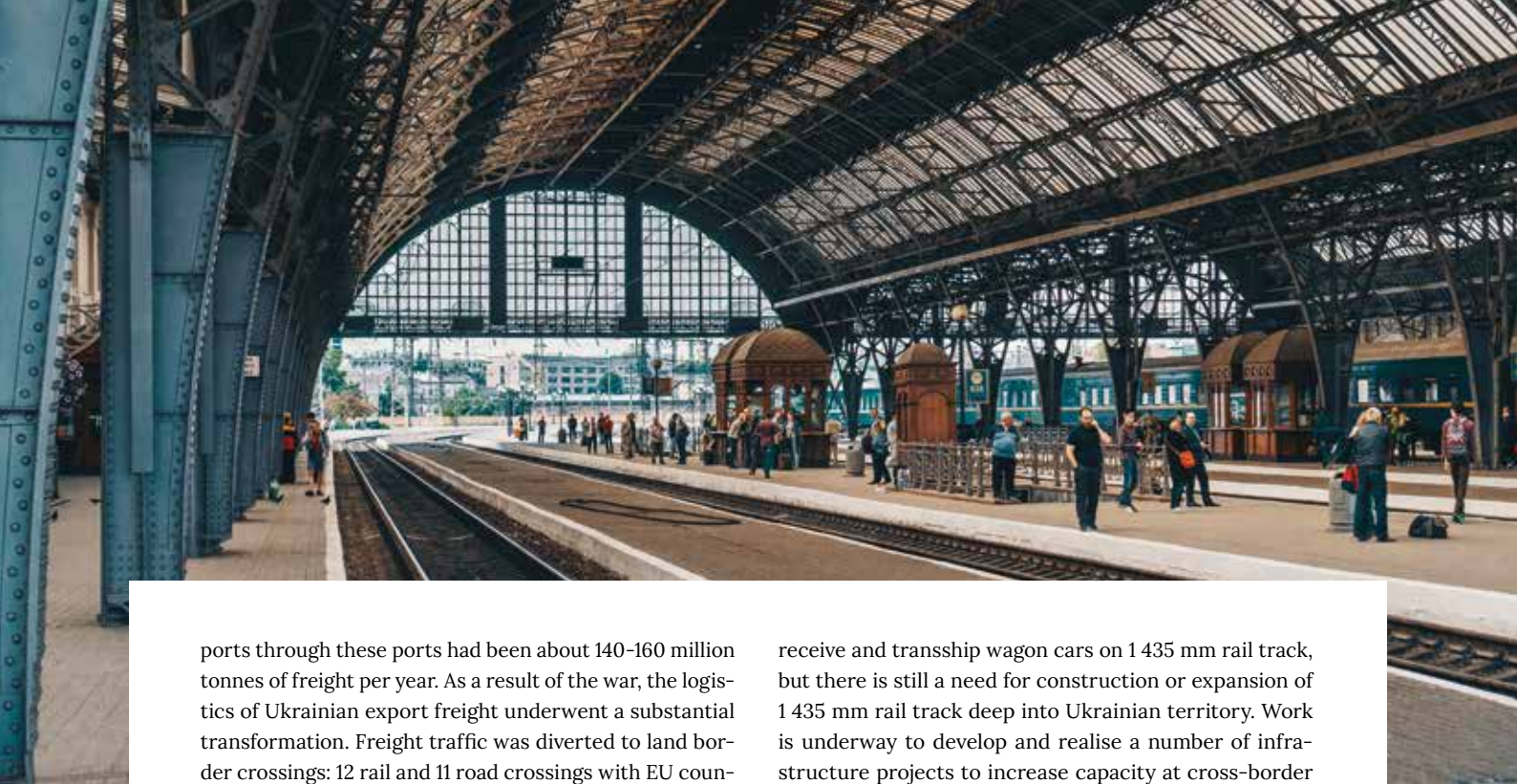
The war effort saw approximately 24 800 km of roads damaged to varying extents, including: 8 700 km of roads of state significance; 8 500 km of roads of regional significance and 7600 km of local roads in Volyn, Dnipropetrovsk, Donetsk, Zhytomyr, Zaporizhzhia, Kiev, Luhansk, Mykolayiv, Odessa, Sumy, Kharkiv, Kherson, and Chernihiv regions. 311 engineering structures (bridges and bridge crossings) were destroyed; 131 of these on

roads of state significance, 99 of regional significance, 81 on local roads). Devastation of the road infrastructure is progressing due to the movement of heavy tracked military equipment on the road and the firing by various types of weapons. As at 1 September 2022, the losses caused by warfare amount to €25.4 billion (Zubrzycki et al., 2022).

Since the onset of Russian aggression on Ukrainian territory, rail links with the Russian Federation and the Republic of Belarus have been suspended, virtually stopping the transport of freight between these countries and Ukrainian territory – by both road and rail. This fundamentally shifted the direction of export freight from Ukraine. The main factors influencing this situation include:

- blockade of Ukrainian seaports;
- development of EU integration processes in Ukraine;
- decline in Silk Road freight.

Military aggression caused Ukrainian Black Sea ports to be completely disabled. In 2021 (before the war), total ex-



ports through these ports had been about 140-160 million tonnes of freight per year. As a result of the war, the logistics of Ukrainian export freight underwent a substantial transformation. Freight traffic was diverted to land border crossings: 12 rail and 11 road crossings with EU countries and Moldova. Freight is routed to EU countries and further exported via Polish Baltic Sea ports (Gdańsk, Gdynia, Szczecin-Świnoujście) and to the Romanian port of Constanta, as well as partly to ports in other Baltic states.

The capacity of Ukraine's land border crossings, however, stands at a total of 6.6 million tonnes per month (approximately 79 million tonnes per year), and this is only half of the capacity originally used at Ukraine's seaports. The factor impeding the capacity of land border crossings appears to be the lack of a sufficient number of border transshipment terminals required for the handling of goods, due to the different rail track gauges.

Exports by road transport are also hampered by the limited capacity of Ukrainian roads and border crossings both from the Ukrainian side as well as from the EU countries and Moldova. Ukraine's western land border crossings are not geared up to replace Ukrainian ports to their full extent, and are therefore unable to satisfy the needs of Ukrainian exporters.

Prior to the enduring Russian invasion of Ukrainian territory, more than 70% of total Ukrainian exports and more than 90% of grain exports to Ukrainian ports had been delivered by rail. This is precisely why there is a need for further development of road and rail transport and, above all, why there is a need for development and construction of cross-border and transshipment infrastructure. Given the path taken by Ukraine towards EU integration in 2014, an urgent need arose upon the signing of the Association Agreement between Ukraine and the European Union. This need involves extending the 1 435 mm gauge railway in order to fully integrate the Ukrainian railway network into the EU transport infrastructure. Western border crossings feature the possibility for Ukrainian railways to

receive and transship wagon cars on 1 435 mm rail track, but there is still a need for construction or expansion of 1 435 mm rail track deep into Ukrainian territory. Work is underway to develop and realise a number of infrastructure projects to increase capacity at cross-border railway stations. This includes, by way of example, the construction and renovation of sections of 1 435 mm rail track. Nevertheless, the scale of these initiatives is still insufficient.

In less than a year (Szymajda, 2023a), Ukrainian Railways (KU) has repaired the sections Sambor-Khyriv, Khyriv-Nyzhankovychi (Polish border) and Khyriv-Starżawa-state border, as well as the station infrastructure and passenger platforms in Khyriv, Nyzhankovychi and Starżawa. A total of 70 km of rail track and 10 bridges have been renovated. What is of paramount importance in this regard is to increase the number of routes for international aid to Ukraine as well as to accelerate integration through greater attention to matching, in the course of repairs, the gauge to the standards of most European countries. The section from the Polish border via Starżawa to Khyriv has just been rebuilt to meet European standards (9 km of 1 435 mm gauge rail track has been laid), so that trains from Sanok and Zagórz will be able to run on this line in the future. However, this is also contingent upon a decision by the Podkarpackie Marshal's Office and the need for PKP to repair the section from Ustrzyki to Krościenko, to the state border. The spacing arrangements, though, require a prior understanding of the final solution in the case of connecting the rail infrastructure of Ukraine and Poland. Thus, if the line from Khyriv to Nyzhankovychi laid a track with a splice on which 1 520 and 1 432 mm gauge trains can run, the 1 435 mm gauge was retained for the Przemyśl-Nyzhankovychi section despite its renovation. In contrast, a new wide track is laid from Khyriv to Sambor. With the reconstruction and electrification of the Kovel-Izov-Poland border section in 2022, the number of pairs of trains running daily to European countries may increase to 14 in the years to come. However, as PKP LHS has no

plans to electrify a part of the Polish section to Hrubieszów, a change of locomotive is necessary nonetheless. In June 2023, Ukrainian Railways was granted another loan of €200 million from the European Bank for Reconstruction and Development (Szymajda, 2023b) as part of the project “Emergency Support to Ukrainian Railways”. A grant worth roughly €10 million is earmarked for making stations accessible to people with disabilities (lifts and ramps). The earlier loan of €50 million from the EBRD in 2022 was specifically aimed at maintaining the stability of Railways. In turn, the half of the current one will be spent on the purchase of materials for the reconstruction of transport corridors connecting Ukraine with the European Union and on the renewal of obsolete rolling stock. The other half will be allocated to fund UZ’s critical needs, with a view to ensuring stable and continuous transport of goods and passengers (including

the purchase of consumables). The repayment period is scheduled for 15 years, including a grace period of three years. UZ also received a loan of USD 200 million from the World Bank in 2022, primarily to enhance the capacity to export grain under wartime conditions and to stabilise the continuity of rail work (including: network repairs, purchase of traction fuel due to oil supply problems, capacity improvements, and ad hoc related work).

The changing role and critical importance of railways in Ukraine is now also evidenced by the change in the split model. Ukrainian Railways is responsible for 40-50% of exports, with a further 35-40% passing through river ports on the Danube, and between 10-15% being carried out by road transport. Until the outbreak of the war, 75% of exports had been transported by sea, mainly through Odessa.

OPPORTUNITIES AND RISKS IN THE RECONSTRUCTION OF UKRAINE’S LOGISTICS INFRASTRUCTURE

July 2023 saw the establishment of a new company, Ukrainian Railways Cargo Poland, by decision of the Ukrainian State Railway Operator (UZ) in connection with the planned accession of Ukraine to the EU, with the aim of providing freight services in European markets. Furthermore, the tasks included providing comprehensive freight services, coordinating work with European operators, cargo owners and border crossings as well as controlling the company’s rolling stock abroad.

Connecting Ukraine’s infrastructure to the west is a priority task in the coming years. Not only does this require substantial financial investment, but also an analysis of the risk and capacity of transport nodes. A change in Ukraine’s trading partners may also necessitate the use of other transport channels. According to a report by Infra in September 2022, it is necessary to build new infrastructure (Zubrzycki et al., 2022) that complies with EU standards (1 435 mm) along the existing infrastructure, although 1 435/1 520 mm spliced rail track may be used on some routes). In the first stage (marked in blue on the map, Figure 11), it is proposed to connect the main connections to the 1 435 mm European infrastructure on the routes as follows:

- Kyiv – Korosten – Kovel – Yahotyn / Dorohusk (Poland) – 480 km;
- Odessa-Lviv/Przemysł (Poland) – 896 km;
- (Kiev) – Korosten – Lviv – Uzhhorod – Čop/Čierna nad Tisou (Slovakia) – 688 km;
- Uzhhorod – Čop/Záhony (Hungary) – 30 km;
- Kiev – Chernivtsi – Vadul Siret / Dornești (Romania) – 578 km.

The total length of railway roads that must be built first to connect the central part of Ukraine with other European countries is 2 672 km, including approximately 1 780 engineering sites. As suggested by Infra experts, the existing bridges could be utilised by laying a spliced track with different track gauges, which would somewhat reduce the overall cost of the capital expenditure.

The capital expenditure involved in the construction of one kilometre of 1 435 mm rail infrastructure, including: railway track, overhead line, power supply and radio communications, reconstruction or construction of new engineering sites, is estimated at €3.2 M per km. If the total length of the lines, the construction of which would be necessary in the first instance to connect the central part of Ukraine with other European countries, was, according to preliminary estimates, around 2 672 km, then, taking into account the aforementioned unit expenditure, the total volume of investment in the first stage lines would be around EUR 8.5 billion.

In the second stage (marked in yellow on the map, Figure 11), it would be appropriate to extend the above connections in the direction of: Kharkiv, Zaporizhzhia, Donetsk, Luhansk, Dnipro, Kryvyi Rih, the city of Kropyvnytskyi (Kirovograd), Mykolaiv and the Crimean Peninsula. The estimated length of rail lines in the second construction stage would be 2 434 km.

Figure 11.
The two stages of the extension of the railway lines connecting Ukraine to western Europe



Source: Infra compilation based on TEN-T web material

IMPACT OF CHANGES IN POLISH SUPPLY CHAINS AS A RESULT OF RUSSIA'S AGGRESSION

According to the UTK (Urząd Transportu Kolejowego) report dated July 2023 (Czubiński, 2023) on data for Polish railways for 2022, freight rail transported slightly more goods in 2022 than in 2021 (up 2% to 4.9 million tonnes) over significantly longer distances (freight work increased by as much as 11.6% – to 62.5 billion tonne-kilometres, the best result in a decade). There were major changes in freight train connections. In the wake of Russia's aggression against Ukraine, numerous carriers have suspended or reduced services to Russia's Kaliningrad region and Belarus, instead launching services towards the Ukrainian border. The logistics of coal, which – following the embargo against solid fuels from Russia and Belarus – began to be imported via Baltic ports, also changed sharply. Although the share of hard coal (included in the statistics along with oil and gas) in terms of weight decreased by 1.6 percentage points, at the same time it increased by 2.6 percentage points in terms of freight work (this was the result of longer delivery routes). Energy raw materials, together with metal ores and aggregates, still account for the largest share (around a third) of freight transported by rail in Poland.

The reverse, although not as large, changes were recorded in the transport of the second largest freight group:

metal ores and mining products. Their share of weight increased by 1 percentage point (to 26%) and their share of freight work decreased by 0.6 percentage points (to 25.6%). These two groups combined account for the majority of freight transported in terms of both weight (62%) and freight work (52%). According to UTK forecasts, similar percentages will persist for at least a few more years.

What was also a huge change for the freight railways was the start of the large-scale transport of grain and other agricultural products by rail, and then by sea, from the Baltic ports (the sea route from the Black Sea had hitherto been used). Nevertheless, the lack of systemic solutions in Poland resulted in a large part of the grain remaining in Polish storage facilities, and this also started to affect agricultural production in Poland. The high profile of the situation prompted a temporary ban on the import of grain from Ukraine into Poland, and this decision was later reversed by the introduction of special electronic seals on the wagon cars. However, the situation in this area was not fully resolved. On 28 April, the European Commission reached an agreement with the frontline countries (Poland, Bulgaria, Romania, Hungary, and Slovakia) and at the beginning of May, announced the adoption of temporary precautionary measures for the

import of wheat, maize, rapeseed, and sunflower from Ukraine, which was to be in force until 5 June, but then was extended until 15 September 2023. The EC proposed support of €100m for farmers from the above countries (Poland was allocated €40 million) (Money, 2023).

The embargo against grain imports from Ukraine to EU countries was due to be lifted as of 15 September 2023, but some countries, including the so-called “frontline countries”, opted for an extension of the ban and the introduction of a flexible list of products, which would include agricultural products without the right of entry to the said frontline countries. Subsidies were also expected for the transit of Ukrainian grain through the territories

of the above countries. Ukraine, however, is against such restrictions and announces the introduction of “mirror” retaliations.

In analysing the statistical data, one can observe that the growth recorded in 2022 in the commodity group “Products of agriculture, hunting, forestry, fishing and fisheries” was indeed record-breaking. Carriage amounted to 6.7 million tonnes (135.9% more than in 2021) and freight work to 1.9 billion tkm (116.7% more). The growth was even greater in the “grains” subgroup: by 386.5% in terms of weight (to 4.1 million tonnes) and by 335% in freight work (to 1.25 billion tkm).



THE OPPORTUNITIES AND RISKS INVOLVED IN RESTORING THE RAILWAYS AND CONNECTING UKRAINE TO THE WESTERN EUROPEAN MARKET

These include macroeconomic, technical, organisational, and financial risks and opportunities.

As for the macroeconomics, it is worth noting the regionalism trend (the formation of new groupings or the expansion of existing ones), the economic difficulties occurring in individual EU countries, but also the rise of separatist politics, the reduced willingness to act in a pro-solidarity manner in the context of own problems, the risks arising from the high level of corruption in Ukraine in the event of the country's accession to the EU, as well as the imbalance of the EU's agricultural economy (the need to reformulate it) in view of Ukraine's significant global position in food exports. This may also imply, in the context of supply chains, that changes to flows should be subject to broader consultation with all partners – participants in the chain. In this case, supply chain transparency is fostered by the use of AI technologies, including Blockchain in particular. A win-win strategy, where all participants can benefit, would be an important factor for success. Against the background of the escalating dispute between the frontline countries, the European Commission and Ukraine – these issues are becoming extremely difficult as they have a direct impact on the economies of individual countries, including, in particular, farmers. Agricultural production, carried out within the countries mentioned, is at risk. Instead, an opportunity may lie in the involvement of the UN as a neutral partner and negotiator in this area. The overarching aim will precisely be to create solidarity supply chains, which, in the future, should also serve to consolidate solidarity within the EU, which is currently severely tarnished.

The risks associated with the reconstruction and modernisation of infrastructure on the technical side primarily require the Ukrainian infrastructure to be brought up to EU requirements and standards, although without levelling out the existing solutions, which are more operational in the eastern part of Ukraine. In this case, the functioning of the “dual system” may provide some sort of safeguard for Ukraine's interests in the event of the materialisation of a scenario involving partial re-establishment of relations with eastern partners.

Organisational risks, on the other hand, mainly boil down to how non-Ukrainian companies interact with Ukrainian companies in the process of reconstructing and modernising the transport and logistics network. A good practice to follow is for companies to work together so that Ukrainian companies involved in the whole process can co-create new solutions rather than being more passive recipients. These issues are regulated in many countries, which limit the independent ability of foreign capital to operate without the participation of local companies. With regard to Ukraine, the above issues may gain particular importance in view of the need for a rapid transformation towards a Western economy.

Financial risks are primarily related to the need to secure adequate funds for the above activities. The loans granted and transfers do not provide the transformational capacity that is required in a fairly short period of time. Furthermore, high corruption factors in Ukraine hinder the direct transfer of funds.

If the indicated risks occur, the support of the UN as a mediator but also as a platform, bringing together companies under the Global Compact, can be essential. Because of their geographical but also cultural proximity, Polish companies are well placed to support the reconstruction of logistics infrastructure in Ukraine, while UN structures can provide credibility and transparency on the economic side. Indeed, the change of logistics routes is not only contingent upon the reconstruction and modernisation of infrastructure, but also upon a new distribution of raw material depots, production and sales markets, which is also influenced by geopolitical factors.

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ОВОЧИ Ф

10

Handwritten graffiti on a door, including the word 'STAKE'.

II.

The businesses' perspective on the reconstruction of Ukraine

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THE BUSINESSES' PERSPECTIVE ON THE RECONSTRUCTION OF UKRAINE: OBJECTIVES, ACTORS AND METHODS. SUMMARY OF RESEARCH FINDINGS

The analysis of Ukraine's economic reconstruction processes after and during the ongoing war requires reliance on the results of research presenting the perspectives, opinions, capabilities of Polish companies involved in this process. This is the second wave of analyses that United Nation Global Compact Poland has carried out together with researchers from the Polish Academy of Sciences and the Institute of Sociology at Nicolaus Copernicus University in Toruń. The experience of researching humanitarian aid provided by companies at the very beginning of the conflict encouraged us to deepen our analytical perspective. In this follow-up research, instead of addressing the one-off actions or improvised aid, we focused on specific areas, the process of stabilisation of actions to support the Ukrainian economy or models of activity. The focus of the study itself is on Polish enterprises; we assume that Poland, being in the immediate neighbourhood of Ukraine and having a rich history of economic ties, can serve as a model for responses, opportunities and threats related to economic reconstruction processes.

The aim of the study was to capture the perspective of companies operating in Poland on the nature of the model and methodology of the planned processes of reconstruction of the Ukrainian economy. The detailed questions concerned the role of the actors involved, anticipated activities, perspectives and timeframes. Respectively, the report is structured in the following subsections: the content and areas of the envisaged reconstruction activities (what?), the actors involved in reconstruction and their role (who?), methods and methodologies of reconstruction processes (how?), and the timeframe of the reconstruction (when?). At the same time, one should bear in mind that the reconstruction is yet to take shape, which has implications for the research procedure itself. The aim of this analysis is neither to answer the question of the ultimate nature of the future reconstruction efforts, nor to render an objective picture of how businesses operate. Instead, we are interested in triggering a discussion on models, methodologies and ways of rebuilding the Ukrainian economy. The research was intended to contribute to the unfolding debate on the opportunities and risks of the future reconstruction in a country affected by war. The methodology of the research is presented in the Annex on p. 136.

WHAT? DIRECTIONS, AREAS AND OBJECTIVES FOR THE RECONSTRUCTION OF THE UKRAINIAN ECONOMY

First, we analysed the main directions and goals of the reconstruction of Ukraine's economy captured in the expert discourse. These are most broadly summarised in one of Volodymyr Zelensky's speeches at the Lugano conference in July 2022: *“Rebuilding Ukraine means restoring the principles of life, restoring the space of life, restoring what makes people people.... Of course, it is not only about restoring the substance of life, but also about institutional development. Our country has become a candidate for joining the European Union.... And the reconstruction*

of Ukraine will be an equally great reform for all of us, because we will unite the democratic world to the extent that everyone will see: the worldview of free people always wins. The world will see that no one can ever achieve their goals through war.” (President of Ukraine, 2022)

The statement by the President of Ukraine is a signpost of a way of thinking about the country's reconstruction efforts.

The Ukrainian government, as noted in the Ukraine Rapid Damage and Needs Assessment (World Bank 2023) among others, will need to make sure that in the short-term basic services are restored, housing is provided and the local economy is kick-started. Achieving this can sustain confidence in the government and donors and can create a critical mass of support for more ambitious reforms. Strengthening democracy, including democratic institutions, is key to developing a strong economy. It is also important to pivot the economy towards pro-environmental measures, particularly in the areas of energy and construction. This is not only a question of bringing Ukraine in line with European requirements, but also of reducing dependence on Russia. Many documents e.g. *Blueprint for the Reconstruction of Ukraine* (Torbjörn 2022) call for a deep green transformation to take place in the process of rebuilding Ukraine (Majmurek, Stubbe 2023; Tubiana 2023). The documents point to the need to move away from fossil fuels, which should lead to energy independence. Importantly, important steps in this direction were taken in Ukraine already before the outbreak of war, especially in the area of digital transformation, which is directly related to the roll-out of green technologies. A number of documents also point out at the links between the development of human capital (an important precondition of modern economy) and education that would be meeting the future requirements of a modern labour markets. According to the authors of the abovementioned report (World Bank 2023), Ukraine will need to further liberalise economic activity and remain open to the rest of the world. Indeed, the emerging trend of nearshoring/reshoring/friendshoring offers Ukraine an opportunity

to integrate into the value chains of the European Union. To take full advantage of this opportunity, Ukraine (and the European Union) should reduce tariff and non-tariff barriers and improve the cross-border flow of resources and ideas. In a similar vein, a society open to immigration can help solve labour shortages.

Equally important is the fighting corruption. The fact that this process has started is already recognised by journalists and, above all, public institutions all over the world. Nevertheless, it is still the most important endogenous constraint on the reconstruction and development of Ukraine. The U.S. Agency for International Development, as the authors of the *Washington Post* article (Editorial 2023) point out, has warned that powerful interests and a lack of public accountability continue to plague the Ukrainian government and that the costs of state construction contracts are inflated, in part by bribes to officials who have approval authority. The European Union, too, while pledging substantial funds for reconstruction, stresses that their spending will be carefully monitored. The problem of corruption is recognised not only by external institutions, but also by the Ukrainian (Sutowski, Łucyewycz 2023). The authors of the World Bank report, emphasise that the key to Ukraine's development is the creation of efficient public institutions and a significant reduction in the level of corruption. The authors of the Chatham House "Accountability in Reconstruction: International Experience and the case of Ukraine" report produced in partnership with the Anti-corruption resource center voice similar concerns (Jackson, Lough (2022).



POTENTIAL AREAS AND OBJECTIVES OF FUTURE ENGAGEMENT

When planning the reconstruction of Ukraine, as the analyses and articles (e.g. Sutowski, Łucyewycz 2023) show, it is necessary to balance the reconstruction of heavy industry, infrastructure with the development of the so-called soft infrastructure – health care, education, culture. At the same time, our attention was drawn to a certain generality of statements, documents and reports. They outline a broad vision of Ukraine’s “modern economy”, but often without reference to specific solutions, policies. On the other hand, the results of the quantitative research with entrepreneurs are more specific and detail orientated. The surveyed companies were characterised by a clear specialisation of planned activities related to the specific industry of the company itself. One possible explanation of this explicit substantive focus might be the respondents’ approach to the issue from the perspective of their companies’ main areas of activity (Table 5).

Table 5: Planned areas of action in the reconstruction processes of the Ukrainian economy (%)

Trade and industry	44
Construction and housing	33
Energy	20
Telecommunications and digital infrastructure	12
Transport	11
Health service	9
Environment and resource management	9
Agriculture	9
Water supply	8
Education	7
Extractive industry	6
Utilities	6
Rescue and civil protection	5
Culture and tourism	5
Finance and banking	4
Judiciary and public sector	3
Social assistance	1

Source: own research, N=385, multiple choice, not sum up to 100%. Based on question “In which sector does your company plan to engage during the future reconstruction?” *



* In individual tables N may vary as not all questions could be answered by the same number of respondents. In some figures the total doesn't sum up to 100% due to rounding of decimals in individual categories.

Basic services related to broadly defined construction, energy provision (including renewable energy) and trade appear in the survey as the main areas of activity. Clearly in second place are categories related to other social services or telecommunications. The least planned activities concern areas related to the public sector and its services (social assistance, the judiciary, or municipal services).

Not surprisingly, the companies surveyed tend to extrapolate their area of specialisation or sector when planning activities of a restorative nature, which is quite natural. On the other hand, many sectors that appear unrepresented would require activities of dual nature (e.g. reconstruction of water supply systems would entail construction per se as well as supply of goods and services). This might explain why the total of trade and construction in Table 5 is 77%, while the total of the first two predominant categories associated with trade and construction in Table 6 is 93%.

The planned activities are very “physical” in nature and focus on construction, building, completing machinery or creating infrastructure. A vision of Ukraine as a con-

struction site emerges here, with a lesser role, at least according to respondents, played by knowledge transfer, training or consultancy mechanisms. This is also the question where a significantly statistical difference between the surveyed companies can be seen (Table 7).

Table 6: Activities planned by the surveyed companies in the processes of reconstruction of the Ukrainian economy (%)

Provision of the necessary equipment	49
Construction work	44
Providing essential services to the public	32
Knowledge and skills transfer/consulting	31
Construction of infrastructure	26
Training and coaching for Ukrainians	23
Technology transfer	20
Equity investments	12
Advice on standards and regulations	4

Source: own research, N=385, multiple choice, not sum up to 100%. Based on question “What activities does your company plan for the future processes of reconstruction of the Ukrainian economy?”

Table 7: Planned activities in the reconstruction processes of the Ukrainian economy vs. the industry of the company surveyed (%)

Activities	Construction	Energy, fuels, electricity, gas and water supply	Pharmaceuticals, health care	Information and communication
Knowledge and skills transfer/consulting	16	30	50	61
Technology transfer	11	36	30	43
Construction work of general nature	83	55	25	11
Construction of infrastructure	24	82	5	21

Source: own research, N=385, multiple choice, not sum up to 100%, differences in proportions between colour-coded cells are statistically significant. Based on question “What activities does your company plan for the future processes of reconstruction of the Ukrainian economy?” and “In which sector does your company operate in?” and declared sector of company’s activity

The specialisation of companies is evident here, with construction companies intending to support reconstruction processes related to construction processes and energy and fuel companies additionally wanting to develop infrastructure. Companies in the fields of health care and information and communication behave differently. They are much more likely to declare activities to support reconstruction processes through the transfer of knowledge and skills. Risking a little, it seems that the surveyed

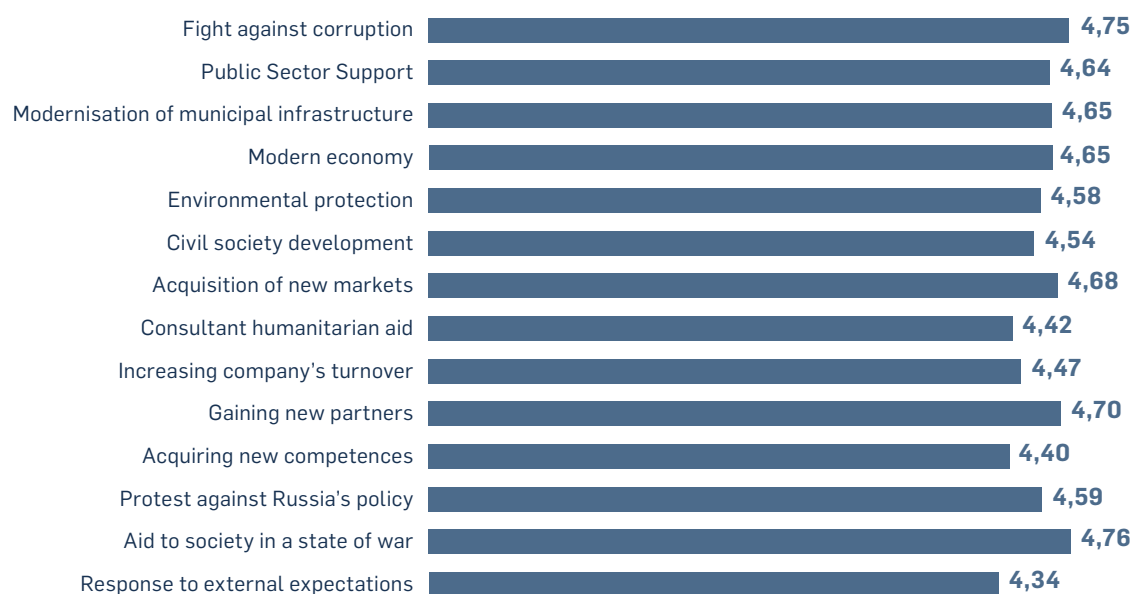
companies can be divided into two categories (although only on the basis of interpretation of results and not statistical procedures). Companies associated with “heavy” industries rely on construction and physical reconstruction. On the other hand, clearly less often but nevertheless some companies from “lighter” industries focus on knowledge, skills, soft capital in the reconstruction process. In doing so, this fracture can be used to sustainably support Ukraine’s economy, which will need both hard,

physical investment and support for knowledge transfer or better integration of the economy with countries supporting reconstruction processes.

The differentiation in development goals is less pronounced. Respondents indicated major aims such as the fight

against corruption and the development of a modern Ukrainian economy. Slightly weaker (but still high) indications were given to goals such as environmental protection, the development of civil society or the acquisition of new competencies by the company (Figure 12).

Figure 12.
Declared objectives of the rebuilding of the Ukrainian economy by the surveyed companies



Source: own research, N=372, arithmetic mean of responses, attitude scale where 1 is an extremely negative response and 5 is an extremely positive response. Based on question "What will be the objective of your company's involvement in the future reconstruction of the Ukrainian economy?"

The only variable differentiating the sample here is the industry of the company. Those surveyed related to the

information and communication sector differ significantly from the average for the survey total (Table 8).

Table 8: Declared selected recovery objectives vs. company sector (average scores)

Objectives	Sector	
	Information and communication	Survey total
Protection and restoration of the environment	4,12	4,59
Development of civil society	3,96	4,54

Source: own research, N=30 for the industry, N=372 for the sample, attitude scale where 1 is an extremely negative response and 5 is an extremely positive response, statistically significant difference. Based on questions "What will be the objective of your company's involvement in the future reconstruction of the Ukrainian economy?" and declared sector of company's activity

The number of companies from ICT sector doesn't constitute a large stratum (n=30), but statistical procedures show a clearly lower than average valuation of

environmental or civil society development objectives compared to other companies.

PERCEIVED OPPORTUNITIES ASSOCIATED WITH THE RECONSTRUCTION

While statistical analyses show general trends and phenomena, the interviews conducted with entrepreneurs allowed to deepen the vision of the goals and directions of the reconstruction of Ukraine's economy. Above all, interviewees agreed that the planned measures cannot be based on simple reconstruction, but require a new approach to the country's development. Thus, the goal is not to return to the status quo, but to create momentum for modernisation of the economy. At the same time, different respondents prioritise different aspects of the necessary transformation referring to a modern, innovative and green economy quite often. One interview points out:

In my opinion, the reconstruction elements must be seen as an opportunity to build a better Ukraine. To rebuild this country according to EU standards, energy efficiency, decent housing, green energy. This can already be done in western Ukraine, where there are many migrants from the east who live with families, friends, in schools, hotels. Eventually, they will need housing and maybe we need to decide on non-barack rescue programmes, because this is a temporary solution like in our country after the floods. The construction of a new Ukraine in the western part of the country must start now without waiting for the war to end. (R4)

According to our interviewees, a technological and institutional shortcut of adapting more quickly to legal and technological solutions is possible and companies in the region can help with it. At the same time, the interviewees differ in their assessment of the speed of this process. For some, the priority is the rebuilding of the destroyed infrastructure, de-mining and making Ukraine safe. A different perspective can be found in the quote quoted above, which points to a continuous and already progressive process of economic change. The reconstruction of Ukraine's economy has begun despite the ongoing conflict. This process will take long and, according to some interviewees, will require that planning and the construction of social and technological infrastructure begin as soon as possible. An important element that often appears in the interviews is the harmonization of the country's legislation and economy with the systems of the European Union or the broadly defined Western economy. In the interviews with entrepreneurs,

a narrative appears that we called the **scorched earth dynamic**. In it, the war in Ukraine appears as a process of fundamental transformation of the national economy, resetting it entirely and setting it onto a new, more modern trajectory.

Ukrainians should take advantage of the fact that they will be building the economy in an organisational and material sense almost from scratch on scorched earth. Therefore, they have a chance to jump over certain stages that other countries were going through. We in Poland are still going through a kind of 19th century capitalism – transition that started in the '90s of the last century, not in the 19th century. Many entrepreneurs came to believe that capitalism had to be brutal because it was a life-and-death struggle, that it was more about the ends and not the means to those ends. (R5)

It's promising to see that, for some respondents, the conflict is a moment of redefining the mechanisms of economic development. The economy of Ukraine shaped in this way is not to be a simple copy of existing approaches, but a laboratory, a space for building modern, exemplary solutions in architecture, planning or infrastructure. Respondents point in particular to the decentralisation of the economy, broadly defined IT services, the shift from raw material production to high-quality processing, or planning and construction work as important areas of change. Particularly noticeable is the strong orientation of entrepreneurs to their areas of activity. For the most part, when planning activities or building a strategy for their activity in Ukraine's economic reconstruction processes, they focus on their narrowly defined areas. It seems that the engagement of national and international actors is needed to link sectoral activities to broader reconstruction programmes.

In our perspective the Ukrainian cities will be the biggest construction sites in Europe since World War II. We have the possibility to try the best practices and it is not about helping us in rebuilding our cities, it is about finding new ideas for cities in the future. Not only Ukrainian cities but all cities in general. In my opinion foreign experts shouldn't come here to help us but to help everyone on this planet. (R8)

It should be stressed that Ukrainian's themselves (the quote above comes from the Ukrainian citizen) perceive Ukraine as possible protagonist in the process of creation of innovative forms of development and a new economy.

Entrepreneurs who were active in Ukraine before the war or already during the conflict are less optimistic about Ukraine's economic development processes. They point to structural problems built into Ukrainian society and economy. The two flagship phenomena that run through all interviews are corruption and the oligarchic nature of the Ukrainian economy.

THE CHALLENGE OF CORRUPTION

Corruption was one of the more frequently mentioned threats in the interviews. Entrepreneurs indicated that despite some positive changes have taken place in that area, it is still one of the main constraints to doing business and planned recovery efforts. It hinders activity, reduces efficiency influences additional risks of doing business. Respondents, in particular, point to the interface between the public and private sectors as a particularly untransparent area. Permit systems, the judiciary, service activities or public procurement require operating companies to skilfully manoeuvre between regulations and the interests of individual public officials and officers. At the same time, according to the respondents, corruption processes may accelerate with the emergence of large, poorly controlled funds by donors but also by Ukrainian institutions themselves.

Another – related – constraint on economic reconstruction efforts is the oligarchic structures built into the economy. The respondents' attitudes are split into two groups: one points to the oligarchic structures' immanent nature to the Ukrainian economy and the need to take them into account in the planned reconstruction processes, while the other emphasises the changes that have been accelerated by the war as well as the anti-corruption and anti-oligarchic measures taken already. A company that operates continuously in Ukraine notes that:

This is certainly due to the contacts made during the provision of humanitarian aid. The result of the war is pro-European and anti-corruption actions. There is a certain incentive to get engaged in this country. It will be possible to move there in a similar way to Poland. At the same time, it is a big market with opportunities, so why not. (R3)

Corruption is not a problem like the one we have in Poland. It's more serious. There, corruption is at the core, even in the judiciary. Pathological phenomena are the order of the day even now during the war time. This is Ukraine's big problem, which we will not solve by law only. (R14)

What is needed now is planning and action. So that there is no chaos and anarchy in reconstruction. We went through such stages for better or worse. The Ukrainians went through it too. Now they are in danger of chaos. Huge amounts of money will come in and will be spent without a plan. It is a paradise for corruption, scams. Either Ukraine will be a stall or an orderly one. (R10)

The determination to rebuild Ukrainian small, medium-sized businesses has huge appeal, as mentioned earlier when we spoke about the corruption of the oligarchs who had previously captured this market. (R3)

The problem of corruption can be countered by the fact that global companies, wherever they operate, provide oversight and control mechanisms. At the same time, the host country of investors, especially global corporations, must agree to certain requirements, regulations that are immanent to these institutions, which can also facilitate the fight against corruption.

Of course, Western institutions will require them, and it will be strong. We too will probably introduce them because we need transparent mechanisms for tendering in development aid. That is an obvious one. (R6)

Thus, irrespective of the regulations introduced by the Ukrainian government itself, many investors are imposing rules to reduce the shadow economy, as well as to introduce other modern solutions, e.g. pro-climate. Nevertheless, there is also a need for what one respondent described as "self-control" within Ukraine itself. For some respondents, decentralisation and bottom-up activities are important directions for development, including economic development. However, one respondent notes that a lot depends on who the people in local authorities are, how capable they are.

We have a decentralisation problem because all the city mayors make the projects by themselves. There is no open data about who is working on what. Now we have a ministry of recovery, it is an institution that combined two ministries that we had before: ministry of development and ministry of infrastructure. (R12)

At the same time, interview participants point to the changing dynamics of corruption and the role of oligarchs in the Ukrainian economy. On the one hand, both phenomena are embedded in the social structures of Ukrainian society and reconstruction processes may be linked to the emergence of an uncontrolled shadow economy related to the transfer of funds or attempts by foreign economic actors to establish themselves in local markets. Despite this risk, some respondents see signs of improvement, e.g. changes in legislation and in business practices. Respondents indicate that the conflict has intensified social control and, paradoxically, given more tools to Ukrainian society to combat negative phenomena. Nevertheless, making Ukraine's economy more

transparent and quantifiable is one of the main goals of the reconstruction processes for the respondents. It is also a key prerequisite for their business and activity in Ukraine. Generally speaking, for the interviewees, a modern economy is not only about innovative products, knowledge transfers or new management systems, but also about clear and transparent regulations, efficient public services and transparent decision-making. It is also an area beyond the remit of the respondents, who point to the Ukrainian government, civil society and major international players as guarantors of possible positive change. It is not only a modern but also, above all, an honest economy that is supposed to be the focal point of measures supporting the reconstruction process.

HUMAN CAPITAL CONSTRAINTS

Apart from corruption and unclear role of the oligarchs, respondents mention also constraints related to human capital and labour market. For many entrepreneurs, the lack of experts on the ground, trained to the standards of the respective companies, can delay the decision regarding their involvement in the reconstruction. The chances of foreign experts filling the human capital gap are low while the ongoing war is still putting people's lives at risk. The same applies to people who have fled Ukraine or are in the army deteriorating the shortage of specialists in Ukraine further.

When there is a war, practically you cannot insure any transport except military transport. At the moment we are having serious trouble getting specialists to come. Specialists from Germany say they won't come, even only to set up the machine. (R8)

It is about getting staff. Many of them have left, but many of them are coming back. That is the danger in my opinion. (R3)

According to one respondent, migration from the global south can fill the gap, but there is no consensus on whether this is good for the country's development or not. This is an interesting perspective, as it has long been thought that Ukraine is a reservoir of labour, rather than being an attractive labour market in its own right.

A very important, perhaps even the most important problem, relevant in this context is the demographic situation. Before the war, Ukraine was already struggling with a low birth rate, and the war effort, the departure of a large group of people has only exacerbated this problem. This is recognised by the people we interviewed.

The public is not fully aware, but of the 45 million, just 20 something left. This is a question not only of demographics, but also of emigration. Some people will return, but some won't. (R10)

Many women of childbearing age, often well educated, have left. The lack of people to do the work, both physical and skilled, may be one of the more serious challenges accompanying the reconstruction process.

LOCAL LEVEL ENGAGEMENT AND THE ROLE OF FOR SMES

The interviews contain another thread that runs through the study: the level of development goals and the role of small and medium-sized enterprises and local communities. We define this narrative as **mid-range development** discourse. It is the belief of some interviewees, especially those already operating in Ukraine, that development processes will have three levels focused on:

1. **Reconstruction**, which will aim to physically rebuild war-related damage. This is defined as the minimum necessary level. At the same time, it leaves room for innovation, such as the use of new technologies in construction or the digitalisation of damaged infrastructure.
2. **Macro processes** based on the activity of global actors, supported by international donors. In practice, these will be, according to respondents, large, flagship reconstruction projects, beyond the reach of most companies or even medium-sized governments.
3. **Medium range** focusing on selected economic niches, small and medium-sized enterprises, local authorities, and businesses. It can address economic areas not covered by macro recovery plans as well as focusing on areas overlooked by mainstream efforts. It is by definition smaller in scope but has more room for bottom-up, involvement of local and smaller partners, subjectivity. It will also undoubtedly be a level of action requiring more attention, more diffuse and prone to disadvantages such as corruption.

Some of the interviewees point precisely to the third model as crucial for their company. In the interviews, there were themes of competition in reconstruction processes, of being pushed out by stronger actors with the potential to impose their goals and actions. From this perspective, mid-range activities create a safe space to take part in the reconstruction processes by the interviewed companies. The data collected points at two reasons behind the focus on mid-range activities: the role of the bigger players in the respective field and the limited capacity to engage in reconstruction.

We will not play a significant role there. Maybe we will find some niches where Polish companies can enter. We do not have the capital resources that Western entities have. The scale is incomparable. The risk is limited, we have to be smart. I would do my small projects. I would try to develop relationships, so we invest in them too. This will be to the benefit of Polish entities. We want to avoid a paternalistic approach towards Ukraine, and

this is what differentiates us from Western institutions. This we already know from the talks we have with the Ukrainians. We want to listen to them, what they need. We do not want, like the World Bank, to pull out a template that was applied in Somalia and will be applied in Sri Lanka tomorrow. (R7)

We are not going to rebuild everything in Ukraine. If we look at which construction companies in Poland today have the equipment and capital potential to go there, we might find 6 or 8 that will go there and hold out for six months until the donor verifies them. You have to be aware of that. You have to choose a Polish specialisation that is close to our execution capacity, but also capital capacity. (R5)

The first is well represented by the quotes from the interviews (R5 and R7) and is related to the fear of the projected strong competition associated with the entry of strong, wealthy international actors and governments into the aid and reconstruction market, which could have the effect of closing or limiting access in the Ukrainian market for smaller players. In other words, the interviewed entrepreneurs are not convinced whether their companies will find their way in the reality of reconstruction, where the goals and rules are defined by global donors and the largest actors. In this sense, one can see here the hesitation whether the surveyed entities will be able to compete for the resources and market associated with reconstruction processes.

The interest in mid-range development is not only linked to particular concerns. It's also connected to the definition of the role and subjectivity of local, Ukrainian economic and public partners in these processes. The research points to the need for local activity, the involvement of Ukrainian partners, and coordination with local governments. Not only do the surveyed companies see mid-range dynamics as opportunities for their involvement in reconstruction processes, but they also point to the substantive importance of such reconstruction-focused activities on a somewhat smaller scale.

You have to start locally and look from the bottom up to climb higher and higher. If we are to do support for highway upgrades, then really let the big things be done by the big companies and let the Polish Railways fix the railway tract. With the exception of passing on standards, experience of road building, let the local companies do it. I suspect it's more about bringing in experience. The Ukrainians will do a lot of things themselves. They need to be supplied with the building blocs. (R10)

The second concern is thus more universal and relates to the low evaluation of measures based on top-down defined goals and programmes. Some interviewees refer

to the negative examples of Iraq or to some extent Bosnia and Herzegovina to illustrate the low effectiveness of modernising, large-scale economic reconstruction projects.

BROADER SOCIETAL REFORM

The interviews also show a certain tension between the declared development goals. It is related to the characteristics of the respondents. Representatives of funding institutions, large public entities or global companies put stronger emphasis on the need for modernisation. Elements of the modernisation paradigm appear more frequently in their statements, with general declarations of the need for transformation and modernisation along Western lines and references to sustainable development or a knowledge-based economy. At the same time, some respondents clearly articulate concerns about the influence of smaller actors, also in Ukraine, on the reconstruction processes shaped in this way.

Priorities for renewal – this is the main question. There are two main things at this level: community and infrastructure. We need a road, a school, a hospital if it was dilapidated, jobs. “What is the priority for the moment?” is a key question. Priorities are the most important in the reconstruction. Who sets them? The local community? The country? The international community? That is a big question mark. (R6)

In doing so, the narrative of the need for Ukraine to retain its subjectivity in defining the objectives of the reconstruction process is very clear.

However, they have their subjectivity in these relationships, their sovereignty as much as possible. In reconstruction, this should work in a similar way. Apart from the economic dimension, which we are focusing on, it also makes sense to involve Ukraine in Western structures. So that it doesn't remain a grey zone, a no-man's land, some kind of strange, large area that will be unstable, and for this economic reconstruction is essential. (R12)

The surveyed entrepreneurs therefore see the need to quickly integrate Ukraine with developed economies, modernise its legislation, public sector activities and strengthen the transparency of decision-making processes. For most of them, based on the experience of political transformation in Central and Eastern Europe, it is important to ensure the subjectivity/agency of Ukraine at the national, regional but also at the level of individual self-governments or local communities. The reconciliation of the top-down modernisation with the

local needs and opportunities will be one of the biggest challenges facing the economic reconstruction processes. The entrepreneurs interviewed indicate that these cannot be based on simple transfers of technology or legislation. Echoes of the need to strengthen or ensure Ukraine's empowerment emerged in interviews with experts and entrepreneurs. They point to the need to go beyond the buzzword nature of development policies while ensuring transparency and real influence of local actors (economic, public, social) on reconstruction processes. At the same time, respondents already involved in activities in Ukraine indicate that decentralisation processes and changes have already been initiated in the country.

After the decentralisation reform in Ukraine, local governments finally gained some independence and a source of funding, but there the important source of funding was taxes from companies located in their area. Local governments have a natural interest in the survival and expansion of entrepreneurship. This is the direction we are taking. (R4)

Public actors, enterprises but also local governments or communities in Ukraine need to develop their own reconstruction plans, their own model, which takes into account their needs, support capacities, relations with supportive actors but also the constraints and realities of the conflict and the destruction. Planned reconstruction goals need to be cascaded, with local governments defining their own micro-tasks related to the revitalisation of specific areas in addition to large, centrally driven projects. The qualitative analysis of the information from the desk research reveals quite critical assessments of what respondents describe as a top-down, programmed approach to aid, especially after a period of rebuilding the basic infrastructure. An important part of this process will be the identification of local resources and competences worth developing. In doing so, the goals of reconstruction must not be rigidly, top-down defined; they must take into account what Ukraine has and what has already been done in it.

These resources are in place. They will be easier to secure because they will not be so visible. They will certainly serve local needs. There won't be the problem of building very expensive transmission infrastructure.

It will be dispersed. There will be money for that. Now it's not just a fad, it's a need. They already have a large group of engineers, power engineers convinced of this green energy even in an intellectual sense. They can handle it, they don't need any special expertise from us. They have been doing it already. (R5)

The developing decentralisation processes are, moreover, also indicated by the Ukrainian interviewees we surveyed.

Maybe we should rebuild our cities not just for the people who are living now in Ukraine but for the future generations of Ukrainians. But then it would take more time, like maybe 5 years. These two ideas are always concurring with each other in different departments. Different departments are making their own decisions because we have this decentralisation process in Ukraine right. (R8)

The above quote also resonates with the statements of other entrepreneurs who point to a future or already emerging division in development processes between Western Ukraine and the more strongly conflict-affected East of the country.

It seems to me that this will be a two-pronged approach. On the one hand, it would entail relocation of capacity towards western Ukraine, to the extent it's possible (because it won't be everywhere). On the other, they will have to regain access to the sea. (R5)

Obviously, it will be an economy which is more connected to Europe compared to how it has been in the past. Ukraine's economy before was torn between the east and the west. (R1)

In practice, this has the potential overturn the country's pre-existing east-west economic divide. The entrepreneurs surveyed are already pointing out that the dynamics of economic processes are changing and shifting their burden to western Ukraine. At the same time, this is a natural process related to the destruction of the war and the ongoing conflict. On the other hand, it bears the risk of strong future divisions in the country. This is one of the major challenges facing those planning reconstruction processes. They have to resolve the paradox related to the dynamics of the war, which makes it possible to operate in the western part of the country while planning the reconstruction of its eastern part.

A precise diagnosis of local potentials, needs and opportunities is crucial, as the examples of other countries undergoing post-war reconstruction processes show. In

one particular interview, conducted with a person who participated in the reconstruction activity in civil war-ravaged Bosnia and Herzegovina, the issue of local and targeted action resonates even stronger.

I participated in programmes where there was a completely destroyed village. We were responding ad hoc, because it's better to do something than nothing. After few years I come back to it and see that many things did not make sense. That's why I suggest that you learn from good and bad experiences before the renewal process. A school was done, and people didn't come back. The school stands there. It's like taking money and throwing it into the river. It should have been explored whether people would come back there. (R6)

This is a very important quote, showing that in social or economic regeneration processes it is relatively easy to miss the mark by defining the objectives of reconstruction too broadly and not aligning them with the real possibilities of the local community or the specifics of the local economy. When designing and supporting reconstruction mechanisms, a careful balance has to be struck between innovation and modernisation and locally rooted action. Reconstruction and development programmes activities designed in isolation from local conditions, networks of actors and resources can become a factor with a potential to impede the process comparable to corruption. In this sense, the lack of references to multi-level partnership mechanisms in the respondents' interviews is somewhat worrying, particularly taking into consideration the clear awareness of the need to empower Ukrainian local communities and to use the local companies' knowledge and skills. At the same time, the narrative about the objectives of the activities points to mechanisms of donation and commissioning of activities (this involving Ukrainian actors), subcontracting of activities. In a sense, this is a copying of the market model of business activity, but the question is whether, in the case of reconstruction activities, the mechanisms of local diagnosis, partnership, cooperation should not be more clearly emphasised in development policies.

The processes of reconstruction in Ukraine are thus seen as an opportunity to find a new market, to expand the company's activities. In doing so, the narrative of potential profit is also intertwined with the language of mission, referring to the period of transformation of the Central and Eastern European economies. Maintaining this balance is an important element and requires support and moderation from those shaping and supporting Ukraine's economic recovery policies. They need to navigate between the natural and creative but also having exclusive dimensions of the desire of companies entering

Ukrainian markets in the reconstruction processes and the overall goals of reconstruction, revitalisation and empowerment of local businesses and communities.

Ukraine after the war will be a wide market, where we already have some assets. The main one is that we have been selflessly engaged in humanitarian support. This is something that helped us to get to know these people. Obviously, our expose is to a small share of this market but we have such a deep insight into this segment. We have met quite a few people who are doing business there and with whom we cooperate. It's quite an interesting experience that's new to us. (R10)

The Ukrainian market will be, metaphorically speaking, one big hole to which everyone will be flocking to due to the fact that everything will be in short supply there. (R 11)

For the time being, we do not look at this as our contribution to the restoration of the market there. The communication market on the Ukrainian side does not differ significantly from ours. There will be differences in prices etc., but the very mechanism of this market does not differ from what we have on the Polish side. We rather look at it from investment perspective: if investment decisions are to be made, we know mistakes we did in Poland they should avoid. For example, we would rather have one very good fibre-optic network that could be used by everyone in different ways than everyone building one for themselves, as it was initially in Poland, that. (R15)

A final pattern evident in the interviews related to Ukraine's economic recovery is the scale of the perceived challenges. Behind the optimistic narrative of hope, which speaks of the possibilities of shifting Ukraine's economy onto a new trajectory, one can sense the also an awareness of the scale of destruction and the calls facing the country. The vision of modernising the economy, linking it more strongly to developed countries, moving away from crude production and towards a knowledge-based economy is intertwined with a pessimistic assessment of the scale of the destruction, the loss of population, infrastructure or industrial capacity in Ukraine. There is also a widespread awareness of the enormity of the need for support, the hunger for investment and even longer for humanitarian aid.

Ukraine is facing very difficult years. No amount of money or funds can offset these losses that Ukraine has suffered and will suffer. (R2)

Every kind of business for Ukraine is needed. But you need big ones that will bring something, bring something to the market, give some impetus, bring in investment, because it is important for Ukraine to employ people, to have them come back. (R14)

To summarise the three research modules focused on the analysis of the vision of the goals of rebuilding Ukraine's economy, we would like to point out its tripartite nature. First of all, the interviews indicate that the process has already begun and those wishing to engage in it are already creating strategies and action plans. The development goals themselves are first and foremost linked to the reconstruction of the devastation. The shared vision is that reconstruction must not mean a return to the past and is an opportunity for the Ukrainian economy to modernise and integrate into Euro-Atlantic economic structures. Respondents and interviewees go beyond general formulations and emphasise the scale of the destruction and the role of basic infrastructure reconstruction activities. At the same time, the concerns about Ukraine's subjectivity – or agency – in the process of setting reconstruction goals, priorities and activities resonate very clearly. In doing so, we can point to the most important findings from the research on the perception of the reconstruction goals of the Ukrainian economy:

a.

Partnership and subjectivity (agency) in goal setting: the most important of these speaks to the need to reconcile the externally, internationally defined goals of reconstruction and the integrity and independence of Ukraine in shaping its economic development. Reconstruction programmes, policies of international donors will have to delicately balance modernisation and integration into the economy and legal system of the countries supporting the processes with the needs and specificities, needs and resources of Ukraine. Among the respondents, one can notice a tension between the vision of modernising the economy along the lines of the European Union or the USA and the feeling that local economic actors or local governments should also have an influence on goals, strategies and influence.

b.

Three development dynamics: respondents point to the complex nature of the planned economic reconstruction. The first element is the reconstruction and upgrading of damaged infrastructure. It will aim to build the foundations for further activities.

The next dynamic is related to major flagship investments or changes in legal systems at national level. These macro processes will be strongly moderated by international



donors, large economic players and governments. In doing so, respondents fear the imposition of off-the-shelf solutions, the domination of the strongest and the oligarchisation of such activities.

The third dynamic is related to mid-range development. It focuses on the level of local governments, local communities, individual economic sectors. It takes into account the mechanisms of partnership and co-determination on the basis of local diagnoses and strategies. At the same time, these three dynamics are not mutually exclusive, when talking about rebuilding Ukraine's economy, entrepreneurs rather point to the multi-level nature of development, which should take into account these three models.

c.

Towards a modern state: respondents unanimously point to the link between the public economic sector (state and local government) and the social sector. The goals of rebuilding the economy must be integrated with changes in the transparency and efficiency of state activities. The

biggest threats, apart from those related to the effects of war, are corruption and the oligarchic nature of economic structures.

d.

Transformation experience: interviewees point to the need to relate Ukraine's economic reconstruction processes to the transformation experience of Central and Eastern Europe and the Balkans, previously affected by civil war.

e.

Between mission and business: the entrepreneurs interviewed point to the need to realistically reconcile business with a certain mission for reconstruction, which must not only serve the purpose of external market acquisition. In this sense, the planned reconstruction must provide economic opportunities both for foreign and Ukrainian businesses. However, these activities must be synchronised with the broader objectives of the overall process.

WHO? ACTORS INVOLVED IN RECONSTRUCTION PROCESSES AND ASSESSMENT OF THEIR ROLE

A process of reconstruction will be complex and multi actor task. Our analysis, therefore, also looked at who is pointed out by the respondents as the main actors in development, who will be the subject and who will be the object of reconstruction.

Repeatedly, the authors of the analysed content, emphasise that Ukrainians should own the process of housing. As the authors of the report *A Blueprint for the Reconstruction of Ukraine* (Torbjörn 2022) note, until recently, Ukrainians considered their country, or the ruling elite, as hostile to them and oppressive. Experts increasingly recognise that this is their country, towards which they have responsibilities as citizens. Building on the wave of patriotism, establishing mechanisms for genuine civic participation would help prolong national unity and volunteer enthusiasm among Ukrainians after the war, but more importantly, ensure the democratic development of the country. Surveys among Ukrainians show that they want further strengthening of their citizenship and communities. In practice, this means further decentralisation, independent media and a more open political environment.*

In June 2023, the European Union pledged to provide Ukraine with up to €50 billion in financial support between 2024 and 2027 - €33 billion in loans and €17 billion in grants, to be managed through a new special instrument called Ukraine Reserve. An additional €100 million in loans is apparently being discussed (Tamma 2023). Such a pledge is also meant to be an incentive for other donors. The EU's generosity is driven not only by altruistic motives, but also by the fact that, as a potential EU member, Ukraine is supposed to be a democratic country with a strong and a stable economy. The country is also rich in various types of resources, crucial to the process of independence from Russia. Although the scale of the potential financial portfolio seems substantial, some experts believe that this may not be enough, especially if Ukraine is to become part of the EU in the 2030s. Experts point out that there is a lack of detailed definition of the rules that must be met for Ukraine to become a member of the EU and that emotion currently dominate the narrative about Ukraine at the expense of concrete and hard rules (Erlanger 2023). And Ukraine has a lot of catching up to do to become a fully democratic country. The decision to grant Ukraine the status of a Member State imposes significant obligations on the EU towards the candidate country. An additional source of funding being considered

by the EC is the possibility of spending funds frozen in the accounts of Russian oligarchs and other Russian assets in the world (Sutowski, Łucewycz 2023). In June 2023 in US Senate was legislation to provide additional assistance to Ukraine using assets confiscated from the Central Bank of the Russian Federation and other sovereign assets of the Russian Federation (Foregin, 2023). Other options, like reallocation of the funds unused by individual member states to Ukraine or far-reaching reduction of Ukraine's debt are also being discussed (Drea 2023).

An issue reoccurring in the expert discourse on who and how the reconstruction processes of Ukraine's economy will be affected is the existence of grey networks and the oligarchs. The main threat, in the context of the oligarchs, is a potential return to systemic corruption further fuelled by reconstruction measures. The actions of the Ukrainian government itself to nationalise some of its enterprises are of concern to academics, journalists and practitioners, as they create a space conducive to partisan processes of appropriation of the economy (Blank 2023). Some experts see the Ukrainian civil society - whose strength is now so strongly manifested - as an important actor capable of controlling this process to prevent the oligarchs from regaining their influence and reduce the risk of grand-scale corruption (Majmurek, Stubbe 2023). At the same time, the analysed articles are full of important but very general slogans, such as "Ukrainian ownership", "inclusiveness", "democratic participation", which usually remain just empty buzzwords (Sutowski, Łucewycz 2023). This creates a certain vacuum in the expert narrative and leaves the question of how to strengthen civic mechanisms in the processes of reconstruction open. In other words, experts draw attention to civicism as an important mechanism for controlling processes in Ukraine, but stop short of defining specific ways, tools and mechanisms for strengthening it.

Spending on long-term activities worries experts the most, as they fear an increase in corruption. Nowadays, as the authors of the *Economist* article (*Economist*, November 2022) note, strong patriotic attitudes have been aroused, which also curb corruption. Nevertheless, it is feared that after the war the problem will reemerge. Nevertheless, there are already good examples of anti-corruption work in Ukraine. In 2014, Prozorro (a software for observing public procurement - one of the most modern in the world) was created. Since 2016, every public procurement can be tracked online although the

* According to a survey funded by the National Democratic Institute (2022), 94% of Ukrainians believe that it is important that Ukraine becomes a full-fledged democracy. A KIIS survey implemented at the end of October, showed that 86% of Ukrainians support continuation of Ukraine's resistance to Russia (www.kiis.com.ua/?lang=ukr&cat=reports&id=1151).

operation of this platform was partially suspended for the duration of the war for security reasons. Efforts are now being made to adapt this software to the needs of international funders. One tool to increase transparency and efficiency often mentioned in the reports is the mechanism of public-private partnerships (Blank 2023). The way the funds are disbursed, implies a combination of funds coming from public sources and private investments. The private sector is supposed to be the main driver of the economy. However, this implies the need for a strict legal framework for this type of financing (World Bank 2023).

The fear of competition and pushing out the weakest actors is another controversial but evident element in both expert discourse analyses and interviews with entrepreneurs is. It concerns unfair competition and the appropriation of activities, plans and processes from the strongest and most resourceful actors. Concerns that the strongest economies in the European Union will impose the direction of change which may harm the interests of smaller nations excluded from the reconstruction processes is articulated particularly in the conservative political discourse (Kopyta 2023). Regardless of the veracity of this claim, it resonates with the businessmen's attitudes and expectations regarding the way and the direction in which Ukraine's economy will develop captured in the interviews. It also shows the mercantile approach to the process itself treated as an opportunity to expand markets. Interestingly, the power balance problem has been recognised by international organisations and now the G7 has already established a multi-donor coordination mechanism, which is co-created at a high technocratic level by the European Union (EU), the US and Ukraine and supported by a small staff in Brussels. Experts point out that there should be a coherent, high-level and highly active mechanism to promote the implementation of Ukraine's reconstruction ideas and programmes, thus bridging the gap between annual reconstruction conferences. This should be complemented by a Private Sector Advisory Board (Grossman 2023).

A different picture of relationships and the role of the actors involved emerges from the quantitative survey of entrepreneurs.



EXISTING BUSINESS PARTNERSHIPS

First of all, they base their reconstruction planning on a relatively limited network of relationships. Thus, e.g. a small percentage of companies had/have (maintained or

lost as a result of the war) a business partner in Ukraine (Figure 13).

Figure 13.
Companies' business relations with Ukrainian entities (%)

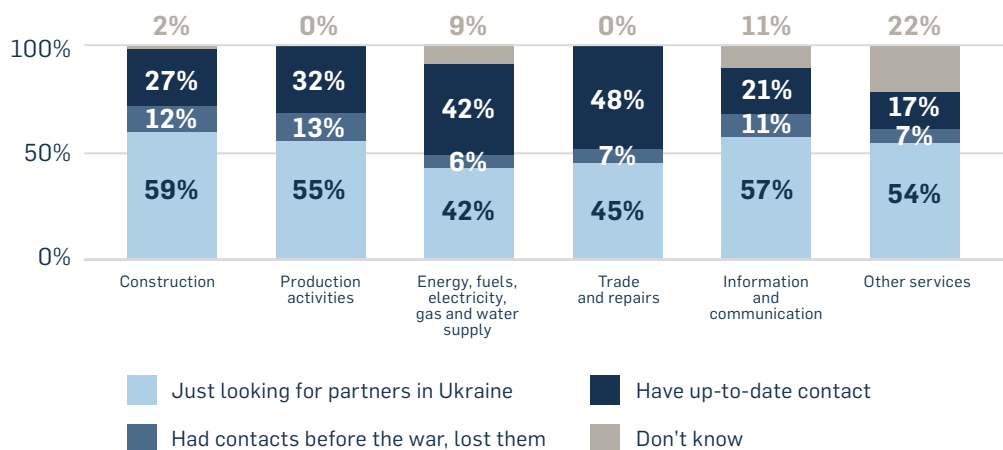


Source: own research, N=385. Based on question "Does the company have business relationships in Ukraine?"

This means that despite their geographical proximity, the networks of relationships of the surveyed entities with Ukraine are relatively poor. Assuming that the companies, which took part in the survey, have a particular interest in the reconstruction, getting involved in the processes would entail entering a completely new economic, social and political area. The lack of knowledge of the specifics of the Ukrainian economy and post-war reality as well as the lack of local business partners may significantly limit the effectiveness of the companies' activities. This also

raises the question of the reconstruction model itself. Most stakeholders share the vision of a strong, organic involvement of Ukrainian partners from the economic or public sector. Meanwhile, quantitative research points rather to the individual character of the activities of the surveyed companies focused, at least at this stage, on their offer, rather than establishing partnership networks. At the same time the studied sample is not homogeneous, there are differences in the surveyed sample related to the industry in which the companies operate (Figure 14).

Figure 14.
Relations with Ukrainian entities and the industry of the surveyed company (%)



Source: own research, N=302, statistically significant difference. Based on question "Does the company have business relationships in Ukraine (by sector)?"

Trade and energy companies have visibly better networks of relations with Ukrainian partners. This may be due to the specifics of the sector in question. For example, investments in energy infrastructure require well-developed cooperation with local actors. Still, other key industries, strongly represented in the survey, such as construction or manufacturing activities are only just establishing or planning to establish a network of relationships with Ukrainian partners. This might emerge as a serious limitation because these sectors require a good knowledge of the local specifics, legislation, infrastructure. In this sense, there is a risk of a significant slowdown in the activities of companies in these sectors,

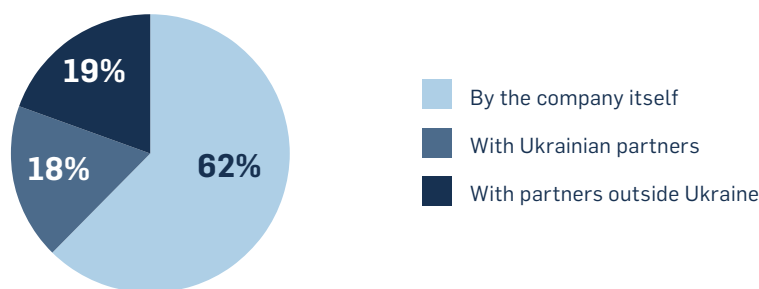
whose activity will be crucial at least in the first stage of physical reconstruction. On the other hand, the results suggest that the local partnerships networks are quite weak. The situation is similar with companies from the information and communication sector. This is an interesting phenomenon as a great effort was made in the Ukrainian economy before and during the war to digitise, disperse and computerise it. The lack of contacts and recognition of the changes already made to the existing infrastructure may make it difficult for foreign actors to operate. Interestingly, this is not the case for all surveyed companies.

FUTURE PARTNERSHIPS IN THE RECONSTRUCTION

The answers to the question regarding anticipated future partnerships reveals certain individualistic tendencies among the surveyed companies. Most companies surveyed not only lack active relationships with actors in Ukraine, but also intend to engage in the reconstruction on their own (Figure 15). This reinforces the impression about the individualistic nature of the planned activities and, as a consequence, the potentially limited effects of the actions of companies that do not plan broader coalitions of actors. The reconstruction planned in this way

is in fact an extension of the individual aid activities that began when the war erupted. Moreover, the companies' inclination towards individual engagement can significantly limit the effectiveness of their operations in dense partnership networks implementing the future international development plans. Including the companies in such joint activities and coalitions might appear as the biggest challenge the institutions organizing development processes could face.

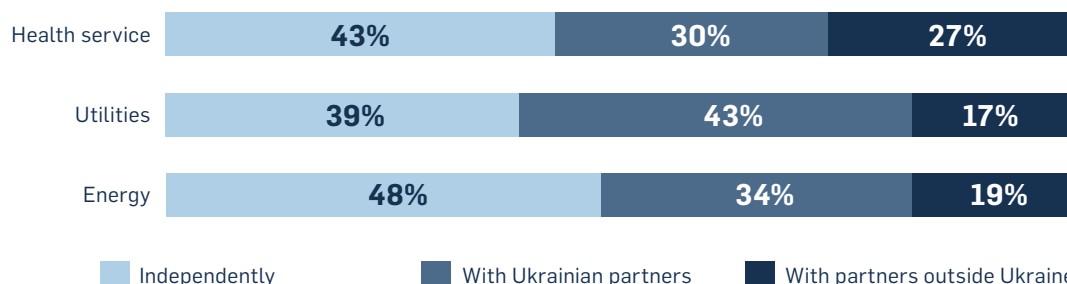
Figure 15.
Modality of engagement in the reconstruction of Ukraine (%)



Source: own research, N=385. Based on question "With whom you plan to work for the reconstruction of Ukraine?"

The situation regarding potential partnerships is different for the three key areas of planned assistance (energy, utilities and health services). The specific nature of services in the area of utilities entails by definition more intensive local interactions, hence the expectation to cooperate with Ukrainian partners is highest in this area. The willingness to work with Ukrainian partners is indicated more often than average also in the energy sector and provision of health services (Figure 16).

Figure 16.
Modality of engagement in the reconstruction of Ukraine in three areas of planned activities (%)



Source: own research, N=140, statistically significant difference. Based on question "With whom the respondent plans to work for the reconstruction of Ukraine?"

Interestingly, this is not the case for the key category of construction companies, which is key to the process under analysis and widely represented in the survey, or key units related to information and communication (Figure 17). At the same time, it is difficult to imagine companies investing in physical infrastructure on their own.

The results of the research may indicate the early stage of the reconstruction processes, when the efforts did not go beyond the company planning stage. Therefore, the results might reflect the limited nature of previous and current business relations with Ukraine of the surveyed entities.

Figure 17.
Modality of engagement in the reconstruction of Ukraine by sector of the companies participating in the survey (%)



Source: own research, N=342, statistically significant difference. Based on question "With whom the respondent plans to work for the reconstruction of Ukraine?"

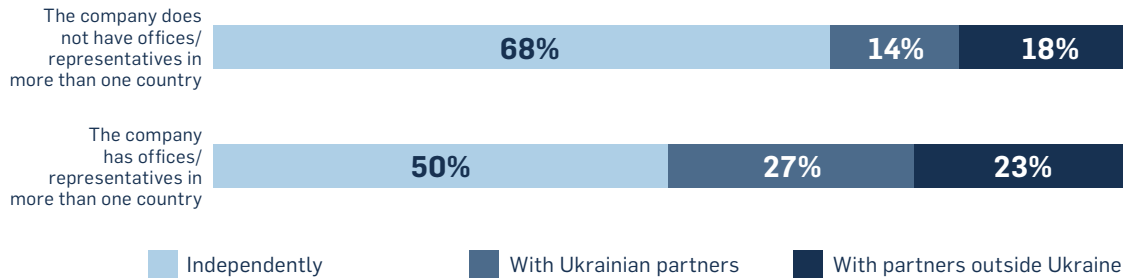
Looking at the companies from perspective of the geography of their operations (national vs. international) provides additional insights. It seems that some of the multinational companies, broadly defined, rely on already existing networks of relationships or activities in Ukraine. This translates into a significantly lower than average propensity for individual engagement (Figure 18). This is

a trap into which companies with a strong domestic focus can fall. The technique applied during the research is not highly precise, but it does indicate that reconstruction programmes the companies would engage in might reflect and reinforce their characteristics. For example, if a company focuses on a narrowly defined market and is self-sufficient in its activities, it is likely to implement

reconstruction mechanisms similarly. Respectively, it will be easier for large, international and multi-market players to operate and build networks of relationships in Ukraine.

This could lead to a situation in which the largest actors dominate relief efforts, networks and coalitions for Ukraine development.

Figure 18.
Modality of engagement in the reconstruction of Ukraine and the international exposure of the company (%)

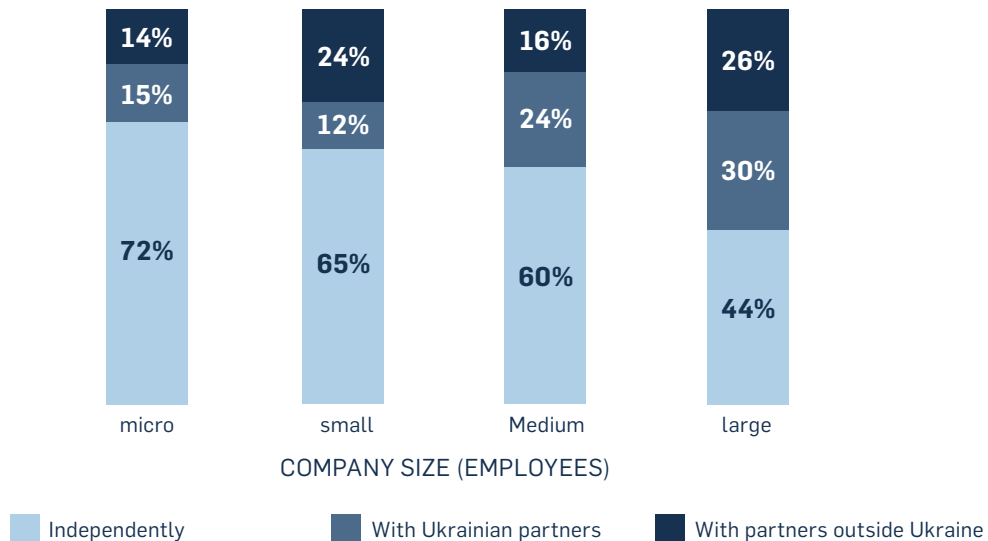


Source: own research, N=385, statistically significant difference. Based on questions "With whom the respondent plans to work for the reconstruction of Ukraine?" and "Does your company have offices/representatives in more than one country?"

The size of the company is also correlated with the intended modality of engagement in the reconstruction. The larger the size (reflected in the number of employees), the lowest propensity to engage in the reconstruction on their own – most probably because small companies have smaller partnerships networks (Figure 19). Not surprisingly, the share of companies envisaging partnerships

(both with Ukrainian and international entities) is highest among large companies. It would therefore be good for smaller companies to facilitate networking. Such a need is confirmed, for example, by the distribution of responses as to what type of assistance companies need disaggregated by their size (Figure 17).

Figure 19.
Modality of engagement in the reconstruction of Ukraine and company size (%)



Source: own research, N=385, statistically significant difference. Based on question "With whom the respondent plans to work for the reconstruction of Ukraine?" and reported number of employees

THE ROLE OF INTERNATIONAL ORGANIZATIONS

The surveyed companies are aware of the problems associated with relationship networks. Thus, when asked about expected ways of support by international

organisations, the majority of respondents indicated assistance in contacting Ukrainian partners (Table 9).

Table 9: Areas of expected support from UNDP GC and other international organisations (%)

Assistance in contacting Ukrainian partners	43
Political lobbying at international level	18
Assistance in contacting experts/organisations carrying out activities in Ukraine	16
Support in obtaining funding for action	13
Logistical support in Ukraine	7
Other	3

Source: own research, N=385. Based on question "How can the UN and other international organisations support businesses in rebuilding Ukraine?"

Moderation as an expected support is quoted more frequently than other types of activities, such as securing funding, building international lobbying or, more importantly, acquiring expertise. On the one hand, respondents know that it is worthwhile to build networks of relationships with Ukrainian partners, but most of them believe that their companies will act independently. The largest companies, unsurprisingly, are more in need of lobbying

support than smaller ones. In contrast, medium-sized and small companies most often indicate that they need assistance in building relationships with Ukrainian companies. It is interesting that the smallest companies do not seek support in raising funds (Table 10). One of the reasons might be their scepticism regarding their future role in the reconstruction of Ukraine.

Table 10: Expected support from UNDP GC and other international organisations vs company size (%)

Company size (turnover)	Possible support options					
	Political lobbying at international level	Assistance in contacting experts/organisations operating in Ukraine	Assistance in contacting Ukrainian partners	Logistical support in Ukraine	Support in obtaining funding for activities	Other
Micro	16	16	16	16	16	16
Small	20	20	20	20	20	20
Medium	18	18	18	18	18	18
Large	26	26	26	26	26	26

Source: own research, N=385, statistically significant difference. Based on question "How can the UN and other international organisations support businesses in rebuilding Ukraine?" and reported turnover

The sheer scale of activities often exceeds the capacity of the entities surveyed – and the respondents seem to be aware of this. The companies interviewed were actively involved in humanitarian aid, especially at the beginning of the war. This experience, as later statements show, was not only important for the individuals and institutions that received various forms of aid, but also for the interviewed entrepreneurs themselves:

I know we've done quite a lot. If you think about it, it's beyond the scale of a small organisation, and yet somehow we've managed. It is very heartening for us as an organisation and for us as leaders. (R14)

Many companies had Ukrainian workers already before the war. Respondents helped their employees in various ways, giving them paid leave, helping to bring their families, providing their relatives with places to live, sometimes even work. Companies were also providing material aid to Ukraine, as well as supporting refugees not linked to their companies. Other types of assistance also appeared, such as:

We introduced the Stay Up programme to keep people busy. Even when we didn't have a market, we were renovating, cleaning, running activities. (R8)

Or

Each of them received a basic but intensive, 36-hours training in Polish language, and each of them also received additional targeted training tailored to their expectations, to their abilities. These were supposed to increase their chances of employment. (R11)

In some cases, the assistance offered by the companies also became the basis for further commercial cooperation, thanks to the people met during this time, learning various processes and discovering new needs. The experience gained during this period, especially in the area of aid provision, is for some respondents the starting point for further work in Ukraine. It was important that they got to know specific people, companies, proved themselves in difficult situations, and appreciated people from Ukraine, including their competences.

Many contacts, ideas arose after the war broke out. We met a lot of people through humanitarian activities – in embassies, government circles, entrepreneurs. (R15)

A representative from one of the companies said the following about the assistance they provided:

We have the specific case of a gentleman who lost an entire drug manufacturing company he had in Donbass. It was razed to the ground. He is now opening a new business in Poland. We are going to cooperate with him, and we are even going to apply for a grant to the National Centre for Research and Development pointing to this cooperation and knowledge transfer. Ukraine has a lot of specialists who are unemployed at the moment, and it is worth using them. This gentleman is taking them into his new company in Poland, he is attracting these specialists and it is important to integrate them into the Polish system. Of course, they have high-level substantive knowledge, but there is also more specific administrative knowledge which needs to be passed on to them, and this is what we want to do so that the company can operate. (R3)

Relationships established at the humanitarian stage may be important, as the interviews showed that most respondents did not have permanent business partners in Ukraine before the war. Some did not cooperate at all, some casually. The statement of this respondent reflects well what a lot of other respondents were talking about.

Cooperation was limited. We rather cooperated in Ukrainian contexts related to Poland-Ukraine cooperation or using diplomatic contacts at the level of inter-governmental meetings. (R20)

In the interviews we were also interested in who the respondents thought should be responsible for the reconstruction process, who should be the agents of reconstruction. Respondents emphasised that Ukrainians are the hosts of reconstruction and the ones who will implement the reconstruction assumptions, and this should be kept in mind.

Respondents are aware that Ukrainian partners have had a difficult experience and this should be taken into account when engaging with them.

Apart from specific financial assistance, they need to know that these people need rehabilitation, both physical as well as psychological, after traumatic times. Any company that enters the Ukrainian market needs to be aware of these specific circumstances. If it enters without this awareness, there will be no results. Of course, business is about profit. Without that, it will be lost and we don't need that. But in addition to profit, there must be a factor of social responsibility and social inclusion. (R4)

Aid providers must be aware that this is someone else's country. (R19)

Polish entrepreneurs understand that reconstruction will be a multi-year process and that a platform, or some other type of institutional cooperation, is needed among the various entities that will plan and manage reconstruction, including Ukrainian entities. However, respondents have different visions of how this should look.

Government agencies will be established, for sure, that will work with the international agencies and coordinate the process. (R8)

According to others, this body should be formed by global organisations such as the UNDP or the European Commission. For some, such a platform should be managed by a single country, the most frequently mentioned being Germany or the USA. There is also disagreement among respondents as to what type of institutions will lead the reconstruction process. Will it be private institutions, or rather large NGOs, or the governments of individual countries. The question is also how much of this is to be a bottom-up process, based on small companies, and how much on large global entities.

Rebuilding the whole city will involve the state, developers who will rebuild a large part of it and then the people will build some of the things themselves. (R2)

Respondents lack the presence of a strong, well-organised public Polish institution to advocate on behalf of Polish entrepreneurs in Ukraine. In their view, there is no institution to coordinate Polish efforts to rebuild a country devastated by war. They also do not see any chance that such a body will be created. Entrepreneurs are of the opinion that Polish diplomacy is not active in the area of building coalitions for Polish-Ukrainian industrial partnership.

Here I would not look at the Polish government administration... the country's diplomatic structures always play a huge role here but we do not have such structures yet. (R15)

The flow of information is non-existent. We do a succession of gigantic conferences where we assure ourselves and pat ourselves on the back that we will help..... We promise we will do it, but between the promise and the actual results there's tremendous amount of work to be done. and from promising to doing it is a lot of work to do. Once the conference is over, things will come to a head and these companies will themselves look for a niche for their products without a plan or a strategy. (R10)

Integration activities between institutions potentially involved in reconstruction or between companies on both sides of the border, although sporadic, if any, are the result of the efforts of the entrepreneurs themselves and not of the public authorities.

Instead, there are specific expectations of entrepreneurs:

There are some private initiatives, but the Ministry of Infrastructure, which has access to railway tracks, is indifferent. It is the responsibility of the state to build a friendly border with Ukraine. This is the first thing the Polish state can do. (R4)

To what extent the lack of state support influences the fact that some of the companies surveyed are critical of the chances of Polish companies on the Ukrainian market is difficult to assess, perhaps only a realistic estimation of their own strength.

I would lower the expectations. We will not play a significant role there. Maybe we will find some niches where Polish companies can enter. We don't have the capital resources that Western entities have. The scale is incomparable. (R6)

We should not be imagining that we will rebuild the future Ukraine. We can be one of the cogs... (R8)

The first fiddle will be played by one really big and institution and in fact, Ukrainian companies, or companies like us, will only be in the second, third round. (R15)

Respondents fear competition, not only from Western Europe, especially Germany, but also e.g. Turkish companies and Ukrainian companies themselves.

There is some risk in certain areas. I know it's the case of the agricultural sector, the road transport sector (i.e. forwarding and logistics), where it may turn out that Polish companies have a lot of competition from Ukrainian entities. (R6)

To summarise, despite the geographical proximity, the networks of relationships of the surveyed entities with Ukraine are relatively flimsy. It means that most of the surveyed companies will enter a completely new economic, social and political territory when they engage in the future reconstruction. Both in the public debate and the surveyed entrepreneurs emphasise that Ukrainians are the hosts of the reconstruction and those who will implement the reconstruction assumptions, and this must be kept in mind. At the same time, there is widespread concern that corruption and other elements of the post-

-Soviet mentality, according to experts and entrepreneurs still present among Ukrainians, may disrupt the reconstruction process and, therefore, external institutions must accompany the process of rebuilding Ukraine at every stage all the time. However, there is no consensus on who should establish these institutions. The limited experience of cooperation with Ukrainian companies, revealed by the survey, makes it important for the businesses to invest in advance in establishing cooperative networks with Ukrainian partners (including potential ones). The hitherto weakness of Polish public institutions in supporting such cooperation causes respondents to expect support from, among others, the UNDP for lobbying activities at the international level. The analysed companies lack clear guidelines and support from Polish national public institutions. Micro and small entities are clearly more likely to indicate the need for support in finding partners. The largest companies, on the other hand, were slightly more likely (although still not dominant) to consider that substantive support for their activities was also required. It is worrying that the majority of surveyed companies declare that they undertake and plan activities in Ukraine in the absence of cooperation with other entities.

A divergence of reconstruction models for Ukraine's economy can already be observed related to the types of companies that plan to get involved. Smaller, domestic companies will focus on ad hoc actions by entering unknown territory, while large, international companies will take advantage of economies of scale, extensive networks of relationships and spare resources to refine reconstruction efforts. At the same time, we believe that all actors, regardless of their size, can play an important role in the future reconstruction. However, they require a different support system or even mentoring related to the planned actions. In our view, this increases the importance of the various activities and channels used by the international organisations involved, which should approach global versus national or local economic actors differently.

Alongside hard infrastructure reconstruction activities, there must be room to rebuild the broader services sector. Among the companies surveyed, few entities declare an interest in investing in the development of services. There is a risk that without this, people will not be willing and able to return to the enclosed towns and villages.

HOW? METHODOLOGIES AND METHODS FOR REBUILDING THE UKRAINIAN ECONOMY

In the analysis of the expert discourse on the methods of economic reconstruction, the level of generality is striking. Those planning the reconstruction of the Ukrainian economy are at the stage of defining a model of action and related tools. At this stage, as noted by the experts themselves, there is a lack of priorities and concrete solutions (Grossman 2023, Erlanger 2023). Thus, for example, in the World Bank report, one can read that the basic principle of the reconstruction plan, is to gradually increase the rate of growth; to increase prosperity in an equitable way; to integrate with the EU, consistent with the principles of the EU rules, to integrate with the EU and to be consistent with and support the accession path; to rebuild better (for the future); and to enable private investment and entrepreneurship. This report, also stresses the importance of reconstruction in an inclusive manner, taking into account refugees, including internally displaced persons, war veterans, gender issues. The Declaration on Reconstruction of Ukraine, adopted in July 2022, identifies several key principles to guide the reconstruction of the country along similar lines, including partnership, transparency, accountability, democratic participation, gender equality and sustainability, principles of law. Numerous complementary principles are mentioned, including:

- Coordination of activities by the government and its partners;
- Balancing urgent needs with long-term goals;
- Differentiated approaches that prioritise impact and needs and promote decentralisation;
- Resilience and rebuilding for a more sustainable future;
- Sustainable solutions for the return of refugees and the integration of displaced persons, prioritising their housing needs, access to basic services, social protection and livelihoods;
- Systematic data collection.

A slightly more detailed approach to the methodology of action is taken by business-related experts. In a number of articles (World Bank 2023, Osiecki 2023), they point out the need to insure any investment in Ukraine. Commercial insurance companies are reluctant to insure operations in a war zone, but private business will not start operations without security guarantees provided by public institutions. Key actors are expected to include the World Bank, the European Bank for Reconstruction and Development, export support agencies in individual countries, and in the Polish case, the Polish export credit agency (KUKE), among others. Attention is also drawn

to access to financial markets as a source of capital for financing the reconstruction (Osiecki 2023). The same article proposes the creation of a single stock exchange - based on the experience and competence of the people who make up the capital market there - and the extinction of the remaining licences. It would also be important to “hammer” those Ukrainian companies that are listed on other trading floors, mainly the Polish one.

It is often pointed out that a further process of decentralisation is needed. “Decentralisation was the most popular reform in Ukraine before the war - and the ability of Ukrainian regions and cities to continue providing basic services to citizens and businesses during the war is a daily confirmation of these reforms”. These were the words spoken by Niina Ratilainen at a conference on the reconstruction of Ukraine in London in June 2023 (Krzysztofowicz 2023). This means that the reconstruction process must be rooted in self-government and local democracy. At the same conference, Mayor of Gdansk, Aleksandra Dutkiewicz, expressed her conviction that national governments and international institutions recognise cities and regions as full partners in the reconstruction of Ukraine (Krzysztofowicz 2023). The European Commission obliges the Ukrainian authorities to compulsorily consult the reconstruction plan at regional level. People in Ukraine know that decentralisation is key, as people will oppose to over-centralised government. Some experts temper this enthusiasm stressing that not all elements of reconstruction can be implemented at the local level. For example, implementation of zero carbon measures or the establishment of a business-friendly environment should be done at the national level. There is also a fear of widening inequalities at the regional level if foreign investment only goes to larger cities (Bogdan 2022).

Ukraine's reconstruction plans are compared to the post-war Marshall Plan. The author of an article from Polityka, notes that its key value was the stability of public finances achieved also thanks to the sense of long-term security provided by American troops. Now, as the author notes, Ukraine and the post-war world will need not only money, but above all a plan written out over decades, with particular emphasis on such measures that will make Russia cease being a threat to its neighbours, a source of aggression and anxiety (Łukasiewicz 2023).

However, the comparison to the great reconstruction programmes after World War II can be misleading. This is pointed out by the authors of an article from The Economist (Editorial, November 2022), highlighting the multipolarity and complexity of the modern world. The experience of reconstruction from e.g. Afghanistan, Iraq

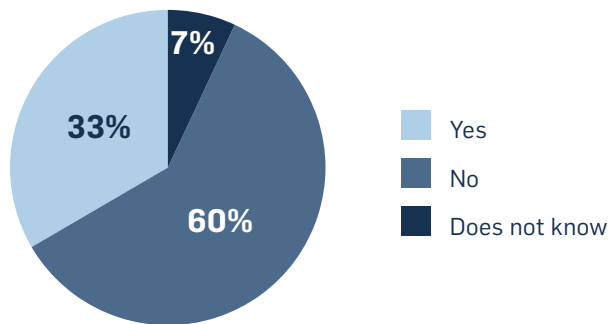
is not particularly optimistic. There, efficient state institutions have not been established and much of the aid has been stolen. In a country like Ukraine, where corruption is a serious problem, the scenario that some money will be embezzled seems realistic. However, certain activities of international organisations, the awareness of the failures of previous reconstruction programmes in war-affected countries and the activity of Ukrainians themselves to control corruption give hope that the allocated funds can be used effectively (The Economist, June 2023). Already during the war, efforts are being made to bring the anti-corruption procurement tracking programme in line with international donors. Ukraine had been trying to integrate electricity markets with the EU before the war, and these efforts accelerated after the outbreak of the war, showing that it is worth moving forward. This process, long planned as part of the pivot towards the West, accelerated after the Russian invasion. It included technical adjustments and painful market reforms on the Ukrainian side to create a competitive, open wholesale market. The courage has paid off. Ukraine and the EU can trade electricity, and investors can begin to take advantage of Ukraine's huge green energy potential. Ukraine's modernisation has so far been characterised by “frog leaps”, i.e. quick transitions. It is hoped that reconstruction will now also take place along these lines.

DEDICATED STRUCTURES AT COMPANY LEVEL TO DEAL WITH THE FUTURE RECONSTRUCTION

Stable engagement in the future reconstruction won't be possible without dedicated operational structures at company level. Only 33% of the surveyed companies have

separate teams focused on reconstruction activities in Ukraine (Figure 20).

Figure 20.
Existence of dedicated operational structures at company level to deal with future reconstruction (%)

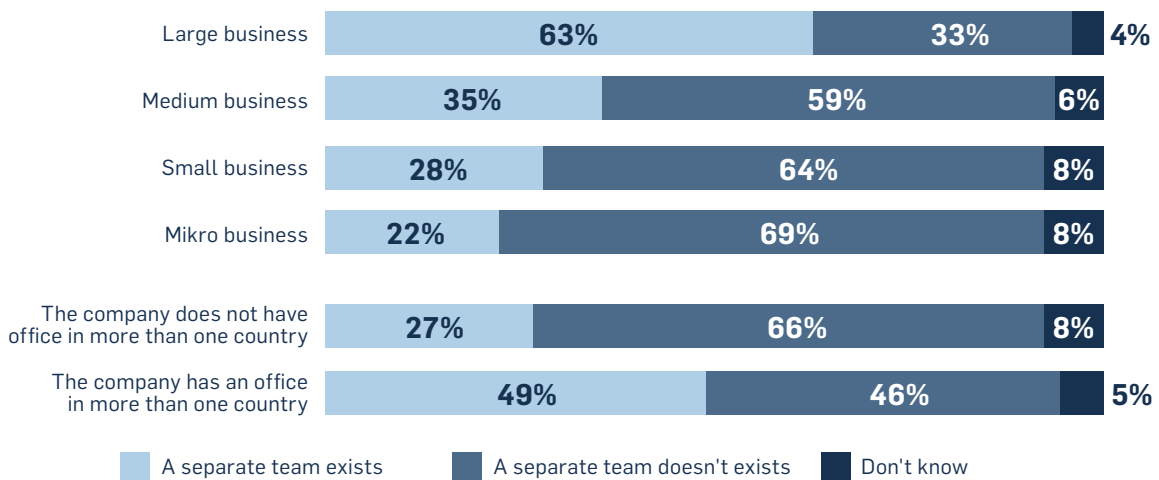


Source: own research, N=385. Based on question "Does the company have a separate team focused on the reconstruction of Ukraine?"

Most of the companies surveyed do not have a separate unit or staff focused on the preparation and implementation of recovery mechanisms. Rather, it can be assumed that a significant proportion of companies rely on the

activities of already existing teams to supplement day-to-day operations. At the same time, once again in this study, it is the international nature and size of the company that differentiates the sample (Figure 21).

Figure 21.
Existence of dedicated operational structures at company level to deal with future reconstruction by international nature of the company and its size (%)



Source: own research, N=385, statistically significant difference. Based on questions "Does the company have a separate team focused on the reconstruction of Ukraine?", "Does your company have offices/representatives in more than one country?" and reported company size

Larger companies and those with international exposure can afford and/or feel the need to have a separate, specialised team to focus on rebuilding Ukraine's economy. This exacerbates the fracture that small and medium-sized enterprises, which lack the contacts, business relationships but also the knowledge and human resources to effectively support the conflict-affected country,

might fall behind. This appears to be an area, in which international organisations and polish public institutions could provide diversified support: on the one hand, to support the largest players while, at the same time, build the capacities of smaller players, who need to develop the social and intellectual capital to be able to act effectively for Ukraine.

PERCEIVED RISKS RELATED TO THE FUTURE RECONSTRUCTION

The companies were asked to rank a number of possible risks they might face when engaging in the future reconstruction. The two key categories relate to uncertainty about the development of the still ongoing conflict and the risks associated with the anticipated corruption associated with activities in Ukraine. On the other hand, the

lowest values of indications are noted for factors related to the risk of losing part of the markets and, more importantly, to the declared lack of employees, knowledge of how to act and tools to assess the effectiveness of activity (Table 11).

Table 11: Concerns about the process of rebuilding Ukraine's economy and the role of the company

	N	Average score
Lack of protection against corruption	379	4,41
Uncertainty about the development of the conflict	372	4,38
Lack of funds	371	4,18
Inability to assess the impact of actions	367	3,74
Lack of committed staff	370	3,44
Lack of knowledge of how to act effectively	369	3,43
Loss of some markets (e.g. in Russia)	365	1,90

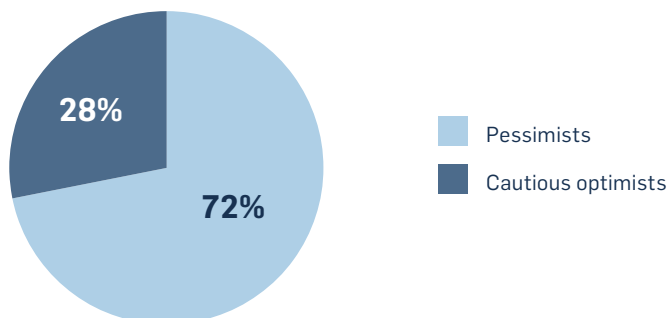
Source: self-reported survey, N=385, attitude scale where 1 is extreme disagreement and 5 is extreme agreement with the statement (note, the higher the mean the greater the concern about the action).

Based on question What are your greatest concerns about potential involvement in the reconstruction of Ukraine?

This means that the companies surveyed tend to identify threats or constraints on the effectiveness of the reconstruction processes outside their own structures. Clearly, the trajectory of conflict but also the real perceived problems of corruption appear as the main indications. This overlaps with the previous questions on, for example, expected forms of support. In our view, the risk of certain inertia in the operation of the surveyed companies is high. Most of them assume that they have the knowledge, human capital and business tools to operate effectively. In practice, this may lead to limited interest in tools based on knowledge transfer. In other words, the surveyed companies may not be interested in learning and developing a distinct model to support the Ukrainian economy,

building on their existing competencies and their previous activities in domestic markets.

With that said, further statistical procedures (two-stage cluster analysis) indicate a relatively high sense of risk associated with reconstruction processes (as shown in Figure 22 and Table 12).

Figure 22.**Segmentation of companies' optimism towards efforts to rebuild the Ukrainian economy (%)**

Source: own research, N=375, clustering was performed using a two-stage cluster segmentation technique. Based on question what are your greatest concerns about potential involvement in the reconstruction of Ukraine?

Table 12: Segmentation of business optimism towards recovery efforts in Ukraine vs. specific concerns

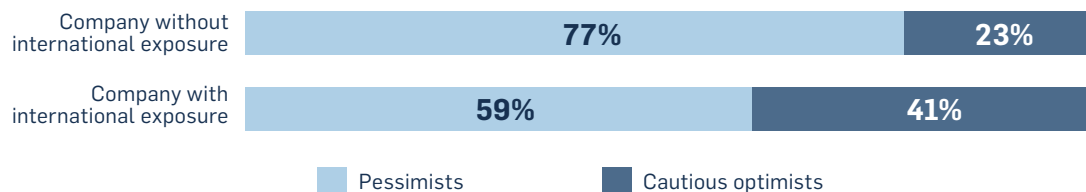
Concerns	Company typology: optimism linked to recovery	
	Pessimists	Cautious optimists
Uncertainty about the development of the conflict	4,40	4,22
Lack of funds	4,40	3,63
Lack of committed staff	3,86	2,36
Lack of knowledge of how to act effectively	3,98	1,86
Inability to assess the impact of actions	4,16	2,52
Lack of protection against corruption	4,59	3,93
Loss of some markets (e.g. in Russia)	2,07	1,55

Source: self-reported survey, N=375, attitude scale where 1 is extreme disagreement and 5 is extreme agreement with the statement (note, the higher the mean the greater the concern about the action). Based on the question: what are your greatest concerns about potential involvement in the reconstruction of Ukraine?

The majority of the companies surveyed fell into the pessimist category, which was characterised by strong concerns about the reconstruction efforts in Ukraine. Only 28% of the companies can be classified as optimistic about the planned processes. The main variables differentiating the group of cautious optimists are the significantly higher assessment of their competences, financial resources and tools to monitor the implemented programmes. The group also has a lower declared fear of corruption. The main element shared by both pessimists and optimists, is uncertainty about the prospects of conflict.

The sample is also differentiated by the question on the international exposure of the company (Figure 23). Companies operating in international markets are clearly more positive about the planned reconstruction processes, assess their competence or capacity to act more positively, are less concerned about corruption risks and do not declare the economic and human resource risks of the planned processes. Most probably this is due to fact that they have internal regulations of their own that might offset these risks, which they are aware of.

Figure 23.
Segmentation of companies' optimism towards recovery efforts in Ukraine vs. international exposure of the company (%)

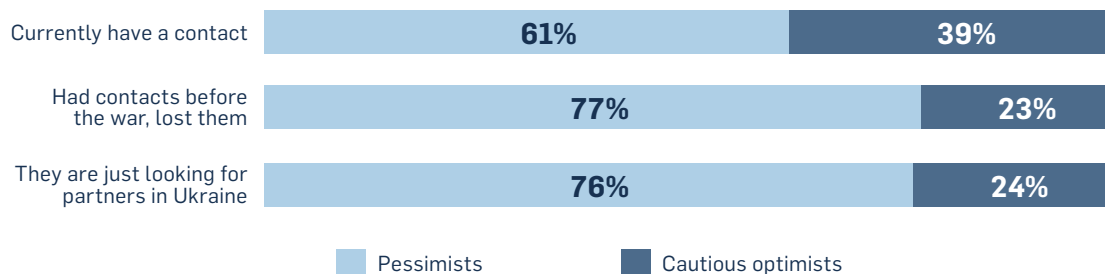


Source: own research, N=385, statistically significant difference. Based on question "Does your company have offices/representatives in more than one country?" and pessimism/optimism score

A very surprising result also emerges here. The sense of threat to the reconstruction processes decreases with doing business in Ukraine. Companies with current con-

tacts are noticeably more likely than the average (although still not a majority) to fall into the cautious optimist category (Figure 24).

Figure 24.
Segmentation of companies' optimism towards reconstruction efforts in the Ukrainian economy and their relations with actors in Ukraine (%)



Source: own research, N=385. Based on question "Does your company have business relations with Ukraine?"

Real-life contact with Ukrainian partners clearly allays some of the fears of operating. Experiences of cooperation, relationships and contacts seem to be a good way of overcoming a certain inertia of companies, which may be afraid of operating in an unfamiliar environment. It is

also one of the more interesting social learning mechanisms of the actors involved in reconstruction processes. Working contacts, exchange of experience, joint projects with Ukrainian partners seem to be the best ways to build their capacity to act.



THE AMBIVALENT ROLE OF BIG INTERNATIONAL ACTORS

The fear of domination by large, international actors is also evident in the interviews conducted with entrepreneurs. The first, problematic element is related to the perceived potential model of action in the reconstruction of the Ukrainian economy.

This probably won't happen anyway without the transfer of knowledge, technology, know how from other countries. This is by and large the fastest way always and the cheapest at the end of the day. This transfer will take place. It is a bit like the situation in Poland in the '90s. This transfer happened and it resulted in a faster transition. That seems to be a fairly important thing and that is most likely the direction that will take place. To what extent the companies and the business there will get involved and participate in this process is a question that is difficult for me to answer. I assume they will, but I don't know what the scale of it all will be. (R2)

The above quote is worth noting because it indicates the most realistic, according to the respondent, model of development of the Ukrainian economy with external transfers of funds, knowledge, technology and ideas. The ambivalence of the respondent's assessment is striking, as the respondent assumes that this is, on the one hand, the fastest and realistic model, but at the same time generates problems related to the processes of involving local actors.

Back then, I started with the war in Kuwait, where my company was. Then came the war in Iraq and when it ended, big companies, huge money and competition came in. In the case of Ukraine, I think companies will come in and will want to exploit that potential, the opportunities. It's not a bad thing that these companies want to make money out of it. If they didn't want to, it wouldn't be normal. If there will be a plan and a meaningful distribution of funds, then these companies will enter. If there is a vision, Ukrainians will come back because there will be jobs, they will be better paid and they will come back. A lot of Ukrainians want to return to their land. (R8)

This quote represents a linear approach in which the transfer of innovation and resources flows from the top, theoretically contributing to the development of local economies. At the same time, this is a rather isolated position in the survey of entrepreneurs. Although most of those surveyed assume that this model has a good chance of being realised and is inherent to the nature of aid programmes, they see it as a threat to the Ukrainian economy and their own entities.

The reality is simple: everyone wants to sell their products. The Danes, the Germans, the Poles. They just want to have security. You don't need to build a company, a factory. You just push your products with the insurance of your country's public institution. This is optimal, because there is no risk. You ship, the money comes in. Only it's not long-term, you don't build a factory, an office and so on. This is the approach. Ukrainians also see it as a threat to their economy. (R6)

We will not play a significant role there. Maybe we will find some niches where Polish companies can enter. We do not have the capital resources that Western entities have. The scale is incomparable. The risk is limited, we have to be smart. I would do my small projects. I would try to develop relationships, so we invest in them too. This will be to the benefit of Polish entities. (R6)

Elements of these concerns can be seen in the above quote, regardless of their veracity, they point to a perceived threat of partisanship in reconstruction efforts that may hit both companies and the subjectivity of Ukrainian partners. Respondents explore strong, government-backed competition from companies that may dominate reconstruction programmes leaving no space for either Ukrainians or smaller businesses. The recipe for the threat of domination, according to the respondents, could be international actors, NGOs, teams building methodologies of action for a rebuilt economy.

Some kind of coalition is needed, that kind of thing, that you could get involved in. We need to avoid situations when 10 entities are rowing in a certain direction, but not knowing that other entities are also rowing. I mean these types of coalitions, initiatives like the report on Polish business' support for Ukraine. That's where we showed up with our activities. It was a kind of platform that would allow us to combine, on the one hand, the demand and, on the other hand, the search for partners to fulfil the demand. It would be great if such coalition is built on a platform basis. (R8)

We have here a number of organisations today, which, are really participating in the talks. On the one hand, we are talking about the European Union, on the other – about the key role of the US Government. On the third hand, we have various non-governmental organisations which support Ukraine. There is definitely a need for some kind of platform to bring these together. (R11)

Such a platform could, by mediating between businesses, governments and local authorities, creating models of

activity, building sets of good practices, lobbying internationally, create both a general, political framework and specific, exemplary solutions to support local communities. Thus, for the respondents, an important element becomes building rudimentary networks of information exchange between them and other involved, international organisations or national, Ukrainian partners. The need for synchronisation of local, national and international mechanisms of action was also pointed out by our interviewee closely observing the reconstruction processes after the civil war in Bosnia and Herzegovina.

What I, as a member of the local community, would judge as a priority, will not be a priority for an investor or a sponsor or a donor (it can be different for each of these). People may think we need a school, but a donor comes along who only invests in bridges and will not invest in a school. Needs, priorities and opportunities do not necessarily overlap. (R5)

In the interview, the respondent highlights the problems associated with the mismatch between local needs and activities and internationally planned opportunities and activities. This makes it all the more important, in the case of Ukraine and the reconstruction of its economy, to create viable platforms that allow businesses, donors, the

public sector and political actors to communicate with each other. They must allow for mutual control, reducing the risk of corruption or local particularisms in spending money on the one hand, and allowing for the commonality of goals and methods on the other. The interviews show the need to build a balance to give the Ukrainian economy a modernising impulse, while maintaining some mechanisms of local control over these processes.

The respondents also suggest the need for the Western partners to be assertive. They are also concerned about the risk of treating reconstruction processes through the prism of bare market mechanisms only, in which stronger players will push out those with less potential or coming from outside the centre – hinting at the need of introducing some checks and balances in the process.

It's worth remembering that Western societies have the ability to separate the sphere of emotions from the sphere of money – on a business level, but also in general. Support is great et., but let's remember that this will come to an end at some point, the reconstruction process will kick in and then there will be billions of dollars and euros that someone has to absorb. Let's not get ripped off. There will be no sentiment there. (R20)

COOPERATION IN A COMPETITIVE ENVIRONMENT

The declared concern is related to competition and domination of businesses by larger entities additionally supported by the public sector. In doing so, it is not our research objective to determine whether such a risk really exists or not. What we can ascertain, however, is the subjective feeling of threat and lack of influence on recovery processes by some of the respondents surveyed. Characteristic and recurring in the survey is the view of a strong segmentation of future assistance, a division into zones of responsibility or substantive areas.

I don't expect that, apart from financiers from the United States and the World Bank, workers and engineers from the United States will come. Rather, I assume that workers and engineers will come from Poland. Therefore, there's nothing to wait for, one must already undertake these projects at least in western Ukraine. On the other hand, standard projects must already be drawn. (R4)

It will probably be like it was in the early 90's: huge consultancies huge resources from the west will come in and will hire Ukrainian students. Based on a certain strategy they have been following in various countries

like Poland or Romania, they will start the planning for the investments. It will end up like the reconstruction in Iraq. That is, with nothing. German, French companies will come and will do just that. (R10)

This is reflected in the content of an interview with an independent expert. First of all, unintentionally, the respondent points out the clear divisions between the different states, some of which, in his opinion, will be responsible for planning projects and others – for their implementation. Also important in this statement is the time dimension and the clear awareness that the processes of reconstruction and the creation of its model have already begun. The problem is also the declared lack of an overall vision of what these could look like and what role the different actors could play in it – or at least of awareness of such vision if it exists.

I have not come across any material that clearly shows what the idea is. There are a number of concepts, some discussions at the level of the EU, the UN, or of the big countries heavily involved in the issue, like the United States. But I have not come across a model that has been elaborated. There is talk that this should be done by the

Ukrainians themselves and that it should be in their hands, but for the moment, this is on the basis of certain political declarations. (R2)

The fact that the respondents rarely refer to a coherent vision or models and activities related to the reconstruction of Ukraine might be due to the fact that the reconstruction is at nascent and the war is still ongoing. This comes to an interesting contradiction with the documents analysed during the Desk Research stage. In the case of the latter, general statements of goals and ways to modernise and upgrade the Ukrainian economy are evident. At the same time, in interviews with entrepreneurs, it is not yet apparent that, beyond general slogans, these translate into a coherent vision of how and with whom to act. The agreement on very general goals related to the modernisation of the country's economy does not translate into knowledge of a model of action. Instead, the reference to mid-range development goals comes back to this point. While the interviewed entrepreneurs do not yet know or, in most cases, cannot imagine what reconstruction will look like from the policy perspective of international actors or their own companies, they often perceive that they should focus on specific local communities, local governments, small and medium-sized enterprises.

Even local plans should largely be coordinated and organised by local governments. They know best. (R7)

Small businesses should follow the approach we are suggesting: thanks to the partnership between the Polish and Ukrainian local authorities, engage in the implementation of local projects. Their scale and value will be much smaller than, for example, the reconstruction of the bridge in Zaporozhye. This is the space for small and medium enterprises. Hence our project Working for the Rebuilding of Ukrainian Enterprise for small and medium-sized enterprises and local authorities. I would expect the European Union to provide programmes aimed at small and medium-sized enterprises and local governments. Big money for big projects will come from the Americans. Someone has to think about this social fabric, this base and what will really change Ukraine. (R4)

In each of these markets, you have to be aware that you have to have a local partner to look after us one way or another. (R13)

In doing so, this modelling of reconstruction has two dimensions. The first is escapist in nature and is related to the already described sense of being pushed out of the "market of action" by stronger actors. The second, on the

other hand, is related to the assessment of the potential influence of the company or Ukrainian partners. Activities on a smaller scale are rooted in local governments or communities. Interestingly, this dovetails with the movement initiated by the amendments to the Ukrainian Constitution (Decentralisation, 2017) for decentralisation and the construction of autonomous and independent local self-government. In this way, respondents – particularly those representing smaller businesses and experts – point to the emergence of a space allowing smaller entities to operate and better synchronise with local economic needs. Similarly, to the case of targets, the respondents point to a projected two-track nature of reconstruction processes when describing models of action. In addition to the top-down model of reconstruction (designed and managed by large central or local donors), there will also be a space for the activity of smaller (which does not necessarily mean small) enterprises. These could include also of local governments, if the Ukrainian self-government reform continues. At the same time, we recognise that these models do not have to be competitive, they can co-exist, but require different forms of support and activity from mediating entities, such as the UNDP. The need for greater involvement of smaller partners, as declared by the surveyed entrepreneurs, is also noted by the experts participating in the project. In the corpus of data, one can find references to planned policies, e.g. of the European Union or activities of supporting entities.

We are organising various conferences and meetings where they can talk to Ukrainian local government officials, who we believe will soon be the ones to receive grants. Part of this aid for reconstruction will be addressed to the government, but part of it will be addressed directly to the local governments (at least, that's what we hear from the European Union, from the Commission). They will receive the money, they will be responsible for the selection procedures, anti-corruption, they will identify the projects. (R4)

Some money is already coming to Ukraine directly to specific groups, so some projects are already starting to come to life. The bright side of this is that some organisations already have money and are working but the results may not be so good. The second idea is that it should go through the government. We already have the United 24 fund. I understand that some money from other countries already goes to United 24. United 24 belongs to the government so they are obviously also deciding what to spend the money on. I think both options are going to work in the future, the government is going to make decisions and the organisations are going to work on their own. (R12)

The first expert points to his own more or less effective networking activities, while emphasising a certain change in aid discourses and the reallocation of some of the international funds at the disposal of Ukrainian actors. The latter, on the other hand, indicates a rather critical assessment of the effectiveness of the flow of funds, while at the same time emphasising the importance of mechanisms such as, for example, the United 24 Fund*, founded by President Volodymyr Zelensky and aimed at the transparent management of donor funds. The need for non-standard mechanisms of action is also emphasised by, for example, a respondent previously dealing with the aftermath of the civil war in the Balkans.

They need to create a partnership between these interests. This is very important. To see people from a place where there has been war as their partners. What I am saying is not utopia. Without that, every business, organisation, international community should not do it, because it will be a mistake from the very beginning. (R5)

In the interview, the respondent points to the specific nature of reconstruction, the need to combine the interests of businesses and Ukrainians. In doing so, she directly refers to partnership mechanisms in the design of activities. Based on her experience of the civil war, the re-

spondent also draws attention to one element absent in other interviews: the processes of economic recovery in Ukraine will involve a traumatised, war-affected society, which requires a specific approach in which “business-as-usual” behaviour will not, at least from the Ukrainian perspective, generate adequate results.

At the same time, the demand for empowerment of smaller companies or local governments present in the interviews does not imply a lack of control over spent funds or activities in Ukraine. Corruption and partisanship are indicated as the main threats to activities. The interviewed entrepreneurs therefore postulate the introduction of mechanisms to increase transparency and reduce financial and legal risks of activities in Ukraine.

When we know the regulations and understand them, we can operate in the market. We don't have to spend extra energy to learn the regulations, the rules. Knowledge of the regulations is a big plus, a bonus, because it makes the operations transparent. It starts with delivering goods from one point to another. This is where the question of security related to business turnover comes in. Regardless is it an upfront payment or a form of insured trade credit, securing the transaction (that it will actually be realized) is important element. How secure everything will or will not be. (R2)

SECURITY BEYOND ITS MILITARY DIMENSIONS

The entrepreneurs surveyed differ from each other in terms of size, innovativeness of activities or ideas on how to rebuild the Ukrainian economy. However, they are remarkably united when it comes to declaring the need for security of their activities. The three important themes that emerge here are: protection from corruption, legal security and security of financial transactions. In doing so, the first element appeared repeatedly in this report.

Certainly, all the elements related to prevention of corruption should be in place in the Ukrainian institutions, so that when these companies actually come in, they can concentrate on what they know how to do, and not on figuring out how to function in a corruption-prone environment. So that it doesn't turn out that there is something wrong and they get some kind of penalty, that they didn't complete some form that they didn't even know they were supposed to complete. (R2)

Regardless is the scale and breadth of corruption phenomena exaggerated by respondents or not, it clearly emerges as an issue – and potential security threat. Fear of it is one of the main elements influencing plans

to shape efforts to rebuild Ukraine's economy. Its emergence was also easy to predict given the country's economic history, business experience and media discourses around it. In contrast, a new theme emerging in the interviews of respondents talking about how they want to act is financial security. The armed conflict and Ukraine's associated monetary and banking policies. Congested transfers, inability to obtain credit, instability of financial operations were cited as one of the main elements holding respondents back.

Stability, security. Above all, stability of financial operations. It's a simple chain: if you want to build something, you have to have the money for it; to get it, you need a bank; the bank will assess the risk. The lower the risk, the cheaper the money. If everything is expensive, it will take long time and nothing will come of it. The conditions have to be created to invest in a reasonably safe way. (R9)

An important element in this is also the process of control and supervision over the way and effectiveness of the funds spent. According to some respondents, it must

* <https://u24.gov.ua/>

combine the empowerment of the Ukrainian side with the simultaneous transparency of financial activities. Two positions emerge among respondents in this regard. The first assumes strong control over the spending of funds.

I think that in general the reconstruction process should be strictly controlled and the Ukrainians should learn, maybe painfully at times, that public money and subsidies should be spent under strict control. Strict control is not possible today because we the needs of the moment have to be addressed urgently. (R20)

The second emphasises the need for local participation in the process.

In general, we must emphasise the duty of participation of Ukraine, of Ukrainians, in the design of reconstruction, the management and accounting for it. If we imagine a model that we spend money and see to the end that it is spent fairly, we are very much mistaken. That is not what it is about. It's about recognising the subjectivity of this state, their heroism, but also their competence. They have very cool people and when I look at this government and the 30, 40-year-olds that are in it, there are a lot of very cool people that I would love to attract to work in our government. When I look at local government people, the kind of memories we have, the associations that these are old-school people, I don't find practice. These are mostly new date people 40 years old with a high proportion of women. They are elected in the local communities, they tie their ambitions to make these local communities better and better, to make the young people stay. (R4)

Here we need to make sure that we don't get a situation where the infrastructure is rebuilt, the economy expands, a certain – narrow – part of society benefits from all this, but a broad part of the society is left with the feeling that after the war we were cheated again, because the Poles, Germans and someone else came and made capital and money on the fact that the Russians had earlier wrecked our streets, houses, kindergartens and so on. (R14)

In our view, these two positions are not mutually exclusive, but distribute the accents differently. Respondents unanimously point to the need to ensure transparency and control of the activities of both foreign companies and Ukrainian actors, while at the same time developing a reconstruction methodology that allows for the involvement and preservation of the decision-making of individual actors. The second quote (R14) is particularly relevant, as the respondent points out the long-term risks of low transparency (corruption and oligarchisation

of aid) on the one hand and too strong control mechanisms and domination of external actors on the other. In the respondent's opinion, it may result in the detachment of planned activities and their effects from the needs of the community they were intended to help. At the same time, the respondents point out that this model of combining transparency, empowerment and control is already beginning to emerge and that there are models and institutions in place to increase the transparency of activities.

First of all, send European observers. It cannot be that they manage as they wish. In my opinion, just as we have European bodies to counter corruption. You can delegate to these bodies and to the bodies that are going to investigate and delegate observers. That is one thing. The other thing is that you have to work to get them internally organised. (R6)

Another theme raised by the surveyed experts and entrepreneurs analysing methodologies of action is the processual nature of reconstruction mechanisms. This is pointed out by respondents with experience in reconstruction programmes in war-affected countries.

In the beginning, this renewal will be carried out on the basis of sponsors, because the country is exhausted by the war. Year after year the cycle of production, of normal life, begins and this is the post-war period. When the projects on a sponsorship basis are exhausted, it goes into the lending stage. It's difficult to say who it will be precisely but it will certainly include the European Union, the Member States, it could be the United States, the UK, the international community, various organisations. This is a broad topic. (R5)

For certain period it will be a mix of grants combined with preferential loans from the collective west. If this process turns out that these funds were invested well and stimulate economic activity, tax revenues and the system starts to function well, then this process, as in Poland, will kick in and start to drive itself. (R2)

The respondents emphasise that economic recovery processes will be phased. First, there will be sponsored projects to build the foundations of the infrastructure for economic recovery. According to the interviewees, this phase will be characterised by a fluid form, based on the dispersed and low-coordinated activity of the many actors involved. It can be assumed that foreign actors with their methodologies of action will play a greater role in the first one. The function played by individuals or communities involved, their innovation, their ability to network and attract resources will also be important.

According to the interviewees, as reconstruction processes consolidate, bottom-up start-up and production enhancement processes supported by lines of credit will be strengthened. Interview participants emphasise the role of strategic planning, local diagnoses, multi-sectoral management.

When summarising the business' and experts' perceptions of the approaches to the reconstruction of Ukraine's economy, we would like to emphasise the early stage of the process. For the most part, the companies surveyed are only now moving from humanitarian relief efforts to planning long-term strategies for engaging with the Ukrainian economy. At this stage, the emergence and selection of operating models and platforms to moderate and manage reconstruction processes is taking place. However, fears of domination of mechanisms and programmes by the largest and most affluent actors, loss of empowerment of local partners, and risks related to corruption, factionalism or liquidity threats to the financial systems handling the transaction are characteristic.

While the surveyed companies share general goals related to a shared vision of a modern and connected economy in Ukraine, it is difficult to speak of common methodologies and ways of working. They depend on the scale, experience, industry in which the surveyed company operates. At the same time, the corpus of data, allows us to distinguish, three, very basic common points defining expected, future methodologies of action.

a.

Coordination and mediation: respondents see the need for multi-sectoral platforms (organisations, coalitions, portals) for communication between actors involved. They can lobby for transparency, commonality of goals and working methods in Ukraine, facilitate fundraising but also reduce risks of action, counteract corruption, balance disparities in resources and potentials of the actors involved.

b.

Local diagnostics: actions need to combine overall recovery objectives with knowledge of local resources, constraints and conditions. Local diagnoses should also take into account the legal and financial conditions of potential actions.

b.

Balance between transparency, efficiency and empowerment of local partners: The planned activities must, on the one hand, allow for transparent project management and leave no room for corruption. However, they should also allow for the empowerment of Ukrainian and smaller actors involved in the activities. The reconstruction mechanisms must not be based on a simple conveyor belt of standards, resources, people and means. They should allow for multi-sectoral/multi-governance management of the economic recovery processes of the conflict-affected country.

If these three basic conditions are in place, there is a chance of overcoming the companies' pessimism captured in the quantitative analyses and qualitative interviews regarding the threat of corruption, inefficiency but also ambivalent role of international actors in their efforts to rebuild the Ukrainian economy.



WHEN? TIMELINE OF THE RECONSTRUCTION PROCESSES OF THE UKRAINIAN ECONOMY

It is difficult to plan in detail while the war is still going on. This does not change the fact that reconstruction efforts are already underway in some parts of the country. Also many policies are being developed. As noted in a Krytyka Polityczna article (Sutowski, Łucwycz 2023), the aim is to ensure that the economy does not sink into hyperinflation. Some efforts are already underway, described by experts as rapid recovery.

First of all, experts point out that the processes of rebuilding Ukraine's economy will be gradual, with the different overlapping phases. Thus, for example, the authors of the report for the European Commission (Ukraine Recovery 2023) list three stages of reconstruction.

1. Reconstruction of key infrastructure - necessary to function even in wartime.
2. Rebuilding basic infrastructure such as schools, hospitals, housing.
3. Long-term transformation from education to green transformation.

In doing so, it will be a process whose pace will be dictated on the one hand by the needs of the rebuilding country, and on the other hand linked to the timetable for Ukraine's accession to the various international institutions. The authors of the report Rebuilding Ukraine (World Bank 2023) emphasise that the list of tasks and the timetable are determined by the fact that the EU granted Ukraine the status of candidate state in 2022. This, in turn, means very precise objectives to be met,

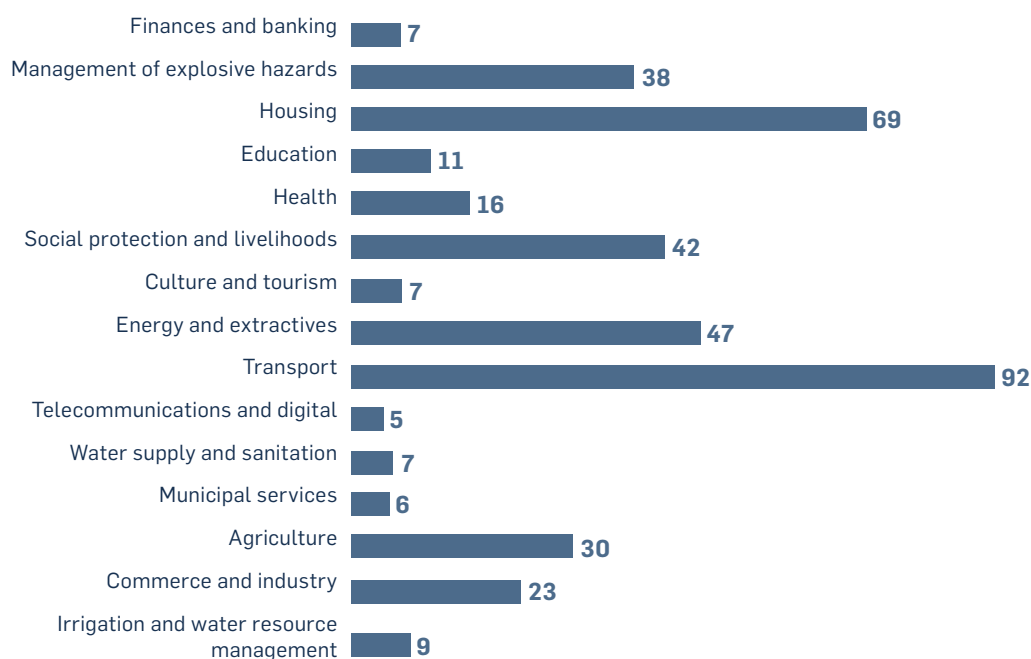
with particular emphasis on guarantees of the rule of law and property rights. At the same time, the pace of change will depend not only on the adaptability of the Ukrainian economy but also, to a large extent, on the pace of change of public institutions and the norms and regulations structuring the process of reconstruction. In other words, according to some experts, the timetable for the reconstruction of the Ukrainian economy and its transition through subsequent phases will be synchronised with the ability to change key pillars of the public sector – such as the courts.

The scheme will depend not only on the availability of funds, but also on Ukraine's absorption capacity, coordination between various institutions, both public and private, and the third sector. Without democratic and strong institutions, it will not be possible to absorb these funds in the long term (Danyluk, 2022). They should be managed by Ukrainian as well as international experts. Planning must also take into account labour market opportunities.

Experts also highlight the scale of the needs and the dire consequences of any omissions and delays. The authors of the World Bank report estimate the cost of rebuilding Ukraine's economy over the next 10 years at US\$ 411 billion (Figure 25). The most urgent expenditure for 2023 was estimated at US\$ 14 billion. Currently, these include investments in transport and its infrastructure, energy, housing, and social infrastructure. It is also important to stimulate investment in the private sector and, for example, to move from raw material production to processing (OECD 2022).



Figure 25.
Estimated total cost of Ukraine's reconstruction (billions of USD)



Source: The World Bank, the Government of Ukraine, the European Union, the United Nations (2023). Ukraine: Rapid Damage and Needs Assessment, p. 13.

In addition to indicating where to invest, the articles highlight the need for good planning and launching activities in sync with the development phase. In doing so, the authors of the OECD report emphasise how important it is that short-term decisions do not constrain long-term plans. For this to be possible, it is necessary to create a coherent strategy for economic and social development. The Lugano conference report (June 2022), referring to experiences in other countries, states that it is necessary to ensure a pragmatic, differentiated and flexible approach to balancing immediate needs with what can be achieved in the medium term, taking into account the impact of war in different geographical areas. (ii) to focus on better building a more sustainable future, including harmonising Ukrainian legislation and policies with European Union law and standards and the *Acquis Communautaire*; and (iii) to ensure that Ukrainian institutions, systems and laws are ready for transparent and effective long-term reconstruction and reconstruction programmes, taking into account external and private support and the still recent reforms regarding the decentralisation of power and devolution in Ukraine. (Basel Institute on Governance, 2022). At the same time, the very pace of implementation of the programmes can be controversial and so, for example, the funds earmarked for the reconstruction of Ukraine under the Ukraine

Reserve Facility (Lynch, 2023), will be launched after the end of the war, which was met with opposition from the Ukrainian authorities, recognising that there are regions of the country (especially the western ones) that are not affected by the hostilities and the process should start now.

There is no consensus among the businessmen interviewed as to what stage of reconstruction Ukraine is at, whether it is still a sphere of general plans or already concrete actions. One respondent believes that even the mere fact that people from Ukraine are working in Poland is already a stage in the reconstruction of their country.

Reconstruction has begun and is continuing all the time. Of course, on the scale that is possible. Two million Ukrainians are in Poland and are working, but also learning – new organisational skills, a new language, new things. Thousands of Ukrainian children go to Polish schools to learn the language. This is also reconstruction of Ukraine. Now it is mainly happening outside Ukraine and not only in Poland – there are refugees, workers, students elsewhere. For the time being it is happening in our country and elsewhere. Until the war is over, there may be sporadic activities in Ukraine proper, but people are still afraid to go there. (R7)

As one respondent notes, technically already reconstruction began, partially forced by the winter. People started to rebuild their houses, but also the energy infrastructure, fearing the cold. Some respondents say that they are now ready to start working in Ukraine. Those who have engaged in humanitarian aid feel that they have already started to participate in rebuilding Ukraine. For most, however, the full-scale reconstruction process will begin when it is safe to do so, i.e. when hostilities end, although even the end of war itself is a rather fluid concept, according to some respondents.

We are waiting for the moment when someone would tell us that the moment to think and do something concrete has come. (R4)

The sense of security has different dimensions, it is the end of shelling but also the demining of the country:

The first thing is to be able to get in there safely. At the moment we are talking about millions of mines. The number one thing in my opinion is to be able to enter an area that is very safe. (R8)

The inability to plan exactly when the reconstruction process will start makes many entrepreneurs' plans vague, because too many things can still happen in the meantime. Not only is it unclear when the recovery process will start, but also how long it will take. The majority of respondents realise that it is a process that would take years. One respondent, however, says something completely different, that this moment will be very short:

In my opinion there will be a short period of time in which many things can be changed, organised... We don't know if it will be a month, two years, six months. (R19)

Another respondent shared an interesting perspective of an open-ended timetable the pace of which will be determined by the resources available:

In the beginning, this renewal will be carried out on the basis of sponsor's support, because the country is exhausted by the war. Year after year the cycle of production, of normal life, begins and this is the post-war period. When the projects on a sponsorship basis are exhausted, it goes into the credit stage. (R5)

In a similar vein, several respondents said that knowledge is needed already and it is the acquisition of new competences that is the first step towards wise reconstruction:

The question is when this is needed and how this knowledge transfer can be achieved. Because it's not just making money there, but leaving that money in Ukraine, reconstructing it. It is building their awareness, teaching them. This is needed already. (R9)

In the same way, it is already possible to work on adapting procedures and regulations to EU requirements, but above all it is a question of good planning, which, according to a large number of respondents, can already be done now, although it is clear that for the time being this must remain at a certain level of generality.

Not being able to plan further than a few years ahead is difficult and limits the operations of large companies:

We now operate on a one-year horizon. For organisations like mine, a one-year horizon is nothing. If we have a 3-years, it's easier for us to plan something for corporate reasons... if someone came to us and said they needed 10,000 new phones – sorry, the answer would be no. We have plans that go several quarters ahead and we can't provide you that. (R19)

The last statement is very important because it highlights the critical role of good planning - regardless how difficult it may be having it at present. The prevailing opinion, both in the media discourse and among those interviewed, is that it is not possible to think about a serious reconstruction process while hostilities are ongoing. This is fully understandable, but actions are already being taken, mainly at the level of planning, analysis, however it is made rather at the local level, often in non-coordinated manner. The Ukrainian side, as well as some experts, point out that these must continue, as inaction will cause the economic and social situation to deteriorate even further. Representatives of the largest companies surveyed are concerned about the safety of their employees, as well as the economic risks associated with investments in the war zone.

CONCLUSIONS

The aim of the study was to answer the question: **what model of reconstruction of the Ukrainian economy emerges from the views of the interviewed companies and analysis of available publications and documents.**

There is an overarching consensus that reconstruction must not be a return to the pre-war status quo, but is intended to build a modern economy befitting the challenges of the 21st century. The timetable for reconstruction should be determined by the timetable for accession to the European Union and other institutions like NATO. At the same time, the reconstruction processes themselves should start now, despite the ongoing hostilities, although an important prerequisite for greater business involvement is the physical security of employees, premises and the legal and financial security of transactions.

KEY FINDINGS

Five most important findings emerge from the research on the perception of the reconstruction goals of the Ukrainian economy:

a.

Partnership and subjectivity in setting goals is critical. Stakeholders engaged in the reconstruction need to reconcile externally, internationally defined goals and Ukraine's integrity and independence in shaping its economic development. Reconstruction programmes, international donor policies will have to gently balance between modernisation of the Ukrainian economy and its integration into the economic and legal system of the countries supporting the processes with the needs and specificities, needs and resources of Ukraine. The views shared by the respondents reveal a friction between the vision of modernising the economy along the lines of the European Union or the USA and the feeling that local economic actors or local governments should also have an influence on goals, strategies and influence. The partnership should also cover the actors involved in the assistance. Some of the entrepreneurs interviewed fear competition and market capture by powerful organisations and companies supported by wealthier governments.

b.

Three development dynamics need to be harmonized in the reconstruction process: The first is the reconstruction and upgrading of destroyed infrastructure. It will aim to build the foundations for further activities. The next is related to large flagship investments or changing

It is difficult to make a research synthesis of models and ways of thinking about the reconstruction of the Ukrainian economy. In the expert discourse, there are a lot of important and topical concepts, but of rather general nature, like inclusiveness, green development, sustainable development. Most often they miss operationalisation or implementation policies. Interestingly, the interviewed entrepreneurs sporadically referred to these issues focusing rather on a narrow understanding of development from the perspective of specific areas or economic sectors. In this sense, we observed a rupture between general development policies and business strategies. Synchronising these two levels will be an important challenge facing those involved in coordinating reconstruction assistance in Ukraine.

legal systems at national level. These macro processes will be strongly moderated by international donors, large economic players and governments. At the same time, respondents fear the use of off-the-shelf solutions, the domination of the strongest and the oligarchisation of such activities. The third dynamic is responding to the to mid-range development needs focusing on the level of local governments, local communities, individual economic sectors. It should take into account partnership and inclusive decision-making based of local diagnoses and strategies. These three dynamics are not mutually exclusive. They reflect the multi-level nature of development, which should be underpinning the reconstruction process.

c.

Sustainable recovery needs a modern, inclusive state.

Transparent and efficient state institutions are a necessary precondition for achieving the goals of economic recovery. Fighting corruption is not just a matter of law enforcement or disarming the oligarchic structures. It requires changing the laws, regulations and behaviour of the entities enforcing them.

d.

The transition experience from other post-socialist countries should be taken into consideration when developing an idiosyncratic development model: This could help identify clearly the strengths and weaknesses of the Ukrainian economy to take them into account when developing a Ukrainian model of reconstruction. Respondents are wary of templates, development scenarios and

ready-made action scripts used by international organisations, which may not be in line with the needs of the reconstructed country.

e.

It's important to reconcile the ethical approach to the reconstruction as a "mission" and the business incentives. Engaging in reconstruction is neither solely charitable activity – nor solely a business operation for acquisition of new markets. Neither of the two dimensions are sustainable on their own and deliberate efforts to pragmatically reconcile both is crucial for increasing the chances that the future reconstruction will meet its broader long-term objectives.

The biggest problem at the moment, clearly, is war and everything that comes with it. There is a widespread opinion, both in media discourse and among respondents, that Ukraine has done a lot to reduce corruption. However, it is still the biggest constraint on Ukraine's recovery. Respondents fear that investment funds will not be used effectively. Another serious problem is the issue of demography. This was already a challenge before the war, now the departure of many women of childbearing age from the country and the war effort only exacerbates this problem.

A relatively poorly developed network of contacts of the entrepreneurs surveyed will be an obstacle to reconstruction processes itself. Despite the geographical proximity, a relatively small percentage of the surveyed companies

have or had (maintained or lost as a result of the war) a business partner in Ukraine. At the same time, companies operating on international markets (both Polish and with dominant foreign capital) feel better prepared to operate in Ukraine than those operating only in Poland. Rather, the quantitative and qualitative research points to the individual nature of the activities of the surveyed companies, which, at least at this stage, focus on their offer and limited relationship networks.

One of the reasons for this is what the respondents see as weak support from Polish institutions at home for entrepreneurs considering involvement in the reconstruction of Ukraine. Another reason is the limited activities of Polish diplomacy in the area of creating economic relations between the two countries in the near future, contribute to entrepreneurs taking action individually. At the same time, they expect assistance from international organisations, such as the UNDP, in contacting their Ukrainian partners, followed by political lobbying at the international level. The qualitative survey shows that at least some Polish companies doubt they will be playing the "first fiddle" during the reconstruction of Ukraine and see their chances rather as subcontractors. There is an internal tension between the need to take action on the reconstruction of Ukraine as soon as possible and the fear of entering a country where there is open conflict. Failure to take action will exacerbate the country's already difficult financial situation and widen the gap between eastern and western Ukraine.

WHAT TO LOOK OUT FOR WHEN PREPARING PROGRAMMES TO REBUILD UKRAINE'S ECONOMY?

As researchers, we are aware of the risks associated with making recommendations based on limited material and the specific experience of both the entrepreneurs or experts surveyed and the analysis team. We are not in favour of general, mechanical and often stereotypical assertions that are difficult to translate later into the practice of recovery programmes. Nevertheless, here we will take the liberty of pointing out the main themes, elements that are worth paying attention to and at least considering when thinking, planning and acting for the reconstruction of the Ukrainian economy.

a.

Mediating platforms have an important role to play. This role can be played by organisations and institutions that bring together actors involved in the development of Ukraine. They can communicate with each other, serve to coordinate activities and goals, reduce the risk of activity,

allow for information exchange regarding regulations, background of activities, resources but also constraints. An important element will be to ensure knowledge transfer and allow businesses, the public sector, and experts to learn from each other. These platforms can take many shapes: websites, portals, institutions, coalitions, conferences. However, it is important that they counteract disintegration, dispersion of activities. A potentially realistic scenario, in which actions depend only on top-down defined objectives and methodologies of donor, should be avoided.

b.

Learn from mistakes to avoid replicating them. The reconstruction experiences of other countries, particularly errors, is a good point of reference for the planned actions. At the same time, the others' experience should be conceptualized in the Ukrainian context to taken into

account the specifics of Ukraine. It is worthwhile to refer to examples which are geographically close, such as Bosnia and Herzegovina or Croatia, which were reconstructed after a war. It would be worth preparing a separate publication on effective and ineffective forms of aid applied in the context of these countries. A catalogue of good and ineffective practices in projects already implemented in Ukraine could also be considered.

c.

Ensure subjectivity and agency of the local actors. It is necessary to ensure, at every stage of the country's reconstruction, the subjectivity of Ukrainian businesses, the public sector and local communities. They should have a say in both the planning and strategy-making stages, as well as in the reconstruction itself, both at the planning stage and in the recovery of hard and soft infrastructure itself. Empowerment can be ensured through locally implemented diagnoses, participation and co-participation, commissioning but also by delegating tasks to Ukrainian partners. There are international mechanisms with toolkits for enhancing the empowerment of reconstruction programmes. An example from which one can draw is the way the subsidiarity is implemented in the European Union.

d.

Provision of security of operations is a must. This point is a truism, but it is also one of the more common themes in research. The planned reconstruction must balance between Ukraine's subjectivity as indicated above and the control of the measures. The delegation and the principle of subsidiarity must go hand in hand with developed control mechanisms by Ukrainian and international actors. The main problem remains, of course, corruption, which will be fostered by the dispersion of methodologies and partners supporting the reconstruction processes.

e.

Multi-level action should provide room for local-level initiatives: The planned reconstruction goals must have a cascading character. In addition to large, centrally controlled projects, there is room for local governments defining their own micro-tasks related to the revitalisation of specific areas. It would be good if, at least at a general level, these activities related to each other with their objectives, overall vision of change and methodology.

f.

Institutions should engage in proactive dialogue. Polish public institutions and Polish diplomacy should become more intensively involved in lobbying activities and in building relations and partnerships between Polish and Ukrainian enterprises. International organisations, such

as the UNDP, could also play such a role. There is also a need for support for entrepreneurs in the form of, for example, investment insurance in the area affected by the war. The transfer of knowledge about operating in Ukraine is important, although underestimated by the respondents. This means that it is worth building networks for the exchange of information between companies, international organisations or national Ukrainian partners. Coordination of relations between foreign partners can also be an important element of diplomatic and governmental activities. Among the surveyed entrepreneurs, fear of domination by stronger, international actors prevails.

g.

Strategic forward-looking planning needs to be flexible to reflect the changing dynamics on the ground. We have to assume that the conflict itself and its effects will be felt in the Ukrainian economy for a long period of time. Flexible strategic planning over a period of years open for adjustment is therefore important. The reconstruction programmes themselves have their own dynamics that need to be taken into account. It is worth analysing the available mechanisms and tools (e.g. grants, loans, co-financing) in advance and to prepare for the changing dynamics of business involvement. The support the companies need when they provide ad hoc humanitarian assistance is different from the support for engaging in the reconstruction processes facilitation of their entry into the Ukrainian market. The strategic planning needs to be sensitive to reflect these differences.

Annex:**Methodology of the research on Polish businesses' perspective regarding the future reconstruction of Ukraine**

This research is a second wave following the study on the Polish businesses engagement in supporting Ukraine published in 2022. This wave of the research was guided by one central and two follow-up questions. The central question was "What model for the reconstruction of Ukraine emerges from the interviewed companies" responses and the views articulated in the ongoing expert debate on the issue?" Two detailed questions followed the central one, namely "What are the perceptions for opportunities and constraints in the process of modernisation and reconstruction of the Ukrainian economy?" and "What kind of support from international organisations will the surveyed companies need?"

In order to comprehensively address these questions, we use a diverse range of research techniques using statistical and qualitative analysis techniques. We designed three research modules:

- 1. A desk research analysis - expert discourse**, carried out using qualitative analytical techniques. A corpus of Polish and English-language documents (65 items), articles and expert reports was created and thematically categorised based on key phrases (list at the end). The aim of the module was to show the background of reconstruction processes, important narratives and relevant development models and methodologies. The aim, of this module was to outline the broader context of economic development processes, allowing to relate subsequent activities to the results of expert work on both national and international levels.
- 2. Online survey.** An online questionnaire survey (CAWI) was implemented from March to June 2023. The aim of the activity was to identify the objectives, cooperation networks, planned activities, barriers and needs related to the process of rebuilding Ukraine's economy. The questionnaire was sent to entities that took part in previous waves of the research (Global Compact 2022) and through a system of link promotion, mailing and support of the Polish-Ukrainian Chamber of Commerce and the Polish Investment and Trade Agency. In the end, 385 diversified (micro, small, medium and large) Polish and Polish-operating multinationals from various industries (construction companies predominated), with diverse turnover, participated in the survey. When reading the analysis of the survey results, one should bear in mind that survey was not based on a probabilistic sample representative of the entire "universe of businesses registered or operating in Poland". This is also the reason why traditional sample control was not applied. Instead, we analyse the views and intentions of a residual sample reflecting the views of the companies with explicit interest in engaging in the process of reconstruction at the current moment. It's therefore a general outline of the possible directions in which Polish companies' intentions might evolve and not a precise description of their intended activities and goals.
- 3. Semi-structured interviews.** Based on the results of previous research, semi-structured interview scenarios were created to further analyse the goals, perspectives and methodologies of companies' activities in the processes of Ukraine's ongoing and planned economic reconstruction. They asked about visions of reconstruction and what the country's reconstruction process should look like, as well as how the companies concerned plan to engage in the reconstruction of the Ukrainian economy. An important part of this segment of the research was to capture what kind of support the companies expect from international organisations. Twenty interviews were conducted between May and June 2023 with selected representatives of large companies with both Polish and foreign capital, economic advisors operating at the international level, politicians with knowledge of the reconstruction processes in countries destroyed after the war. The methodology for selecting the interviewees was designed to reach those responsible for the reconstruction of Ukraine in the respective entity. For reasons related to privacy and data protection, the names of the companies and institutions surveyed are not provided. Half of the interviews were conducted directly with the respondents (face to face), while in the case of persons difficult to reach, the researchers used instant messaging to conduct the interview. Interview transcriptions were coded and analysed using CAQDAS software.

The combination of the three research techniques yielded the information for the analysis in the four chapters below. At the same time, it's important to remind the limitations of the research as well as its specific focus and objective: to trigger a discussion on models, methodologies and ways of rebuilding Ukraine's economy. The study, with its limitations, is expected to be one contribution to an unfolding debate on the issue.



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III.

Partnerships for Reconstruction

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THE ROLE OF INTERNATIONAL DONORS IN THE RECOVERY AND RECONSTRUCTION OF UKRAINE

International donors, including international financial and development institutions, have played a significant role in supporting Ukraine from the first days of Russia's inva-

sion. The scale of economic and social fallout has been enormous, putting a significant pressure on the state and local budgets in Ukraine.

ESTIMATES OF THE COST OF THE WAR DAMAGE

After growing 3.4% in 2021, Ukraine's gross domestic product (GDP) contracted by almost 30% in 2022, inflation reached 27%, while poverty increased from 5.5% to 24.1% in 2022 (based on the poverty line of US\$ 6.85 per person per day). In the first months of the war, more than 10 million of citizens have been displaced, with majority fleeing the country, looking for a safe place for women, children and elderly people.

According to the recent damage evaluation (Rapid Damage and Needs Assessment, so called RDNA) conducted by the Ukrainian government together with World Bank

and the EU, after the first year of war the estimated damage of the physical assets in Ukraine has reached over US\$ 135 billion, with housing, transport, energy, and commerce and industry the most affected sectors. According to experts from the Kyiv School of Economics, the most recent estimates of the damage exceeded US\$ 143 billion (Figure 26). Disruptions to economic flows and production, as well as additional costs associated with the war, are collectively measured as losses and amount to some US\$ 290 billion. Reconstruction and recovery needs are estimated at about US\$ 411 billion. (Figure 2)

Figure 26.
Dynamics of the aggregate assessment of direct damages to Ukraine's economy, US\$ bn

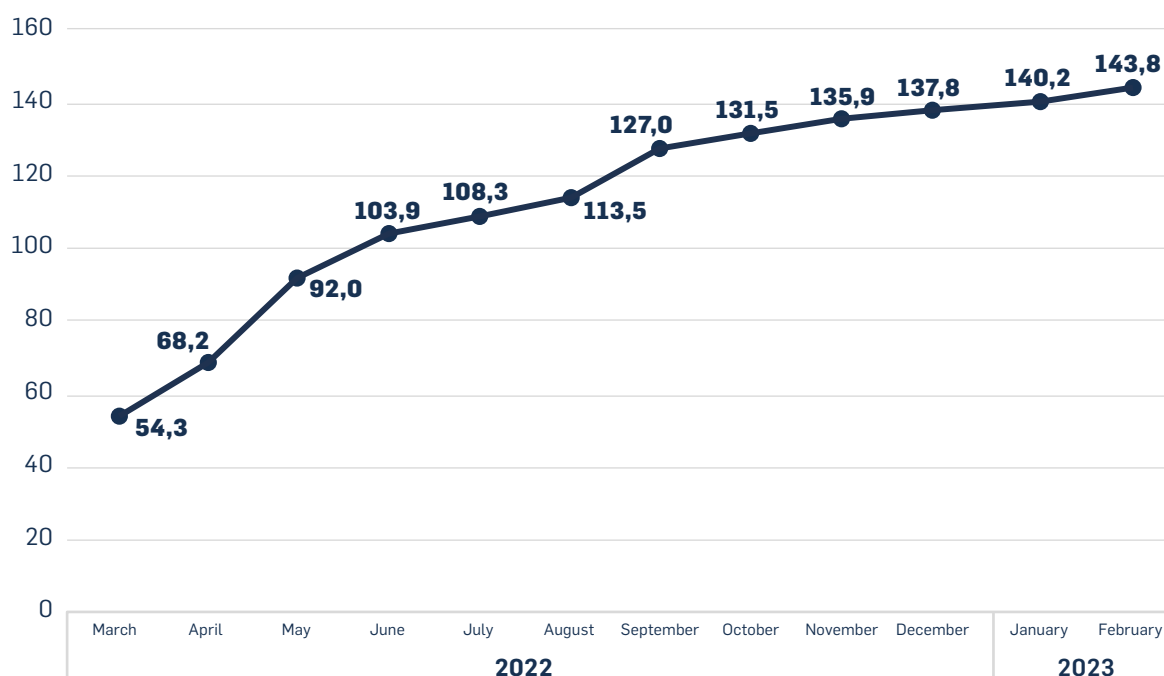
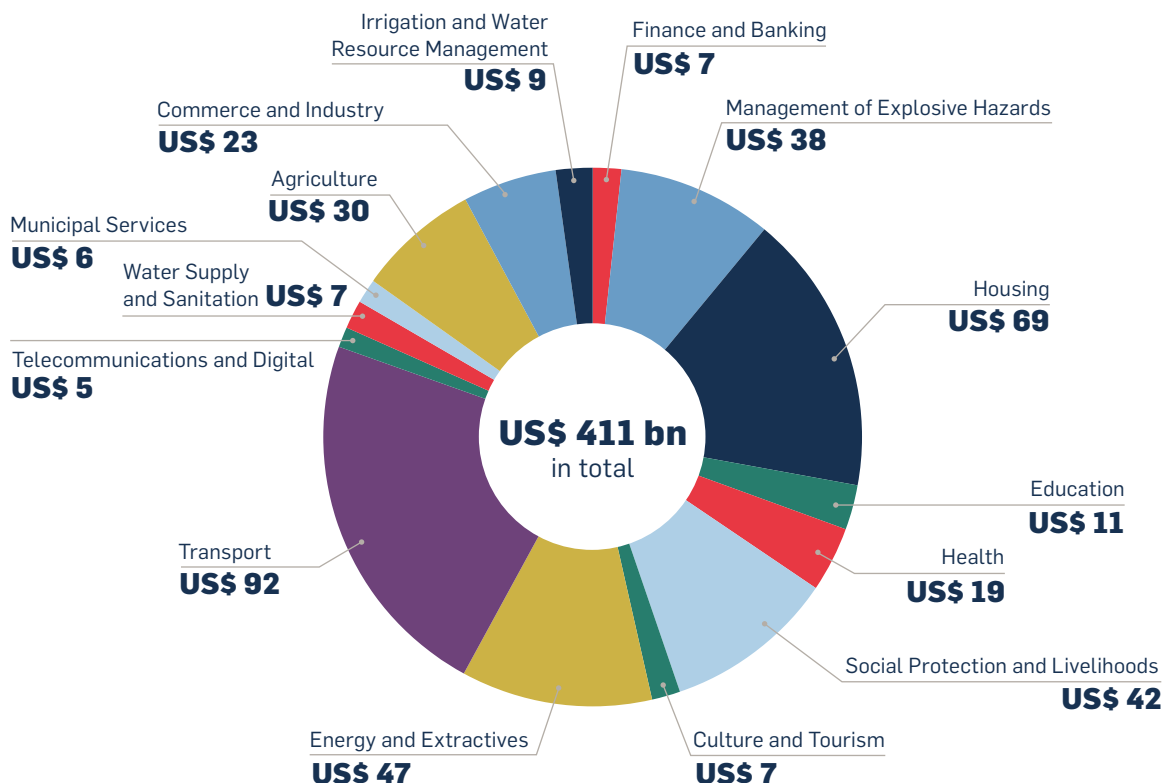


Figure 27.
Total recovery and reconstruction needs (US\$ billion): US\$ 411 billion



Source: Assessment team. Note: Needs relate to total estimated needs covering the period 2023–2033

In 2023 alone, the RDNA2 estimates Ukraine will need USD 14 billion for critical and priority reconstruction and recovery investments covering energy, humanitarian demining, housing, critical and social infrastructure and the private sector.

The reconstruction of Ukraine will be a huge challenge, not only from financial perspective. The financial cost of recovery is overwhelming, and given the limited capacity,

it is unlikely to be fully financed by donors. The recovery and reconstruction process will require a coordinated approach with many players, and given Ukraine's aspirations to join the European Union, it should be fully aligned with the EU's values. The recovery will be a great chance to build back better a modern and democratic state, but it will strongly depend on the length of the war and peace conditions.

MULTI-AGENCY DONOR PLATFORM

Ensuring close coordination among international donors and financial institutions and transparent and accountable recovery process, last November leaders of G7 group launched the Multi-agency Donor Coordination Platform. The platform includes high-level officials from Ukraine and G7 countries, but also multilateral financial and development institutions, like IMF, World Bank, EBRD and EIB and the European Commission.

Steering committee chaired by representatives of Ukraine, USA and European Commission has laid the foundation for the recovery program, focusing on the main priorities to build back better Ukraine's economy and enabling efficient planning and delivery of assistance to Ukraine to avoid duplication.

EUROPEAN INSTITUTIONAL DONORS

The EU with its members and European financial institutions (mainly EIB) play a pivotal role in supporting Ukraine, future member of the European Union. Ukraine's aspiration to join European community orchestrated mass protests in Kiev a decade ago (Maidan), and has strengthened after Russian's aggression in 2022. Since the beginning of the war President Vladimir Zelensky, on behalf of his nation, calls international leaders for their strong support in quick path for EU and NATO membership. Ukraine applied for EU membership in February 2022 and was granted EU candidate status in June 2022. The progress on the agreed conditions and miles stones will inform further steps on Ukraine's membership application.

As of May 2023, the European partners have provided support of around €70 billion, remaining the main donor for current budgetary needs and financial, humanitarian, and military support. In June 2023, during Ukraine Recovery Conference in London, the President of the EU announced a new EU financial package for Ukraine, so called Ukraine Facility aiming to support the transition towards a green, digital and inclusive economy that is progressively aligned with EU rules and standards. The overall amount of the Facility is up to €50 billion for the period 2024-2027, in the form of both grants and loans. The Facility also opens the possibility to use contributions from other donors as well as use of Russian assets.

The Facility will be organized around three pillars:

Pillar I – financial support to the State in the form of grants and loans, which will ensure stable and predictable budget funding, supporting the sustainability of Ukraine's finances. The key priorities financed under this pillar are

public administration reform, good governance, the rule of law, anti-corruption and sound financial management.

Pillar II – a specific Ukraine Investment Framework designed to attract and mobilize public and private investments for Ukraine's recovery and reconstruction. It will complement all existing instruments supporting Ukraine, such as blending and guarantees.

Pillar III – technical assistance and other supporting measures, including mobilization of expertise on reforms, support to municipalities, civil society, and other forms of bilateral assistance normally available for pre-accession countries under the Instrument for Pre-Accession (IPA), also supporting the objectives of the Ukraine Plan.

The program needs to be approved by the European Parliament and European Council. Once adopted, Ukraine will be invited to submit its Plan, laying out the reforms and investments it intends to undertake. Following its assessment of the Plan, the Commission will make a proposal to the Council to adopt the Plan and set the conditions to be fulfilled by Ukraine to access support under the Facility.

Mobilization of the private sector will be essential in the further stages of recovery. Without macroeconomic and financial stability, private investors will not be willing to invest in Ukraine, given its negative sovereign credit rating, deep-rooted corruption and ongoing war. Jointly with the IMF and the World Bank, European partners, including EIB and EBRD, are currently proving the budget support to finance macroeconomic and structural reforms, paving the way for the medium- and longer-term stability.

IMF

To support the economic and financial reforms, in March 2023, the International Monetary Fund approved a program for Ukraine worth US\$ 15.6 billion over the next four years through 2027. The arrangement under, so called Extended Fund Facility (EFF), is part of an international US\$ 115-billion financial package approved by the international donors in December 2022. The key objectives of the IMF's program are macroeconomic and financial stability, while enhancing governance and strengthening institutions to promote long-term growth in the context of post-war reconstruction and Ukraine's path to EU accession.

The newly approved EFF is the third and final stage of a strategy developed with the authorities to support Ukraine. The first stage was emergency financing totaling US\$ 2.7 billion through the Rapid Financing Instrument in 2022. The second stage was a four-month Program Monitoring with Board Involvement (PMB), approved in December 2023. The authorities' strong performance under the PMB paved the way to the full-fledged IMF program.

In the first evaluation of the program in June, the IMF praised Ukraine's authorities for the progress achieved so far amid negative circumstances and ongoing war. Ukraine has maintained a macroeconomic and financial



stability due to prudent policymaking as well as continuous and timely financial support from other donors.

In its program, the IMF puts a lot of emphasis on strengthening fiscal policies and fiscal instruments, allowing more efficient domestic revenue mobilization and pru-

dent fiscal spending. Improved governance, fiscal transparency, fight against corruption, tax erosion and avoidance remain key to finance public investment and preserve fiscal and debt sustainability. These reforms are also critical for progress toward EU accession.

THE WORLD BANK

Given its unique role and experience in supporting fragile and post-conflict states, the World Bank Group (WBG) has played a strong catalyst role in direct budget financing and mobilizing emergency financing from other donors. As of June 2023, the World Bank has mobilized over US\$ 37.5 billion in financial support, of which over US\$ 23 billion has been disbursed so far, mainly through the Public Expenditures for Administrative Capacity Endurance Project (PEACE), Recovery from Economic Emergency in Ukraine (FREE Ukraine), Ukraine Relief, Recovery, Reconstruction and Reform Trust Fund (URTF). The programs aim to sustain public service delivery to the Ukrainian citizens, including wages for public sector workers in health care, education, public services, but also pensions for the elderly, and social programs for the vulnerable.

As a trusted partner, the World Bank is managing the funds provided by many bilateral donors through the multi-donor trust funds. The largest support has been provided by the G7 countries, mainly United States, UK, Japan and European countries.

Together with IMF, EBRD and EIB, the World Bank coordinates its current support with recovery and reconstruction effort as a part of the Multi-Donor Coordination Platform launched in January 2023. The large scale of financial support and multi-dimensional recovery requires good coordination and close monitoring.

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PAIH'S* ROLE IN THE FUTURE RECONSTRUCTION OF UKRAINE

Poland is one of Ukraine's closest partners, not only in terms of geography, culture, society or politics, but also economy. At the economic level, the Russian aggression against Ukraine has disorganised the operation of the Ukrainian economy, halted investment and restricted trade. This is one of the biggest challenges Ukraine has faced in its contemporary history. Due to the ongoing hostilities, the Polish-Ukrainian economic relations are also exposed to increased risk.

Poland has been involved in helping Ukraine and its citizens since the first moments after the war broke out. One of the current priorities is to rebuild the conflict-ridden country as quickly as possible. Rebuilding Ukraine's

infrastructure and economy is fundamental to the stability of our entire region. The process is expected to comply with EU standards, which is particularly important in view of Ukraine's status as an EU candidate country. The cooperation of various countries, international organisations and government agencies and, above all, private business from all over the world is necessary for the rapid and effective reconstruction of this country. In the post-war era, Poland will naturally act as a hub for Ukraine's reconstruction. Most logistics routes carrying aid from different directions will go across our country. Polish private and state business, including PAIH, is getting prepared for that situation, being fully aware of the importance of the whole undertaking.

THE VOICE OF POLISH ENTREPRENEURS IN THE POLISH DEVELOPMENT FUND GROUP

The Polish Investment and Trade Agency (PAIH) is the key business environment institution preparing Polish business to participate in the reconstruction of Ukraine. PAIH represents the voice of Polish entrepreneurs in contacts with international partners, business environment organisations, in the Polish-Ukrainian economic relations or in contacts with Ukrainian authorities. PAIH is a source of up-to-date economic knowledge for Polish business regarding the Ukraine's reconstruction. For more than a year now the Agency has been taking active steps to prepare Polish business for the broadly understood reconstruction of Ukraine and strengthening economic cooperation between both countries. It performs this role through close cooperation with a wide range of partners – Polish and Ukrainian government agencies as well as business environment entities. The role of the Polish Investment and Trade Agency in the field of cooperation in the reconstruction of Ukraine has been consolidated at the intergovernmental level in an agreement signed on 5 April 2023 between Poland's Ministry of Development and Technology and Ukraine's Ministry of Development of Communities, Territories and Infrastructure. In the agreement, PAIH plays the role of the party which maintains a database of Polish entrepreneurs from various

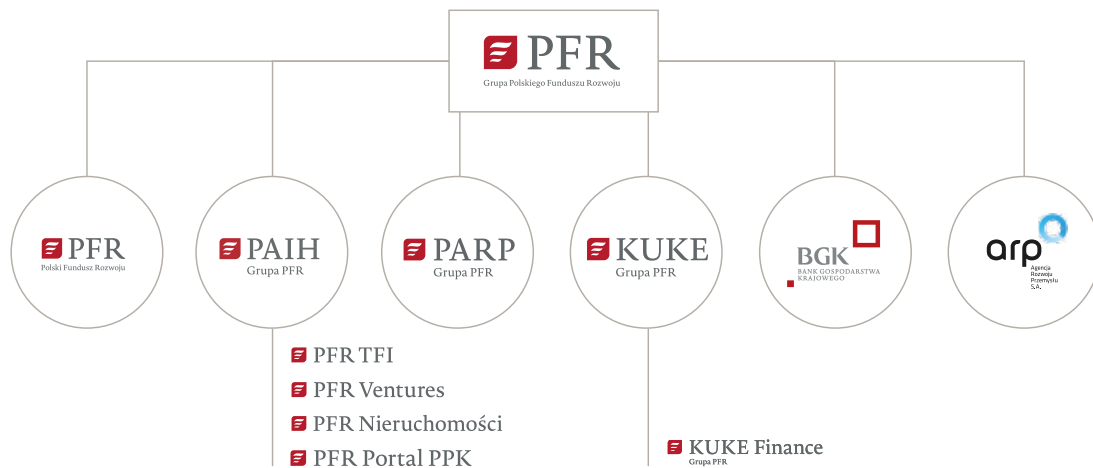
industries interested in exporting to Ukraine and participating in reconstruction projects, as well as is recommended for cooperation with Ukrainian institutions and agencies in this regard.

Being a member of the Polish Development Fund Group (PFR), PAIH closely cooperates with other members of the group, including, in particular, Export Credit Insurance Corporation (KUKE), Bank Gospodarstwa Krajowego, Industrial Development Agency (ARP). In addition, an important element of PAIH's activities is cooperation with business environment institutions and local governments, which, at the regional level, work for economic promotion and investment development (Figure 28). The network of relationships built by the Agency with institutions in Poland and abroad is conducive to creating a friendly environment for activities which support the expansion of Polish companies in global markets.

* PAIH stands for "Polska Agencja Inwestycji i Handlu" (Polish Investment and Trade Agency)



Figure 28.
A complementary offer of the Polish Development Fund Group



PAIH undertakes various initiatives and projects aimed at supporting Ukraine, strengthening the bilateral relations and the economic development of both countries. This role is an extension of the Agency's previous activity on the Ukrainian market and an element of the implementation of PAIH's permanent mission, i.e. to support the development and promotion of the Polish economy,

increase the inflow of foreign direct investment as well as the range and dynamics of internationalisation of Polish enterprises. PAIH's main objective is to promote Poland and the Polish economy, support the international expansion of Polish entrepreneurs, attract and support investors, as well as promote and develop innovation in Poland (Figure 29).

Figure 29.
Three pillars of the Polish Investment and Trade Agency

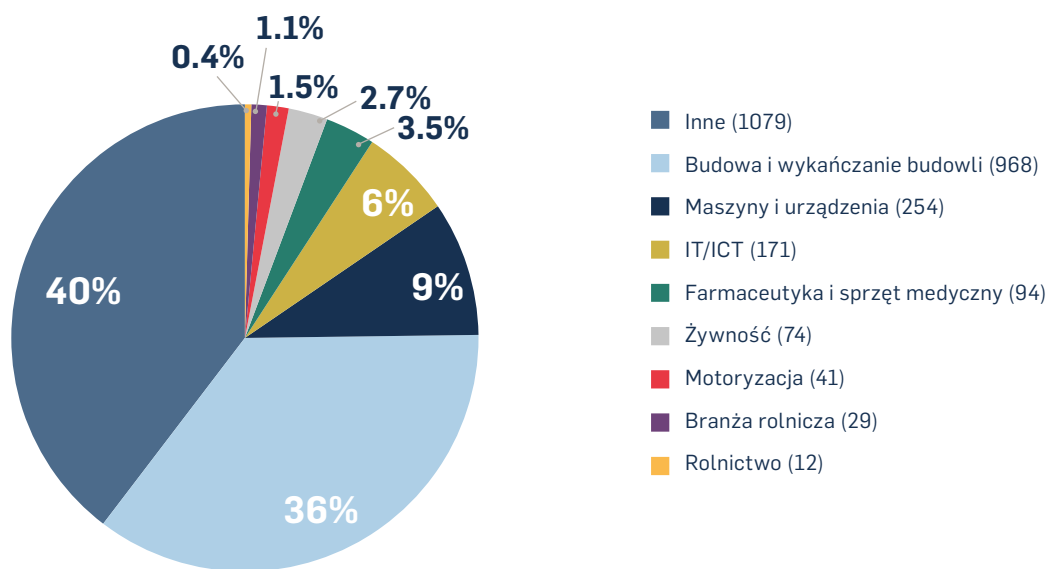


SUPPORT FOR UKRAINE

The need for Polish business to join the processes of the Ukraine's reconstruction became obvious as early as in the first months of the war. On 9 June 2022, PAIH launched a call for Polish companies interested in resuming exports and participating in the Ukraine's post-war reconstruction. This project is implemented in cooperation with the Ministry of Development and Technology and assumes close cooperation with business. The database of Polish entrepreneurs willing to be active on the Ukrainian market, kept by PAIH, i.e. the programme's operator, has become the starting point for further activities. A cross-section of Polish companies gathered in it makes it possible to assess the approach of Polish business to the issues related to the Ukraine's reconstruction.

The applications collected, in the first place, allow us to communicate directly with a wide range of stakeholders, quickly provide them with up-to-date knowledge, take advantage of their opinions on the use of the potential on the Ukrainian market, the existing opportunities and threats as well as the mechanisms for effective economic cooperation between our countries in the current situation. **Over 2,700 Polish companies** interested in both exporting, investing and cooperating with Ukrainian contractors on the subcontracting basis have already signed up to participate in the programme. (Figure 30) visualises the sectoral distribution of the companies in the database.

Figure 30.
Number of the Polish companies interested in participating in the post-war reconstruction of Ukraine and its distribution by industry, %



Intensive efforts are being made in order to prepare entrepreneurs for practical activities in the Ukrainian market, to learn about the prospects of using their products and services in the reconstruction process, as well as to support them in building relationships with the business community in Ukraine. **Industry consultations** emerged as one of the most important projects last year. The purpose of the activities undertaken is to equip entrepreneurs with the necessary industry and market knowledge, establish contacts, encourage them to undertake independent activity on the Ukrainian market and to jointly develop the most effective models of Polish entities' operation on that market.

In 2022-2023, a total of 10 events were organised as part of a series, inaugurated during the "Reconstruction of Ukraine - industry consultations" Forum in August 2022. Nearly 1,900 entrepreneurs participated in those events. Consultations with business included, for example, the construction, energy, agri-food, machinery and equipment, transportation, logistics, automotive, pharmaceutical and medical industries.

The **Directory of Polish Companies** interested in exporting to the Ukrainian market and participating in the post-war reconstruction of Ukraine is an important element in promoting the Polish entrepreneurs' offer.

Its main objective is to support Polish companies in establishing relationships with Ukrainian entrepreneurs, governmental and non-governmental institutions, as well as international organisations, in order to implement projects for the reconstruction of Ukraine. The catalogue is available in three languages (Polish, English and Ukrainian) and contains the profiles of 320 Polish companies from industries which are strategic for the reconstruction of Ukraine. The catalogue is available online at www.obdudowaukrainy.paih.gov.pl, and applications are accepted for the subsequent editions.

The **promotion and support of Polish investment projects in Ukraine** is a constant area of activity. This mission is becoming particularly important during the wartime, when Polish companies operating in Ukraine are experiencing a difficult period, but will be even more significant during the expected post-war increase in the value of Polish investment. Polish companies in Ukraine have demonstrated a high level of resilience, and are making an

important contribution to the operation of the Ukrainian economy during the war. In certain industries, Polish investors are leaders in innovation and export, supply the market with necessities, produce building materials necessary for the reconstruction, create new jobs, deliver state-of-the-art services and quality goods and are a systemically important element of the banking and insurance sectors. PAIH takes actions aimed at supporting investment projects of Polish entrepreneurs in Ukraine, so that the share of the Polish investment among foreign one in Ukraine will increase after the war. The Agency creates conditions for the integration of the Polish business community present on the Ukrainian market to enable entrepreneurs to cooperate with one another, taking advantage of the synergy effect, takes steps aimed at eliminating regulatory barriers in the Polish-Ukrainian economic relations, and solves problems related to the current operation of Polish companies in Ukraine. (Figure 31) visualises the range of services PAIH provides to exporters.

Figure 31.
PAIH's offer for exporters



PRESENCE IN THE FIELD

PAIH's Foreign Trade Office in Kyiv plays an important role in the development of mutual trade relations between Poland and Ukraine. It has been operating since 2018 and is one of the elements of PAIH's global network of Foreign Trade Offices. Its main role is to actively support Polish entrepreneurs, identify opportunities on the Ukrainian market, stimulate export activity in that direction as well as initiate processes of establishing cooperation with re-

spect to the Polish-Ukrainian trade exchange. The range of tailor-made services the Office provides includes searching for potential cooperation partners, support in organising meetings, verification of potential contractors, activities promoting Polish companies on the Ukrainian market, undertaking interventions, providing basic market and regulatory information as well as information on investment opportunities.

Since the war's outbreak, the PAIH Foreign Trade Office in Kyiv has become **an information hub specialising in the Polish-Ukrainian economic cooperation**, including preparations for the reconstruction of Ukraine. The knowledge gathered is presented in the form of reports, interviews, subject-matter contribution in training courses, presentations and consultations addressing direct inquiries for entrepreneurs. A crisis alert from the Ukrainian market is developed on an ongoing basis, and a so-called map of the Ukrainian market, published on paih.gov.pl, includes basic economic information. Furthermore, a dedicated website devoted to the reconstruction of Ukraine www.odbudowaukrainy.paih.gov.pl has been set up as a resource for anyone interested in the initiatives undertaken by the Polish Investment and Trade Agency. A newsletter on the Ukraine's reconstruction is periodically sent to entrepreneurs interested in rebuilding Ukraine.

In the early days of the war, the PAIH Foreign Trade Office in Kyiv was temporarily relocated to Warsaw and returned to Ukraine in July 2023. Under these unusual circumstances, it keeps providing active support to Polish entrepreneurs. Not only does it assist Polish companies in their operations on the Ukrainian market, but also builds a network of partner support in the community of Polish investors present in Ukraine and provides comprehensive support to Ukrainian investors. PAIH's Kyiv Foreign Trade Office supports Ukrainian entities in the process of relocating business to Poland, helps them find cooperation partners and conducts other activities aimed at broadly integrating the Polish and Ukrainian business communities.

As part of its activities, the Office organises numerous information events devoted to topics relevant to Polish-Ukrainian business, serving as a platform for exchange of views, practical experience as well as establishing trade and investment cooperation. The agenda of these events covers current topics which affect business during the war crisis. The prospects for further development of the Ukrainian economy, current issues related to the trade exchange between Ukraine and Poland, support instruments available to business in the Ukrainian market and trade barriers are discussed as well as ways of resolving disputes and problematic situations are proposed. The events organised help build trust and understanding between the business communities of both countries. Economic integration goes hand in hand with the development of interpersonal relations, which creates a sustainable basis for long-term cooperation.

PAIH's Foreign Trade Office in Kyiv has built a broad ecosystem of partnerships and contacts in the Ukrainian

market and in the international community dealing with Ukraine's reconstruction issues. The office actively cooperates with partners from both countries, including the public administration, business environment institutions, industry and international business associations. The activities are coordinated together with the economic diplomacy of both countries, including the Polish Embassy in Kyiv and the Ukrainian Embassy in Warsaw. Long-lasting partnerships ensure smooth operations and quick exchange of information in crucial fields.

The PAIH Foreign Trade Office in Kyiv is expected to play a particularly important role in the process of preparing Polish business for the reconstruction of Ukraine. This unit, which has a good understanding of the Ukrainian market and operates directly in the territory of Ukraine, acts as a link between the needs of the rebuilding Ukraine, on the one hand, and the potential of Polish business, on the other. The Foreign Trade Office will be responsible for building relationships with Ukrainian government agencies which create the institutional infrastructure for the reconstruction of Ukraine, local governments, business environment organisations and other entities involved in the Polish-Ukrainian development cooperation, particularly in the area of reconstruction. Operating in Ukraine, the office will inform the Ukrainian market about the potential of the Polish economy, especially those of its sectors which are most needed in the recovering Ukraine, primarily construction and energy, machinery and equipment, medical and pharmaceutical, agri-food, automotive, transportation and logistics, IT/ICT as well as others. Based on applications from Polish companies collected in the PAIH-Ukraine Reconstruction database, the office will build space for their participation in specific projects on the Ukrainian market. In addition, the Foreign Trade Office in Kyiv will promote financial instruments, including the insurance policies offered by the institutions affiliated with the Polish Development Fund Group.

SUPPORT FOR THE UKRAINIAN BUSINESS COMMUNITY AND OTHER INVESTORS IN POLAND

After the outbreak of the war, the Polish Investment and Trade Agency engaged in direct **assistance and development support for the Ukrainian business community in Poland**. The close cooperation with the Ukrainian business community operating in Poland helps attract partners and learn directly about the current problems and opportunities for cooperation. In this respect, intensive activities are carried out, both soft (co-organisation and conducting training courses on various aspects of doing business in Poland, organisation of numerous information and promotional events) and hard ones (making office space available). Taking advantage of its own premises, PAIH provides business space in Warsaw for Ukrainian entrepreneurs as part of Cowork Ukraine and for the Diia. Business.Warszawa business advisory centre run by the Ukrainian government.

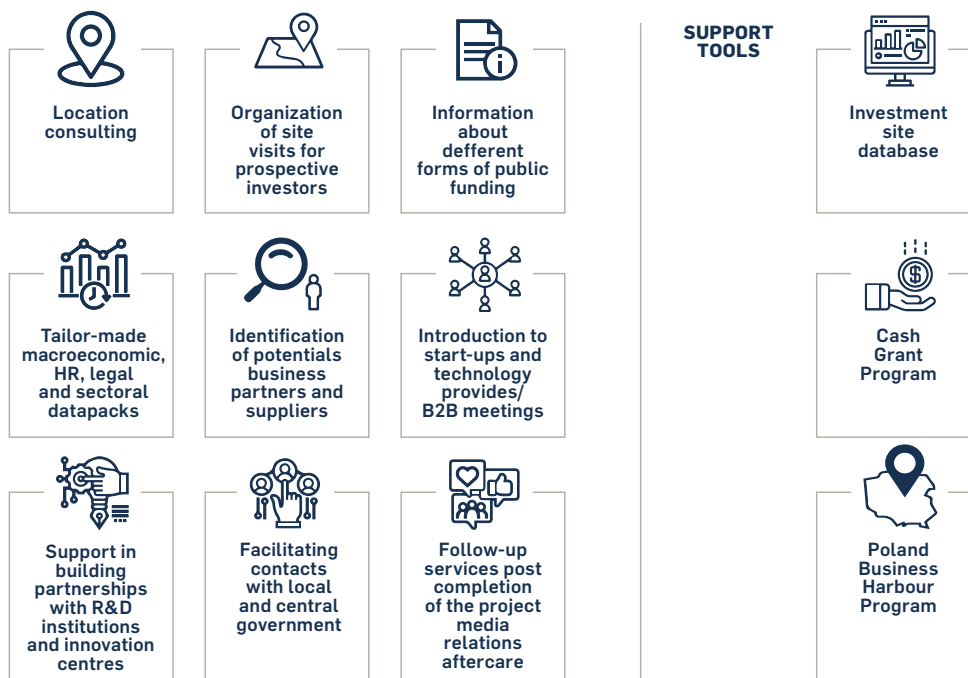
Since March 2022, **PAIH has been running Co-work Ukraine**, where Ukrainian companies can use coworking space in a historical building at 12 Bagatela Street in Warsaw. The programme has been designed to enable Ukrainian entrepreneurs to maintain business continuity. The space has been adapted and equipped, and permanent support in the Ukrainian language has been provided there. The support offered is free of charge for a period of three months. Interest from the Ukrainian business is very high, which is demonstrated by the fact that the premises provided have been fully used.

The Consultation Center of Ukraine's Ministry of Digital Transformation - Diia.Business.Warsaw has also been located in a building owned by PAIH (12 Bagatela Street). This entity has become an important business consulting centre for the large community of Ukrainians residing in Poland. Over the 12 months of its operation, Diia.Business has handled approximately 7,000 inquiries. Consultations concern starting a business, looking for real estate for a business, legal conditions for running a business (licenses, sanitary issues, etc.), tax issues in running a business, the possibility of obtaining funding (grants, subsidies, loans). The centre also looks for business partners for Ukrainian exporters.

For many years, the Polish Investment and Trade Agency has been building Poland's reputation around the world as an attractive and reliable business partner, and being a modern, client-centric, global organisation, it has the potential to share its experience with Ukrainian business environment institutions. At a time when Ukraine is actively developing its infrastructure to attract investment, preparing and implementing modern standards of

investor support and handling, PAIH, as a leader in export and investment consulting, operating in dozens of markets around the world, is eager to share its cross-sector competence and international experience gained in providing comprehensive services to entrepreneurs. PAIH is implementing a multi-year **development assistance project of the Ministry of Foreign Affairs of the Republic of Poland and the Ministry of Funds and Regional Policy**, aimed primarily at transferring knowledge related to investor acquisition and handling to Ukrainian regional and local government authorities. The project is co-financed as part of the Polish development cooperation framework. In 2022, the training programme also included development of business skills among Ukrainians interested in doing business in Poland. Participants in the training courses included Ukrainian companies seeking to relocate business to Poland, including those using PAIH's Cowork Ukraine, as well as Ukrainian entrepreneurs and individuals of Ukrainian nationality cooperating with regional business environment institutions throughout Poland. In 2022, six training courses devoted to this thematic area were conducted in Warsaw, Kraków, Lublin, Kielce and Rzeszów. A training programme for representatives of Ukrainian regional and local government authorities devoted to attracting foreign investment and promoting the local investment offer is being implemented in 2023 as part of the development assistance project.

Figure 32.
PAIH's offer for investors



Apart from Ukrainian companies, PAIH also provides support to and other foreign entrepreneurs willing to invest in Poland, relocate their business to our country and take advantage of the conditions available in Poland for doing business. The Polish Investment and Trade Agency makes available all necessary information on investment opportunities in Poland and provides comprehensive services to

investors, offers quick access to comprehensive information on the economic and legal environment for business projects, provides support in dealing with administrative procedures for specific undertakings, develops legal solutions, as well as suggests appropriate locations or reliable partners and suppliers (Figure 32).



Bogdan Zawadewicz
Mateusz Walewski
 Polish Development Bank

THE ROLE OF DEVELOPMENT FINANCE INSTITUTIONS IN BUILDING MODERN AND PROSPEROUS UKRAINE

Russia's brutal aggression against Ukraine has triggered several military, humanitarian, and geo-economic processes. It has created a new geopolitical situation and brought up a whole set of risks and challenges for Western collective structures. On the one hand, the West and

its frontline states, such as Poland or Romania, were tested for the resilience of their institutions and economies. On the other hand, they were forced to redefine some of their policies and take more active action to support the Ukrainian state.

FLEXIBILITY, ADAPTABILITY AND RESPONSIVENESS

In the first phase of this conflict, the quick response of the West by providing military and humanitarian aid to the Ukrainian side was crucial. The development finance institutions (DFIs) assisted national governments with several instruments, facilitating various support processes for Ukraine and going beyond their regular scope of activities. The Polish Development Bank (BGK) can be a great example of such involvement where flexibility, adaptability, and responsiveness play the most critical role. During the first five weeks of the war, the Bank's employees organized humanitarian aid ("Solidarity with Ukraine" initiative) for over five thousand Ukrainian refugees in Warsaw, sheltering them and covering basic needs, including legal and psychological help. The Bank's foundation established an employment support program, VDOMA - more than six thousand benefited from it.

Additionally, on behalf of the Ukrainian National Bank (NBU), Polish BGK opened a fundraising account for humanitarian assistance to Ukrainians affected by Russia's aggression. Such efforts have continued until today, also in cooperation between BGK and the European Commission, which resulted in buying twenty-five fully equipped ambulances, medical equipment, and up to one hundred school buses. Some additional actions have been financed from the "Quick Response - Care for Ukrainian Refugees in Europe" initiative, which was launched in May 2022 by the five promotional banks and institutions from the EU member states such as Polish BGK, German KfW, French CDC, Italian CDP, and Spanish ICO and the European Investment Bank (EIB).

The ongoing war in Ukraine also affects many sectors of the Polish economy, with agriculture being the most vulnerable. Thus, BGK has changed and extended the preferential conditions of the *de minimis*, *Biznesmax*, and other guarantees for Polish companies. Simultaneously, in January 2023, BGK signed an agreement with Ukraine's Kredobank on a business guarantee program financed by the European Commission. With these funds, Kredobank can support Ukrainian SMEs in the most vulnerable regions, including those in red zones. The approved financial mechanism enabled the launch of the first tranche of EUR 10 million. The funds will be used as security for outstanding loans advanced by Kredobank. Other DFIs, such as the European Bank for Reconstruction and Development, subsequently introduced similar forms of financial support on an even grander scale. Nevertheless, these examples show the importance of reacting quickly and often using innovative financial tools to handle ongoing crises properly.

As a part of the response to the war's growing challenges, the Bank has also concentrated the research agenda of the newly established international analytical and research team on Ukraine. It started to cover extensively the issues related to the war's consequences and risks. Rising analytical capacities and building up knowledge resources intend to comprehend better the ongoing processes in Ukraine and their impact on Polish and other countries' economies. Also, it aims to help design new financial support instruments for Kyiv and strengthen cooperation with Western partners, that is, the European

Commission, donor agencies, and development banks, as well as with prominent Ukrainian actors such NGOs,

think tanks, local municipalities and the representatives of the state institutions (BGK 2022).

SHIFTING FROM SHORT-TERM EMERGENCY AID TO MEDIUM-TERM RECOVERY FRAMEWORK (DEVELOPMENT AID)

Since the beginning of Russia's invasion, the European Union and its member states have allocated over 77 billion euros to Ukraine (European Commission 2023). Of this, 38.3 billion euro (loans and grants) has supported the Ukrainian economy and its recovery. It included macro-financial assistance that provided short-term financial relief, financed Ukraine's immediate needs, and supported critical infrastructure rehabilitation and Ukraine's efforts toward European integration.

However, the macroeconomic situation in Ukraine remains difficult. By using the financial aid received from the EU, the Ukrainian authorities are trying to stimulate the economy, support employment, and generate investments. Inflation is also gradually being controlled - it dropped from approximately 26% y/y at the turn of the year to 12.8% y/y in June this year. National Bank of Ukraine (NBU) forecasts assume it will be approximately 10.5% y/y in September 2023. One of the elements of development support is that banks offer loans to enterprises with reduced interest rates (5-7-9% formula). The program was offered even before the war; however, it now represents a solid private-sector cash injection. Depending on the scope of activity, industry, and region of operation, borrowers may receive financing with a state subsidy. It is significant because the basic interest rate in Ukraine is 22%. Data from the Ministry of Finance shows that since the introduction of martial law, loans worth 130 billion hryvnias (approx. 3.3 billion euros) have been granted in the 5-7-9% formula. Just over a quarter of this amount went to financing agriculture. The better economic situation is also visible in the performance of the banking sector. By June this year, Ukrainian banks earned 67 billion hryvnias (approximately 1.7 billion euros). The profit is approximately twice as much as in 2021 and three times as much as a year earlier. The situation in the labor market is better than a few months ago. In November last year, the average unweighted unemployment rate in Ukrainian oblasts was 8.4%, now only 4.5%.

However, considering the wartime conditions, the economy is functioning relatively well. It is possible thanks to significant external financial assistance. Budget data published by the NBU show that subsidies from abroad have supplemented state revenues since the beginning of this year by 270 billion hryvnias (approx. 6.8 billion euros). Additionally, this year alone, Western countries and in-

ternational institutions granted Ukraine loans exceeding 500 billion hryvnias (approx. 12.5 billion euros). With this external financing, the initiatives supporting development are possible, primarily since the state accounted for half of all expenses in the first half of this year spent on defense (approx. 23 billion euros).

In June this year, at the Ukraine Recovery Conference in London, the European Commission announced the creation of a new financial instrument for Ukraine, the so-called "Ukraine Facility" to address Ukraine's short- and medium-term modernization and investment needs. The budget of the instrument is up to 50 billion euros for the 2024-2027 period. "Ukraine Facility" seems to primarily rely on the economic calculations presented in the "Rapid Damage and Needs Assessment 2" (RDNA2) report published by the World Bank in March this year. According to the report, Ukraine's total financial needs caused by the Russian invasion amount to around 411 billion dollars (it does not include the damages caused after February 2023). These estimates of damage and needs are divided by regions; currently, the areas with the most significant financial needs are either under Russia's occupation or are close to the front line, so any investments there are risky. In undesirable situation of preservation of the status-quo (no significant changes on the frontline), Ukraine's financial needs will be significantly lower than expected from aggregated RDNA2 data. Even if the conflict were frozen, in the next three years, the raw materials and commodities (infrastructure, construction sector, etc.) sectors will only require 7% of the total financial needs estimated in RDNA2. A relatively large amount will be required for investments related to the service sectors. It applies mainly to education, health and social care, agriculture, banking, telecommunication, water supply, and waste management. At the same time, the risks associated with providing services and equipment are much lower than in implementing multi-year infrastructure projects.

According to our Bank's calculations, the immediate financial needs amount to approximately 20% of the total amount provided for in the RDNA2 report. Furthermore, the report shows the 10-year financial perspective where the most considerable sum of financial resources is supposed to be allocated after 2027. In this sense, the EU integrated financial instrument ("Facility") designed to

meet the short- and medium-term Ukraine's needs somehow fills the financial gap identified in the World Bank's report (World Bank 2023).

The EU's "Ukraine Facility" is part of the EU's budget plans until 2027, showing a lasting commitment to support Ukraine (Ostanina 2023). The Facility consists of three pillars. The first pillar ("Support to Ukraine Plan") refers to financing the reconstruction plan developed by the Ukrainian government through grants and loans (blended finance, Table 13). It also aims to support reforms needed for the EU accession and cover urgent financial needs. The second pillar ("Ukraine Investment Framework") mainly concerns the guarantees and establishes the de-risking mechanism for the investors through international financial institutions. The main objective is to scale up investments and support the Ukrainian private sector. The third pillar ("assistance programs") applies to financing the EU technical assistance to the Ukrainian government, reinforcing the capacity-building processes at the national, regional, and local levels and supporting civil society.

The primary precondition for implementing the "Ukraine Facility" is to prepare the so-called Ukraine Plan that the government in Kyiv is expected to submit to the European Commission by the end of November. The Plan should include conditions related to core requirements (macro-financial stability, budgetary surveillance, public finance management, etc.). Conditions may be set to reflect satisfactory progress towards meeting these requirements and the sectoral and structural reforms and investments. The conditions will be divided into intermediate stages and provided with a timetable for their completion. Finally, donor coordination will be essential to ensure that available funds are spent in the most effective and targeted manner to meet the needs of Ukraine and its people. To this end, full use of the G7 multilateral donor coordination platform launched in January 2023 for Ukraine should be possible. The Plan to be developed by the Government of Ukraine for this Facility may also guide other donors in programming assistance to Ukraine.

Table 13: Ukraine facility (€ bn.)

Ukraine facility (€ bn.)	2024	2025	2026	2027	2024-2027
Subsidies	4.25	4.25	4.25	4.25	17
o/w Pillar I	1.5	1.5	1.5	1.5	6
Pillar II	2	2	2	2	8
Pillar III	0.625	0.625	0.625	0.625	2.5
or which administrative costs	0.125	0.125	0.125	0.125	0.5
Loans Pillar I	8.25	8.25	8.25	8.25	33
Total	12.5	12.5	12.5	12.5	50

Source: Credit Agricole (Monperrus-Veroni 2023)

Polish Development Bank BGK has a chance to continue supporting Ukraine and become even more active in providing our Eastern neighbours with development aid instruments. Having undergone an EU pillar assessment (as the only financial institution in Poland) allows BGK to manage the EU funds domestically and abroad. It also gives access to the Facility and creates the opportunity to contribute to Ukraine's economic growth.

From BGK's perspective, a key opportunity relates to the Ukraine Investment Framework (second Pillar), under which the creation of the Ukraine Guarantee mechanism is planned. The proposed instrument envisages the allo-

cation of 8.9 billion euros in guarantees to secure financial instruments of development banks and DFIs active in Ukraine (possible guarantee for debt and equity instruments, portfolio guarantees via local banks). The proposed instrument also assumes the incorporation of the risk-sharing mechanism for the financing partners. The investment projects eligible for the program support do not have to concern only the reconstruction but also the modernization of the Ukrainian economy. Polish Development Bank has already put much effort into identifying key sectors and projects to build an application that will be submitted to the guarantee competition.

THE EU CONDITIONALITY REGIME FOR UKRAINE

The Facility's effectiveness will be primarily determined by implementing the reforms, mainly in the areas specified in the first pillar. The central focus is public administration reform (capacity-building), good governance, the rule of law, proper finance management, efficient and effective control systems, and fighting corruption and financial abuses. These reforms are connected to legal and institutional convergence processes with the EU. The financial transfers within the Facility will depend on the reforms' progress. Also, there is a question of how to dismantle the persisting oligarchic system in Ukraine.

As we argue in our report "Varieties of Transition and Development Paths in Central and Eastern Europe - Message for Post-War Ukraine" (BGK 2023), the key factors that helped such countries as Poland to succeed in reforming their state institutions and establishing democratic standards were robust political competition and EU integration. At the same time, weak and inefficient state institutions and the conversion to an oligarchy resulted in the Ukrainian state's high corruption and development drift. Additionally, Ukraine's proximity to the Russian Federation shaped the country's geopolitical choices and local political and economic dynamics.

While the issue of Kyiv's geopolitical orientation seems to be finally resolved and the social consensus around the integration with the Western structures exists, there is still an ongoing discussion on the quality of the robust political competition mechanisms in Ukraine. The EU in-

tegration process (along with the "Ukraine Facility"), which requires legal and institutional convergence with Western standards and norms, should contribute to the state reforms and help to create better and more efficient institutions, especially in the areas related to economic activities. However, it is the robust political competition that prevents the extraction of state assets by governing parties. Corruption and power abuses are much lower in countries where opposition parties offer a clear, plausible, and critical governing alternative that threatens the governing coalition with replacement. As Anna Grzymala-Busse argues, this induces anxious governments to moderate their behaviours, create formal state institutions, and share power – in short, to construct safeguards against the extraction of state resources. Opposition can thus limit discretion and inadvertently build the state (Grzymala-Busse, A. 2007).

The prospects for Ukrainian authorities should include assistance not just in Kyiv's efforts to defeat the Russian army and regain control over the occupied territories but also in reforming the state structures and creating better conditions for Ukraine's economic development after the war. Polish Development Bank BGK can play a significant role in helping the Ukrainian economy recover and build strong free market institutions. Also, by sharing its experience and expertise, the Bank can also support the local municipalities and SMEs in Ukraine. It could also be a part of the broader strategy that should help bypass the oligarchic structures.

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PARTNERSHIPS AT LOCAL LEVEL – WHERE BOTH THE FIGHTING AND RECONSTRUCTION TAKES PLACE

Contrary to the aggressor's expectations, Ukrainian state did not collapse when Russia launched its war. There five key reasons for that: the courage of the Armed Forces and Territorial Defence of Ukraine, the resilience of the civilian population, the leadership of President Volodymyr Zelensky, the digitalisation of public services, which secured their continuous operation despite missile attacks and blackouts. Equally important was also decentralisation, which gave room for local self-government, gave room for hundreds of local leaders and unleashed the energy of local communities and civil society. The outbreak of a war always goes hand-in-hand with chaos but in Ukraine it was smaller, because local authorities quickly went into crisis mode. They did not wait for instructions from Kyiv, most often they did not have "emergency plans" prepared. They were acting intuitively, but genuinely self-governing, following economic common sense,

acting in partnerships, stepping in both for the central institutions of the state and the families of people affected by the aggression. It was not without reason that the aggressors in the occupied territories of Ukraine were doing their best to get the local mayors to collaborate, and when they were failing in these attempts, installing Russian nominees symbolically labelled by the locals "gauleiters" with clear reference to heads of the local structures of the Nazi NSDAP.

Of course, there was also a sixth element that made the survival and functioning of the Ukrainian state possible during the war: financial, military and humanitarian aid from democratic states. But this aid alone would not have had the impact it brought without the sacrifice and hard work of the local people putting their lives at risk defending their country.



POLISH AND UKRAINIAN MUNICIPALITIES WORKING TOGETHER FROM THE FIRST DAYS OF RUSSIA'S AGGRESSION

Polish municipalities were among the first to help their counterparts in Ukraine after Russia launched its war against Ukraine. About 550 partnership agreements have been signed between the local governments of Poland and Ukraine. The impulse to connect dozens of them was war and the need for solidarity with the Ukrainian people. Here are just few examples to illustrate the type and scope of support local governments in Poland are providing to their counterparts in Ukraine:

1.

In April 2022, 1.5 tons of equipment reached Podkijowa Borodzianka: motor pump for sludge, impact and rotation hammers, angle grinders, repair kits for water and sewerage network, electricity generators. These are gifts from municipal companies from Gdańsk dealing with water management.

2.

In March 2023, the partner cities of Warsaw and Kyiv signed an agreement to transfer 81 trains which are being withdrawn from the Warsaw metro to the capital of Ukraine. In total, it will be 60 carriages worth more than 40 million zlotys, which are technically efficient and have all certificates.

3.

Also in March, the Silesian Convoy for Ukraine was launched from Katowice to Kyiv and Kharkiv; 6 ambulances and 4 pickup trucks with medical supplies.

4.

In April, sleeves for the repair of pipelines were sent from Poznań to the partner city of Kharkiv – a total of 43 units, as well as two cable coils, weighing together over 2.6 tons. These were donated by the water supply company Aquanet S.A., in which 77 % of the shares are controlled by the city of Poznań, the remaining shares are held by neighbouring municipalities.

5.

In June, 17 ambulances with the necessary medical equipment and supplies went from Lower Silesia to the partner regions of Dnepropetrovsk and Kirovograd. The city of Plock cooperates with Zhytomyr. Two partner cities of Plock – Fort Wayne in the USA and German Darmstadt – paid significant contributions to a special support account for Ukraine and refugees created by the local government. Thanks to these measures, food and other articles were purchased, which supplemented the collections organised by the city and were then sent to Ukraine.

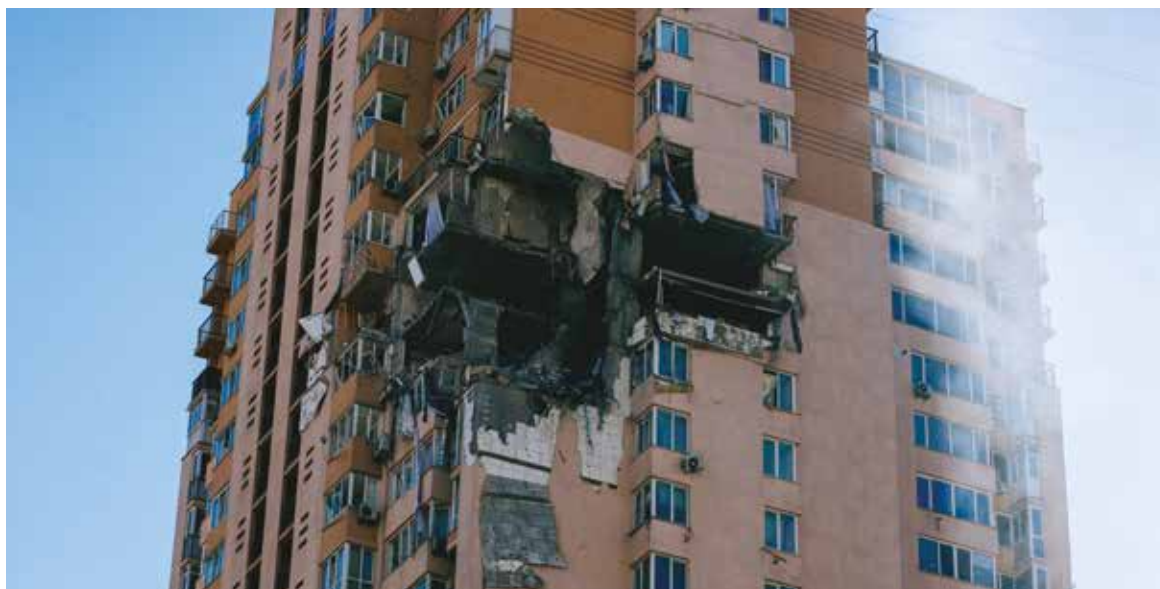
The aid is ongoing, although the financial situation of Polish local governments has deteriorated in recent years. Changes in personal income tax introduced by the government since 2019 have had a negative impact on local government budgets. The Association of Polish Cities estimates that the loss of local government budgets in 2019-23 amounts to PLN 64.4 billion. The government announced the so-called compensations, but they amounted to just over PLN 20 billion, and their distribution was discretionary and political.

Bucha: first-line response – both to the aggression and the reconstruction challenges

The Donetsk economic district, which includes the Luhansk and Donetsk regions, traditionally belonged to the most developed industrial regions of Ukraine. Even in Soviet times, the ecological condition of the area of Donbas was assessed as a crisis and belonged to the zone of emergency ecological situation.

The war that has been going on in these districts since 2014 has caused new environmental threats in the region. The contrast of anomalies of military and man-made origin increases sharply within industrial agglomerations and is superimposed on the man-made pollution already present there. A comparison of the background values of indicators of the physicochemical properties of the soils of the industrial agglomerations of Donbas before the start of hostilities shows regular changes in the amount of certain microelements and heavy metals. The amount of heavy metals in soil samples taken at the sites of hostilities mostly exceeded the background value by 3-25 times. A systematic excess of 3-6 times was observed for mercury, vanadium and cadmium. In some samples, the amount exceeded background values by more than a hundred times. A comparison of the average indicators of the gross amount of heavy metals in the places of use of small arms, artillery and rocket bombardments with the background ones for Donbas indicates that the highest concentrations are noted for cadmium, lead, copper, zinc, and in some cases mercury (Екодія 2023а).

Source: Bucha Municipal Council



However, cooperation between Polish and Ukrainian municipalities goes beyond provision of goods and services to the populations affected by the war. Many municipalities enter in direct cooperation with their peers. The example of Radzymin and Nemishaieva in Ukraine is a good case in that regard. On 21 March 2023, the municipalities signed a partnership agreement between. Radzymin borders Warsaw, the Nemishaieva cluster lies in the Kyiv agglomeration in the Bucha region and has over 16 thousand inhabitants. Nemishaieva, like Radzymin, is a place of residence for many people who work near the capital. In March 2022, Nemishaieva came under occupation. For more than a month, the areas of the cluster were occupied by hostile troops carrying out attacks in the direction of Bucha, Irpin and Kiev. During this time, it was only possible to evacuate the civilian population for 2-3 days. Nearly 300 buildings – blocks of flats, houses, as well as a school, a kindergarten and a hospital were destroyed. After the liberation, Nemishaieva gradually returns to normal life, despite ongoing hostilities in Ukraine. Radzymin's cooperation with Nemishaieva includes establishing contacts between communities and institutions of both municipalities, as well as an exchange of experiences and good practices, including in such areas as culture, education, local government administration or economic and social development. Among the most urgent needs, which result from the restoration of normal functioning after the destruction of war, is the reconstruction of public infrastructure, the retrofitting of a self-government service centre for residents (CNAP) and assistance to internally displaced persons.

In order for the resources in support of reconstruction to yield results – and so that results are achieved in the most

efficient way – the local actors need to be proficient in the complex process of implementation with all its phases and procedures. This is an area Polish partners can be extremely helpful with. Procurement rules, eligibility criteria, monitoring and reporting mechanisms, definition of targets and progress indicators, transparency and access to information, independent oversight, civil society control... It would be naïve to assume that local level stakeholders with a potential role in the reconstruction will have this knowledge. Despite the decade+ drift from the Soviet mentality towards European rule of law based one, the process is not complete. If it were, accession to the EU would be just a matter of formal recognition – which it is not.

Such preparatory efforts are needed also on the side of the future donors. They should share with the Ukrainian local government their experience in negotiating the rules of assistance and implementation of projects openly referring to the negative experience that should be avoided – e.g. from the implementation of projects funded from the EU structural funds in some accession countries. In parallel, the donors should make the effort and learn from their Ukrainian partners to get familiar with all the complexities of transformation of post-Soviet mentality, so that the planning is a bit closer to realistic.

Luckily, Ukraine does not need to repeat the steep learning curve other former EU candidate countries (now Member States) had to follow. Polish local governments already have this experience behind them, they know what to avoid – and, which is equally important, what needs to be enforced on the donors whose expectations or perceptions might not be entirely rooted in the reality

in the field. Years ago, the local governments in Poland did not have the strength and confidence to gain more freedom in programming local investments. They adopted the priorities indicated by the donors. Today it's clear that this "corset" should be looser – or at least in some

aspects, like determination of priorities. Giving more voice to Ukrainians in such aspects would make it easier to adopt strict uncompromisable approach to any form of misuse of funds and corruption.

LOOKING TOWARDS FUTURE RECONSTRUCTION

The dynamics of this war influence the approach to reconstruction. Soon after the outbreak of the aggression, it became clear that it will be a full-scale war. It called for immediate compensatory actions to secure daily survival and functioning of the people. It means that the massive reconstruction of ruined cities and villages, bridges,

roads, irrigation systems, and the modernisation of Ukraine is still to come. It's hard to rebuild a city when missile attacks are ongoing. However, this does not mean that we have to wait for the war to end. Most of the efforts were focused on provision of safe and warm housing conditions, particularly in winter.

Humanitarian aid boosting the sense of normality

In December 2022, the Fund for Aid to Ukraine, established by the Polish-Ukrainian Chamber of Commerce and the National Chamber of Commerce, provided significant charitable donation to "Roof" Foundation from Chernihiv. Thanks to this support, construction materials (windows, roof coverings, doors, thermal insulation) were purchased for reconstruction of homes of the elderly, single parents, large families, people with disabilities living in the region of Chernihiv, whose dwellings were damaged as a result of Russian aggression and occupation. Supplying construction materials however was not the major challenge – they are available in Ukraine. The purchasing power of the population and the limited financial resources of NGOs and local governments were a bigger problem. Therefore, the donors tried to use the immediate support as an opportunity to trigger a 'virtuous circle' at local level purchasing construction materials and other products necessary for the reconstruction from local businesses and entrepreneurs. The mechanism worked and it's recommendable as a pattern of support provision: donate financial resources to reliable and transparent civil society organisations with the task to purchase what is available or produced in Ukraine. In this way, the impact goes far beyond the provision of humanitarian aid. Apart from addressing the immediate needs, the financial support helps sustain the Ukrainian economy, creates employment, increases the budget revenues. In other words, brings in additional elements of normality in the society fighting a war. Who can measure the value of these "normality boosts" and their impact on the morale of the people? This is why it is not without reason that Zelensky's team keeps repeating that the war is fought on two fronts: on the battlefield and on the economic field.

Source: Polish-Ukrainian Chamber of Commerce, "Support for Ukraine" Fund

A small-scale reconstruction has already begun. One might argue that it is morally right and pragmatically appropriate to wait for the moment when the postulate that "Russia will pay" for the damage would be feasible to achieve. But that would take time – not just for the aggressor to be defeated but also to arrange international conferences, prepare the decisions of banks and governments, to plan etc. In the meantime, people, the society and the economy need normality. This is what small-steps reconstruction efforts being carried out by Ukrainian local authorities bring. The aim of this work is to survive in difficult conditions and encourage residents to return from the western part of Ukraine and from abroad. This spontaneous, grassroots, small reconstruction should receive organised help. Heart, spirit, and the good energy

of Ukrainian local governments proves that local governments should be beneficiaries of international aid on an equal footing with central state authorities. Part of the funds for reconstruction can be channelled directly to local communities through targeted grants with the condition that the local recipients meet the standards and procedures set by the donor. Such model should engage also the local communities, the people whose needs are being addressed. They should be also engaged in the implementation of the grants scheme – from determining the eligibility criteria, through monitoring of the legitimacy of applications, the procurement of the services, and the quality of the deliverables. Such local level system of "checks and balances" would also complement the central-level efforts to eliminate corrupt practices.

RECONSTRUCTING WITH SUSTAINABILITY PERSPECTIVE IN MIND

“There is no point in rebuilding the old roof, now we need to lay down photovoltaic panels; let’s rebuild a better Ukraine” (E-Dialog 2023a). This quote by Diana Barynova, the leader of the Centre for Local Government Development, illustrates a repeating narrative in conferences or working meetings organised by the Polish-Ukrainian Chamber of Commerce. The notion is shared both by local and central level actors. At the Lugano conference in July 2022, the Ukrainian government presented a “build back better” principle that will link the recovery plan to EU norms and standards – a logical assumption that can accelerate Ukraine’s accession to the European Union. However, in conditions of war, time, people and money are in short supply, ready turnkey solutions are needed to meet the immediate needs of the people of Ukraine – but

in compliance with the EU standards and the principles of sustainable development. Developing a catalogue of working practices that are needed for a small-scale reconstruction meeting these criteria are particularly important given the upcoming another war-time winter. In which areas such working practices are needed particularly?

Renewable energy

In April, a Ukrainian local activist wrote to me: “Polish friends, do not send generators anymore!” It is estimated that the total capacity of power produced in Ukraine from generators amounted to 1 GW, i.e. as much as the capacity of one reactor at the Zaporozie Nuclear Power Plant (E-Dialog 2023b).

Long-term focus on renewables

Bucha experienced first-hand the key element of Russia’s aggression strategy: attacking civilian and critical infrastructure. This was particularly evident in the autumn of 2022 leading to systemic disruptions in electricity supply across the country. In particular, the Bucha community needed to resolve the issue of providing alternative electricity to the community’s population.

Thanks to the UN Global Compact Network Poland, Bucha received 19 generators of various capacities. 17 of these were sent to heating points within the territory of the Bucha city territorial community in the autumn and winter. These are the places where there will be lighting, heating, internet access and mobile communication during a possible blackout. The remaining two generators were transferred to the Municipal Enterprise “Buchaservice”, a utility company that provides services to the public and ensures water supply and sewerage to the population, enterprises and organizations of the Bucha city territorial community, and ensures the operation of residential buildings.

In total, the municipality of Bucha received 47 generators from Japanese companies, charitable and humanitarian organizations, sister cities, and others. This helped address the immediate survival of the population against Russian attacks. In the long run, the authorities are looking towards using renewable energy sources. This would be a normal transition from the “war emergency” towards “sustainable development” phase.

Source: Bucha Municipal Council

This capacity helped meet the last winter challenges. It will also help during the upcoming winter. But it is now that we need to think about long-term sustainable solutions. Heat pumps, photovoltaics and biogas plants are needed to ensure the energy security of hospitals and local communities.

Technically, these solutions exist. Financial resources would also be available (it is realistic to expect that the first investment of this kind could be in the form of donations from specific companies or countries with a strong renewable energy sector). But it is necessary to already start thinking about the “sound absorption” capacity. It

is necessary to start thinking now how to operationalise and optimise the process of their procurement and installation in the particular case of particular locality. A detailed “how to” guide is required, that will inform the stakeholders involved (donors, local governments, suppliers, final beneficiaries) about the specific steps and procedures that need to be followed, so that at the end of the process the heat pump, the photovoltaic panels or the biogas installation is put in place and is working in the location where it is required.

This would also be part of Ukraine’s new energy strategy. The future energy mix envisages a considerable share of

renewable energy. The Ministry of Energy already called the decentralisation of energy generation and the transition to renewable sources one of the optimal solutions for Ukraine that would meet the needs of the local communities and at the same time would increase the energy security of the country through the distributed generation (E-Dialog 2022a). Andriy Konechenkov, the Chairman of the Board of the Ukrainian Wind Energy Association, confirms that: “Renewable energy is an investment in our own economy, decarbonisation, security and energy independence. Renewable energy improves the climate, and creates new jobs by attracting investment. This is the way to peace: no one fights for the wind and the sun”. The former Minister of the Environment in the Polish government, Marcin Korolec, puts it even more bluntly: “Green energy is independence” (E-Dialog 2022b).

Russia’s aggression weakened Ukraine’s ability to support green energy, although the private sector did not abandon its plans. At the same time, Russian missile terror has shown how much more resilient the energy system can be when electricity is generated by thousands of small producers. Hitting and taking off the grid many targets across the country is harder than hitting one large object. Before the start of the large-scale war, Ukraine produced green electricity from 34 wind farms (699 wind turbines) with an average unit capacity of 3.5 MW. According to the Ukrainian Wind Energy Association, at the end of 2022, more than 75 % of the power of wind power plants was shut down. Of the total capacity of 1 673 MW, about 1 462 MW of Ukrainian wind farms are currently excluded from operation. They need to be rebuilt and some built from scratch. The energy sector has also high hopes for solar energy. In 2022, Ukraine had already installed 7.6 GW of solar power. According to Artem Semenyshyn, chairman of the Energy Association, “this number will continue to grow as solar energy is the fastest and most cost-effective way to restore the generation capacity lost as a result of the war” (E-Dialog 2023c).

Only 45,000 domestic solar systems are officially registered in Ukraine. However, the potential is estimated to be at least one million. This process needs to be stimulated, and the problem of Ukrenergo’s debt towards renewable energy investors needs to be solved. The state-owned company Guaranteed Buyer did not pay for half of the generated renewable electricity 2022. This is a fairly high amount – UAH 12.3 billion (UBF 2023).





FACILITATING THE RETURNS – AND TRANSFER OF NEW EXPERIENCE AT THE SAME TIME

Most probably, the recovery will not be hampered by lack of funds. The critical challenge will be related to lack of skilled labour necessary for the reconstruction (as men-

tioned already in the chapter on the labour market, return migration and immigration).

The scale of labour force outflows due to the war

Due to the war, about a third of Ukrainians fled abroad or to safer regions of their country. This is the largest wave of refugees in Europe in decades.

At the end of 2022, the Office of the Ombudsman in Ukraine reported that more than 14.5 million Ukrainians had left their homes since the beginning of the full-scale invasion. Of these, 11.7 million entered the European Union. 7.7 million are registered in Europe as beneficiaries of temporary protection.

Poland remains the country with the highest number of refugees from Ukraine – 1.5 million, followed by Germany (1 million), the Czech Republic (486,000), Italy (169,000), Spain (161,000) and the United Kingdom (158,000).

Source: Polish-Ukrainian Chamber of Commerce, “Who will rebuild the country?”

Today, one in ten of those forced to flee are planning to build their lives in another country. According to a study conducted by the Ukrainian Institute for the Future together with New Image Group, 50% of Ukrainians who fled after the beginning of the Russian invasion do not intend to return to their homeland for security reasons.* Of these, 55% named “life prospects” as reasons not to return to Ukraine, 50% pointed to “safety”, 48% - “availability of work”, 33% - “caring for children” (“they should receive a normal education and start a new life”), 28% - comfort, and 27% - lack of fight against corruption and lustration of pro-Russian forces in Ukraine (Interfax-Ukraine 2023).

Another survey conducted by the Centre for Economic Strategy and Info Sapiens research agency in November-December 2022 and April-May 2023 with support of the International Renaissance Foundation confirms these findings. According to the survey, 63% of Ukrainians currently residing abroad plan to return to Ukraine. The main incentives for returning are the end of war (51%) and the absence of fighting and air strikes in their home region (34%). Economic factors are also important: the possibility of finding a well-paid job (28%) and a higher standard of living in Ukraine (20%). At the same time, while adult refugees may return to Ukraine, 40% of them would prefer their children of senior school age to remain and study abroad (Mykhailishyna 2023).

* The survey was conducted online on 20-23 March. It covered 1,200 respondents and included adult population of Ukraine, Internet users aged 18 years and older throughout the territory of Ukraine, except for settlements in the temporarily uncontrolled territories of Donetsk, Zaporizhia, Luhansk and Kherson regions, as well as the temporarily occupied Autonomous Republic of Crimea. The statistical error with a probability of 0.95 does not exceed 2.89%.



Returns – experience from Bucha

The number of residents of the Bucha community before the full-scale invasion was about 72,000 people, including the population of Bucha, which was approximately 53,000. Approximately 3,000 people remained in the city during the occupation but the figure is not precise. The most striking fact is that the number of people who returned to Bucha after de-occupation is almost equal to the number of residents before the full-scale invasion. That is, almost 54,000 people now live in Bucha. This includes almost 10,000 people who moved to the Bucha community as internally displaced persons.

The fact that the city's population has grown rapidly is primarily due to the community's active and effective work to restore housing.

The involvement of foreign partners, as well as assistance from the government, create the conditions for the rapid and high-quality reconstruction of the destroyed homes of Bucha residents. What is the municipality doing to facilitate the returns?

In Bucha, a strategic programme called “Better at Home” was created, which offered a plan of action for the community. In particular, it included the restoration of infrastructure, schools, kindergartens, power supply facilities, and all communication systems. This was all in the recovery plan, which was quite successful, as almost 90% of the people who left the community at the beginning of the full-scale invasion returned.

What are the challenges and how does it address them?

1. Rebuilding in the conditions of war. This will allow people to return to their homes. The Bucha City Council is using all possible means to resolve this issue, including the involvement of government programmes, community funds and international donors.
2. Bomb shelters. During the war, no municipal institution can operate without a bomb shelter. This further complicates the process of opening schools and kindergartens in the community, as not all institutions have the necessary shelter.
3. Insulation and energy efficiency. There are still municipal institutions in the community that have suffered as a result of Russian aggression and need to be insulated and thermally disinfected. These are primarily schools and kindergartens, medical facilities, as well as sewage treatment plants and boiler houses, water and heat supply facilities.
4. The situation in the energy sector is currently difficult, as last year's Russian attacks destroyed a large number of energy facilities in the community. The Bucha community has enlisted the support of Japanese, Polish and other partners, as well as international charitable organizations in this matter. Alternative types of power supply during blackouts allow the provision of electricity to public utilities and not to interrupt their operation.
5. The issue of supporting IDPs is also important. Specialized support centres for children and adults affected by the occupation were established in the community, with the involvement of CESVI and UNICEF.

To address all the issues of bomb shelters, thermal disinfection, and alternative power supply, the Bucha City Council needs funding, logistical support and support from international partners and donors, as the community budget is unable to cover all the costs.

With all these factors in mind, one might expect that if the active phase of the war lasts for a year or more, even more people might leave the country. The longer the war lasts, the more people will adapt abroad and have a better chance of staying in the respective host country strengthening the economy there. Therefore, a realistic recovery plan and a system of social support that stimulates returns to the regions from which people have fled and that are not in the zones of active combat are needed now. This is also in line with experts' and policymakers' calling for a new strategy for Ukraine and preparation for a long war (Economist 2023).

Kyiv must also talk with its European partners about the implementation of migrant education tailored to meet the demand for professions that will be needed when the reconstruction of Ukraine starts. This applies to both young people and Ukrainian women. On the one hand, automation and digitalisation shrink the list of professions traditionally perceived as "male". On the other, women refugees are willing to enter the labour force. According to data from the Polish Ministry of Family and Social Policy, the employment rate among female refugees is 65% and is comparable to the employment rate of Polish women. This is a great result, particularly bearing in mind that these women started working not knowing the language or the country (NBP 2023).

If we count pre-war labour migration in Poland and the forced migration caused by the war, currently some 3 million Ukrainians live in the country. This is close to 6–7% of the population, and in cities this percentage is even higher, as half of the migrants settled in the 12 largest Polish cities. They constitute an important part of the labour force in Poland. Many mayors are already wondering what they will do when the war ends and many of these people return to their homes.

Addressing corruption

Corruption is an old concern shared by foreign governments and businesses operating in Ukraine. The decades after the collapse of the Soviet Union, the close ties with Russia and its oligarchic economic system were perpetuating these practices at all levels of governance. Fighting the corruption is a necessary precondition for successful and sustainable reconstruction of the country and future EU membership. Ursula von der Leyen's online message to the President, government and Verkhovna Rada of Ukraine from July 2022 conveyed the same message: you have created a wonderful anti-corruption machine. But

now these institutions need teeth, and they need people in leadership positions (European Commission 2022).

Anti-corruption institutions are showing their teeth, they have not spared even the president of the Supreme Court of Ukraine, but one must be aware that there will be no "miraculous conversion". In the summer of 2021, it was estimated that one in five Ukrainians worked in the grey economy; some 3 million people worked without a contract or on a fake contract. At the time, the Ministry of Economy reported that the grey area of the Ukrainian economy reached the level of 30% of GDP in 2020 – up from 27% in 2019 (E-Dialog 2022c).

Sociological data confirm the gravity of the problem. The National Corruption Perceptions and Experience Poll from 2023* reveals that, in Ukrainian citizens' perception of the most serious problem their country faces, corruption is seen as second only to war by 89% of citizens. 81% identified grand political corruption as the main and most serious type. 94% of respondents still consider corruption to be pervasive across Ukraine despite a notable improvement in the public perception of corruption prevalence. The percentage of those who believe corruption has increased since the start of the war exceeds those who think it has declined, and society remains highly divided on the issue. On the positive side, the share of Ukrainian citizens who are ready to stand up for their rights when they interact with bureaucracies doubled from 26% in 2021 to 52% in 2023. The key factor driving this increase was the belief that citizens' engagement matters. The people who believe that engaging in anticorruption activities can change the country for the better grew from 57% in 2021 to 73% in 2023 (USAID/ENGAGE 2023).

But corruption is not just bribes. Among its systemic drivers are shadow economy, low level of protection of property rights, insufficient protection of investors' rights, insufficient level of intellectual property protection, shortcomings in the judicial system. This is what President Volodymyr Zelensky emphasized on 9 June 2022 in his evening address to the Ukrainian people: "There are many discussions in Ukraine today about what the economic policy of the state should be both during the war and when we restore peace. I want to emphasize one detail. And this detail is fundamental. We have to get used to the fact that there can be only two parts of society – those who defend our independence and those who work in a way to ensure that defence. And this is not a question of one economic doctrine or another, not a question of one

* The 2023 Corruption Perception and Experience Poll was conducted by the Kyiv International Institute of Sociology (KIIS) on a general population sample of 10,117 citizens, 18 years of age and older who resided within Ukraine, excluding the Autonomous Republic of Crimea, Donetsk, Zaporizhzhia, Luhansk, Mykolaiv, Odesa, Kharkiv, and Kherson oblasts and who were not considered internally displaced persons. This sample was formed through the random walk approach with quota selection at the final stage and was surveyed through face-to-face interviews. The polling fieldwork was completed between 6 December 2022, and 2 February 2023. The statistical margin of error (with a probability of 0.95 and design effect of 1.5) is less than or equal to 1.5% for results nearing 50%, 1.3% for results close to 25% or 75%, 1.0% for results close to 12% or 88%, 0.6% for results close to 5% or 95% and, finally, 0.3% for results that near 1% or 99%.

or another political position or another. We simply cannot afford to leave the shadow part of economic life in the country” (President of Ukraine 2022).

The Ukrainian authorities believe that digitalisation of the state will reduce corruption, because an application will not demand a bribe. At the beginning of 2023, the Deputy Prime Minister, Minister of Digital Transformation Mykhailo Fedorov estimated that the potential anti-corruption effect of the implementation of the new law and digital procedures would be about 50 billion hryvnia. Such an effect was expected, among other things, after the introduction of electronic excise duty on alcohol and tobacco products. Another way of preventing corruption is the launch of a single state electronic system in construction (USES). Fedorov is a fan of modern technology, he said at the time: “each electronic service eliminates the risk of corruption – from household to system level. Only automated services will finally be able to put an end to this terrible phenomenon” (E-Dialog 2023d).

ProZorro, the Ukrainian public procurement system, was a flagship anti-corruption project before the war. The realities of the war, and then the interruptions in electricity supply, made electronic auctions a fiction. There were 1 to 3 bidders. Companies, especially small and medium-sized companies that were unable to immediately ensure a sta-

ble internet access and power supply, were deprived of the opportunity to participate in the auctions. In this situation, it was easier to manipulate the prices. Therefore, the rules of the auction were changed for a transitional period, with 7 days to submit the first bid and 2-3 minutes during the open bidding to lower the bid.

My friend, a lawyer, says: we Ukrainians are such a nation that, if you see a shorter, easier path, it will always choose it. It is doubtful that overregulation of the economy offers more opportunities to take the “short path”. Simplification of the rules cannot, however, reduce liability.

Supporting local businesses in the field despite the war

The Polish-Ukrainian Chamber of Commerce has been working in parallel in Poland and Ukraine for 30 years. After 24 February 2022, we did not withdraw from Ukraine, our representative offices operate in Kyiv, Odessa, Kharkiv, Dnipro, Lviv, Ternopil, and other cities. We carry out “traditional” statutory activities, serving our nearly 500 member companies, postulating changes in regulations and criticising inappropriate practices of institutions and officials from Poland and Ukraine. Through the Ukraine Aid Fund, we carry out humanitarian activities.

In cooperation with partner organisations in Ukraine, we are implementing the project “Work for the reconstruction of Ukrainian entrepreneurship”. Its purpose is to pass on knowledge of international instruments (mainly the EU and the US) assistance in the reconstruction of Ukraine. We work with the Ukrainian local government and the SME sector in mind. Because reconstruction is not only the restoration of the function of large cities, the renewal of transport and energy infrastructure – it is the return of Ukrainian citizens to their local communities. We promote among our Ukrainian partners the need for cooperation between local authorities and business for the benefit of the local communities and businesses alike.

Source: Polish-Ukrainian Chamber of Commerce, Work for the rebuilding of Ukrainian entrepreneurship

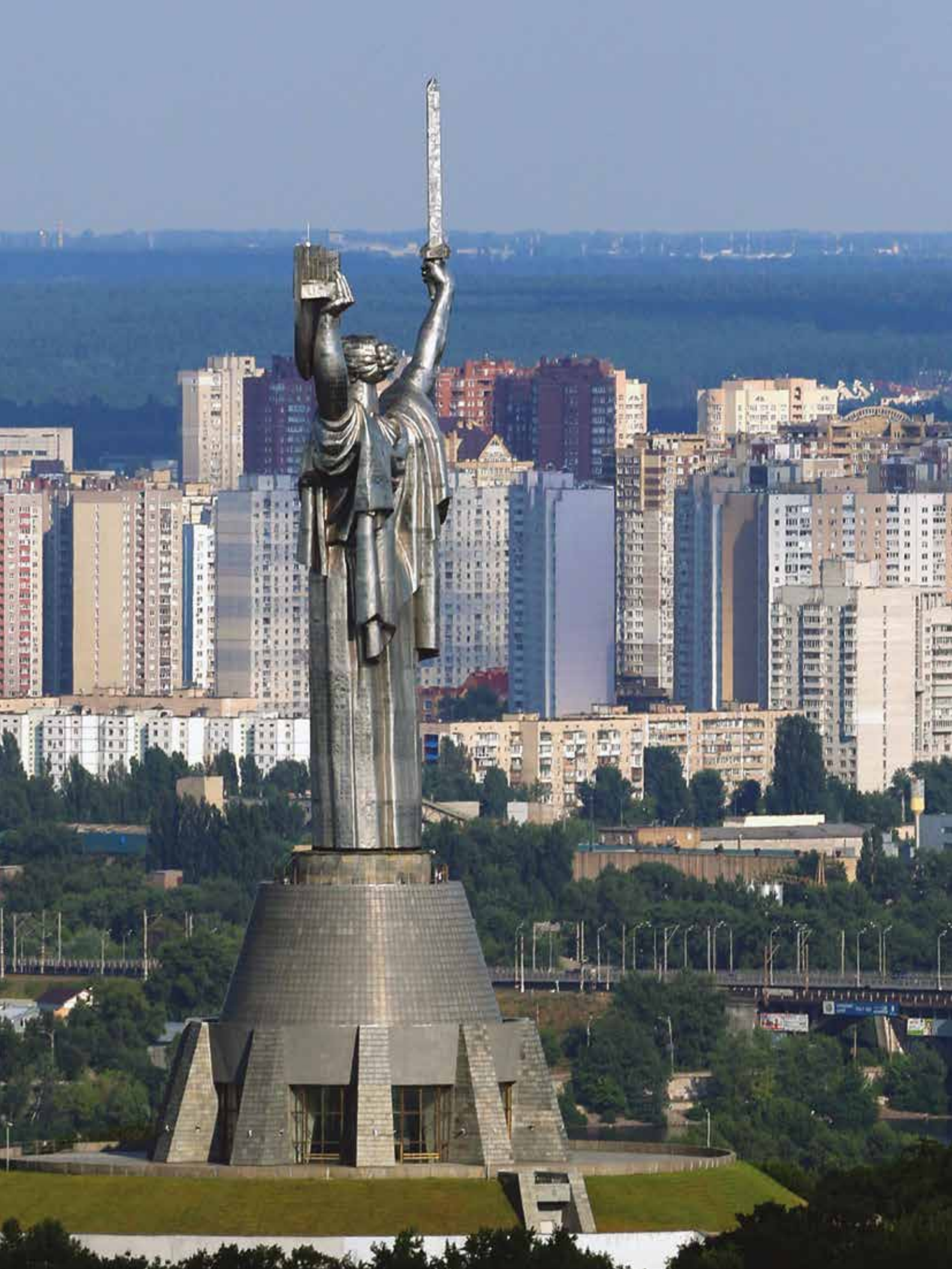
It is impossible to rebuild entrepreneurship, houses and infrastructure in Ukraine without the participation of Ukrainian citizens at every stage of this work. Inclusiveness is needed, from planning, creating funding rules, through specific projects, execution and controlling the way funds

are distributed, and the quality of the tasks completed. That is why we welcome the declarations made by the European institutions that part of the funds for reconstruction will be channelled locally, to local governments. As a result, we will rebuild a better Ukraine faster.

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As a special initiative of the UN Secretary-General, the United Nations Global Compact is a call to companies everywhere to align their operations and strategies with ten universal principles in the areas of human rights, labour, environment and anti-corruption, and to take action in support of UN goals. With more than 12,000 companies and 3,000 non-business signatories based in over 160 countries, and 69 Local Networks, it is the largest corporate sustainability initiative in the world.

UN GLOBAL COMPACT NETWORK POLAND

is local network with an independent secretariat. It is a project office as well as a local contact and information point for Polish members and signatories of UN Global Compact. UN GCNP identifies challenges and opportunities in the field of sustainable development. Provides practical guidance and promotes efforts to achieve The Ten Principles of the UN Global Compact.

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is the official platform of the United Nations Global Compact – UN initiative that combines UN and businesses around the world and provides Sustainable Development Goals (SDGs). Global Compact Network Ukraine is a dialogue platform for business, investors, civil society, labor organizations, local government and government. In our work GC Network Ukraine cooperate with GIZ, USAID, UNICEF, Ministry of Digital Transformation of Ukraine, UN Resident Coordinator Office and other global and local organizations.

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