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EXECUTIVE SUMMARY

"The priority of each country is to invest in human capital through developing such sectors as education, healthcare, and social services, which is a path to creating a more productive workforce and an inclusive society."

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EXECUTIVE SUMMARY

WHAT IS HUMAN CAPITAL?

Human capital is a combination of factors, including knowledge, skills, health, living conditions, employment opportunities and others, which enable individuals to realize their full potential and to be more productive members of society, increasing the economic outputs on personal, corporate and state levels. The priority of each country is to invest in human capital through developing such sectors as education, healthcare, and social services, which is a path to creating a more productive workforce and an inclusive society. Additionally, human capital development is the key to combating poverty and inequalities in society, as well as a solid base for strengthening a country's competitiveness in the global economy. This report examines the institutional framework of human capital in Ukraine, including the analysis of key government and non-government stakeholders, their functions and role within the framework, as well as mechanisms of their cooperation and coordination. It also considers various approaches to defining human capital which are used by international organizations and in Ukraine, and methodologies to quantitatively assess human capital.

WHY IS HUMAN CAPITAL IMPORTANT?

Human capital plays a crucial role in driving economic growth and prosperity of the population. As human capital expands in domains like science, education, and management, it fosters innovation, social well-being, equality, and workforce productivity. These factors collectively contribute to economic growth, resulting in growing earnings on individual and national levels, higher gross value added, and improved living standards for the population. This means that the more knowledge and skills individuals possess, the healthier and more socially protected they are, and the more opportunities they have for education, employment and self-development, the more productive members of society they eventually become, being capable of yielding higher economic outputs.

Consequently, the countries with more developed human capital are generally more successful in the context of the global economy due to higher competitiveness rates. International organizations use human capital assessment as a key measure to assess a country's competitiveness and development on the global level, while investment in human capital on the national level lays the background for higher productivity in the future generations. According to the Human Capital Project by the World Bank, 30% of the world's poor reside in the bottom-10 economies sorted by HCI and 80% of the world's poor reside in economies with an HCI under 0.5¹. This results from the evidence that a more well-trained and knowledgeable workforce is able to contribute to the economic development, research and development activities in its country. As estimated by the World Bank, 53 percent of children in low- and middle-income economies suffer from Learning Poverty, while in the poorest economies this share is often more than 80 percent², which emphasizes the significance of interrelationships between education and economic development. Additionally, the World Bank states that there is a correlation between human capital improvement and GDP growth, with the former increasing slightly faster than the latter³, which is caused by the natural time lag in the effect human capital development has on the economic productivity of the population.

¹ World Bank Group. The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19. 2020. URL: https://openknowledge.worldbank.org/entities/publication/93f8fbc6-4513-58e7-82ec-af4636380319.

World Bank Group. The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19. 2020. URL: https://openknowledge.worldbank.org/entities/publication/93f8fbc6-4513-58e7-82ec-af4636380319.

³ World Bank Group. The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19. 2020. URL: https://openknowledge.worldbank.org/entities/publication/93f8fbc6-4513-58e7-82ec-af4636380319.

A number of factors, including domestic and international policies, the effects of crises such as Covid-19, and armed conflicts, have an impact on the human capital development in a specific country. According to the joint research of the Center for Economic Recovery and EasyBusiness, the post-war and post-disaster recovery should cover not only reconstruction of damaged facilities but also a complete recovery of social, economic and infrastructural sectors. This includes ensuring social security of the population and providing assistance to refugees, internally displaced people, rebuilding social and other infrastructure, and taking measures to support employment and self-employment. Thus, the human capital is seen as an integral part of a country's post-crisis recovery and investment in the future sustainability.

As for the case of Ukraine, several aspects have had a crucial effect on the country's human capital development. First, the Covid-19 pandemic has had a drastic effect on the economic and social development of Ukraine. Although the main impact was on the state of health of the population, the medium- and long-term effects can also be observed regarding the education quality. The reasons behind the latter are the forced introduction of distant learning and, therefore, the arousing of such issues as poor quality of studies and increased inequalities as a result of different levels of access to technology among various groups of population. At the same time, Covid-19 pandemic caused a major employment crisis due to the reduction of jobs, especially in the sectors that could not go digital easily.

Second, the most significant impact on human capital in Ukraine has been made by the Russian aggression since 2014 and especially by a full-scale invasion in 2022. Not only has Ukraine lost a significant amount of its workforce because of the temporary occupation of the territories (about 1.2 million people remain in occupied regions⁴), forced displacement of people (about 5.9 million internally displaced persons (IDPs) and 7.9 million refugees⁵) and hostilities (estimated number of civilian losses is about 8,500⁶), but it has also seen negative effects regarding its human capital framework. The latter concerns damaged infrastructure, decreased capability of related institutions to deliver quality education, healthcare and social protection services, deterioration of the quality of education, the state of health of the population, the level of social security and other factors. Thus, the ongoing war has caused new challenges regarding human capital development in Ukraine in the long run, which means that the post-war recovery should also target the affected areas to decrease the negative impact of the conflict and to ensure the revitalization and restoration of Ukraine's human capital.

Third, given that the national priority of Ukraine is European and Euro-Atlantic integration, it develops the human capital policies in cooperation with European institutions and bearing in mind the responsibilities it has under the Association Agreement and as a candidate country for accession to the EU. The ultimate goal of Ukraine is to reach the European standards of human development through conducting profound reforms as a part of its European and Euro-Atlantic integration activities.

The major crises, such as the 2008 financial crisis, COVID-19 pandemic and Russian aggression in Ukraine, have a farreaching effect on the country's development, including its human potential and economic prosperity. Figure 1 demonstrates the dynamics of the Human Development Index as well as economic growth related indicators, including gross domestic product, gross value added and gross capital formation, in Ukraine over the period of 2000-2022. As becomes evident from the graph, the key human capital metrics together with the economic indicator tended to fall in times of the above-mentioned negative events, although following the end of the crisis an upward tendency can be

⁴ UNIAN. Vereshchuk Told How Many People Still Remain in the Temporarily Occupied Territories. September 12, 2022. URL: https://www.unian.ua/society/viyna-v-ukrajini-skilki-lyudey-shche-zalishayetsya-na-timchasovo-okupovanih-teritoriyah-

VoxUkraine. The Labour Market in Ukraine: To Rebuild Better than It Was. January 1, 2023. URL: https://voxukraine.org/rynok-pratsi-v-ukrayini-vidbuduvaty-krashhe-nizh-bulo.

⁶ OHCHR. Ukraine: civilian casualty update 10 April 2023. URL: https://www.ohchr.org/en/news/2023/04/ukraine-civilian-casualty-update-10-april-2023.

observed for each case. Additionally, the given data demonstrates a correlation between human capital components and economic development. However, the effect can be delayed in time, therefore the analysis over several years should be conducted.

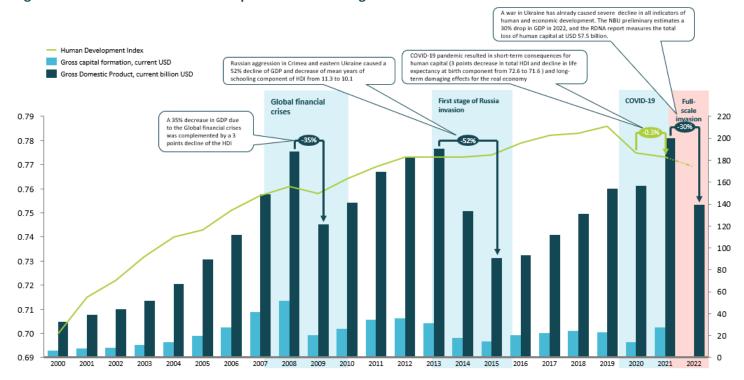


Figure 1. Relation between human capital and economic growth.

WHAT IS THE ROLE OF GOVERNANCE IN HUMAN CAPITAL?

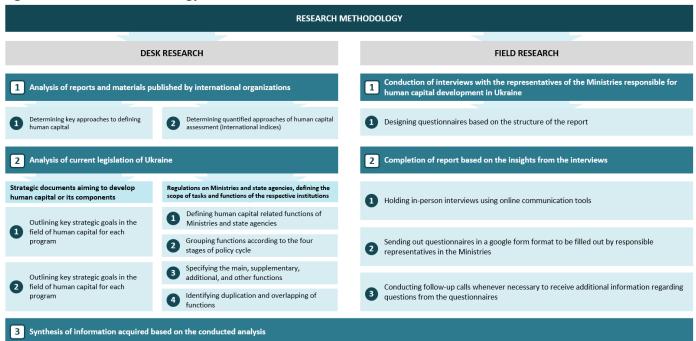
Even though there is clear evidence of correlation between human capital improvement and a country's economic growth, the environment plays an important role in how fast and effective human potential development can contribute to the economic prosperity and well-being of a nation. Therefore, the relationship between human capital and economic output can vary for countries with different governance structures. On the one hand, the government institutions are responsible for ensuring general regulation in the field of human capital, namely formulating the domestic policy in the education, healthcare, social support and other sectors, but also encouraging and investing in innovation and technological advancement. Among the key tasks of the institutional framework is to provide equal opportunities for the population in acquiring formal and informal education, access to medical services and social assistance in the times of need. On the contrary, ineffective governance, including weak institutions and poor coordination between responsible stakeholders, can lead to inefficient use of human resources, insufficient investment in human development and, therefore, slow down economic growth.

With this in mind, it is important to consider human capital development in relation to the governance structure in a specific country. Thus, the purpose of this research is to analyze the institutional framework in the field of human capital in Ukraine, including identifying key stakeholders, their functions and mechanisms of cooperation and coordination. This research is meant to lay a solid foundation for further research of the ways to improve the existing institutional framework and, consequently, have a positive impact on the human capital development in Ukraine.

METHODOLOGY

For the realization of the purpose of this research we see the best way of performing the work in three stages, each of them covering several activities. The first stage is based on desk research, while the second stage involves conduction of field research. The third stage is the synthesis of information acquired as a result of analysis which was performed within the desk and field research (see Figure 2).

Figure 2. Research methodology.



The **desk research** was conducted by analyzing the reports and materials published by international organizations in order to determine the main approaches used to define human capital and its components, as well as to consider the methodologies to quantify human capital assessment, mainly including the indices measuring human capital. The main part of the research base consisted of the current Ukrainian legislation in the field of human capital which was used for the analysis of the institutional framework of human capital in Ukraine. The legislation included several types: (1) strategic documents aiming to develop human capital or its components; (2) regulations on Ministries and state agencies, defining the scope of tasks and functions of the respective institutions. As for the former group, the key strategic goals in the field of human capital were outlined for each program to determine the focus areas of human capital development in Ukraine. For the latter group, the functions analysis consisted of several phases: first, human capital related functions were singled out from the whole scope of responsibilities of Ministries and state agencies; second, the functions were grouped according to the four stages of policy cycle, namely Agenda Setting, Policy Formulation and Decision Making, Implementation, and Evaluation; third, the main, supplementary, additional, and other functions not directly related to human capital were specified.

The **field research** was conducted by interviews which were held with the representatives of the Ministries responsible for human capital development in Ukraine in order to receive information regarding the work of central executive bodies in relevant sectors. For the purpose of the interviews, the questionnaires were designed based on the structure of the report, namely defining human capital, relevant functions with regard to the policy cycle stages, cooperation and

coordination with other state institutions, international organizations and civil society, and the general state of institutional framework in the field of human capital (for questionnaire sample - see Annex 2).

Whenever possible, in-person interviews were carried out using online communication tools. Also, the questionnaires were sent out in a google form format to be filled out by responsible representatives. Finally, follow-up calls were made whenever necessary to receive additional information regarding questions from the questionnaires. To learn more detail about the interviews - see Annex 1.

HOW TO DEFINE AND MEASURE HUMAN CAPITAL?

Human capital is considered among the principal drivers of workforce productivity and well-being of nations. However, there has not been developed a universally accepted definition of 'human capital', even though several approaches are used to define the concept. Most commonly, various approaches, such as those from the World Bank, OECD, World Economic Forum (WEF), UNECE, and other international institutions, consider education, skills, and competences as essential factors in defining human capital (see Figure 3). However, there is ongoing debate regarding the inclusion of health, social conditions, and other elements as components of human capital: while OECD and WEF mention these factors only as indirect influences on human potential, the World Bank offers a comprehensive definition of human capital that encompasses education, health, and social protection as its three primary components.

With regard to the national level, the above-mentioned approaches by international organizations are widely used. Nevertheless, in the case of Ukraine, no specific definition of human capital has been adopted and approved by the current legislation which creates uncertainties in relation to the institutional framework in the field of human capital.

Figure 3. Approaches to defining and measuring human capital.



The World Bank defines human capital as a combination of knowledge, skills, health, and social protection that affect a person's potential to be a more productive member of society as an adult and to produce higher economic earning



OECD defines human capital as **education** (its quality and quantity, formal and informal) and **work experience** which result in acquiring **knowledge and skills** that help people to be productive and to **yield higher**



According to WEF, human capital is defined as a dynamic concept and a combination of knowledge and skills acquired through the means of formal and informal education that enable people to create value in the global economic system



UNECE suggests concentrating on measuring human capital as investment or expenditures on accumulating knowledge in relevant areas of the economy, including research and development, which add to the stock of productive capital

DEFINING HUMAN CAPITAL

HUMAN CAPITAL is defined as a combination of knowledge and skills acquired through lifetime education, health, social support and protection, and employment

MEASURING HUMAN CAPITAL

HUMAN CAPITAL INDEX

 Calculated by the World Bank as part of Human Capital Project
 The index takes into account survival rate, quality and quantity of education, and health as the key components in 174 economies

HUMAN DEVELOPMENT INDEX

- Used by UNDP to assess countries' socio-economic development The index considers health, knowledge, and the Gross
- The index considers health, knowledge, and the Gross National Income (GNI) per capita, reflecting the standard of living

GLOBAL HUMAN CAPITAL INDEX

- Calculated by the World
 Economic Forum between 2015
 and 2017
- The index focuses primarily on measuring the education, skills, competencies, and innovative capabilities of a population

LEGATUM PROSPERITY INDEX

- Calculated by the **Legatum Institute**, a London-based think
- The index refers to education, living conditions and health as three out of the twelve pillars to assess a country's prosperity

GLOBAL COMPETITIVENESS INDEX

- Calculated by the World
- The human capital component is composed of two pillars skills and health, which contribute to a country's global competitiveness

Similarly, several methodologies have been developed in attempts to quantify the assessment of human capital (see Figure 3). For example, the World Bank introduced the Human Capital Index to assess human capital by survival rate, quality and quantity of education, and health. The Human Development Index, utilized by UNDP to evaluate socio-economic

development of countries, takes into account health, knowledge, and the Gross National Income (GNI) per capita, reflecting the standard of living in a given country. The Global Human Capital Index (GHCI), calculated by the World Economic Forum between 2015 and 2017, focuses primarily on measuring the education, skills, competencies, and innovative capabilities of a population. Two additional indices, namely the Legatum Prosperity Index and the Global Competitiveness Index (GCI), include human capital as components to measure a country's prosperity and global competitiveness.

WHAT IS THE LEGAL FRAMEWORK IN UKRAINE?

In Ukraine, there is no dedicated document that explicitly defines or establishes a framework for the development of human capital. It is, nonetheless, referenced in various legislative acts and strategic documents aimed at improving the social and economic standing of Ukraine and enhancing the well-being of its population. For example, the significance of human development is emphasized in the Sustainable Development Goals (SDGs) for Ukraine until 2030, which align with the United Nations SDGs. Similarly, key government documents such as the Program of Activities of the Cabinet of Ministers of Ukraine and the Government Priority Action Plan for 2023 outline short and medium-term objectives in areas related to investment in human potential.

The Human Development Strategy holds significant importance as a key document related to human capital in Ukraine, aiming to give impetus to human potential by improving life expectancy, access to quality education and sports services, ensuring a decent standard of living, and subsequently enhancing workforce productivity.

Several strategic documents approach human capital from the point of view of specific sectors. For instance, the National Economic Strategy and the Strategy of Economic Security of Ukraine consider human potential as a primary driver of economic prosperity. The Concept of Digital Competences Development and the Strategy of Development of the Innovative Activity Sphere view human capital development as an integral part of Ukraine's competitiveness and innovative growth. Additionally, the State Strategy of Regional Development focuses on developing human capital at the regional level, complementing national efforts in this domain.

WHAT ARE KEY STAKEHOLDERS WITHIN THE HUMAN CAPITAL FRAMEWORK?

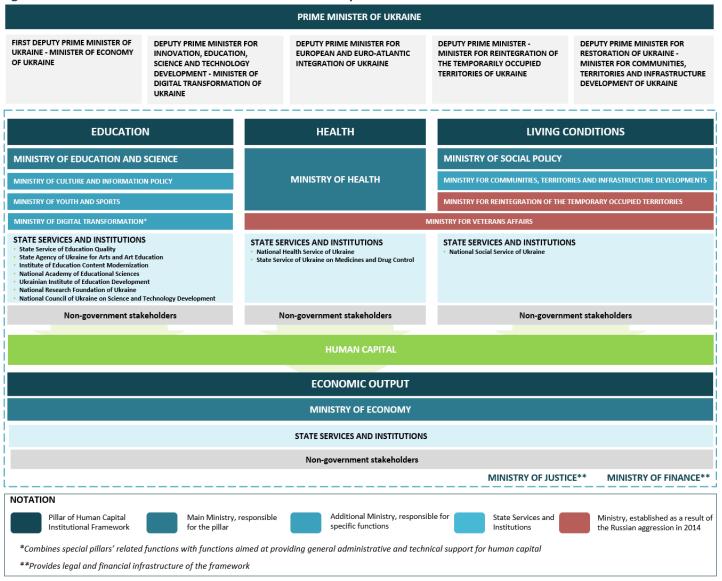
The institutional framework for human capital in Ukraine operates on a multilevel structure and comprises a wide range of **government stakeholders** (see Figure 4). At the top level, the Prime Minister and Deputy Prime Ministers of Ukraine oversee general management and coordination, while the central executive bodies, including the Ministries and state agencies, play a crucial role in policy formulation, implementation, and evaluation within four pillars of human capital: education, health, living conditions, and economic output. Additionally, several executive bodies are involved in administrative tasks to ensure the overall functioning of the human capital system in Ukraine.

Within the education pillar, the executive bodies share the common goal of improving the knowledge, skills, and competences of the population, ensuring equal opportunities for education and training throughout life, and investing in innovative development. The Ministry of Education and Science plays a central role in formulating human capital policies in the education sector, while the state agencies primarily concentrate on policy implementation. Other central executive bodies working in this domain comprise the Ministry of Youth and Sports, promoting physical activities and healthy lifestyles while assisting the youth, the Ministry of Culture and Information Policy, ensuring the quality of arts education, and the Ministry of Digital Transformation, aiming to enhance digital skills and competences among the population.

The health pillar concentrates on improving the medical conditions and provision of healthcare services for the population, as well as working towards healthy longevity. The Ministry of Health is responsible for formulating state healthcare policies, while the state services, namely the National Health Service of Ukraine, and the State Service of Ukraine on

Medicines and Drug Control, focus on specific areas of healthcare in Ukraine such as medical guarantees programs and quality and safety control of medicines.

Figure 4. Institutional framework in the field of human capital in Ukraine.



With regard to the living conditions pillar, a priority is given to providing social support and assistance, particularly to vulnerable groups. The Ministry of Social Policy formulates policies for social protection, and the National Social Service of Ukraine implements measures defined by the Ministry. The Ministry for Communities, Territories and Infrastructure Development focuses on regional and local development, infrastructure management and modernization. The Ministry for Veterans Affairs assists veterans and their families, while the Ministry for Reintegration of the Temporary Occupied Territories addresses the needs of internally displaced persons (IDPs) and people in the temporarily occupied territories, working towards their reintegration.

The economic output pillar refers to productivity of the workforce and the development of the labour market. It involves the activities of the Ministry of Economy and the State Employment Service of Ukraine, which are responsible for policy formulation and implementation in the employment field, including providing equal opportunities, addressing unemployment issues, and offering employment assistance to vulnerable groups.

Certain central executive bodies have cross-cutting functions that contribute to the effective functioning of the entire human capital system. For example, the Ministry of Justice provides legal assistance and expertise in policy formulation, and the Ministry of Finance manages budget-related matters. Local administrations play a role in implementing state policies related to human development at regional and local levels, covering various sectors such as education, healthcare, social services, and employment. These activities cannot be attributed to a specific pillar of human capital as they encompass multiple areas therein.

Along with the governmental entities, **non-governmental stakeholders** are involved in the realm of human capital in Ukraine. They encompass the following:

- NGOs and community organizations, operating on a non-profit basis independently from the state, uniting people committed to make positive changes in specific communities or sectors;
- think tanks, conducting research on topics related to human capital either independently or at the behest of other organizations, businesses, or government, and thus contributing to the policy-making process through the production of reports, analytical materials, and recommendations;
- private sector organizations (businesses), or businesses, contributing to human capital development by directly
 engaging in education, healthcare, social assistance, and other related fields, creating employment opportunities,
 participating in policy-making when involved by the government, and carrying out corporate social responsibility
 activities;
- foundations, or charitable organizations, supporting human capital development through grants, public projects, and other forms of charitable activities;
- professional associations, contributing to human potential by providing employment opportunities, engaging youth, training workers, and ensuring social protection for workers and their families;
- academic institutions, namely educational or R&D centers that primarily enhance the skills and knowledge of the population;
- other institutions engaged in policy-making and implementation of activities pertaining to human capital.

HOW DO DIFFERENT STAKEHOLDERS COOPERATE WITHIN THE HUMAN CAPITAL FRAMEWORK?

Governmental and non-governmental institutions utilize a wide range of cooperation and coordination mechanisms to ensure the effective functioning of the institutional framework in the realm of human capital (see Figure 5). Formal mechanisms are primarily utilized for decision-making, policy implementation, and evaluation, while informal mechanisms prove effective for sharing experiences, knowledge, and seeking consultations.

Formal mechanisms comprise interdepartmental working groups, working meetings, strategic sessions, commissions, committees, coordination centers, councils, conferences, public discussions, and more. These channels of cooperation mainly involve interactions between government bodies, as well as between government entities and non-governmental stakeholders.

Figure 5. Formal and informal cooperation and coordination mechanisms.

	MECHANISM	DESCRIPTION	EXAMPLE*
	Interdepartmental working groups	A temporary advisory body formed by the Cabinet of Ministers of Ukraine with the purpose of solving specific tasks, including development recommendations regarding certain issues. Normally includes representatives of several central executive bodies	Ministry of Education and Science; Ministry of Culture and Information Policy; Ministry of Health; Ministry of Social Policy; Ministry of Economy
	Working groups	A formal group consisting of representatives of a central executive body working together on a common task. Working groups can involve, if necessary, civil society representatives	Ministry of Education and Science; Ministry of Health; Ministry of Social Policy; Ministry for Veterans Affairs
Formal mechanisms	Approval of legislation acts projects with central executive bodies	Prior to submission of regulatory legal acts for state registration to the Ministry of Justice and their state registration, legislation acts should undergo an approval procedure by the central executive body bearing primary responsibility for policy formulation in a particular sector	Ministry of Health; Ministry for Veterans Affairs; Ministry of Justice
	Specialized committees of the Verkhovna Rada	A body of the Verkhovna Rada of Ukraine, which is formed from the number of deputies to carry out legislative work in separate directions, prepare and pre-consider issues and perform control functions regarding specific issues in defined sector	Verkhovna Rada Committee on Education, Science and Innovation; Verkhovna Rada Committee on Youth and Sports
	Public discussions of draft legislation acts	Consultations with the civil society representatives and the general public, which are held regarding the draft legislation acts on issues of social and economic development	Ministry of Health; Ministry of Social Policy; Ministry of Justice
	Strategic sessions, forums, conferences, etc.	Multilateral meetings aimed at the joint formation of important state decisions in the process of dialogue between state authorities, civil society representatives, and other interested stakeholders	Ministry of Youth and Sports; Ministry of Culture and Information Policy; the Ministry for Reintegration of the Temporary Occupied Territories
Informal mechanisms	Bilateral meetings	Meetings of two parties interested in solving a particular task which can be held in person or online	Ministry of Youth and Sports; Ministry of Education and Science
	Consultations	Requesting and receiving expert advice on any issue within the relevant sector of interest	Ministry for Veterans Affairs
	Communication in the course of work	Regular or occasional communication maintained in forms of personal meetings, calls, etc., during the process of performing a particular task	Ministry of Justice
<u>-</u>	Regular correspondence	Form of maintaining regular communication to ensure exchange of information regarding a specific issue	Ministry of Youth and Sports

* Note: Examples are based on information received from

On the contrary, informal channels are prevalent among all stakeholders, both governmental and non-governmental, and facilitate quick communication between interested parties. They include bilateral meetings (in person and online), consultations, communication in the course of work, regular correspondence, etc., and rely on mutual trust among stakeholders. Furthermore, informal communication often lays the groundwork for subsequent formal interactions within the decision-making process.



DEFINITION AND MEASUREMENT OF HUMAN CAPITAL

"Considering the pillars of human capital development, investing in education, health and living conditions is essential for fostering the growth and prosperity of a country. Human capital development needs a holistic approach that recognizes the interplay between education, health, living conditions, and economic factors, highlighting the need for comprehensive strategies and policies to promote sustainable growth and well - being."

1. DEFINITION AND MEASUREMENT OF HUMAN CAPITAL

The concept of human capital is used by most countries and a number of international institutions to estimate the national level of economic and social development, as well as to compare the global indicators of human well-being and related economic growth. However, as there is no universally accepted definition, each country and institution has a different approach of how to interpret 'human capital' and which indicators to use for its assessment.

The 'human capital' concept origins date back to the works of Adam Smith who emphasized the importance of personal skills and abilities as a form of capital with an impact on a person's productivity. The concept of a set of abilities as a kind of capital was further developed in the 1960s and beyond when economists started to consider human capital as a factor influencing economic output and well-being of people. This approach was further developed as economies started to be more knowledge-based, thus confirming that investing in human capital (i.e., the knowledge, skills and competences of people) has a positive impact on national prosperity and global competitiveness of countries. At the same time, broader definitions which encompass protected health and improved social cohesion evolved.

1.1. DEFINITION OF HUMAN CAPITAL

The definitions of human capital are developed by international organizations which attempt to design a methodology to analyze human potential and productivity through qualitative and quantitative approaches. Such definitions determine the components of human capital as well as the exact indicators which are enabling assessment of human capital and comparison of its development across different countries. Below are presented several approaches to defining human capital.

WORLD BANK APPROACH | According to the World Bank (WB)⁸, human capital consists of knowledge, skills, and health that people accumulate over their lives, which enables them to realize their potential as productive members of society. It is accepted that more developed human capital leads to higher earnings of people when they reach working age which means higher income for countries and stronger cohesion in societies. In the World Bank's approach, the central place in assessing human capital is taken by education, including the years of schooling, training that people receive and, therefore, knowledge and skills that they are able to accumulate. However, as a broad concept human capital is not associated with knowledge only as it includes other aspects of individual human development such as medical care and the importance of health, as well as early childhood interventions and intergenerational mobility⁹. At the same time, the Human Development Project points out three main components of human capital - education, health and social protection¹⁰. It is generally implied that more skilled and healthier workers who had sufficient nutrition as children and enough job opportunities as adults are able to reach higher levels of income which also benefits the specific firms and the national economies in general¹¹. According to WB, human capital development can become a key driver of sustainable growth for ending extreme poverty and creating more inclusive societies. Investment in human capital can increase the global competitiveness of countries, while each year of inaction on human capital development increases the gap between the

⁷ UNECE. Guide on Measuring Human Capital. 2016. URL: https://unstats.un.org/unsd/nationalaccount/consultationDocs/HumanCapitalGuide.web.pdf.

⁸ World Bank Group. The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19. 2020. URL: https://openknowledge.worldbank.org/entities/publication/93f8fbc6-4513-58e7-82ec-af4636380319.

⁹ World Bank Group. A Primer On Human Capital. January 2018. URL: https://documents1.worldbank.org/curated/en/514331516372468005/pdf/WPS8309.pdf.

World Bank Group. Human Capital Project Year 3 Progress Report. 2021. URL: https://documents1.worldbank.org/curated/en/152711635786365470/pdf/Human-Capital-Project-Year-3-Progress-Report.pdf.

¹¹ The World Bank. About The Human Capital Project. URL: https://www.worldbank.org/en/publication/human-capital/brief/about-hcp#:~:text=Human%20capital%20consists%20of%20the,societies%20by%20developing%20human%20capital.

developed and developing countries. In turn, higher productivity empowered by human capital development contributes to the physical capital growth, such as infrastructure, equipment, and a stable well-governed economy¹².

Thus, the World Bank primarily underlines the importance of human capital development for achievement of sustainable growth on national and global level while singling out education and training, health, and social protection as the key measurements of human capital.

The World Bank defines human capital as a combination of knowledge, skills, health, and social protection that affect a person's potential to be a more productive member of society as an adult and to produce higher economic earning for national prosperity.

OECD APPROACH | According to the Organisation for Economic Cooperation and Development (OECD)¹³, human capital can be broadly defined as the stock of knowledge, skills and other personal characteristics embodied in people that helps them to be productive. OECD mostly pays attention to the importance of education which includes formal education in early childhood, formal school system, adult training programmes as well as informal and on-the-job learning and work experience which are determined as the key factors for investing in human capital. Given that education is the priority in defining human capital, OECD concentrates on such measures as years of schooling, rates of enrolment in education and literacy when quantifying human capital. Earlier approach presented in works of the Economics Department suggested measuring human capital based on realistic rates of return to education, which allowed to differentiate results across OECD countries and over time. The pros of this approach include its connection with educational policies and the ability to identify which ones of them tend to boost human capital. Nonetheless, the main cons of the approach is leaving out the factor of education quality and the effects it has on human development. With this in mind, the newest OECD approach in measuring human capital is built on using PISA and PIAAC surveys, and mean years of schooling¹⁴. In such a way, both the education quality, represented by the former measure, and the education quantity, represented by the latter, are taken into account while measuring the effects on human productivity. Although OECD mostly leaves aside such components as health and social support which are included by the World Bank, it similarly points out the effects human capital has on economic growth. For example, an earlier work published by OECD entitled "The Well-being of Nations: The Role of Human and Social Capital" focuses on the benefits human capital development can yield. Thus, human capital which consists of knowledge, skills and attributes such as perseverance, is able to provide economic returns in forms of higher earnings and employment rates resulting in output per capita increase on long run, as well as certain indirect outcomes such as healthier lifestyle, higher satisfaction with life, higher civic participation, volunteering and charity giving, and a lower risk of criminal activity.

OECD defines human capital as education (both its quality and quantity, including formal and informal education) and work experience which result in acquiring knowledge and skills that help people to be productive and to yield higher economic returns in forms of earnings, employment rates and output per capita.

¹² World Bank Group. The Human Capital Project: Frequently Asked Questions. 2018. URL: https://thedocs.worldbank.org/en/doc/929181537976015329-0140022018/original/publicFAQsonHCPandHCISept25document.pdf.

¹³ OECD. Productivity, human capital and educational policies. URL: https://www.oecd.org/economy/human-capital/.

¹⁴ OECD. Productivity, human capital and educational policies. URL: https://www.oecd.org/economy/human-capital/.

¹⁵ OECD. The Well-being of Nations: The Role of Human and Social Capital. Executive Summary. 2001. URL: https://www.oecd.org/education/innovation-education/1870573.pdf.

WORLD ECONOMIC FORUM APPROACH | A comparable approach was used by the World Economic Forum (WEF) when defining and measuring human capital. As stated in "Global Human Capital Report 2017" ¹⁶, human capital means "knowledge and skills people possess that enable them to create value in the global economic system". Similarly to OECD, WEF points out the significance of both formal education and skilling and those acquired across one's lifetime. Given the sufficient investment in human development starting from early childhood through adulthood, people get maximum opportunities for growth throughout their lifetime. Consequently, human capital is treated as a dynamic rather than a steady concept that can be improved over time. What is specifically underlined by the WEF is that human capital potential can only be increased through constant investment and engagement of the maximum number of people as part of the national policies. This cannot be substituted by focusing on "cheap labour" or relying solely on the smaller group of most talented people which is often the case for developing countries. The possessed knowledge and skills can have a positive impact on productivity on multiple levels - individual, company and national which, subsequently, brings values to the societies. In the end, the value that is created influences the global economic systems, contributing to the reduction of poverty and gaps being developed and developing countries through equal educational and working opportunities¹⁷.

According to WEF, human capital is defined as a combination of knowledge and skills acquired through the means of formal and informal education that enable people to create value in the global economic system. Human capital is treated as a dynamic concept, meaning that it can be improved throughout lifetime.

UNECE APPROACH In the Guide for measuring human capital in the national accounting systems, the United Nations Economic Commission for Europe (UNECE) suggests using a narrower definition of human capital, mainly focusing on a valuation of the elements which are related to the economic returns. The reason for this is the possibility to count the economic value of or expenditures for certain assets, while knowledge, skills and competencies are not part of physical capital and cannot be quantified according to a generally agreed methodology. According to the earlier edition, expenditures on mineral exploration and evaluation, software and databases, and entertainment, literary and artistic originals, as investments which are related to accumulating knowledge, thus adding to the stock of productive capital. Furthermore, this list has been extended with expenditures on research and development¹⁸. So, the UNECE approach mostly concentrates on the ways of investing in human capital which are expected to yield positive results for national economic growth.

Given that knowledge, skills, and competences are invisible and difficult to quantify, **UNECE suggests concentrating on measuring human capital** as investment or expenditures on accumulating knowledge in relevant areas of the economy, including research and development, mineral exploration and evaluation, software and databases, and entertainment, literary and artistic originals, which add to the stock of productive capital.

UN SDGS APPROACH | Additionally, it is worth mentioning that human capital is related to the United Nations Sustainable Development Goals (SDGs) which were adopted in 2015 by the UN Member States¹⁹. While SDGs aim to take action

 $^{^{16} \} World \ Economic \ Forum. \ The \ Global \ Human \ Capital \ Report \ 2017. \ URL: \ \underline{https://weforum.ent.box.com/s/dari4dktg4jt2g9xo2o5pksjpatvawdb.}$

World Economic Forum. The Global Human Capital Report 2017. URL: https://weforum.ent.box.com/s/dari4dktg4jt2g9xo2o5pksjpatvawdb.

¹⁸ UNECE. Guide on Measuring Human Capital. 2016. URL: https://unstats.un.org/unsd/nationalaccount/consultationDocs/HumanCapitalGuide.web.pdf.

¹⁹ United Nations Sustainable Development Goals. URL: https://sdgs.un.org/goals.

regarding a number of global issues which are common for developed and developing countries in order to build a better future for people and our planet, certain goals and targets have direct links to human capital development.

First of all, SDG 4. Quality education aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" which promotes equal opportunities for acquiring knowledge, skills and competences. Second, SDG 3. Good health and well-being aims to "ensure healthy lives and promote well-being for all at all ages" which contributes to the number of workforce and its productivity. Additionally, certain targets within SGDs 1. No poverty, 2. Zero hunger, 5. Gender equality, 8. Decent work and economic growth, and 10. Reduced inequalities. At the same time, other SDGs are also connected with providing a favorable environment for human growth and development. Hence, the achievement of these goals would not only support sustainable development on a global level but also invest in human capital potential.

Given their specific objectives, **SDGs do not contain a strict definition of human capital**. However, SGDs focus on solving several global issues which are related to human capital, including such goals as Quality education, Good health and well-being, No poverty, Zero hunger, Gender equality, Decent work and economic growth, and Reduced inequalities.

UKRAINIAN CONTEXT | The concept of 'human capital' is also widely used by countries to assess the development on the national level, including the well-being of its population, the amount and quality of workforce, the potential for economic growth, etc. Moreover, the development of human capital becomes a key part of the national policies as reflected in related strategic documents which define human capital on a state level and designate specific tasks to improve human potential. In Ukraine, human capital is mentioned in a number of documents on the national level with the emphasis on investment in or development of certain aspects of human capital depending on documents' specifications. For example, human capital is referred to as an important aspect of prosperity in the National Economic Strategy 2030, the Strategy of Economic Security 2025, the Concept of Digital Competences Development 2025, the State Strategy of Regional Development 2021-2027 and others (for more information - see Chapter 2). All of them approach human capital in a different way, either as an integral component of economic development in general or its specific sector such as digitalization or innovation, or as a criterion to assess a country's progress towards achieving certain goals, including global ranking.

Even though the above-indicated strategic documents mention human capital development either among the key priorities of national growth or as a crucial factor for strengthening the country's competitiveness, *the legislation of Ukraine does not contain a definition of human capital which might result in different interpretations of the term.* However, it is generally agreed that human capital development is essential for Ukraine as a country which aims to increase its global competitiveness and invest in the prosperity of its citizens.

1.2. HUMAN CAPITAL ASSESSMENT

Given the variety of interpretations, it creates a problem of measuring human capital. First of all, there is an issue regarding the quantification of human capital, since knowledge and skills are too complex to quantify them in an all-encompassing approach. Second, the discussions of what to include in the definition of human capital continue, thus it is unclear what indicators should be included in the calculations. Several indices try to solve the aforementioned problems by developing their own methodology of assessing the human capital.

Human Capital Index

The Human Capital Index (HCI)²⁰ is an international metric that benchmarks key components of human capital across economies. The HCI was launched in 2018 as part of the Human Capital Project, a global effort to accelerate progress toward a world where all children can achieve their full potential. The Human Capital Index (HCI) offers a concise measure of the level of human capital that a child born today is likely to attain by the age of 18. The HCI assesses the impact of health and education on individual and national productivity through micro-econometric studies. On a scale of 0 to 1, the index obtains a score of 1 only when a child born today can expect to achieve full health (referring to no stunting and survival until at least age 60) and complete her formal education (equivalent to 14 years of quality schooling by age 18). The index allows for a direct correlation with prospective income scenarios for both individuals and countries. For instance, if a country scores 0.50 on the HCI, it could double its future GDP per worker if it were to achieve full health and education levels. The HCI is presented as an average score for each country and can also be broken down by gender where relevant data is available. The Human Capital Index (HCI) consists of three components:

Component 1 of the HCI acknowledges that not all children born today will survive to begin the process of acquiring human capital through formal education. This factor is assessed by the under-5 mortality rate, where survival to age 5 serves as the complement of the under-5 mortality rate.

Component 2 integrates data on both the quantity and quality of education. The quantity of education is assessed by the number of years of school that a child is expected to complete by the age of 18, taking into account the current enrollment rate patterns. The maximum achievable value is 14 years for a child who starts preschool at age 4. The quality of education measures progress achieved by the World Bank in standardizing test scores from notable international student achievement evaluations to produce a metric of harmonized test scores. These scores are represented on a global scale of harmonized learning outcomes, resembling the scale applied in the Trends in International Mathematics and Science Study (TIMSS). For instance, a score of 625 corresponds to the high-performance benchmark in TIMSS, while a score of 300 corresponds to the low-performance benchmark.

Component 3 uses two proxies for the overall health environment which are adult survival rate and healthy growth among children under age 5. The first one represents the share of 15-year-olds expected to survive until age 60. This mortality measure serves as a proxy for the various non-fatal health outcomes that a child born today would encounter as an adult if current health conditions persist. The second one is measured using stunting rates, that is, as 1 minus the share of children under 5 who are below normal height for age. Stunting provides an indication of the health risks that children born today are prone to during their prenatal, infancy, and early childhood years, and which could have severe implications for their health and well-being in adulthood.

Human Development Index

The Human Development Index (HDI)²¹ is a composite index used to categorize countries depending on the level of human development. The HDI serves as a tool to scrutinize national policy decisions by prompting discussions on why two countries with the same per capita income may have dissimilar human development outcomes. These disparities can encourage deliberations on the government's policy priorities. The United Nations Development Programme (UNDP) Human Development Report Office also uses the HDI to assess a country's development. However, the HDI creators note that the index is not an all-encompassing representation of human development as it only captures a portion of the

World Bank Group. The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19. 2020. URL: https://openknowledge.worldbank.org/entities/publication/93f8fbc6-4513-58e7-82ec-af4636380319.

²¹ UNDP. Human Development Index (HDI). URL: https://hdr.undp.org/data-center/human-development-index#/indicies/HDI.

concept. It overlooks areas such as poverty, inequalities, human security, and empowerment. To provide a more comprehensive perspective, the Human Development Report Office (HDRO) of the UNDP presents additional composite indices that act as broader proxies for key human development issues, including gender disparity, poverty, and inequality²². HDI measures a country's level of development based on three dimensions of human development: Long and Healthy Life; Knowledge; and Decent Standard of Living.

Long and Healthy Life dimension is calculated based on the life expectancy at birth indicator, which makes the Life expectancy index.

Knowledge dimension is evaluated based on two indicators: the mean number of years of schooling for individuals aged 25 and above and the expected years of schooling for children who are entering the education system, based on which the education index is measured.

Standard of Living dimension is determined by the sole indicator of per capita gross national income (GNI) (PPP \$), which is used to calculate the GNI index. To reflect the decreased significance of income as GNI rises, the HDI uses the logarithm of income. The scores for the three dimensions of the HDI are then combined into a composite index using geometric mean. A country's HDI score is higher when its population has a longer lifespan, a higher level of education, and a greater gross national income per capita.

Global Human Capital Index

The objective of the Global Human Capital Index (GHCI)²³, developed by the World Economic Forum, is used to present a comprehensive evaluation of a nation's human capital, including its current state and projected future development, throughout its population. The index was calculated and presented in the WEF reports in 2015-2017. However, for the first two years only the ranking data is available as the ranking methodology was designed to facilitate time-series analysis, while for 2017 both the scores and ranking is presented in the report. Overall, in 2017 the index analyzed 130 countries. In 2017, GHCI was updated to evaluate how well countries have optimized their human capital to enhance both individual and economic growth. The revised methodology was based on four core concepts that guide the selection and treatment of indicators and the construction of the scale. These guiding principles enable effective comparisons across regions, generations, and income groups, and also allow countries to track their progress over time relative to their own performance and that of others. They include outcomes vs. inputs, distance to the idea, human capital as a dynamic concept, and demographics count concepts. To capture the various dimensions of human capital, the Index uses available data and applies a generational lens, dividing the population into five age groups: 0-14 years, 15-24 years, 25-54 years, 55-64 years, and 65 years and over. The Global Human Capital Index is composed of four subindexes, each representing a thematic dimension: Capacity; Deployment; Development; Know-how.

The Capacity subindex measures the existing stock of education across different generations. The subindex includes four standard indicators of formal education achievement, which are broken down by age groups in the workforce. These indicators measure the proportion of the population who have attained primary education, lower secondary education, tertiary education, as well as the percentage of the population with basic literacy and numeracy skills.

The Deployment subindex evaluates the active participation of different age groups in the workforce. It evaluates the extent to which individuals are actively engaged in the workforce and how efficiently they contribute, particularly those who are traditionally less effectively employed in labour markets such as women, youth, and older individuals. The subindex considers both employed individuals and those actively seeking work, with a focus on a country's overall labour

²² UNDP. Human Development Index (HDI). URL: https://hdr.undp.org/data-center/human-development-index#/indicies/HDI.

World Economic Forum. The Global Human Capital Report 2017. URL: https://weforum.ent.box.com/s/dari4dktg4jt2g9xo2o5pksjpatvawdb.

force participation rate as the broadest indicator of workforce engagement. Unemployment rates provide insights into the subset of individuals who are currently jobless but willing to work, while underemployment rates indicate the proportion of employed individuals willing and available to work more hours. The subindex also includes a measure of the gender gap in labour market engagement, which continues to be a significant issue globally.

The Development subindex assesses the current efforts to educate, skill and upskill the student body and the working age population. It focuses on the education and skill development of both the current and future workforce. It includes indicators that measure access to education for children and youth, as well as upskilling and reskilling of the current workforce. Net adjusted enrolment rates for primary school and net enrolment rates for secondary school are used to capture access to education for the future workforce. Gross tertiary enrolment ratios and a measure of the education gender gap at the secondary enrolment level are also included for the under 15 and 15-24 age groups. Also, the subindex includes a measure of enrollment in vocational training programs without assigning a value judgment between studying options in terms of index scoring and two qualitative indicators that assess the quality of primary education and how well the education system meets the needs of a competitive economy.

The Know-how subindex quantifies the growth or depreciation of working-age people's skillsets through opportunities for higher value-add work. It focuses on the extent and depth of specialized skills used in the workplace and evaluates the current level of availability of job opportunities that require high or mid-level skills, as well as employers' perceptions of the ease or difficulty of filling such vacancies.

Legatum Prosperity Index

The Legatum Prosperity Index²⁴ is a framework that evaluates countries based on their ability to promote the well-being of their citizens, encompassing both economic and social factors. It goes beyond traditional macroeconomic measurements, such as gross domestic product (GDP) per capita, which solely rely on wealth indicators, to capture the richness of a truly prosperous life. As a result, it aims to measure human progress and provide valuable insights into the development and evolution of prosperity across nearly all countries worldwide. The index consists of 12 prosperity pillars that are divided into 67 policy-focused elements. These are further categorized into three domains that are crucial for prosperity: Inclusive Societies, Open Economies, and Empowered People, with each including 4 pillars.

Inclusive Societies domain comprises the Safety & Security pillar (the degree to which war, conflict, terror, and crime have affected the security of people), the Personal Freedom pillar (the achievement of basic legal rights, individual liberties, and social tolerance), the Governance pillar (the effectiveness of checks and restraints on power, as well as corruption level), and the Social Capital pillar (the strength of personal and social relationships, institutional trust, social norms, and civic participation in a country).

Open Economies domain includes the Investment Environment pillar (the investments protection and accessibility), the Enterprise Conditions pillar (the degree to which regulations enable businesses to start, compete, and expand), the Infrastructure & Market Access pillar (the quality of trade infrastructure and distortions in the market for goods and services), and the Economic Quality pillar (the ability of economy to generate wealth sustainably and with the full engagement of the workforce).

Empowered People domain consists of such pillars as the **Living Conditions** (the quality of life, including material resources, shelter, basic services, and connectivity), the **Health** (the level of health, including health outcomes, health systems, illness and risk factors, and mortality rates, and accessibility of related services), the **Education** (the enrolment,

²⁴ The Legatum Prosperity Index. Index Methodology. URL: https://www.prosperity.com/about/methodology.

outcomes, and quality across all levels of education, as well as the skills in the adults), and the Natural Environment (the aspects of the physical environment that directly affect people and the prosperity of future generations).

For measuring human capital, three out of four pillars of the Empowered People domain can be taken into account due to their particular significance for human development and well-being. These pillars are **Living Conditions**, **Health** and **Education**. Each indicator in the Legatum Prosperity Index is given a weight based on its level of importance in affecting prosperity, typically ranging from 0.5 to 2 based on its significance to prosperity, a country's economic and social well-being. Pillar scores are determined by using the percentages assigned at the previous step. The domain scores are assigned equal weight to each other, and the overall Prosperity Index score is the mean of the three domain scores. When computing scores for global regions, the size of their population is taken into account to compute a weighted average in order to assess the impact on individuals rather than nations. For instance, if two countries' scores change, the more populous one will have a more significant impact on the global and regional scores compared to the less populous one.

Global Competitiveness Index

Apart from the aforementioned indices measuring human capital, several international indices include human capital as one of the components. Among them is the Global Competitiveness Index (GCI)²⁵ which was presented in the reports published on an annual basis by the World Economic Forum between 2004 and 2020. The index intended to assess how different factors influence the countries' economic growth, whereas the global ranking estimates how well they perform compared to other economies. Although the methodology of the index has seen several changes over the years. The latest edition of GCI 4.0 (used for index calculation in 2018-2019) evaluates how well a country performs on 4 different components which are grouped by 12 pillars (excluding the overall score). It provides a progress score on a 0-to-100 scale for both overall results and individual components. The ideal score of 100 represents the "frontier," where productivity growth is no longer constrained. It is important for each country to strive towards achieving the frontier score on every component. By adopting this approach, it is ensured that competitiveness is not a zero-sum game, where the gain of one country implies the loss of another, but rather an achievable objective for all nations involved. Additionally, the GCI 4.0 enables countries to track their progress over time, thus determining their strong and weak sides. The GCI indicators are organized into 12 pillars: Institutions; Infrastructure; ICT adoption; Macroeconomic stability; Health; Skills; Product market; Labour market; Financial system; Market size; Business dynamism; and Innovation capability. To compute the GCI, scores are progressively aggregated from the most detailed level, which is the indicator level, to the highest level, the overall GCI score. At each level of aggregation, the arithmetic average of the component scores is calculated to obtain each aggregated measure, with a few exceptions. The average of the scores of the 12 pillars represents the overall GCI score. The GCI includes 2 pillars which are related to human capital: Pillar 5: Health; and Pillar 6: Skills, each of which is composed of different indicators.

Pillar 5: Health with the weight of 8.3% in the overall score includes only one indicator - Healthy life expectancy.

Pillar 6: Skills with the equivalent value of 8.3% in the overall score has a more complex structure. Category A: Current workforce of the pillar is broken down to two subcategories - Education of current workforce (consisting of a single indicator - Mean years of schooling) and Skills of current workforce (consisting of 6 indicators - Extent of staff training, Quality of vocational training, Skillset of graduates, Digital skills among active population, and Ease of finding skilled employees). Category B: Future workforce, likewise, has two subcategories, namely Education of future workforce (based on one indicator - School life expectancy) and Skills of future workforce (based on two indicators - Critical thinking in teaching, and Pupil-to-teacher ratio in primary education).

World Economic Forum. The Global Competitiveness Report 2019. URL: https://www3.weforum.org/docs/WEF The Global Competitiveness Report 2019. URL: https://www3.weforum.org/weforum.org/docs/WEF The Global Competitiveness Report 2019. URL: https://www3.weforum.org/docs/WEF The Global Competitiveness Report 2019. URL: https://www3.wefor

The summary of the factors considered in measuring human capital are presented below in the Matrix for indices mentioned above (see Figure 6).

Figure 6. Matrix of indices measuring human capital.

	HUMAN CAPITAL INDEX	HUMAN DEVELOPMENT INDEX	GLOBAL HUMAN CAPITAL INDEX	LEGATUM PROSPERITY INDEX	GLOBAL COMPETITIVENESS INDEX
EDUCATION FACTORS	Expected number of years of school Test scores in TIMSS	Life expectancy at birth index	Literacy and numeracy Education attainment rates Education enrolment rates Skill diversity of graduates Quality of education system Extent of staff training	Education enrolment rates and completion rates, quality rates, average quality of higher education institutions, education level of adult population, adult literacy Women's average years in school, education inequality, digital skills	Mean years of schooling Skillset of graduates School life expectancy Critical thinking in teaching rate Pupil-to-teacher ratio in primary education
HEALTH FACTORS	Adult survival rate Healthy growth among children under age 5	Mean number of years of schooling for individuals aged 25 and above Expected years of schooling for children	N/A	Behavioural Risk Factors Care Systems rates Physical Health rates Mental Health rates Preventative Interventions rates Longevity rates	Healthy life expectancy
LIVING	Under-5 mortality rate	Gross National Income per capita	N/A	Material resources rates Basic services rates Connectedness rates Nutrition rates Shelter rates Protection from harm rates	N/A
LABOR FACTORS	N/A	N/A	Labour force participation rate (Employment gender gap, Unemployment rate, Underemployment rate, Highand Medium-skilled employment share) Economic complexity Availability of skilled employees	N/A	Extent of staff training Quality of vocational training Digital skills among active population Ease of finding skilled employees

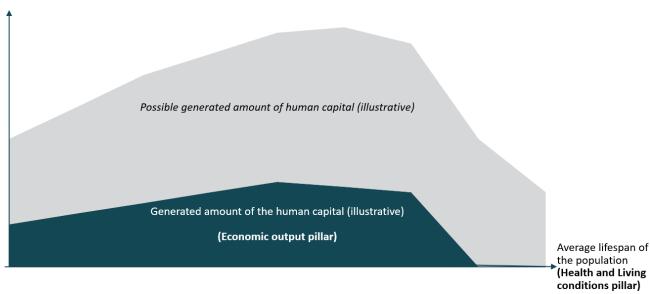
All factors concerning human capital were distributed into four generalized categories, namely Education factors, Health factors, Living conditions and labour factors. The matrix shows that Education factors are present in all indexes, while only GHCI and GCI do not include Health factors. At the same time, labour factors are taken into account in 2 indices - GHCI and GCI.

1.3 GENERAL FRAMEWORK OF HUMAN CAPITAL

Taking into consideration the proposed elements of the human capital, which are considered both among international organizations and to a short extent among Ukrainian legislature, the following **general framework** of understanding the human capital could be used for the further analysis (see Figure 7).

Figure 7. General framework of understanding the human capital

Qualifications and skills of the population (Education pillar)



The human capital of the country consists of the sum of the human capital of the entire population, that is, the added value that they generate during their lifetime. The general logic of this approach involves the following elements:

- **Education pillar.** This pillar is concerning the general amount of skills and qualifications which are available in the population, which could be used for economic activity. The rise in the level of education and skills directly impact the productivity of the population which, in turn, enhances the amount of generated value.
- **Health pillar**. Average lifespan of the population is affected by the health of the overall population. Poor health leads both to a decrease in life expectancy and to a decrease in a person's productivity. An increase in the average duration of productive life leads to an increase in the total amount of generated human capital.
- Living conditions pillar. This pillar combines various factors regarding social conditions in which a person is living and working. Social conditions (availability of sufficient nutrition, shelter, safety and access to the basic services) affect both the health of the population as well as their ability to improve their skills and/or qualifications. Improvement of the social conditions lead to the increase of the economic output both by mitigating risks for the Health and Education pillar as well as by providing opportunities for the inclusion of more people.
- **Economic output pillar.** This pillar is capturing the value added by the population affected by all the previous pillars, as well as comprise the additional factors which influence the development of the human capital within the country such as governmental policy in the field of economic development, attraction of FDI, etc.

Thus, to **develop human capital** in the country, it is crucial to prioritize investments in education, ensuring widespread access to quality education and promoting lifelong learning. Simultaneously, efforts should be directed towards improving healthcare systems, enhancing public health measures, and promoting healthy lifestyles. Additionally, attention should be given to improving living conditions, including adequate nutrition, housing, and basic services, while also fostering social inclusion and reducing inequality. Finally, policies that support economic growth, innovation, and attract investments play a significant role in developing human capital by creating favorable conditions for job creation, entrepreneurship, and overall economic development.

KEY TAKE-AWAYS

- Even though it is considered that the concept of 'human capital' originates back to the works of Adam Smith,
 the theoretical development of it did not start until the second half of the 20th century. During that period
 human capital was primarily considered as a factor to increase economic growth and the well-being of people
 while it mainly covered the aspects of education and skills of people as the key elements of human capital
 potential.
- To date, there is no universal definition of 'human capital'; however, several approaches have been developed, mainly due to the work of international organizations in this field, which resulted in evolution of broad and narrow definitions of 'human capital'. While most of such approaches, including those of the World Bank, OECD, WEF, UNECE and others include people's education, skills, and competences as integral parts of defining human capital, the inclusion of health, social conditions and other elements as human capital components is debatable and mentioned only as indirect impacts on human potential in the works of OECD and WEF. In contrast, the World Bank definition of human capital presents the most complex approach by including education, health, and social protection as three main components.
- Although the concept of human capital is widely used on the national level, in Ukraine there is no specific
 definition of human capital in the current legislation, be it the normative acts or strategic documents. As a
 result, different interpretations of the term are used by the central executive bodies which causes the confusion
 of the scope of policies that belong to the mentioned field.
- Another debatable issue in this area is the quantitative assessment of human capital. Given the ongoing
 discussion on the best way to qualitatively define human capital, several approaches have been developed with
 the goal to quantify human capital measurement. All the analyzed indices included education factors, while
 only some incorporated health, living conditions and labour as ways to measure human capital.
- The World Bank conducts an assessment using the Human Capital Index (HCI) which was launched by the organization in 2018 as part of the Human Capital Project. The index considers survival rate, quality and quantity of education, and health as the key components for estimating human capital in 174 economies.
- Similarly to the HCI, the Human Development Index (HDI), which is used by UNDP to assess countries' socioeconomic development, takes into account health and knowledge as two out of three major components for human capital evaluation. The key difference of the HDI is the third dimension, namely the GNI per capita which refers to the standard of living in a particular country.
- The Global Human Capital Index (GHCI), calculated by the WEF in 2015-2017, has 4 dimensions Capacity, Deployment, Development, and Know-how, which refer to different aspects of education and training and participation of different age groups in the workforce. The index excludes other components of human capital, such as health and social standards, and focuses on measuring the education, skills, and competencies of the population as well as the abilities of people to produce new knowledge and innovations.
- Two indices, namely the Legatum Prosperity Index and the Global Competitiveness Index (GCI), include human
 capital or its components as one of the measured indicators. The former refers to education, living conditions
 and health as three of the twelve pillars to assess a country's prosperity. In turn, the human capital component
 of the GCI is composed of two pillars skills and health, which contribute to a country's economic growth
 through influencing its global competitiveness.
- Considering the pillars of human capital development, investing in education, health and living conditions is
 essential for fostering the growth and prosperity of a country. Human capital development needs a holistic
 approach that recognizes the interplay between education, health, living conditions, and economic factors,
 highlighting the need for comprehensive strategies and policies to promote sustainable growth and well-being.



LEGAL FRAMEWORK OF HUMAN CAPITAL DEVELOPMENT IN UKRAINE

«In Ukraine, there is no specific document that defines or sets a framework for developing human capital. However, the concept of human capital is mentioned in several legislative acts and strategic documents which aim to improve social and economic stands in Ukraine and to increase the well -being of the population.»

2. LEGAL FRAMEWORK OF HUMAN CAPITAL DEVELOPMENT IN UKRAINE.

Given the important role that human capital plays in national development, Ukraine pays special attention to the development of human potential on the state level. In order to ensure the achievement of better indicators of human development, a number of strategic documents have been approved in this area. Most of them aim to increase the workforce productivity by improving the quality of life of people which, in turn, is meant to make Ukraine a more competitive economy on the European and global markets. Additionally, it is expected that concrete steps which are foreseen in the undermentioned documents would increase the well-being of the population in Ukraine, thus contributing to the rise of economic and social standards to the international level.

The agenda and road maps for implementing measures that are focused on improving human capital in Ukraine are presented in strategic documents which were approved by the Ukrainian Cabinet of Ministries generally on the national level and within specific policy areas. These documents, which are examined below, either aimed to direct efforts of governmental stakeholders to improve certain human capital indicators or focused on creating beneficial conditions for human development in the future.

Table 1 summarizes 9 strategic documents which were adopted in the sphere of human capital in Ukraine. The strategic tasks outlined in the documents aim to improve human capital in Ukraine mainly through investing in or developing such sectors as education and science, healthcare, and social services, whereas human potential is defined among the competitive advantages of Ukraine for strengthening its positions on the global market.

Table 1. Strategic documents in the field of human capital.

DOCUMENT	YEAR	TERM	KEY FOCUS
Sustainable Development Goals for Ukraine until 2030	2019	Until 2030	Aims to fight poverty, provide food security, create favourable conditions for maintaining a healthy lifestyle, and ensure that everyone has equal access to quality education
The Program of Activities of the Cabinet of Ministers of Ukraine	2020	2021	Defines short- and medium-term strategic tasks aiming to enhance the quality of life, mainly through developing such sectors as healthcare, social assistance, education, etc.
Government Priority Action Plan for 2023	2023	2023	Aims to continue investing in human capital development together with taking efforts to overcome new challenges, including security
Human Development Strategy	2021	Until 2025	Sets strategic goals and tasks in the spheres of healthcare and demographic policy, education and science, creative, cultural and physical development of people, standards of life, and gender equality
National Economic Strategy	2021	Until 2030	Section "Quality of life" defines key strategic priorities, indicators and tasks in the spheres of education, culture, environment, healthcare and social assistance
Strategy of Economic Security of Ukraine	2021	Until 2025	Identifies development of human capital potential as one of its goals
Concept of Digital	2021	Until 2025	Aims to support human capital development in Ukraine while

Competences Development			improving digital skills and competences of society and, therefore, enhance global competitiveness of Ukraine
Strategy of Development of Innovative Activity Sphere	2019	Until 2030	Points out the importance of improving the quality of education and education specialists capable of creating technological innovations
State Strategy of Regional Development	2020	2021-2027	Defines the aim of human capital improvement within the Strategic Goal 2 "Regions' Competitiveness Improvement", covering the sectors of education, healthcare, sports and youth

SUSTAINABLE DEVELOPMENT GOALS FOR UKRAINE UNTIL 2030 | First of all, the Sustainable Development Goals for Ukraine until 2030²⁶ were adopted in 2019 in line with the UN SDGs which aim to fight poverty, provide food security, create favourable conditions for maintaining a healthy lifestyle, and ensure that everyone has equal access to quality education. In order to implement these goals, the Ukrainian Government has to conduct regular monitoring of the SDGs progress and to report on an annual basis about the achieved progress.

PROGRAM OF ACTIVITIES OF THE CABINET OF MINISTERS OF UKRAINE | The Program of Activities of the Cabinet of Ministers of Ukraine²⁷ is a long-term strategic document which was developed taking into account the proposals of the committees of the Verkhovna Rada and program documents, including the programs of the political parties and the President of Ukraine. The latest Program was approved in June 2020 and is meant to coordinate the activities of the Ukrainian Government led by Prime Minister Denys Shmyhal during the presidency of Volodymyr Zelenskyy.

The specific structure of the document has all the long-term goals and tasks assigned to responsible Ministries, while short-term ones are devoted to combatting the Covid-19 outcomes. Even though the Program focuses on such strategic priorities as security and European integration of Ukraine, the document presents short- and long-term strategic tasks aiming to enhance the quality of life, mainly through developing such sectors as healthcare, social assistance, education, etc. Among such tasks which are closely related to human capital are the following:

- supporting the informatization of society, including expanding opportunities for technology and Internet access, and developing digital competences of the citizen (Ministry of Digital Transformation);
- supporting citizen who suffered from the conflict, mostly through social support mechanisms (Ministry of Reintegration of the Temporarily Occupied Territories);
- developing labour market, including the decrease of unemployment rates and income increase, and guaranteeing food security (Ministry of Economy);
- improving living conditions, primarily through increasing the number of available housing (Ministry of Infrastructure);
- improving social standards and quality services, including expanding the scope of social services provided, and supporting for vulnerable groups, families and children (Ministry of Social Policy);
- conducting reform in healthcare sector, including improving the quality of healthcare services, and ensuring access to quality medications for all (Ministry of Health);

Decree of the President of Ukraine On the Sustainable Development Goals of Ukraine for the period until 2030 of September 30, 2019 No. 722/2019. URL: https://zakon.rada.gov.ua/laws/show/722/2019#Text.

Regulation of the Cabinet of Ministers of Ukraine On approval of the Program of Activities of the Cabinet of Ministers of Ukraine of June 12, 2020 No. 471. URL: https://zakon.rada.gov.ua/laws/show/471-2020-%D0%BF.

- ensuring equal access to education, expanding access to educational services on all levels, and investing in science and innovation (Ministry of Education and Science);
- providing sports services and encouraging healthy lifestyle through sufficient opportunities for active leisure (Ministry of Youth and Sports);
- providing quality cultural services and investing in the development of arts, creative industries, and tourism (Ministry of Culture and Information Policy).

Despite the fact that human capital as a term is not widely mentioned in the Program, the aforementioned tasks are directly related to human development and enhancing the quality of life of the population in Ukraine. For this reason, the document can be considered among the ones concentrating on human capital growth and laying the framework for developing other strategic visions in this sector.

GOVERNMENT PRIORITY ACTION PLAN FOR 2023 | In line with this, the annual government plans are developed to implement short-term tasks on the way to achieving strategic goals. The Government Priority Action Plan for 2023²⁸ was developed based on the new challenges and national priorities which appeared after the full-scale Russian invasion on February 24, 2022. The Plan contains more than 500 objectives which are the framework for developing draft laws, resolutions, programs, and projects with the aim of implementing positive transformations for both citizens and businesses. The objectives are categorized by 14 key areas, 5 of which are related to human capital development:

- Veteran policy, focusing on reintegration of veterans into the society and providing necessary services, including psychosocial support.
- Safe, accessible, and quality education, which prioritizes educational process security, New Ukrainian School reform implementation, and development of interdisciplinary programs.
- Support for citizens in difficult circumstances, which includes improving the quality of social services, supporting employment, and creating barrier-free environment.
- Science and innovation for development, concentrating on grant support of scientific research and creation of accelerator programs on the base of higher educational institutions.
- Healthy nation, aiming to provide citizens with equal access to quality medical services.

As can be seen, the Government Priority Action Plan for 2023 aims to continue investing in human capital development together with taking efforts to overcome new challenges, mostly related to security issues, which have arisen in the past year.

HUMAN CAPITAL DEVELOPMENT REFORM | Additionally, the Ukrainian government intends to conduct Human Capital Development reform²⁹ in order to establish fundamental conditions that enable people to live comfortably and safely while providing them with opportunities to achieve their full potential. This is crucial for developing human capital, which serves as the solid base for bolstering Ukraine's competitive position globally and promoting economic growth.

The government has identified various tasks that must be accomplished to achieve a robust and prosperous society in Ukraine. These include safeguarding human health and life, elevating education standards, providing adequate financial support to academia, and ensuring equitable pensions and social security measures. The government's performance in this domain is gauged by several key indicators, including an improved human development index, reduced poverty and

Order of the Cabinet of Ministers of Ukraine On the approval of the plan of priority actions of the Government for 2023 of March 14, 2023 No. 221. URL: https://zakon.rada.gov.ua/laws/show/en/221-2023-%D1/880?lang=uk#Text.

Government Portal. Government approves 2023 Priority Action Plan. March 14, 2023. URL: https://www.kmu.gov.ua/en/news/uriad-zatverdyv-plan-priorytetnykh-dii-na-2023-rik.

²⁹ Government Portal. Human Capital Development. URL: https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu.

mortality rates. The three pillars of the reform are: Education and Science Reform³⁰, Healthcare Reform³¹, and Decent Pensions³².

HUMAN DEVELOPMENT STRATEGY UNTIL 2025 | The Human Development Strategy until 2025³³, which was approved in 2021, analyzes the current state of human development in Ukraine and sets strategic goals and tasks in the spheres of healthcare and demographic policy, education and science, creative, cultural, and physical development of people, standards of life, and gender equality. As stated in the Strategy, "Ukraine has a competitive advantage in the form of a powerful education system, which is the driver of the country's economic and social development". Despite the high quality of education, the major problem of the sector is the slow transformation which results in the non-compliance of skills received by students through formal studies with current market requirements. Additionally, the Covid-19 pandemic has had a negative impact on human development in Ukraine, aggravating the problem of poor access to technical resources in rural areas and by vulnerable groups which affected the human capital potential. With this in mind, the Human Development Strategy aimed to "create conditions for the comprehensive development of an individual during his/her lifetime, expand opportunities for realizing the potential and freedom of the individual", thus "forming a cohesive community of citizens capable of active creative participation in the harmonious, balanced and sustainable development of the state". In order to achieve this, the Strategy outlined 5 strategic goals:

- Improvement of the medical and demographic situation in Ukraine.
- Building an educated, virtuous, inclusive, and innovative society in which every citizen has equal opportunities for learning and development, and science is a component of economic growth.
- Formation of a comprehensively developed person, a patriot of Ukraine, promotion of spiritual development and creation of opportunities for creative self-expression and self-realization in the cultural and sports fields.
- Raising the standard of living, increasing employment, and providing social support for the population.
- Ensuring equal rights and opportunities for women and men in all spheres of social life and implementing the best European standards of gender equality.

Achieving these goals is expected to give an impetus to human capital development in Ukraine by improving such basic indicators as life expectancy, access to high-quality education and sports services, a decent standard of living, optimization of the link between economic growth and human development, etc. Consequently, the common goal of all tasks is to increase the workforce productivity in Ukraine and to create a solid base for successful human capital development in the future generations.

NATIONAL ECONOMIC STRATEGY UNTIL 2030 | The National Economic Strategy (NES) until 2030³⁴ focuses on accelerating the economic growth of Ukraine and develops a new economic vision of the country. Yet, NES considers human development as an integral part of economic prosperity while the well-being of people is among the factors which would support Ukraine's efforts to become a reliable partner for other countries globally.

Section "Quality of life" of NES defines key strategic priorities, indicators, and tasks in the spheres of education, culture, environment, healthcare and social assistance, all of which are responsible for providing favourable conditions for personal development and healthy lifestyle. According to NES, the main problem of the sphere is the remaining Soviet model of financial resources distribution. Hence, the new economic vision aims to change the ineffective mechanism of

³⁰ Government Portal. Education and Science Reform. URL: https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu/reforma-osviti.

³¹ Government Portal. Healthcare Reform. URL: https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu/reforma-sistemi-ohoroni-zdorovya.

³² Government Portal. Decent Pensions. URL: https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu/pensijna-reforma.

Human Development Strategy approved by Decree of the President of Ukraine of June 2, 2021 No. 225/2021. URL: https://zakon.rada.gov.ua/laws/show/225/2021#n11.

³⁴ National Economic Strategy. Vectors of Economic Development 2030. URL: https://nes2030.org.ua/docs/doc-vector.pdf.

investing in human development and to encourage the development of sectors which will subsequently influence the economy in a positive way. In this aspect, the attention is especially drawn to improving the quality of life of the population, providing opportunities for quality education, self-development, and training in order to support the productive work of enterprises in general, and guaranteeing social stability to increase the income of households.

In order to achieve comprehensive improvement in the quality of life in Ukraine, the government aims to achieve the following goals through balanced model of budget expenditures and foreign investment attraction:

- Create an inclusive and innovative society of educated people in which every citizen has equal opportunities for development of his/her talents throughout their lifetime.
- Create a favourable ecosystem for realizing cultural potential, generating and consuming cultural products.
- Provide a safe environment for every citizen.
- Ensure a high level of health, high indicators of life expectancy and healthy life expectancy.
- Ensure equal rights and opportunities for everyone, inclusive and barrier-free environment, high level of social protection of the population for a decent life.

In order to achieve these goals, NES developed strategic tasks and priority steps which have to be implemented within realizing the new economic vision of Ukraine in the upcoming decade. Along with this, raising the quality of life is perceived as an important factor of economic prosperity and productivity of the workforce.

STRATEGY OF ECONOMIC SECURITY OF UKRAINE UNTIL 2025 | The Strategy of Economic Security of Ukraine until 2025³⁵ was adopted in 2021 and determines ways to achieve goals and implement priorities of national interests in the sphere of ensuring economic security.

The strategic document presents an analysis of the current state of economic security of Ukraine in such spheres as financial security, production security, foreign economic security, investment and innovation security, and macroeconomic security. The production security section points out, among other things, that the Ukrainian economy has suffered losses because of the human capital deterioration due to the Russian invasion in 2014 and occupation of some of the Ukrainian territories. Therefore, it has led to the diminished capacity of the national economy to produce goods and provide quality services to the people.

With this in mind, the Strategy identifies the development of human capital potential as one of its priority goals which goes in line with the national economic interests of Ukraine. In this context, the Strategy also aims to support the achievement of the Sustainable Development Goals of Ukraine until 2030, as well as the improvement of the standard of living and socio-political stability at the level of economically developed countries.

Additionally, a number of tasks of the Strategy are related to the human capital development in Ukraine. For instance, some of the tasks in the macroeconomic security sector are as follows:

- creation of new jobs with the maximum level of intellectual involvement;
- creation of conditions for raising the standards of decent work as a basis for legalizing labour relations and wages by overcoming the contradiction between a high level of human capital development and an insufficient level of social capital development (distrust, dominance of material values);
- ensuring coverage of the population with medical services in the necessary volume, in particular, households
 whose total income is below the subsistence minimum per person, increasing the general availability of medical
 services and products;
- carrying out activities aimed at the return and reintegration of labour migrants.

³⁵ Strategy of Economic Security of Ukraine approved by Decree of the President of Ukraine of August 11, 2021 No. 347/2021. URL: https://zakon.rada.gov.ua/laws/show/347/2021#n11.

As can be seen from these goals, the Strategy mostly considers human capital from the prospects of increasing the productivity of the workforce and maximizing the benefits for the national economy. So, this approach concentrates on the economic outcomes of human capital and the ways to strengthen the economic system through improving human capital.

CONCEPT OF DIGITAL COMPETENCES DEVELOPMENT UNTIL 2025 | The Concept of Digital Competences Development and the plan of activities for its realization were adopted in 2021 and cover the period up to 2025³⁶. Document aims, among other tasks, to support human capital development in Ukraine while improving digital skills and competences of society and, therefore, enhance the regional and global competitiveness of Ukraine.

According to the Concept, one of its tasks is "the formation and development of digital skills and digital competences in society, which will contribute to the development of the digital economy and society, as well as the development of electronic democracy and human capital". The improvement of such competences is going to involve the development of related standards in the sectors of education and professional development of workers in various sectors. This will, in turn, support the development of human capital in Ukraine and contribute to the competitiveness of the national economy. It is expected that the realization of the tasks of the Concept will result in the following outcomes:

- accelerate the processes of digital transformation in Ukraine;
- significantly increase the level of digital skills and digital competences in society, as well as the level of state competitiveness and the quality of human capital;
- increase the competitiveness of employees by acquiring new digital skills and digital competences;
- create indicators for monitoring the state of development of digital skills and digital competences.

In general, the Concept treats human capital as a key component of the global competitiveness of Ukraine, while digital competences development is seen as an important contribution to human potential growth and improvement of the workforce quality while pursuing the transformation of the digital economy.

STRATEGY OF DEVELOPMENT OF INNOVATIVE ACTIVITY SPHERE UNTIL 2030 | The Strategy of Development of Innovative Activity Sphere, which was adopted in 2019, covers the period until 2030³⁷. The Strategy indicates that "the main advantages of Ukraine are its favorable geographical location, large market, deep and comprehensive free trade area between Ukraine and the EU, and relatively high level of human potential". Also, the Strategy states that, according to the Global Innovation Index, human capital, including the knowledge and skills of people, together with an extensive knowledge base and results of scientific research are the basis of the innovative competitiveness of Ukraine which allows it to create value in the world economic system.

The goal of the Strategy is to "simultaneously support the development of innovative activities in all spheres of the economy, which ... is aimed at the development of both technological and social innovations in various spheres, the creation of high technologies and their implementation". The Strategy singles out a variety of problems in the innovation processes throughout different sectors of the economy and outlines the ways to solve these issues. For example, the document points out at the importance of "improving the quality of education by bringing it closer to the needs of the global market and the needs of specialists capable of creating, adapting and using technological innovations", which is directly related to human capital development and investing in educating specialists which would lead the development of innovative sectors in Ukraine.

³⁶ Concept of Digital Competences Development approved by the Order of the Cabinet of Ministers of Ukraine of March 3, 2021 No. 167. URL: https://zakon.rada.gov.ua/laws/show/167-2021-%D1%80.

³⁷ Strategy of Development of Innovative Activity Sphere approved by the Order of the Cabinet of Ministers of Ukraine of July 10, 2019 No. 526-p. URL: https://zakon.rada.gov.ua/laws/show/526-2019-%D1%80#n12.

STATE STRATEGY OF REGIONAL DEVELOPMENT FOR 2021-2027 | The importance of human capital is discussed not only as a factor of national growth and prosperity but also outlined on the regional level as part of the balanced development of all regions in Ukraine. The State Strategy of Regional Development for 2021-2027³⁸, which was adopted in 2020, determines the general vector of sustainable development of the regions and was developed in accordance with the Sustainable Development Goals of Ukraine until 2030. The Strategy notes that Ukraine as a country and all of its regions have a number of competitive advantages, among which human capital is one of the strongest due to the demographic size, the number of scientists and people who have completed tertiary education, the functioning research institutes and innovation development centers.

The document has comparative analysis of the current state of human capital in the regions of Ukraine and defines the causes of deterioration of human capital potential, among which the demographic crisis, disbalanced labour market and low adaptability of workers to the needs of retraining. While there is a visible gap between Ukraine and developed countries when it concerns human development, the Strategy also points out the regional differences in terms of the standards of life and human capital potential.

The Strategy defines the aim of human capital improvement within the Operation Goal 1 "Human Capital Development" of the Strategic Goal 2 "Regions' Competitiveness Improvement". The tasks for achieving the goal are structured by directions as follows:

- Improvement of the quality and competitiveness of higher, professional pre-higher and professional (vocational and technical) education.
- Development of general secondary education.
- Development of pre-school and out-of-school education.
- Provision of education for persons with special educational needs.
- Formation of an accessible and capable network of institutions for the provision of quality medical services.
- Modernization and development of the emergency medical care system.
- Formation of a healthy nation and creation of appropriate conditions for the development of the system of physical culture and sports institutions, including for persons with disabilities.
- Formation of a capable and comprehensively developed young generation.
- Creating an inclusive environment.

The tasks (by sphere) cover such priorities as: in education - providing equal opportunities for education for all people, expanding access to technology for educational purposes, improving the system of the education quality monitoring, implementation of information technologies and innovations in the educational process, and encouraging digitalization in the sector of education and development of digital skills of students and teachers; in healthcare - development of healthcare institutions network, ensuring population's access to medical services on all levels, providing quality and inclusive services, and implementing technical solutions in healthcare institutions; in sports - modernizing and providing accessible infrastructure for physical activities, popularizing active and healthy lifestyle; in youth policy - creating favourable environment for self-development, education, training, development of skills and competences by young people.

STRATEGY OF THE IMPLEMENTATION OF THE BALANCED DEVELOPMENT MODEL IN UKRAINE 2030 | Furthermore, an expert and academic society representatives had initiated the development of the Strategy of the Implementation of the Balanced Development Model in Ukraine 2030³⁹. The idea of such a strategic document was outlined in the Doctrine of

³⁸ State Strategy of Regional Development for 2021-2027 approved by the Order of the Cabinet of Ministers of Ukraine of August 5, 2020 No. 695. URL: https://zakon.rada.gov.ua/laws/show/695-2020-%D0%BF.

³⁹ Strategy of the Implementation of the Balanced Development Model in Ukraine 2030 (draft law). URL: https://ips.ligazakon.net/document/JH6YF1AA?an=327.

Balanced Development "Ukraine 2030"⁴⁰ which was prepared by the representatives of the key educational and scientific institutions in Ukraine and published in 2017. The Doctrine outlines the strategic and tactical objectives for Ukraine's economic advancement, utilizing a human-centered approach that considers global development trends and aims to establish a socially oriented model of economic growth that prioritizes the creative potential of its citizens. Among the Strategy's goals is to improve the quality of life in Ukraine in such sectors as education, healthcare, social assistance, active lifestyle, etc. However, the Strategy has not been approved but remains an example of the academic vision of socioeconomic development in Ukraine.

KEY TAKE-AWAYS

- In Ukraine, there is no specific document that defines or sets a framework for developing human capital. However, the concept of human capital is mentioned in several legislative acts and strategic documents which aim to improve social and economic stands in Ukraine and to increase the well-being of the population.
- The importance of human development is underlined in Sustainable Development Goals for Ukraine until 2030 which were adopted in line with the United Nations SDGs. Similarly, the key government documents the Program of Activities of the Cabinet of Ministers of Ukraine and the Government Priority Action Plan for 2023 outline short and medium-term goals in the spheres of social protection, education, healthcare, employment policy, ensuring equal opportunities for vulnerable groups, improving living conditions and others. Even though the mentioned programs do not define these spheres as components of human capital, their goal is to invest in human potential and the welfare of people.
- The Human Development Strategy until can be considered as the key document related to human capital in Ukraine due to its goal to give an impetus to human capital development by improving life expectancy, access to high-quality education and sports services, a decent standard of living, optimization of the link between economic growth and human development, and subsequently, increase the workforce productivity.
- Several strategic documents look at human capital through the prism of specific sectors. For example, the National Economic Strategy and the Strategy of Economic Security of Ukraine consider human potential among the main factors of economic growth and prosperity, while the Concept of Digital Competences Development and the Strategy of Development of Innovative Activity Sphere approach human capital development as an integral part of Ukraine's competitiveness and innovative growth. Also, the State Strategy of Regional Development for 2021-2027 focuses on human capital development on a regional level, complementing the national effort in this area.

⁴⁰ Ukraine 2030: Doctrine of Balanced Development. URL: http://econom.chnu.edu.ua/wp-content/uploads/2018/03/E-Book-Doctrine-2030.pdf.



STAKEHOLDERS MAPPING

"The institutional framework in the field of human capital in Ukraine has a multilevel structure. The key stakeholders responsible for policy formulation, implementation and evaluation are central executive bodies, namely the Ministries and state agencies, whose work is related to human capital within four key pillars of human capital - education, health, living conditions, and economic output, with the latter representing the economic outcomes of human potential created by three preceding pillars."

3. STAKEHOLDERS MAPPING.

The implementation of policies in the sphere of human capital development in Ukraine is ensured by the functioning of the broad network of stakeholders which, within the scope of their functions and responsibilities, conduct activities aimed at improving quality of life and enhancing human productivity. The aforementioned stakeholders can be divided into two groups - government (including Ministries and other executive bodies responsible for human capital development in Ukraine) and non-government (consisting mostly of civil society and business representatives). As can be concluded from the various approaches defining human capital which were discussed in Chapter 1, the institutional framework in the field of human capital development policy is based on three main pillars - education and skills, health, and living conditions, the combination of which affects the productivity of the workforce resulting in specific economic outcomes. Therefore, the optimal stakeholders' network, both government and non-government, can be considered within the aforementioned areas.

GOVERNMENTAL APPROACH | The development of human capital is one of the directions of reforms for the current composition of the Cabinet of Ministers of Ukraine⁴¹ (see Figure 8). However, despite the inclusion of areas related to education, health care and social policy, the definition of activities in this area is quite limited. For example, the social policy covered by this approach includes only pension reform. Moreover, institutions that were created in connection with the war are not considered within the framework of this approach, in particular, the Ministry of Temporarily Occupied Territories and the Ministry for Veterans Affairs.

Figure 8. Governmental approach



DEFINED APPROACH In Ukraine the institutional framework for human capital development has a complex multilevel structure. The general management and coordination of the institutional framework is administered by the Prime Minister of Ukraine, the head of the government of Ukraine who presides over the Cabinet of Ministers of Ukraine as the highest body of the executive branch of power in the country. The next level encompasses the Deputy Prime Ministers of Ukraine as the Members of the Cabinet of Ministers of Ukraine who have wider responsibilities than the other members of the Cabinet in terms of designing the direction of state policy in the assigned sectors. In connection with the field of human capital the activities of the two Deputy Prime Ministers have significant importance, namely the First Deputy Prime Minister of Ukraine - Minister of Economy of Ukraine Yuliia Svyrydenko and the Deputy Prime Minister for Innovation, Education, Science and Technology Development - Minister of Digital Transformation of Ukraine Mykhailo Fedorov. The special attention should be given to the responsibility domain of Mykhailo Fedorov due to the connection of his functions with the education pillar of human capital.

⁴¹ Government Portal. Human Capital Development. URL: https://www.kmu.gov.ua/en/reformi/rozvitok-lyudskogo-kapitalu.

The functions of the distinct executive bodies within the institutional framework of human capital are considered in relation to respective pillars of human capital, that is education, health, living conditions and economic outcomes/labour. Within the scope of each pillar, the top level consists of the key executive bodies predominantly responsible for policy formulation and decision making according to the main pillar of human capital, namely the Ministry of Education and Science in the field of education, the Ministry of Health in the field of health, the Ministry of Social Policy in the field of social support and provision of suitable living conditions, while the Ministry of Economy is in charge of the labour market regulation, and workforce productivity and economic outcomes assessment. On the lower level of the institutional structure, the tasks of the central government bodies are complemented by the work of related central executive bodies, such as the Ministry of Youth and Sports and the Ministry of Culture and Information Policy in the education domain, the Ministry for Communities, Territories and Infrastructure Development in the living conditions domain, etc., and specialized institutions, i.e. the State Service of Education Quality, the National Health Service of Ukraine, the National Social Service of Ukraine and others.

EUROPEAN AND EURO-ATLANTIC INTEGRATION IMPACT | The institutional framework analysis leads to a conclusion that the main pillars - education, health, living conditions, and labour productivity - are complemented by other vectores of policy formulation and implementation. In the case of Ukraine, human capital development is realized, among others, through the prism of international cooperation and the European integration policy. The principles of such cooperation are outlined in a number of agreements with the EU, primarily the Association Agreement between the European Union and Ukraine. The latter forms a solid base of policy pieces which should be adopted by Ukraine, including the spheres within the scope of human capital. For instance, Article 159 "Transfer of technology" mentions the particular attention that the Parties agree to pay "to the conditions necessary to create an adequate enabling environment for technology transfer in the host countries, including issues such as the relevant legal framework and *development of human capital*" Additionally, as a country granted a candidate status for accession to the European Union by the European Council on June 23, 2022, Ukraine has the obligation to implement a set of measures in order to adopt the pieces of *acquis communautaire* and to adjust the national legislation to the norms of the European Union.

On February 1, 2023, the European Commission released the Analytical report on Ukraine's alignment with the EU *acquis*⁴³ which evaluated the level of approximation of the EU acquis on the basis of the country's replies to the questionnaires. The report assesses where the country stands with regard to its alignment with the EU *acquis*, the EU's body of common rights and obligations by spheres which are then combined into clusters. Regarding the human capital, two clusters are of interest for the purpose of this analysis: Cluster 2 - Internal Market and Cluster 3 - Competitiveness and Inclusive Growth. Within Cluster 2, the following chapters are important for the analysis of human capital: Chapter 2: Freedom of movement for workers has the rating 1 since Ukraine has no legislation aligned with the EU *acquis* in this area; Chapter 28: Consumer and health protection is rated 2 due to moderate progress, namely the alignment of the 2022 law on public health with the EU *acquis*. As for Cluster 3, the following are the ratings: Chapter 19: Social policy and employment - 1, due to the limited approximation of the EU legislation in health and safety at work; Chapter 25: Science and research - 3, because of insufficient capacity of R&I activities and technologies; Chapter 26: Education and culture - 2, due to moderate level of alignment with the EU legislation. Thus, the sectors related to human capital have been assessed rather low as a consequence of slow progress on the way to integrate the EU *acquis* into the Ukrainian legislation, which points out the

⁴² Association Agreement between the European Union and its Member States, of the one part, and Ukraine, of the other part. URL: http://publications.europa.eu/resource/cellar/4589a50c-e6e3-11e3-8cd4-01aa75ed71a1.0006.03/DOC_1.

European Commissions. Analytical Report following the Communication from the Commission to the European Parliament, the European Council and the Council Commission Opinion on Ukraine's application for membership of the European Union. Brussels, 1 February 2023. URL: https://neighbourhood-enlargement.ec.europa.eu/system/files/2023-02/SWD 2023 30 Ukraine.pdf.

need to address the mentioned issues in further work of developing policies in the fields of European integration and human capital.

The European integration policies are interconnected with the institutional framework of human capital development. First, the role of the Deputy Prime Minister for European and Euro-Atlantic Integration of Ukraine is to ensure compliance of the policy-making and implementation of measures with the principles of European integration and the EU legislation. Second, the related departments have been established within all the Ministries to ensure coordination of policies with the legislation of the European Union. For example, such structures include the Directorate of European Integration, Budgeting and Policy Coordination in the Ministry of Education and Science, the Department for International Activities and European Integration in the Ministry of Health, the Directorate of Strategic Planning, Policy Coordination and European Integration in the Ministry of Social Policy, the Department of Economic Cooperation with the European Union and the Countries of the World in the Ministry of Economy, etc., all of which ensure the development of cooperation with the EU institutions and compliance with European legislation in the field of human capital.

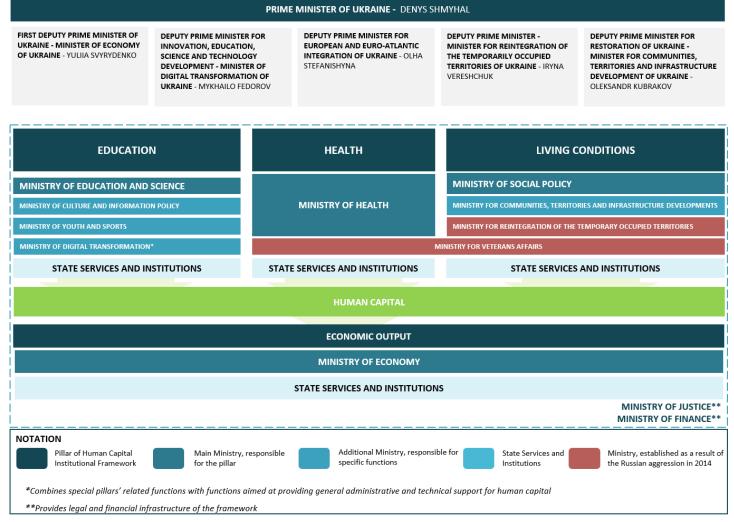
WAR IMPACT | Taking into account the ongoing war with the Russian Federation since 2014 and temporary occupation of Ukrainian territories, primarily the Crimean peninsula and part of the Donbas region, a number of issues emerged in the field of human capital. Such issues cover but are not limited to the damages of educational, healthcare, and social infrastructure, temporary occupation of Ukrainian territories, internal and external displacement of people, mass deportations of people to the territory of Russian Federation, including based on the base of nationality, casualties of military servants and civilians, etc. As a result, significant negative impact was created to the human capital in Ukraine, including the physical losses of the workforce and the potential to invest in human capital.

Thus, the institutional structure of governmental bodies in Ukraine changed to include specific Ministries addressing the war-related challenges. Mainly, these bodies involve the Ministry for Veteran Affairs, responsible for providing social and other forms of assistance to the veterans and their families, and the Ministry for Reintegration of the Temporary Occupied Territories, which oversees organizing activities to support the socio-economic reintegration of temporary occupied territories. Considering that the tasks of the mentioned Ministries cover the needs of certain vulnerable groups of population in the spheres of education, healthcare, social support, employment and others, their functions are crosscutting in terms of the institutional framework as divided by certain pillars. This means that these executive bodies address human capital development as a whole but regarding a particular group of people which requires established relations with responsible institutions in each sphere.

Along with that, the cross-cutting functions are also exercised by a number of other institutions with the tasks related to broader areas aimed to support human capital development rather than belonging to one of the specific pillars. For instance, the Ministry of Digital Transformation supports the improvement of electronic services and digital competences which has a positive impact on providing human capital related services in the fields of education, healthcare, social support, etc., while also contributing to human potential through teaching new competences to the population. Similarly, the Ministry of Justice and the Ministry of Finance ensure the general functioning of the institutional framework of human capital of Ukraine through providing legal expertise and budget management services. Therefore, the functions of the mentioned institutions are considered beyond the key pillars of human capital.

Moreover, the human capital development policies are designed and implemented in close cooperation with non-government institutions, including non-governmental organizations (NGOs), private sector organizations (businesses), foundations, professional associations, academic institutions, and community organizations. Such coordination is ensured through formal and informal mechanisms of consultation and coordination which will be discussed in detail in Chapter 4. These stakeholders can be engaged in human capital policy development either regarding a specified area such as the aforementioned pillars, or to develop a general vision of policy development in the sector.

The chart on Figure 9 presents the structure of the institutional framework in the human capital sector in Ukraine. Figure 9. Institutional framework in the field of human capital.



Despite the fact that the current institutional framework in the field of human capital generally meets the needs of providing the effectiveness of work and cooperation between government and non-government stakeholders, improvement and modernization are required to ensure the optimization of such a framework. For instance, the representative of the Ministry of Education and Science the structure of the Ministry is unbalanced as the share of the administrative and the policy-making departments is almost equal which does not meet the needs of functions distributions. The representatives of both the Ministry of Culture and Information Policy and the Ministry of Justice commented on the absence of the central body responsible for the formulation, implementation and evaluation of policies which would coordinate the activities of other key executive bodies in the field of human capital.

Furthermore, some structural problems in the human capital sector decrease the ability of institutions to participate effectively in policy formulation and implementation processes. In particular, the Ministry of Health official indicated that there is no medium and long-term planning of human capital policy, while the Ministry of Youth and Sports representative pointed out the demand to study the international experience and to form a policy with the expert support of relevant specialists. Also, the representative of the Ministry for Reintegration of the Temporary Occupied Territories mentioned that it seems appropriate to review the approach to task distribution between the central executive bodies according to

workload and competence, as well as to consider the possibility of introducing specialized training (courses, seminars, round tables, etc.) in the field of human capital for personnel which would take into account the challenges that have appeared and will appear before Ukraine in the future. In addition, it is advisable to develop a comprehensive methodology for assessing the development of human capital, which would also consider the current situation in Ukraine. The following chapter has a detailed analysis of the key government and non-government stakeholders and their functions as related to the human capital sector in Ukraine. The tasks and functions of the stakeholders are analyzed as regards the policy cycle which is divided into four main stages: (1) Agenda setting, (2) Policy Formulation and Decision Making, (3) Implementation, and (4) Evaluation. The introduced approach allows to conduct detailed analysis of the stakeholders' roles in human capital development and policy-making process, as well as create a solid base for further research related to cooperation and coordination mechanisms in this area.

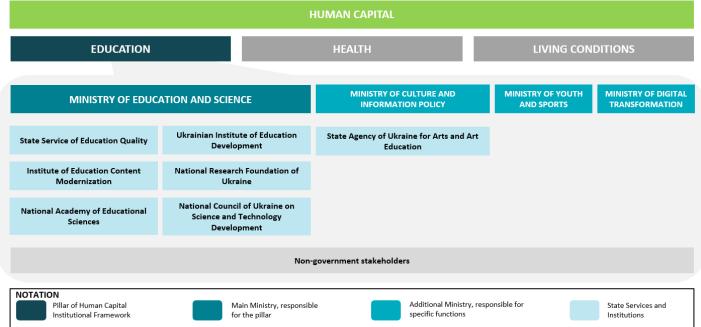
3.1. GOVERNMENT STAKEHOLDERS.

The policy-making and its implementation to promote education of human capital in Ukraine are guaranteed by the activities of various government stakeholders. The aforementioned system of institutional framework in a sphere of human capital development allows to describe responsible government stakeholders in a form of clusters consisting of state bodies and institutions conducting policy within education, health, living conditions pillars and the resulting economic output which is assessed by labour productivity. Additionally, several stakeholders perform activities to ensure the general functioning of the human capital system in Ukraine, namely in the spheres of administrative, legal and budget management.

Education pillar

INTRODUCTION | The central role within the education pillar is played by the Ministry of Education and Science (see Figure 10), the vast majority of functions of which are aimed at human capital development through investing in people's education on all levels, promoting scientific research and technological growth. The Ministry of Education and Science cooperates closely with other executive bodies, the functions of which can be considered as those belonging to the educational domain of human capital. Such bodies include the Ministry of Culture and Information Policy, the Ministry of Youth and Sports, and the Ministry of Digital Transformation; however, their activities have a complex nature and stretch beyond the education pillar of human capital, which will be discussed later in this section. Finally, a number of state institutions which realize a variety of tasks regarding the sphere of education in Ukraine are considered within this pillar, namely the State Service of Education Quality, the State Agency of Ukraine for Arts and Art Education, the Institute of Education Content Modernization, the National Academy of Educational Sciences, the Ukrainian Institute of Education Development, the National Research Foundation of Ukraine, and the National Council of Ukraine on Science and Technology Development. The indicated executive bodies undertake the function of implementation of state policies in the field of education and science within the human capital domain. The following is an analysis of the designated functions of the preceding executive bodies within the field of education in human capital.

Figure 10. Education pillar structure.



IMPACT OF WAR | Russia's full-scale invasion of Ukraine, which began on February 24, 2022, has had drastic consequences for education in Ukraine. First, hundreds of educational institutions were destroyed or damaged, not mentioning the ones which are situated on the temporarily occupied territories, as a result of which educational institutions were forced to relocate to other cities, switch completely to online classes, or even stop the educational processes for an undefined period of time. Second, the educational community suffered human losses, including pedagogical and administrative staff, students, parents who died during hostilities, Russian occupation, or at the front-line. Also, millions of children and thousands of Ukrainian teachers were forced to change their place of permanent residence either as IDPs or seeking refuge abroad; many of them have not returned to Ukraine to this date. Third, as a result of Russian aggression, including the massive missile attacks on Ukrainian cities, all participants of the educational process face new challenges of war, such as forced interruptions due to air alerts, transition to an online or mixed forms of education, power outages, etc., not to mention the permanent security risk which is especially high in the border region and adjacent territories. Finally, the full-scale war has had a negative effect on access to education, especially concerning vulnerable groups of the population, and deepened existing educational inequalities. It has also impacted the quality of the educational process and the psychoemotional state of students, parents, and teachers, which resulted in the higher need for psychological support.

MINISTRY OF EDUCATION AND SCIENCE PROFILE

The Ministry of Education and Science ensures the formation and implementation of state policy in the areas of education and science, research and technical activities, innovation activities in these areas, and ensures the formation and implementation of state policy in the area of supervision over the activities of institutions which expand skills and knowledge of human capital. According to the representative of the Ministry of Education and Science, a single definition of human capital is not established within the course of work of the Ministry. For that reason different approaches to defining human capital are partly used, namely the methodology of identification of human capital created by the World Bank and the Organisation for Economic Cooperation and Development (OECD), as well as definitions prescribed by lower-level legislative orders, such as the Order of the Ministry of Industrial Policy of Ukraine No. 14 of May 31, 2008 on the Assessment of Intellectual Capital of State Scientific and Technical Institution ⁴⁴. The latter defines human capital as a set of knowledge, skills, creative abilities, as well as the ability of employers and researchers to meet the requirements and objectives of the institution (organization).

Role in the framework | The Ministry of Education and Science is the key executive body within the education pillar of human capital. Primarily, the Ministry bears responsibility to form policy in the sectors of education, scientific and technological development, and to conduct monitoring of the implementation of measures in the indicated areas as the priority sectors of human capital development.

Functions | Taking into consideration the fact that activities of the Ministry of Education and Science are directly related to the educational component of human capital development, the major part of its functions prescribed in the Resolution of the Cabinet of Ministers of Ukraine of October 16, 2014 No. 630 On Approval of the Regulation on the Ministry of Education and Science of Ukraine⁴⁵ should be described within the analysis of institutional framework in the field of human capital development policy.

At the Agenda Setting stage the Ministry of Education and Science summarizes the practice of applying legislation on issues within its competence, develops proposals for improving legislative acts and submits them to the Cabinet of Ministers of Ukraine. It also defines priority and promising areas of educational services provided by Ukrainian educational institutions, and systematically monitors and analyzes the needs of the domestic labour market, makes proposals on the scope and directions of state support for the training of specialists with higher education. In order to increase the effectiveness of these functions, the Ministry of Education and Science organizes scientific research in the field of education necessary for the formation and implementation of state policy in these areas.

At the Policy Formulation and Decision Making stage the Ministry of Education and Science is responsible for the development of draft laws and other regulations on issues within its competence in the field of human capital. The functions of the Ministry regarding policy formulation and decision making include functions presented on the scheme on Figure 11.

At the Implementation stage the Ministry of Education and Science carries out regulatory and legal regulation in the areas of education and science, scientific, scientific and technical activities, innovation activities in these areas, technology transfer, as well as in the area of state supervision (control) over the activities of educational institutions, enterprises, institutions and organizations that provide services in the field of education or carry out other activities related to the provision of such services, regardless of their subordination and form of ownership. The functions of the Ministry of Education and Science at this stage, in particular, are those outlined in Figure 12.

Order of the Ministry of Industrial Policy of Ukraine Regarding the assessment of intellectual capital of state scientific and technical institutions of 31.05.2008 No. 314. URL: https://zakon.rada.gov.ua/rada/show/en/v0314581-08?lang=en#Text.

⁴⁵ Regulation on the Ministry of Education and Science of Ukraine approved by Resolution of the Cabinet of Ministers of Ukraine of October 16, 2014 No. 630. URL: https://zakon.rada.gov.ua/laws/show/630-2014-%D0%BF#Text.

Figure 11. Functions of the Ministry of Education and Science (Agenda Setting and Policy Formulation).



At the Evaluation stage the Ministry of Education and Science approves the procedure, types and forms of monitoring the quality of education, carries out state supervision and control over compliance with the requirements of the licensing conditions for conducting educational activities through scheduled and unscheduled inspections, organizes the collection, processing of educational statistics, its analysis and forecasting the development of the education system (see Figure 12).

1	Creating conditions for citizens to receive pre-school, general secondary, out-of-school, specialized, vocational, professional, pre- higher and higher education, inclusive education, adult education, including postgraduate education and academic degrees		Creating conditions for citizens to receive all types of education
2	Providing regulatory, legal, educational and methodological support for the functioning of educational institutions, organizing and implementing scientific and methodological support for education within the limits set by special laws		Providing regulatory, legal, educational and
3	Taking measures to implement and coordinate a unified scientific, technical and innovation policy in the areas of education and science, scientific and technical activities		methodological support for the functioning of educational institutions
4	Ensuring the integration of national science into the world scientific space while preserving and protecting national priorities		Taking measures to implement and coordinate unified scientific, technical and innovation police
5	Accreditation and certification of educational institutions and persons engaged in the field of education and science, licensing of educational activities and ensuring the functioning of the certification system for pedagogical personnel		Accreditation and certification of educational institutions and persons
6	Approving the list of fields of knowledge and the list of specialties in which higher education students are prepared, in particular upon the proposal of the National Agency for Higher Education Quality Assurance		Approving the list of fields of knowledge and th list of specialties
7	Implementing measures to provide material and moral incentives to education and science workers, other participants in the educational process and take measures to improve the material and living conditions of students, pupils, trainees, pupils, young scientists, education, science and scientific and technical workers, and to organize their medical and household services		Approving the procedure of monitoring the quality of education
8	Organizing the examination and approval of educational literature for pre-school and general secondary education institutions, determining the types of educational literature subject to examination and approval, ensuring the preparation and publication of textbooks, manuals, and methodological literature for educational institutions, including approving their publication for general		Carrying out state supervision and organizing analysis of educational statistics Allocating financial support and Implementing
9	secondary education institutions Allocating financial support to educational institutions and ensuring the development of the national system of scientific and technical information, the national innovation system and financial support for the implementation of the state order for the most important scientific and technical (experimental) developments		measures to provide material and moral incentives to education and science workers an students
10	Participating in the implementation of the state policy on national-patriotic education, physical education and sports in educational institutions and ensuring the development of physical education and sports in educational institutions;		Ensuring the integration of national science into the world scientific space
11	Implementing the state policy on scholarships, awards and bonuses in accordance with the law		Participating in the implementation of the state policy on national-patriotic, physical education and sports
12	Approving the procedure, types and forms of monitoring the quality of education		Organizing the examination of literature and implementing the state policy on scholarships
13	Carrying out state supervision and control over compliance with the requirements of the licensing conditions for conducting educational activities through scheduled and unscheduled inspections		Other services not directly related to the field of
14	Organizing the collection, processing of educational statistics, its analysis and forecasting the development of the education system		human capital, including approving the decision to establish science parks

STATE SERVICE OF EDUCATION QUALITY PROFILE

The State Service of Education Quality is one of the state institutions conducting its work within the scope of education pillar in the field of human capital. The executive body carries out educational measurements and monitoring of the quality of education and provides a common understanding of the education quality for the development of human capital in Ukraine.

Role in the framework | Most of the functions related to the human capital sector within the State Service of Education Quality are primarily linked to the implementation of measures within the directions outlined by the Ministry of Education and Science.

Functions | The functions of the State Service of Education Quality are prescribed in Resolution of the Cabinet of Ministers of Ukraine No. 168 of March 14, 2018 on Some Issues of the State Service of Education Quality of Ukraine⁴⁶. At the Agenda Setting stage the State Service of Education Quality summarizes the practice of applying legislation on issues within its competence, develops proposals for improving legislative acts, acts of the President of Ukraine, the Cabinet of Ministers of Ukraine, and regulations of Ministries and submits them to the Minister of Education and Science for consideration in accordance with the established procedure (see Figure 13). The Policy Formulation and Decision-Making function of the Service lies in taking part in the development of state standards for general secondary education.

Figure 13. Functions of the State Service of Education Quality.





The majority of functions of the Service are related to the Implementation stage. The body is responsible for approval of educational programs, participation in certification of pedagogical staff, participation in organization of external independent evaluation, and others (for more information - see Figure 13). At the Evaluation stage the State Service of Education Quality exercises state supervision over the activities of educational institutions in terms of their compliance with the requirements of the legislation on education and issues binding orders to eliminate identified violations within a certain time frame. Monitoring of the quality of educational activities and the quality of education in accordance with the procedure established by the Ministry of Education and Science includes monitoring, institutional audit of educational institutions and analysis of the activities of local executive authorities, local self-government bodies, their structural units on education (if any) in terms of compliance with the requirements of the legislation on education.

⁴⁶ Resolution of the Cabinet of Ministers of Ukraine No. 168 of March 14, 2018 on Some Issues of the State Service of Education Quality of Ukraine. URL: https://zakon.rada.gov.ua/laws/show/168-2018-%D0%BF#n13.

INSTITUTE OF EDUCATION CONTENT MODERNIZATION PROFILE

The primary objective of the Institute of Education Content Modernization is to provide scientific and methodological support for the modernization of educational content and processes. It focuses on the development and socialization of individuals through conducting fundamental and applied research and implementing the outcomes thereof. The Institute's activities encompass various areas, such as engaging in the development of educational content within the established framework, promoting open society values, critical thinking abilities, and economic culture, implementing language policies, introducing innovative technologies, providing support for fundamental aspects of creativity, financial literacy, entrepreneurship skills, and project-based activities, as well as ensuring the provision of training devices, educational materials, and general and specialized equipment to secondary schools.

Role in the framework | The Institute of Education Content Modernization is a state institution responsible for policy implementation activities in the sphere of its competence and within the framework of policy directions defined by the Ministry of Education and Science.

Functions | The functions of the Institute of Education Content Modernization regulating the development of human capital within its competence are specified in the Charter of the State Scientific Institution Institute for Educational Content Modernization⁴⁷. The obligations of the Institute relate to the Implementation stage of policy cycle and cover the functions presented on Figure 14.

Figure 14. Functions of the Institute of Education Content Modernization.





⁴⁷ Charter of the State Scientific Institution Institute for Educational Content Modernization of March 1 2023. URL: https://drive.google.com/file/d/19ioYMYcgrGzEZQoiMJ4FlpeakqwUHO5d/view.

NATIONAL ACADEMY OF EDUCATIONAL SCIENCES PROFILE

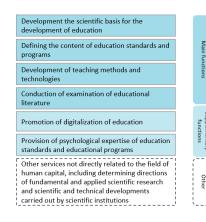
The National Academy of Educational Sciences of Ukraine coordinates, organizes and conducts research in the field of education, pedagogy, and psychology the data of which is needed for human capital analysis. The Academy actively engages in providing methodological and scientific support for the advancement of education and plays a crucial role in shaping the legislative and regulatory framework, conceptualizing the development of secondary education, professional schools, and higher education institutions, and ensuring the effective implementation of the educational process.

Role in the framework | The National Academy of Educational Sciences is among the key state institutions responsible for implementing the measures in the field of education according to the scope of its competences and within the policy priorities designated by the Ministry of Education and Science.

Functions | The functions of the National Academy of Educational Sciences are regulated by the Charter of National Academy of Educational Sciences of February 24, 2010⁴⁸. The function of the academy at the Agenda Setting stage is to develop the scientific basis for the development of education, taking into account the scientific, technical, socio-economic progress of society, national and cultural traditions, as well as global trends in the development of education and science as well as the experience of foreign countries. The Policy Formulation and Decision Making stage of human capital policy development include such functions as defining the content of education standards and programs, developing teaching methods and technologies, promoting digitalization of education and developing distance learning, conducting an examination of educational literature, drafts of program documents and other strategic planning documents and providing psychological expertise of education standards, model educational programs, etc. The Evaluation stage is not presented, while the majority of functions in the field of human capital are exercised at the Implementation stage. They can be grouped into categories as coordination of research activities, support of the educational sphere through consultations, training of personnel and higher education students, extension of international cooperation, development of scientific activities and infrastructure (for more detail - see Figure 15).

Figure 15. Functions of the National Academy of Educational Sciences.





⁴⁸ Charter of National Academy of Educational Sciences of February 24, 2010. URL: https://naps.gov.ua/ua/about/statutes/.

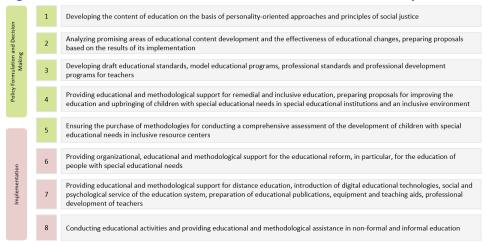
UKRAINIAN INSTITUTE OF EDUCATION DEVELOPMENT PROFILE

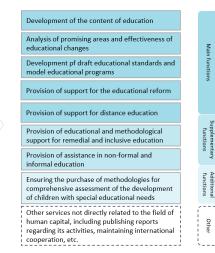
The Ukrainian Institute of Education Development analyzes promising areas for the development of educational content and the effectiveness of educational changes, ensures reforms in the education of persons with special educational needs, provides educational and methodological support for remedial and inclusive education, methods for conducting a comprehensive assessment of the development of children with special educational needs, and provides support for distance education, the introduction of digital educational technologies, and the social and psychological service of the education system.

Role in the framework | The Ukrainian Institute of Education Development belongs to the number of state institutions and services which ensure the implementation of measures within the score of state policies formulated by the Ministry of Education and Science and is primarily responsible for developing the content and standards of education, as well as providing methodological support of different forms of education on all levels.

Functions | The human capital development functions of the institution are prescribed into the Order of the Ministry of Education and Science of Ukraine No. 1307 dated October 17, 2019 On the establishment of the Ukrainian Institute for Educational Development⁴⁹. The issues of human capital are regulated within the functions of Policy Formulation and Decision Making and Implementation stages. At the Policy Formulation stage, the Institute is responsible for the development of educational standards and provision of methodological support for education, including inclusive education (for more detail - see Figure 16).

Figure 16. Functions of the Ukrainian Institute of Education Development.





At the Implementation stage the functions are directed to providing organizational, educational and methodological support for the educational reform, in particular, for the education of people with special educational needs. Besides, such functions as providing educational and methodological support for distance education, introduction of digital educational technologies, social and psychological service of the education system, preparation of educational publications, equipment and teaching aids, professional development of teachers, conducting educational activities and providing educational and methodological assistance in non-formal and informal education also are among the tasks within the framework of human capital development.

⁴⁹ Order of the Ministry of Education and Science of Ukraine No. 1307 dated October 17, 2019 On the establishment of the Ukrainian Institute for Educational Development. URL: https://uied.org.ua/wp-content/uploads/2021/05/17 10 2019 00.pdf.

NATIONAL RESEARCH FOUNDATION OF UKRAINE PROFILE

The National Research Foundation of Ukraine is a state institution established by the Government of Ukraine in 2018 as a special instrument for the implementation of state policy in the sphere of scientific research development. The key duty of the Foundation is to provide financial support to the comprehensive development of Ukrainian science as the main factor of the economic growth of the state, as well as to create favourable conditions for the realization of the intellectual potential of citizens in the field of scientific and technical activities based on the principles of competitiveness and scientific leadership.

Role in the framework | The National Research Foundation of Ukraine is a state institution playing a complementary role within the framework of the education pillar of human capital and is subordinate to the Ministry of Education and Science. The tasks of the Foundation cover the spheres of scientific research and development, development of material and technical base and research infrastructure, scientific cooperation, transfer of knowledge and popularization of science, and projects of young scientists.

Functions | The work of the National Research Foundation is regulated by the Regulation on the National Research Foundation of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of July 4, 2018 No. 528⁵⁰. Given the specific role of the Foundation in the institutional framework of human capital, its functions are primarily concentrated within the Implementation stage of the policy cycle and include specific duties indicated on Figure 17.

Figure 17. Functions of the National Research Foundation of Ukraine.



In line with this, the task of providing financial support to scientific development includes ensuring the provision of grants for performing scientific research and development; development of the material and technical base of high-level scientific research and development; development of scientific cooperation, including scientific mobility, organization, holding and participation in conferences, symposia, joint research of universities and scientific institutions, etc.; scientific training of researchers, post-graduate students and doctoral students, in particular abroad; creation, operation and development of research infrastructure; transfer of knowledge and its dissemination; support of projects of young scientists; support for activities aimed at involving student youth in scientific and scientific and technical activities; popularization of science; other directions, agreed with the supervisory board of the Fund.

⁵⁰ Regulation on the National Research Foundation of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of July 4, 2018 No. 528. URL: https://zakon.rada.gov.ua/laws/show/528-2018-%D0%BF#n23.

NATIONAL COUNCIL OF UKRAINE ON SCIENCE AND TECHNOLOGY DEVELOPMENT PROFILE

The National Council of Ukraine on Science and Technology Development is a permanent advisory body that was established in 2017 under the Cabinet of Ministers of Ukraine. Its key role is to ensure effective interaction of representatives of the scientific community, executive authorities, and the real sector of the economy in the formation and implementation of a unified state policy in the field of scientific and technical activities.

Role in the framework | The National Council of Ukraine on Science and Technology Development is a state entity which plays a supplementary role within the education pillar of human capital and bears the primary responsibility to ensure effective cooperation between government and non-government stakeholders for the purpose of supporting scientific and technical activities in Ukraine.

Functions | The tasks and functions of the National Council of Ukraine on Science and Technology Development are outlined in the Regulation on the National Council of Ukraine on Science and Technology Development approved by the Resolution of the Cabinet of Ministers of Ukraine of April 5, 2017 No. 226⁵¹. According to the current legislation, the Council is responsible for assisting the Ministry of Education and Science in the process of policy-making. At the same time, several functions can be attributed to the Implementation and Evaluation stages. The division of functions is presented on Figure 18.

Figure 18. Functions of the National Council of Ukraine on Science and Technology Development.



Preparation of proposals for priorities of formation of relevant foundations Provision of proposals on the formation of state budget Development of proposals regarding engagement of student youth development strategy Preparation of proposals regarding state research infrastructure scientific and technical activities Consideration of state targeted scientific and technical programs Provision of recommendations for international assistance projects implementation Submission of proposals regarding scientific ethics Other services not directly related to the field of human capital for example interaction with relevant bodies of foreign states and international organizations

Figuration on the National Council of Ukraine on Science and Technology Development approved by the Resolution of the Cabinet of Ministers of Ukraine of April 5, 2017 No. 226. URL: https://zakon.rada.gov.ua/laws/show/226-2017-%D0%BF#n10.

DUPLICATION OF FUNCTIONS

Given the variety of stakeholders in the educational domain of human capital, it is expected that they have different areas of responsibility within the mentioned pillar. Nonetheless, some replications of their functions can be observed, especially with regard to the policy formulation and decision making. On account of this, the activities of the Ministry of Education and Science and the Ukrainian Institute of Education Development are connected in the field of determining the prospects and priorities for the development of the educational system. While the Ministry, as a central executive body, establishes the directions for the development of education on all levels, the Institute "carries out an analysis of promising directions for the development of the content of education and the effectiveness of educational changes". Thus, the functions of the two institutions are closely related, although they can be considered as complementary rather than duplicating.

The functions' duplication, however, can be observed regarding the duty of developing educational standards, which is primarily the task of the Ministry of Education and Science that "organizes the development and approves education standards, publishes them on its official website, and provides methodological support for their implementation". Yet, the State Service of Education Quality, within its competence, "participates in the development of state standards of general secondary education", while the Institute of Education Development "develops projects of education standards, typical educational programs, curricula and programs" together with the participation of the National Academy of Educational Sciences, "defining content of education, standards of education, typical educational programs", etc. In line with this, the State Agency of Ukraine for Arts and Art Education has to "approve typical educational programs for art schools". Hence, the process of education standards development is complicated due to the engagement, to a different extent, of a variety of stakeholders which might highly likely lead to the intersection and duplication of the exercised activities.

MINISTRY OF CULTURE AND INFORMATION POLICY PROFILE

Within the institutional framework of human capital in Ukraine, a specific role is played by the Ministry of Culture and Information Policy which ensures the formation and implementation of state policy in the fields of culture and arts and implements measures to protect human capital, such as the protection of the rights of national minorities, ensuring social protection of professional artists and cultural workers, and promoting the activities of creative unions and other public associations. According to the Ministry's representative, even though the definitions of international organizations do not take into account the cultural component, the Ministry evaluates engagement in cultural practices and self-expression as part of human capital. For the most part, the activities of the Ministry can be considered as part of the education pillar of human capital and as complementary to the functions of the Ministry of Education and Science of Ukraine with exercising designated functions regarding institutions of the cultural sphere.

Role in the framework | The Ministry of Culture and Information Policy performs a secondary role within the education pillar of human capital in the sense that it complements the activities of the Ministry of Education and Science in the sectors of art education as well as the development of cultural practices and self-expression of individuals. Even though the cultural component is not usually considered within the field of human capital, the Ministry participates in the development of education policies within the sphere of its responsibility.

Functions | According to the Regulation on the Ministry of Culture and Information Policy approved by the Resolution of the Cabinet of Ministers of Ukraine of October 16, 2019 No. 885⁵², the Ministry participates, within its realm, in the state policy formulation in the field of culture, namely bearing the responsibility to determine the prospects and priority directions of development in the spheres of culture and information policy and other functions outlined on Figure 19. Based on the priorities defined by the Ministry of Culture and Information Policy in cooperation with relevant executive bodies, the Ministry bears the responsibility to implement the measures related to the educational domain of the human capital sector.

Figure 19. Functions of the Ministry of Culture and Information Policy.



According to the representative of the Ministry of Culture and Information Policy, the evaluation of policies in the field of human capital generally does not fall within the scope of tasks of the indicated institution. However, the Ministry submits reports on the state of implementation of Action Plans to the Cabinet of Ministers of Ukraine. Also, the Ministry addresses the needs of the population, mainly through the mechanism of citizens' appeals, and cooperates with international organizations in case they order and provide financial assistance for conduction of research in the sector.

⁵² Regulation on the Ministry of Culture and Information Policy approved by the Resolution of the Cabinet of Ministers of Ukraine of October 16, 2019 No. 885. URL: https://zakon.rada.gov.ua/laws/show/885-2019-%D0%BF#n10.

STATE AGENCY OF UKRAINE FOR ARTS AND ART EDUCATION PROFILE

The State Agency of Ukraine for Arts and Art Education participates in the implementation of educational policy by specialized art education institutions under the management of the State Arts Agency, analyses and monitors the quality of educational activities of specialized art education institutions, monitors the application and financial support of state social standards in the field of services provided by cultural institutions and controls compliance with such standards. Role in the framework | The State Agency of Ukraine for Arts and Art Education which belongs to the field of governance of the Ministry of Culture and Information Policy has the task of taking measures for implementing policies related to arts education as well as conducting monitoring of the activities of specialized arts educational institutions. The activities of the Agency are carried out within the framework of directions outlined by the Ministry of Culture and Information Policy. Functions | The functions of the agency are described in Resolution of the Cabinet of Ministers of Ukraine No. 434 of May 27, 2020 on Some Issues of the Activities of Central Executive Authorities in the Field of Culture⁵³. The Agency's activities are directed and coordinated by the Cabinet of Ministers of Ukraine through the Minister of Culture and Information Policy, to which it submits proposals for the formation of state policy in the field of arts and specialized art education. The key function of the agency at Agenda Setting stage is to submit proposals to the Minister of Culture and Information Policy on the prospects and directions of development of specialized art education. For this end, at the Policy Formulation and Decision Making stage the institution approves standard educational programs and samples of service and educational documentation for art schools, participates in the development of admission conditions and approves admission plans for specialized art (boarding) schools, develops and submits to the Cabinet of Ministers of Ukraine through the Minister of Culture and Information Policy proposals for the approval of the regulation on the certification of pedagogical staff of

specialized art education institutions. At the Implementation stage the State Agency participates in the implementation of educational policy by institutions of specialized art education that belong to its sphere of competence. The Agency is

responsible for functions which include but are not limited to those demonstrated on the scheme on Figure 20.

Figure 20. Functions of the State Agency of Ukraine for Arts and Art Education.



Finally, the functions of the State Agency of Ukraine for Arts and Art Education encompass analysis and monitoring of the quality of educational activities of specialized art education institutions and constant state monitoring of the application of and financial support for state social standards in the field of services provided by cultural institutions and control over compliance with such standards.

Resolution of the Cabinet of Ministers of Ukraine No. 434 of May 27, 2020 on Some Issues of the Activities of Central Executive Authorities in the Field of Culture. URL: https://zakon.rada.gov.ua/laws/show/434-2020-%D0%BF#n19.

DUPLICATION OF FUNCTIONS

Even though a large share of the functions of the Ministry of Culture and Information Policy and the State Agency for Arts and Art Education belong to the cultural sphere, some of the activities that they are in charge of conducting are closely connected with the educational domain of human capital. The main connections in this field lay within the system of management of educational institutions. In spite of the Ministry of Education and Science being responsible for overseeing the activities and setting standards for educational institutions across all levels, the State Agency of Ukraine for Arts and Art Education and the Ministry of Culture and Information Policy have the responsibility to ensure management of such educational institutions which fall within the sphere of their realm. For example, while the Ministry of Education and Science has the function to "approve the procedure for enrolling, deducting and transferring students to state and communal educational institutions for obtaining full general secondary education", the State Agency of Ukraine for Arts and Art Education also "participates in the development of admission conditions and approves admission plans to specialized art schools (boarding schools) belonging to its sphere of administration".

Similarly, the functions of the Ministry of Education and Science and the State Agency of Ukraine for Arts and Art Education intersect within the policy formulation process. Although the latter has the duty of developing and submitting to the Cabinet of Ministers of Ukraine, through the Minister of Culture and Information Policy, proposals for the approval of regulations on the certification of teaching staff of specialized art education institutions", the general responsibility of developing standards and implementing procedures lays within the competences of the Ministry of Education and Science. Consequently, it may lead to the duplication of requirements for the teaching staff certification procedure and the ambiguity of the process of conducting such certification.

Additionally, the activities of the institution overlap in the field of education quality evaluation as the State Agency of Ukraine for Arts and Art Education has the duty of "conducting analysis of and monitoring the quality of educational activities of institutions of specialized art education belonging to its the sphere of management". In fact, this duplicates the role of the State Education Quality Service which is responsible for "carrying out state supervision (control) of the activities of educational institutions in terms of their compliance with the requirements of the legislation on education". The aforementioned cases cause the collision of functions of the aforementioned institutions and poses the question of whether all the educational facilities have to be controlled by the Ministry of Education and Science or the responsibility has to be shared between the related stakeholders.

MINISTRY OF YOUTH AND SPORTS PROFILE

Similarly, the Ministry of Youth and Sports supports the activities of other central executive bodies in human capital development, mainly within education (physical education, including in general and specialized educational institutions, formal and informal education of youth) pillar. However, the Ministry's function also lay within other pillars, including health (promoting healthy lifestyle, ensuring improvement of physical and mental health) and labour (promoting employment of various forms for youth).

Role in the framework | The Ministry of Youth and Sports plays a secondary role within the education pillar. The Ministry ensures the formation and implementation of state policy in the areas of youth policy and sport, takes measures to foster a responsible attitude to family life among young people for the development of the state and ensuring social harmony, promotes the creation of conditions for intellectual self-improvement, self-realization, creative and personal development of young human capital.

Functions | The tasks of the Ministry are determined by the Regulation on the Ministry Youth and Sports of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of July 2, 2014 No. 220⁵⁴. Given that the Ministry of Youth and Sports is entitled to determining the prospects, priorities and forecasts for the development of the spheres of youth policy, physical culture and sports, and the establishment of Ukrainian national and civic identity, it is the executive body's responsibility to perform the functions as part of the Policy Formulation and Decision Making process, including developing projects of the National Youth Strategy; ensuring the development and approval of standard training programs of youth workers and advisers; approving the list of indicators of the state of development of physical culture and sports; and determining the standards of personnel support in the field of physical culture and sports (see Figure 21).

Figure 21. Functions of the Ministry of Youth and Sports.



In accordance with this, the Ministry of Youth and Sports is responsible for conducting individual measures to ensure effective and comprehensive implementation of the state policies within the scope of its realm. However, as indicated by the representative of the Ministry, it would be beneficial to receive more information about the European experience in

Regulation on the Ministry Youth and Sports of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of July 2, 2014 No. 220. URL: https://zakon.rada.gov.ua/laws/show/220-2014-%D0%BF#n8.

the formation of policy in the field of human capital and the determination of priority tasks under the conditions of economic restrictions and inflationary processes. Thus, the Ministry has the duty of performing activities related to the field of youth development, healthy lifestyle and physical activities promotion (for more information - see Figure 21). Based on the collected administrative data and statistical observations, the Ministry of Youth and Sports conducts regular evaluation of the state and development of the spheres of youth policy and sports in Ukraine. The Ministry coordinates the activities of central and local bodies of executive power regarding the annual assessment of the physical fitness of the population of Ukraine. Additionally, the executive body assesses the effectiveness of the use of sports facilities and organizes the implementation of control over the quality of physical culture and sports services in Ukraine. According to the representative of the Ministry of Youth and Sports, the task of the institution is to assess, based on the obtained results and key performance indicators, flexibility and the ability to quickly reformat goals and tasks due to the non-standard situations, for example, related to Covid-19 pandemic and martial law.

DUPLICATION OF FUNCTIONS

Even though the Ministry of Youth and Sports forms and implements policy in a specific sector of the educational sector, namely regarding the comprehensive development of youth and profound popularization of sports and physical activities, some duplication of its function as compared to the other executive bodies can be observed.

For instance, with regard to the system of education in Ukraine the Ministry has the role of overseeing the development of sports in educational institutions on all levels. In addition to this, it manages the system of specialized sports educational institutions, including the sports schools, Olympic schools, etc. However, as was mentioned above, the general management of the education system lays within the sphere of responsibility of the Ministry of Education and Science of Ukraine which has the duty of "participating in the implementation of the state policy on national-patriotic education, physical education and sports in educational institutions".

The functions of the Ministry of Youth and Sports are also connected to those entitled to the Ministry of Health of Ukraine within the framework of the health pillar. While the former fulfills the task of "contributing to teaching of healthy lifestyle skills in children and youth", the latter bears the responsibility to "organize measures to popularize a healthy lifestyle among the population", which might cause significant duplications in activities performed by two central executive bodies.

Finally, visible overlapping can be observed regarding youth policy related functions of the Ministry of Youth and Sports which lay within the economic output pillar. The Ministry has to contribute to "professional orientation, employment of young people, their self-employment, increasing the level of their competitiveness and professional development, and obtaining relevant competencies". At the same time, the Ministry of Education and Science has the obligation to "promote employment of graduates of higher education institutions". However, the primary role of taking measures in respect of state labour policies lies upon the Ministry of Economy and the State Employment Service of Ukraine. Even though the Ministry of Youth enacts such functions with regard to a specific group of population, that is to say the youth, such connections are likely to cause duplications in the activities of respective executive bodies in part of provision of related services.

MINISTRY OF DIGITAL TRANSFORMATION PROFILE

The Ministry of Digital Transformation plays a complex role in human capital development in Ukraine which can be attributed both to the education pillar due to the improvement of skills and competences of the population and to the cross-cutting task of supporting other stakeholders in their activities through introduction and improvement of electronic services. In generally, the Ministry ensures the formation and implementation of state policy in the areas of digitalization, digital economy, digital innovations and technologies, e-governance, development of the information society, IT industry, digital skills and digital rights of citizens and ensures the functioning of the system of electronic interaction of state electronic information resources and databases, including human capital.

Role in the framework | The Ministry of Digital Transformation has a specific dual role as it both contributes to the policy-making and controlling the implementation of measures in the sector of improving digital skills of the population (education pillar) and ensures the development of electronic services in all sectors of human capital (cross-cutting function).

Functions | The tasks and sphere of competence of the executive body are determined by the Resolution of the Cabinet of Ministers of Ukraine of September 18, 2019 No. 856 On Approval of the Regulation on the Ministry of Digital Transformation of Ukraine⁵⁵, which regulates the Ministry's participation in human capital policy formulation and implementation processes. In the context of the former, the Ministry's functions cover the following: participation in determination of requirements for the level of quality and implementation of technical policy in the field of provision of telecommunication services; formation of the state policy of digitization of education and development of professional standards on issues of digital literacy; approvement of the methodology of forming indicators of information society development (see scheme on Figure 22).

Figure 22. Functions of the Ministry of Digital Transformation.



In relation to this, the functions of the Ministry of Digital Transformation within the policy implementation activities can be divided into three groups: functions related to education pillar, including organizing training and preparing proposals for improvement of the system of development of digital skills of citizens, training and retraining of specialists on issues that belong to the competence of the Ministry, creating and ensuring functioning of a single state web portal of digital education; functions related to the living conditions pillar, including promoting the development and availability of broadband Internet access services, formulating proposals for providing state support, including financial support, for such

Regulation on the Ministry of Digital Transformation of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of September 18, 2019 No. 856. URL: https://zakon.rada.gov.ua/laws/show/856-2019-%D0%BF#n12.

development; functions aimed at providing general support for human capital, namely coordinating activities for developing and improving the quality of state electronic services. Furthermore, based on the results of the completed activities the Ministry performs evaluation, which includes monitoring the quality of the provision of electronic and administrative services, broadband access to the Internet, open data, etc., conducting digital expertise and preparing relevant proposals for the Cabinet of Ministers of Ukraine, Ministries, and other executive authorities.

DUPLICATION OF FUNCTIONS

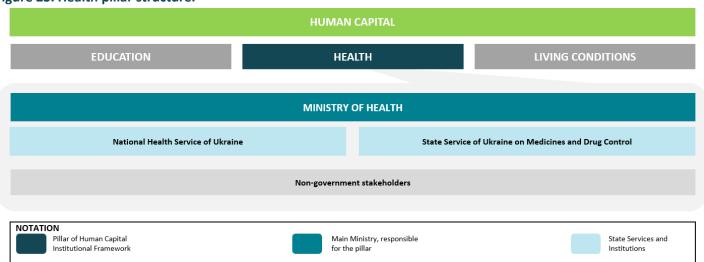
The functions of the Ministry of Digital Transformation are closely connected with the activities exercised by the Ministry of Education and Science in the regard of providing educational opportunities and competences improvement to the population. However, the work of the two executive bodies in this domain can be perceived as complementary rather than duplicating, given that there are no specified functions in the field of digital education attributed to the Ministry of Education and Science.

Nonetheless, it is important to keep in mind the general obligation of the Ministry of Digital Education to ensure the development and provision of electronic services throughout all pillars of human capital. This concerns the work of all the government stakeholders analyzed in this chapter, as well as comprehensive development of digital systems in Ukraine. Therefore, such activities of the Ministry are considered as administrative work and cross-cutting tasks to ensure the effective functioning of the human capital system in Ukraine.

Health pillar

INTRODUCTION | Among the government stakeholders conducting activities with regard to the health pillar of human capital in Ukraine, the primary role is taken by the Ministry of Health as a central executive body bearing the responsibility to form state policy in the healthcare sector (see Figure 23). While the Ministry determines the key development priorities of the healthcare system in Ukraine together with exercising control over the implementation of the policies in the sector, its work is complemented by the activities of the state institutions, namely the National Health Service of Ukraine and the State Service of Ukraine on Medicines and Drug Control, each of them contributing to the specific area of healthcare development in Ukraine. Presented below is an analysis of the key functions of the indicated entities performing policy formulation and implementation activities within the health pillar of human capital.

Figure 23. Health pillar structure.



IMPACT OF WAR | The Russian aggression since 2014 and the start of the full-scale invasion in 2022 have had a major effect on the healthcare system in Ukraine. On the one hand, the direct influences include the destruction or severe damages to the healthcare infrastructure, which primarily concerns formerly occupied territories and adjacent regions, as well as the decline of the number of personnel due to forced migration within the country and abroad, war-related death, mobilization, etc. These factors cause the diminishing capacity of the healthcare system that has an increased load due to the number of people in need of medical assistance as a result of hostilities, missile attacks, etc. Additionally, a higher number of military service members require medical care, so now not only specialized military but also regular hospitals have to provide such services.

On the other hand, apart from the short-term consequences such as injuries, in the medium- and long-term perspective more people are at risk of aggravation of serious diseases, the spread of previously rare diseases, psychological and mental health problems, including post-traumatic stress disorder (PTSD), professional burnout and depression due to constant stress, the growth of addictions and others. Currently, the healthcare system does not possess the necessary capacity to provide treatment to all the people requiring medical assistance, which poses the question of the demand for a reform in the field of healthcare in Ukraine.

MINISTRY OF HEALTH PROFILE

The Ministry of Health is the primary government institution that develops policies and coordinates activities within the health pillar of human capital in Ukraine. According to the representative of the Ministry of Health, the executive body defines human capital as a combination of labour potential and the ability to increase its value on the labour market through the improvement of competencies, possession of certain experience and knowledge, which is a narrower approach to identify the human capital. But taking into account the approach of international organizations, the health of the workforce component is singled out among the key factors of human capital potential.

Role in the framework | The Ministry of Health is the key executive body responsible for policy formulation and monitoring in the field of healthcare. The institution contributes to the development of the field of human capital by ensuring the formulation and implementation of state policy in the healthcare sector, as well as maintaining and determining the procedures for the functioning of information and analytical systems, information resources, electronic registers and databases of human capital in the healthcare sector in Ukraine.

Functions | The tasks and functions of the Ministry are regulated by the Resolution of the Cabinet of Ministers of Ukraine of March 25, 2015 No. 267 On Approval of the Regulation on the Ministry of Health of Ukraine ⁵⁶. Along with the general functions in the field of health care, the aforementioned regulatory legal act defines the functions of the Ministry in the field of combating HIV/AIDS and other socially dangerous diseases, in the field of creation, production, quality control and sale of medicines, medical immunobiological products and medical devices, in the field of circulation of narcotic drugs, psychotropic substances, their analogues and precursors, combating their illicit trafficking, in the field of sanitary and epidemiological well-being of the population, in the field of implementation of the electronic health care system, in the field of technical regulation of medical devices, cosmetic products.

Given the importance of the health care sector in human development and the impact it has on labour productivity, the majority of functions which are prescribed to the Ministry of Health according to the current legislation of Ukraine are to be considered within the scope of this research as those directly or indirectly linked to human capital development.

As far as the level of Agenda Setting is considered, the Ministry of Health has the obligation of summarizing the practice of application of legislation on issues within its competence, developing proposals for its improvement and submits respective draft legislative acts for consideration by the Cabinet of Ministers of Ukraine; determining the prospects and priorities of healthcare development in the areas within the Ministry's responsibility to form and implement the state policies; developing and organizing the implementation of state comprehensive and targeted healthcare programs; and organizing, together with the National Academy of Sciences and the National Academy of Medical Sciences, scientific research in priority areas of medical science development (see Figure 24).

The functions which are linked to the Policy Formulation and Decision Making stage are generally the most extensive. The reason behind this is the primary task of the Ministry of Health to form the policies in the healthcare sector in Ukraine through proposing draft laws, preparing comments and proposals to the adopted laws, etc., within the framework of its responsibility. Therefore, the Ministry of Health plays a role as one of the main regulators in human capital policy formulation. Furthermore, other functions associated with this stage include those presented on Figure 24.

Regulation on the Ministry of Health of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of March 25, 2015 No. 267. URL: https://zakon.rada.gov.ua/laws/show/267-2015-%D0%BF#n8.

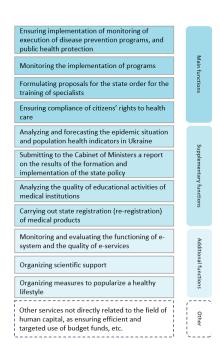
Figure 24. Functions of the Ministry of Health (Agenda Setting and Policy Formulation).

	1	Determining the prospects and priorities of healthcare development in the areas within the Ministry's responsibility to form and implement the state policies		Determining the prospects and priorities of healthcare development		
	2	Organizing, together with the National Academy of Sciences and the National Academy of Medical Sciences, scientific research in priority areas of medical science development		Approving annual regional plans	Main functions	
Setting	3	Approving annual regional plans for the functioning and development of the emergency medical care system		Organizing the study, evaluation and forecasting of population health indicators	nctions	
Agenda S	4	Determining uniform qualification requirements for health care workers, including those engaged in certain types of medical and pharmaceutical activities and those who completed education in foreign institutions		Determining uniform qualification requirements for health care workers		
Pollcy Formulation and Decision Making	5	Approving nutrition standards for various population groups, including in schools		Approving nutrition standards for various population groups	Sup	
	6	Approving the procedure for conducting mandatory and specialized medical examinations, including examination for certain types of diseases		Approving the procedure for conducting medical examinations	Supplementa functions	
	7	Carrying out strategic planning of the development of the electronic health care system and related information systems, electronic registers and databases in the field of health care		Carrying out strategic planning of the development of the e-health care system	2	
		•		Approving regulations on the implementation of medical and pedagogical control		
	8	Approving regulations on the implementation of medical and pedagogical control over the physical education of students in institutions of general secondary education		Organizing, together with the National Academy		
	9	Maintaining the standards of providing medical assistance to and conducting medical examination of persons who have suffered or to persons who are likely to have suffered from domestic violence		of Sciences and the National Academy of Medical Sciences, scientific research	Additional functions	
				Approving lists of diseases which are medical contraindications	nal fun	
	10	Approving lists of diseases which are medical contraindications for engaging in certain activities, etc.		Determining the specific procedures of	ctions	
	11	Determining the specific procedures of treatment of drug addicted persons, persons suffering from severe mental disorders or other serious illnesses, persons with disabilities of groups I and II, pregnant women and mothers with babies, men over the age of 60 years and women over the age of 55, persons who were exposed to radiation as a result of the accident at the Chornobyl Nuclear Power Plant, persons with HIV/AIDS, etc.		treatment of drug addicted, suffering from severe mental disorders or other serious illnesses persons		
				Other services not directly related to the field of	9	
	12	Organizing the study, evaluation and forecasting of population health indicators depending on the state of the human life environment, establishing environmental factors that have a harmful effect on the health of the population		human capital, as considering citizens' appeals on issues related to its activities, etc.	Other	

The Implementation stage functions are connected to the administration of specific measures in the healthcare sector, although the majority of such functions are delegated to other institutions which are responsible for certain areas within the sector. According to the representative of the Ministry of Health, the key problem at this stage is related to the lack of information about the personnel turnover and external labour migration, as well as the efficiency of the use of budget funds for state-ordered personnel training. In brief, the functions of the Ministry of Health on this stage of the policy cycle which are correlated with human capital development in Ukraine include, but are not limited to those demonstrated on the scheme on Figure 25.

Figure 25. Functions of the Ministry of Health (Implementation and Evaluation).

	1	Ensuring compliance of citizens' rights to health care and patient rights by health care institutions, enterprises, institutions and organizations
intation	2	Organizing scientific support for the functioning of the healthcare system
	3	Organizing measures to popularize a healthy lifestyle among the population
Implementation	4	Formulating proposals for the state order for the training of specialists, scientific, scientific and pedagogical personnel, advanced training and retraining of personnel, and intern training in the field of health care for the relevant years
	5	Monitoring the implementation of programs and the use of grants from the Global Fund to fight AIDS, tuberculosis and malaria
	6	Carrying out state registration (re-registration) of medical products, including medical immunobiological drugs cosmetic products that contain genetically modified organisms or are obtained with their use, new food products, food additives, flavorings, enzymes, drinking mineral water, etc.
	7	Analyzing and forecasting the epidemic situation and population health indicators in Ukraine and in certain regions, developing and ensuring the implementation of measures aimed at the prevention and reduction of the level of infectious diseases, improvement of the epidemic situation, as well as conducting scientific research in this area
Ę	8	Analyzing the quality of educational activities of institutions of higher education belonging to the sphere of management of the Ministry of Health
Evaluation	9	Annually submitting to the Cabinet of Ministers a report on the results of the formation and implementation of the state policy in the sphere of circulation of narcotic drugs, psychotropic substances, their analogues and precursors, combating their illegal circulation
	10	Ensuring implementation of monitoring of sanitary and anti-epidemic measures, execution of disease prevention programs, and public health protection
	11	Monitoring, analyzing and evaluating the functioning of electronic system and the quality of electronic services in the field of healthcare



The Ministry of Health of Ukraine significantly contributes to the process of policy evaluation in the healthcare sector. Generally speaking, the institution is in charge of performing the monitoring of the state of health of the population, activities and resource provision of health care institutions, as well as carrying out a clinical and expert assessment of the quality of medical care. The Ministry also participates in monitoring of designated bodies and recognized independent organizations. More specific functions on this stage include: analyzing the quality of educational activities of institutions of higher education belonging to the sphere of management of the Ministry of Health; annually submitting to the Cabinet of Ministers of Ukraine a report on the results of the formation and implementation of the state policy in the sphere of circulation of narcotic drugs, psychotropic substances, their analogues and precursors, combating their illegal circulation; ensuring implementation of monitoring of sanitary and anti-epidemic measures, execution of disease prevention programs, and public health protection; monitoring, analyzing and evaluating the functioning of electronic system and the quality of electronic services in the field of health care (see Figure 25). According to the Ministry's representative, the executive body analyzes the level of patient satisfaction and the patient complaints about the quality and availability of medical care. However, as stated by the representative, the key problem in this area is the lack of information regarding the private sector of providing healthcare services.

DUPLICATION OF FUNCTIONS

Even though the Ministry of Health conducts its activities with the focus on healthcare policy development, some functions assigned to it are connected to the other sectors of human capital, namely the education and economic output pillars. Considering the former, the executive body's functions relate to those of the Ministry of Education and Science and concern the issues of management of the higher educational institutions. First, although the Ministry of Education and Science has the duty of performing management over the system of higher educational institutions of Ukraine, those institutions which have educational programs related to the healthcare sector are under control of the Ministry of Health. This creates the collision of functions as the Ministry of Health gains the right to control the functioning and sets the directions for development of the educational institutions.

Second, while the Ministry of Education and Science has the responsibility to "develop and approve state educational standards for specific professions", the Ministry of Health is assigned with the task of "developing the procedure for the attestation of students of higher education at the first (bachelor's) and/or second (master's) levels of higher education in specialties of the field of knowledge "22. Healthcare". This means that the part of standards within the education of students in healthcare related professions is under the control of the Ministry of Health rather than the key institution responsible for education development in Ukraine.

Furthermore, the Ministry of Health has the function of "promoting the employment of graduates of higher education institutions", which is, in fact, exactly the same task as that of the Ministry of Education and Science. However, the duty of promoting employment of various groups of population lies within the economic output pillar of human capital, the key stakeholders within which are the Ministry of Economy and the State Employment Service of Ukraine. Such intersection of functions may cause the duplications in activities of the aforementioned executive bodies, as well as raise questions regarding the sphere of responsibility of each institution within the distinct pillar of human capital, particularly about the role the Ministry of Health can play within the education and labour domain which are beyond the primary area of its responsibility.

NATIONAL HEALTH SERVICE OF UKRAINE PROFILE

The National Health Service of Ukraine functions as the central body of the executive power responsible for implementing state policy on healthcare under the program of medical guarantees. It acts as a national insurer that enters into contracts with healthcare institutions and purchases medical services from them. Additionally, the National Health Service of Ukraine ensures compliance with contract terms and directly pays institutions for the services rendered. In its work, the institution supplements the work of the Ministry of Health to ensure the conduction of activities related to the health pillar of human capital development.

Role in the framework | The National Health Service is a state institution responsible for the policy formulation and implementation in the field of medical guarantees programs. The activities of the Service are directed and coordinated by the Ministry of Health.

Functions | The tasks and functions of the institution are determined in the Resolution of the Cabinet of Ministers of Ukraine of December 27, 2017 No. 1101 On Approval of the Regulation on the National Health Service of Ukraine⁵⁷. According to the Regulation, the National Health Service of Ukraine conducts analysis and forecasting of the needs of the population of Ukraine in medical services and medicinal products, considers appeals and complaints on issues within its competence, ensures the functioning of the electronic health care system, ensures the maintenance of registers that are part of the electronic health care system, other state electronic databases and registers which data can help analyze the development of human capital in Ukraine.

Despite the Ministry of Health being the main executive body responsible for policy formulation in the healthcare sector in Ukraine, the National Health Service participates in this process within the scope of its tasks. In order to support human capital in Ukraine, the institution performs the functions of analyzing and forecasting the needs of the population of Ukraine in medical services and medicines in order to develop a draft program of medical guarantees, strategic procurement of medical services and reimbursement of medicines under the program of medical guarantees. Additionally, it is responsible for summarizing information and developing strategic directions for the development of medical services for the population in order to achieve universal coverage of the population of Ukraine with the necessary medical services and medicines under the medical guarantees program.

The particular functions of the National Health Service which are correlated with the Policy Formulation and Decision Making stage include developing a draft program of medical guarantees, conducting financial analysis and long-term planning of sustainable financing of the medical guarantees program, and publishing information that may contribute to the improvement of the quality of medical care under the program of medical guarantees. The functions of the National Health Service of Ukraine within the Implementation stage of the policy cycle are linked to ensuring the quality provision of services within the medical guarantees program (for more detail - see Figure 26).

⁵⁷ Regulation on the National Health Service of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of December 27, 2017 No. 1101. URL: https://zakon.rada.gov.ua/laws/show/1101-2017-%D0%BF#n15.

Figure 26. Functions of the National Health Service of Ukraine.

Agenda Setting	1	Analyzing and forecasting the needs of the population in medical services and medicines to develop a draft program of medical guarantees, strategic procurement of medical guarantees
	2	Summarizing information and developing strategic directions for the development of medical services for the population in order to achieve universal coverage with the necessary medical services and medicines under the medical guarantees program
	3	Developing a draft program of medical guarantees and draft specifications and conditions for the procurement of medical services under the program of medical guarantees, making proposals on tariffs and adjustment coefficients
Policy Formulation and Decision Making	4	Conducting financial analysis and long-term planning of sustainable financing of the medical guarantees program
	5	Ensuring knowledge management in the field of state financial guarantees of medical care for the population, including promoting of the development of scientific research, ensures the implementation of scientific approaches, collecting and processing analytical data based on the information contained in the electronic healthcare system
	6	Publishing information that may contribute to the improvement of the quality of medical care under the program of medical guarantees, which it manages or owns
	7	Ensuring that patients have the opportunity to exercise their right to choose a primary healthcare provider by providing explanations about healthcare providers related to primary healthcare and information about doctors working for such healthcare providers
Evaluation Implementation	8	Ensuring the functioning of the electronic healthcare system, as well as determining the directions of its development, verifying data in the system, and approving technical requirements for electronic medical information systems
	9	Reimbursing the cost of medicinal products under reimbursement agreements under the medical guarantees program
	10	Informing the population about the program of medical guarantees, organizing explanatory work related to the practice of applying legislation on issues within its competence
	11	Analyzing the reports of medical service providers on the list and scope of medical services provided under contracts for medical services to the population under the medical guarantees program and the reports of pharmacies on the dispensed medicinal products and their cost subject to reimbursement
	12	Publishing an annual report on the results of its activities which includes analysis and medium-term forecast of the needs of the population for medical services and medicines under the medical guarantees program, analysis of the fulfillment of contracts for medical services by medical service providers, and the analysis of the fulfillment of reimbursement contracts by pharmacies



The National Health Service of Ukraine performs the designated tasks in order to monitor and evaluate the implementation of the medical guarantee program. The individual functions within this stage cover: analyzing the reports of medical service providers on the list and scope of medical services provided under contracts for medical services to the population under the medical guarantees program; analyzing the reports of pharmacies on the dispensed medicinal products and their cost subject to reimbursement; and publishing an annual report on the results of its activities. The latter includes the results of the analysis and medium-term forecast of the needs of the population for medical services and medicines under the medical guarantees program, the results of the analysis of the fulfillment of contracts for medical services by medical service providers, and the analysis of the fulfillment of reimbursement contracts by pharmacies. Additionally, the National Health Service has the duty of publishing other relevant information that may contribute to improving the quality of medical services under the medical guarantees program, of which it acts as the manager or owner.

STATE SERVICE OF UKRAINE ON MEDICINES AND DRUG CONTROL PROFILE

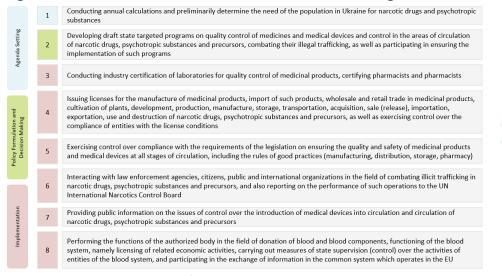
The State Service of Ukraine on Medicines and Drug Control is another executive body which bears the responsibility implement the state policy in the areas of quality and safety control of medicines, including medical immunobiological products, medical equipment, and medical devices, as well as control of the circulation of narcotic drugs, psychotropic substances and precursors, and counteraction to their illegal use and circulation.

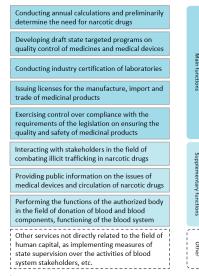
Role in the framework | The State Service on Medicines and Drug Control is a state institution responsible for formulation and implementation of policies in the medicines quality and drug control sectors. The activities of the Service are coordinated by the Ministry of Health of Ukraine.

Functions | The activities of the institutions are predominantly exercised to support human capital within the health pillar and are directed and coordinated by the Minister of Health of Ukraine, while its tasks are designated according to the Regulation on the State Service of Ukraine on Medicines and Drugs Control approved by the Resolution of the Cabinet of Ministers of Ukraine No. 647 on August 12, 2015⁵⁸.

Although the majority of functions of the institution are attributed to the Implementation stage of the policy cycle, it also participates, within its competence, in the policy formulation processes. Regarding the Agenda Setting stage, the key function of the State Service on Medicines and Drug Control is to conduct annual calculations and preliminarily determine the need of the population in Ukraine for narcotic drugs and psychotropic substances. Furthermore, within the Policy Formulation and Decision Making stage the State Service has the obligation of developing draft state targeted programs on quality control of medicines and medical devices and control in the areas of circulation of narcotic drugs, psychotropic substances and precursors, combating their illegal trafficking, as well as participating in ensuring the implementation of such programs.

Figure 27. Functions of the State Service on Medicines and Drugs Control.





Given that the State Service of Ukraine on Medicines and Drug Control is responsible for implementing activities in the fields of quality control and safety of medicinal products, medical devices, circulation of narcotic drugs, psychotropic substances and precursors and combating their illicit trafficking, blood and blood components donation and general functioning of the blood system, the main functions associated with human capital within the framework of the Service's mandate are those represented on the scheme on Figure 27. Although the general monitoring is performed by the Service,

Regulation on the State Service of Ukraine on Medicines and Drugs Control approved by the Resolution of the Cabinet of Ministers of Ukraine of August 12, 2015 No. 647. URL: https://zakon.rada.gov.ua/laws/show/647-2015-%D0%BF#n8.

the evaluation is conducted by the Cabinet of Ministries through the Ministry of Health. Thus, the human capital related functions within the Evaluation stage are not managed by the Service.

Although the general monitoring is performed by the Service, the evaluation is conducted by the Cabinet of Ministries through the Ministry of Health. Thus, the human capital related functions within the Evaluation stage are not managed by the Service.

DUPLICATION OF FUNCTIONS

For the most part, the functions of the Ministry of Health as a central executive body and a key stakeholder within the health pillar of human capital and the state institutions, namely the National Health Service of Ukraine and the State Service of Ukraine on Medicines and Drug Control, do not replicate due to the differentiated spheres of responsibilities of the mentioned stakeholders.

While the work of the three mentioned institutions is complementary, the minor connection between the stakeholders' functions can be observed. According to the current legislation, the Ministry of Health is in charge of "approving the methods of quality control of medicinal products" while the State Service of Ukraine on Medicines and Drug Control has to "develop projects of state target programs on issues of quality control of medicinal products and medical devices, and to participate in ensuring the implementation of such programs". Nonetheless, these functions rather prove the complementary character of the activities of the stakeholders, mainly in the part of policy-making and development and implementation of specific measures within the established framework.

Living conditions pillar

Institutional Framework

for the pillar

INTRODUCTION | The living conditions pillar of human capital in Ukraine, which includes providing social support and creating beneficial conditions for the development of population, is ensured by the activities of a variety of government stakeholders, the fundamental role among which is carried out by the Ministry of Social Policy (see Figure 28). The latter bears the responsibility to form the state policy regarding social protection of the population, with a special focus on vulnerable groups. The work of the Ministry is complemented by the National Social Service of Ukraine which bears the major responsibilities to implement the state policies of social support of the population.

HUMAN CAPITAL EDUCATION LIVING CONDITIONS MINISTRY FOR COMMUNITIES, MINISTRY FOR REINTEGRATION OF THE **MINISTRY OF SOCIAL POLICY** TERRITORIES AND INFRASTRUCTURE MINISTRY FOR VETERANS AFFAIRS TEMPORARY OCCUPIED TERRITORIES DEVELOPMENT National Social Service of Ukraine Non-government stakeholders NOTATION Main Ministry, responsible Additional Ministry, responsible for Pillar of Human Capital State Services and Ministry, established as a result o

Figure 28. Functions of the Ministry of Social Policy (Agenda Setting and Policy Formulation).

Several executive entities perform functions within the living conditions pillar with a particular emphasis on providing assistance to defined population groups. Such governmental bodies as the Ministry for Veterans Affairs working on provision of social services to the veterans and members of their families, the Ministry for Communities, Territories and Infrastructure Development focusing on the regional development and the infrastructure operation and improvement, and the Ministry for Reintegration of the Temporary Occupied Territories providing aid to the people who suffered from the Russian aggression and temporary occupation. The number of stakeholders engaged in various activities makes the living conditions pillar the most complex one in the field of human capital development in Ukraine. Below is the detailed analysis of the functions of the aforementioned institutions and the connections between their activities therein.

specific functions

Institutions

the Russian aggression in 2014

IMPACT OF WAR | The Russian aggression has caused the emergence of new challenges and the aggravation of existing problems in the social sector. Due to hostilities and occupation of part of Ukrainian territories, the number of people who were forced to leave their permanent place of residence caused the growth of demand for providing assistance to IDPs. Consequently to the deterioration of the economic situation, the number of people who live below the poverty line or who need any form of social or humanitarian aid increased significantly in the past year. Socially vulnerable groups, including pensioners, persons with disabilities and others, feel especially unprotected, particularly due to the growing inequalities. Altogether, this creates extra load for the limited capacity of the social services sector in Ukraine.

Also, the war has caused a housing crisis in Ukraine because of the destruction and damages of thousands of houses and apartment blocks and forced migration of people. As a result of growing demand, the rent and real estate prices went up, especially in the Western regions, which does not correlate with the decreasing income of the population. The demand for social housing is growing; however, the state is not able to satisfy it in the short term due to slow construction. Additionally, the power outages, problems with water supply and heat distribution have also affected the quality of life of Ukrainian citizens.

MINISTRY OF SOCIAL POLICY PROFILE

The Ministry of Social Policy is the key stakeholder responsible for supporting the living conditions pillar of the human capital sector. The primary task of the Ministry in this field is to ensure the formation and implementation of the state policy of social protection of human capital by providing humanitarian aid, compulsory state social and pension insurance, social protection of the population, provision of social services and social work, social and professional adaptation of soldiers, and keeping records of people subject to compulsory state social insurance. According to the Ministry's representative, the institution defines human capital as a combination of factors for realizing individual freedom and guaranteeing the realization of citizens' right to individual development, individual responsibility, and social security. The Ministry participates actively in human capital development in Ukraine, for example, it was the key architect of the Human Development Strategy.

Role in the framework | The Ministry of Social Policy is considered the key executive body responsible for human capital related policies within the framework of the living conditions pillar. The activities of the Ministry are primarily focused on policy-making in the field of providing social services to the population with a particular emphasis on vulnerable groups.

Functions | The Ministry's activities are regulated by the Resolution of the Cabinet of Ministers of Ukraine of June 17, 2015 No. 423 On Approval of the Regulation on the Ministry of Social Policy of Ukraine⁵⁹. As determined by the mentioned legislative act, the Ministry's duties are linked to providing special support to the vulnerable groups of the population and creating favourable conditions in a barrier-free environment for their participation in social initiatives.

As far as the Agenda Setting stage of policy formulation, the Ministry of Social Policy participates, within its authority, in the legislation process. For example, the institution is responsible for determining the need to establish state institutions for social services, social and professional rehabilitation of persons with disabilities, organizations providing social services to socially vulnerable groups of the population, and coordinating the work on their establishment. Additionally, to support the further process of policy formulation, the Ministry acts to request research works on determining the strategy of social policy, particularly compulsory state social insurance and pension provision, social protection of the population, including persons with disabilities, citizens affected by the Chornobyl disaster, as well as social services, ensuring equal rights and opportunities for women and men.

The aforementioned functions allow the Ministry to create a solid base for participation in the policy development procedures which are performed in cooperation and coordination with other executive bodies. Also, as indicated by the representative of the Ministry of Social Policy, an analysis of the state of affairs in relevant areas of human capital is always conducted before the development of draft regulations. On the scheme on Figure 29 there are the Policy Formulation and Decision Making functions performed by the Ministry of Social Policy within the scope of its tasks which are related to human capital development.

Therefore, the Ministry is responsible for the policy development related to providing social support to vulnerable groups of the population. This mainly concerns creating a legal framework for guaranteeing sufficient assistance, as well as defining the system of cooperation between different stakeholders in the social sector and ensuring the strategic allocation of funds. The combination of these measures is meant to create a solid base for performing the Ministry's and other executive bodies' duties related to the Implementation stage which are demonstrated on Figure 30.

⁵⁹ Regulation on the Ministry of Social Policy of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of June 17, 2015 No. 423. URL: https://zakon.rada.gov.ua/laws/show/423-2015-%D0%BF#Text.

Figure 29. Functions of the Ministry of Social Policy (Agenda Setting and Policy Formulation).



Thus, the Ministry's activities are concentrated on supervision and general coordination of initiatives performed by related institutions in order to create favourable living conditions in a barrier-free environment for all, with a special focus on vulnerable population groups. With this goal, it also performs the Evaluation functions, such as participating in the annual analysis of the implementation of state target programs in terms of labour resources, preparing proposals for their further implementation or termination, participating in the preparation of a generalized conclusion on the results of the implementation of state target programs in terms of assessing the social consequences of their implementation; informing and providing explanations on the implementation of state policy on issues within its competence.



NATIONAL SOCIAL SERVICE OF UKRAINE PROFILE

The work of the Ministry as associated with the living conditions pillar of human capital is closely related to the National Social Service of Ukraine the activities of which are directed and coordinated by the Cabinet of Ministers of Ukraine through the Minister of Social Policy. The priority tasks and functions of the Service are to implement the state policy in the sphere of social protection of human capital, namely as accountable to protection of the population, children's rights, to exercise state control over compliance with the requirements of the legislation in the provision of social support and observance of children's rights.

Role in the framework | The National Social Service of Ukraine is a state institution responsible for taking measures regarding the social protection of the population with a focus on vulnerable groups. The activities of the Service are regulated and controlled by the Ministry of Social Policy of Ukraine.

Functions | According to the Resolution of the Cabinet of Ministers of Ukraine of August 26, 2020 No. 783 On Approval of the Regulation on the National Social Service of Ukraine ⁶⁰, the key tasks of the National Social Service of Ukraine are aimed at providing social protection to the population with particular emphasis on supporting the vulnerable groups, including but not limited to family issues, children's rights, social protection of people with disabilities, homeless persons, persons who have suffered from domestic or gender-based violence, internally displaced persons (IDPs), labour veterans, veterans of war and military service, victim of political and other repressions, persons affected by the Chornobyl disaster, preventing and countering human trafficking, promotion of gender equality, volunteering, active and healthy longevity, overcoming the negative consequences of aging, etc.

Figure 31. Functions of the National Social Service of Ukraine.



Analysis of the demand for social services, issues related to assistance of vulnerable groups Management of social services system Implementation of state policy on families, child adoption, orphans, children's rights protection, healthy longevity and elderly, combating domestic violence and human trafficking Provision of measures in the field of social protection of labour, in particular for vulnerable Analysis of quality of social services, policies in the sector of social protection, and preparation Analysis of social infrastructure accesibility Maintenance of data on IDPs and provision of Participation in development of gender related policy Other services not directly related to the field of human capital, including organizing the preparation and holding of public holidays and commemorative dates, etc.

In order to ensure the fulfillment of these tasks the Service performs functions related to different stages of policy cycle. The minority of such functions which are, nonetheless, equally important in determining the principal vectors of related initiatives are attributed to the Agenda Setting, and Policy Formulation and Decision-Making stage. These include the managing the system of social work and provision of social services, participating in the development of measures aimed

Regulation on the National Social Service of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of August 26, 2020 No. 783. URL: https://zakon.rada.gov.ua/laws/show/783-2020-%D0%BF#n44.

at ensuring equality of rights and opportunities for women and men in all spheres, and analyzing the level of accessibility of social infrastructure facilities for persons with disabilities and other low-mobility categories of the population.

The vast majority of the Service's functions are conducted within the Implementation stage and are aimed at providing social support and protection to the population with a focus on aforementioned groups. Apart from exercising the general coordination of such activities and overlooking the activities of the local authorities and other related institutions, the functions of the Service in human capital domain cover, among others, those indicated on Figure 31.

In order to ensure the effectiveness of these activities, the Service also performs a number of functions to enable productive evaluation of the completed and ongoing work as well as the general situation in the sector. The Service is responsible for analyzing the activities of entities providing social services, as well as monitoring the results and assessing the quality of delivered services. Additionally, it falls within the duties of the Service to monitor the results of activities performed to provide social assistance to the aforementioned groups of population, to provide the assessment of relevant policies in the sector, to publish the periodic reports containing the key conclusions of such monitoring, and to prepare proposals for further improvement of state policies in the respective areas.

DUPLICATION OF FUNCTIONS

Given the distinct features of the functions performed by the Ministry of Social Policy and the National Social Service of Ukraine, the two entities work in close coordination with each other to ensure effective provision of social services to the population, including the special treatment of groups with specific needs. The indicated executive bodies cooperate in policy formulation and implementation processes, complementing the activities of one another.

One example of such cooperation is gender policy development. The Ministry of Social Policy is responsible for "developing measures aimed at ensuring equal rights and opportunities for women and men in all spheres of society" as well as "forming the National Action Plan for the Implementation of Gender Equality", whereas the National Social Service participates in the mentioned activities and "prepares scientifically based proposals on ensuring gender equality". At the same time, the Ministry for Communities, Territories and Infrastructure Development, within its functions, also participates in the formation of gender policy. This represents the connection between the functions of the mentioned entities; however, it does not necessarily create prerequisites for the duplication of activities but points out at the area of coordination between the executive bodies in the field of human capital.

Some minor intersections can be observed in the Ministry's tasks as compared to the scope of duties of the executive bodies carrying out measures within different pillars of human capital policy. For instance, the Ministry of Social Policy is in charge of "developing proposals for the improvement of state policy regarding demographic development, including increasing the birth rate and family development; improving the health of the population, overcoming the negative consequences of population aging". However, this coincides with the activities within the health pillar of human capital, mainly the duties of the Ministry of Health which is responsible for improving the health of the population, popularizing healthy lifestyle, and developing programs in this area. Thus, the former is duplicating the functions of the latter while also intersecting with the tasks assigned to the Ministry of Youth and Sports, which was mentioned above in the respective section.

Additionally, the specified function of the Ministry of Social Policy replicates that of the Ministry of Economy, namely its obligation to "determine the economic foundations of demographic and social development, develop forecasts of the population of Ukraine by sex and age structure, wages and the labour market". Despite the different goals of such activities (ensuring the social protection of the population and the labour market functioning), there is no differentiation of which executive body has to bear the primary responsibility for the demographic policy.

MINISTRY FOR VETERANS AFFAIRS PROFILE

The Ministry for Veterans Affairs is accountable for formulating and implementing state policy in the area of social protection of veterans and members of their families as vulnerable population groups, in particular, ensuring psychological rehabilitation, social and professional adaptation, employment, and increasing competitiveness in the labour market. Therefore, the activities of the Ministry can be attributed to several pillars of human capital development, mainly the living conditions (due to the responsibility of ensuring social support to the veterans and their families) and economic output (due to providing the assistance of employment to the veterans and members of their families).

Role in the framework | The Ministry for Veterans Affairs is a central executive body responsible for policy formulation and implementation within the living conditions pillar. The work of the Ministry is related to a specific group of veterans and their families who are defined as a vulnerable group. The Ministry was established in 2018 as a reaction to the new challenges resulting from the Russian aggression in Ukraine.

Functions | The tasks and functions of the Ministry of Veteran Affairs are defined in the Regulation on the Ministry of Veterans Affairs of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of December 27, 2018 No. 1175⁶¹. According to the mentioned legislation act, the Ministry is obliged to perform activities both in the policy formulation and policy implementation domains (see Figure 32). With regard to the former, the distinct functions of the central executive body include: providing methodological support in the development and evaluation of the strategic planning documents of local state administrations; exercising general management over the development of state target programs and their implementation; participating in the analysis of draft state target programs in order to determine their impact on ensuring the rights and freedoms of veterans and members of their families. Therefore, the development of concrete programs aiming to provide social support to the veterans and their families remains the focus of the Ministry of Veterans Affairs.

Due to the variety of the Ministry's functions within the Implementation stage of the policy cycle they can be attributed to different pillars of human capital, including health, living conditions, education, and labour. The reason behind this is the institution's duty to provide comprehensive support to veterans and their families which covers assistance in multiple areas. Thus, the Ministry is responsible for promoting the preservation of the mental health of veterans and their family members, realization of their right to receive medical care, including preventive, therapeutic and rehabilitation measures, provision of professional orientation and, in cooperation with the Ministry of Education and Science, educational services on all levels, as well as development of sports and psychological and social adaptation through involvement in physical culture and sports activities. Special attention is also paid to taking measures for the release of prisoners of war and hostages, searching for missing persons in connection with wars, local conflicts, and performing military service duties, and participating in resolving issues of social and professional adaptation of former prisoners of war who have returned to their homeland. Additionally, the Ministry is also tasked with ensuring the promotion of cooperation and dialogue with the civil society organization in the aforementioned areas, including providing them with financial support, monitoring and analyzing the effectiveness of implemented programs.

Regulation on the Ministry of Veterans Affairs of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of December 27, 2018 No. 1175. URL: https://zakon.rada.gov.ua/laws/show/1175-2018-%D0%BF#n12.

Figure 32. Functions of the Ministry for Veterans Affairs.



As for the functions within the Evaluation stage, the Ministry is primarily responsible for monitoring the state of observance of the rights and freedoms of veterans and members of their families, in particular, in the areas of provision of housing, psychological rehabilitation and social adaptation, employment and leisure, restoration and improvement of professional skills and abilities through vocational training, increasing competitiveness in the labour market, provision of medical services and technical and other means of rehabilitation. In turn, this allows the Ministry to assess the current state of provision of services to the veterans and their families, including the results of the implementation of state target programs, and to further act to target certain areas during the policy formulation procedures.

MINISTRY FOR REINTEGRATION OF THE TEMPORARY OCCUPIED TERRITORIES PROFILE

The Ministry for Reintegration of the Temporary Occupied Territories is a central executive body that ensures the formation and implementation of the state policy on the territories of Ukraine which are temporarily occupied by the Russian Federation and in the field of protection of the rights of forcibly displaced (deported) persons, in particular the protection of the rights of persons deported on ethnic grounds. The Ministry oversees human capital development within the process of reintegration of the temporary occupied territories and majorly encompasses the activities regarding the living conditions pillar.

Role in the framework | The Ministry for Reintegration of the Temporary Occupied Territories is a central executive body which performs its activities within the living conditions pillar of human capital. The activities of the Ministry include policymaking and exercising control over the implementation of measures in the field of reintegration of territories and providing assistance to displaced persons. The institution was established in 2016 as a result of new challenges which emerged after the beginning of the Russian aggression in Ukraine.

Functions | The tasks of the Ministry are defined by the Regulation on the Ministry for Reintegration of the Temporary Occupied Territories approved by the Resolution of the Cabinet of Ministers of Ukraine of June 8, 2016 No. 376⁶². First of all, the distinct functions of the executive body cover collecting and analyzing information on the need to take measures to restore infrastructure (transport, energy, housing, communal, social, etc.) in the temporarily occupied and adjacent territories, as well as the need to provide housing and other social protection issues for internally displaced persons and persons who have moved abroad. These Agenda Setting functions, in turn, create a solid base for further Policy Formulation and Decision Making activities which include, but are not limited to preparing proposals for the supply of humanitarian cargo, developing proposals to identify infrastructure facilities that require priority restoration, and determining measures aimed at meeting the socio-economic, infrastructural, humanitarian, environmental and cultural needs of the population residing in the temporarily occupied and adjacent territories (see Figure 33).

Figure 33. Functions of the Ministry for Reintegration of the Temporary Occupied Territories.



Analysis of data and preparation of proposals on the need to restore infrastructure, provide housing and other assistance to IDPs		
Design of measures to provide needs of the population in the temporary occupied and adjacent territotires		Main
Organization of humanitarian corridors		Main functions
Preparation of proposals regarding humanitarian cargo supply		22
Coordination of measures regarding the restoration of infrastructure during reintegration of temporary occupied territories		
Participation in development of state and regional targeted programs		functions
Cooperation with humanitarian organizations	functions	
Promotion of social security of IDPs		f.
Analysis of needs and implementation of assistance measures for persons deported on the basis of nationality	functions	
Other services not directly related to the field of human capital, such as coordinating measures to protect assets of state, communal and private property, restore functioning of industrial enterprises, etc.		Other

⁶² Regulation on the Ministry for Reintegration of the Temporary Occupied Territories approved by the Resolution of the Cabinet of Ministers of Ukraine of June 8, 2016 No. 376. URL: https://zakon.rada.gov.ua/laws/show/376-2016-%D0%BF#n10.

The Ministry's functions which are linked to the implementation of the state policies within its area of responsibility primarily includes providing social support and other relevant assistance to those who have suffered from temporary occupation of the Ukrainian territories and consist of the activities presented on the scheme on Figure 33.

The Ministry for Reintegration of the Temporary Occupied Territories bears the responsibility to provide comprehensive support to human capital development on the temporary occupied territories in the process of their reintegration and to the internally displaced persons, which includes ensuring the provision of measures within the living conditions, education, health and economic output pillars. However, as indicated by the representative of the Ministry, currently the Ministry has not conducted an assessment of policies in the field of human capital, including due to the absence of such initiatives and/or obligations on the part of the state and the strategic initiatives. Additionally, the process of evaluating state policy in the field of human capital is complicated by the uncertainty of the criteria for such evaluation.

DUPLICATION OF FUNCTIONS

The notable quality of the Ministry of Veterans Affairs and the Ministry for Reintegration of the Temporary Occupied Territories is that the two executive bodies were established after the beginning of the Russian aggression in 2014 in response to the arising issues in the country and especially on the territories which have suffered from the temporary occupation. As was discussed in the section above, the indicated institutions have a wide variety of duties in the spheres of providing social support and assistance to the distinct groups of population, namely veterans and their families, displaced persons, persons living on the temporarily occupied territories, etc.

Nevertheless, although the main emphasis of the activities of the mentioned entities is made within the living conditions pillar, the Ministries are also engaged in exercising functions that fall within the education, health, and economic output pillars of human capital. This might cause possible collisions with the work of the respective bodies, including the Ministry of Social Policy, the Ministry of Education and Science, the Ministry of Health, and the Ministry of Economy along with other state institutions, in terms of taking particular measures within their scope of responsibilities. Thus, the work of both the Ministry of Veterans Affairs and the Ministry for Reintegration of the Temporary Occupied Territories is closely connected with that conducted by the other institutions within the living conditions pillar and beyond which creates an important need for coordination and cooperation of activities of the above-mentioned executive bodies within the framework of their functions.

MINISTRY FOR COMMUNITIES, TERRITORIES AND INFRASTRUCTURE DEVELOPMENT PROFILE

The responsibilities of the Ministry for Communities, Territories and Infrastructure Development predominantly lay within the living conditions pillar of human capital development. With this in mind, the institution has the duty to ensure the formation and implementation of the state regional policy in the field of housing and communal services control, form a unified technical, social and economic policy in the field of drinking water, drinking water supply and sewerage, monitor socio-economic and other indicators of development of regions where human capital is located. As stated by the representatives of the Ministry, the formation of policies in the Ministry for Communities, Territories and Infrastructure Development is carried out taking into account a people-centered approach and are aimed at improving the living conditions of existence of a person, a citizen.

Role in the framework | The Ministry for Communities, Territories and Infrastructure Development is a central executive body responsible for policy formulation and control over the implementation of measures in the sectors of territories development and infrastructure construction and modernization with the purpose of improving the standards of life of the population. The institution was established as a result of merging of the Ministry for Communities Development and the Ministry of Infrastructure in December 2022.

Functions | The activities and competences of the mentioned central executive body are regulated by the current legislation, primarily the Regulation on the Ministry for Communities, Territories and Infrastructure Development approved by the Resolution of the Cabinet of Ministers of Ukraine of June 30, 2015 No. 460⁶³. According to the mentioned document, the Ministry's functions include performing activities within the Policy Formulation and Decision Making process, namely determining priorities and implementing measures to ensure the formation and implementation of state policy in the field of development of state housing policy, urban and spatial planning of territories, determining the level of accessibility for persons with disabilities and other groups of the population with reduced mobility of residential, communal and public facilities, and participating in the formation of gender policy (for more information - see Figure 34).

Figure 34. Functions of the Ministry for Communities, Territories and Infrastructure Development.



Based on the vectors of policy development determines within the realization of aforementioned functions, the Ministry is subject to carrying out control over the state of labour protection at enterprises, institutions and organizations belonging to the sphere of its management, ensuring maintenance of the Unified State Register of citizens who need improvement of living conditions, providing organizational, scientific and technical support for the reform and development of housing

Regulation on the Ministry for Communities, Territories and Infrastructure Development approved by the Resolution of the Cabinet of Ministers of Ukraine of June 30, 2015 No. 460. URL: https://zakon.rada.gov.ua/laws/show/460-2015-%D0%BF#n8.

and communal services, and taking measures to restore the life support systems of communities in the de-occupied territories of Ukraine (for detailed information - see Figure 34).

Additionally, the Ministry for Communities, Territories and Infrastructure Development has the duty to perform evaluation activities, including monitoring the state of reform and development of housing and communal services, preparation to and completion of the heating season, calculations of housing and communal services enterprises for energy carriers, as well as payment by the population and legal entities for housing and communal services provided to them, as well as preparing a national report on the quality of drinking water and the state of drinking water supply in Ukraine.

DUPLICATION OF FUNCTIONS

Within the institutional framework of human capital, the Ministry for Communities, Territories and Infrastructure Development has the obligation to provide safe and sufficient living conditions for the people, as well as to support the workforce through comprehensive development of territories and communities. The activities of the Ministry are connected to those of the other institutions within the indicated pillar.

One example is cooperation with the Ministry of Social Policy and the National Social Service in policy-making in the sphere of creating barrier-free and inclusive environment for persons with disabilities. While the primary function of determining direction of state policy in the mentioned area lay upon the Ministry of Social Policy, the Ministry for Communities, Territories and Infrastructure Development is tasked of "determining, with the participation of the Ministry of Social Policy and public organizations of persons with disabilities, the level of accessibility for persons with disabilities and other groups of the population with reduced mobility of residential, communal and public facilities". Additionally, the Ministry "approves a program for creating appropriate conditions for access of persons with limited physical capabilities to objects of transport and road infrastructure and postal communication". The indicated activities are also closely linked to the work of the National Social Service which bears the responsibility to "analyze the level of accessibility of social infrastructure facilities for persons with disabilities and other low-mobility categories of the population, and to prepare proposals regarding the creation of a barrier-free environment". The aforementioned functions are not duplicating; however, they illustrate the connections and areas of cooperation between the central executive bodies in the field of human capital.

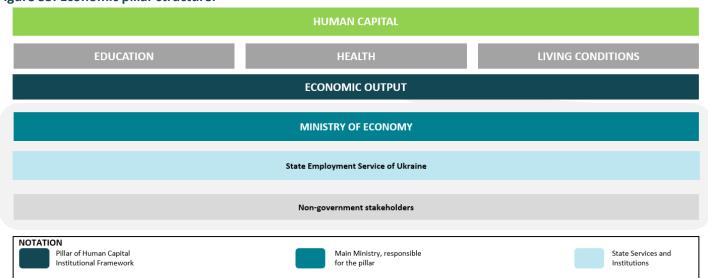
Furthermore, the connections can be observed in the functions conducted by the Ministry for Communities, Territories and Infrastructure Development and the Ministry for Reintegration of the Temporary Occupied Territories, namely in the field of infrastructure development. While the former performs the duty of "developing and implementing measures aimed at development of regional infrastructure", the latter is obliged to "participate in the planning, development, approval and implementation of projects of regional development, development of road and transport and other infrastructure, which are implemented in the temporarily occupied territory in the process of its reintegration, as well as its adjacent territories". Although some duplications may occur due to the similarity of tasks of the two Ministries, the central role within this process has to be played by the Ministry for Communities, Territories and Infrastructure Development with the engagement of the Ministry for Reintegration of the Temporary Occupied Territories in the part of determining specific needs of the territories which have suffered from temporary occupation.

Economic output pillar

INTRODUCTION | While the human capital is majorly formed by the level of education, health and living conditions of the population, the level of human capital development is measured by its economic outcomes, namely the productiveness of the workforce which is influenced by the previous pillars. However, the results coming from increased human productivity cannot be achieved without effective policy in the field of labour and employment, which are measured within the economic output pillar. Therefore, the institutions working within this pillar have a two-fold task: both to invest in the productive use of human capital potential and to assess the productivity of the workforce and its impact on the national economy.

The key executive bodies conducting activities within the economic output pillar include the Ministry of Economy, which is responsible for policy-making process in the field of employment and measuring economic effects of human capital, and the State Employment Service of Ukraine, which focuses on the policy implementation activities (see Figure 35). The indicated institutions ensure the provision of equal employment opportunities for all, including providing extra assistance to vulnerable population groups and to those in need of special conditions. The subsequent analysis examines the core responsibilities of the central executive within the framework of the economic output pillar of human capital, as well as connections of their activities with the other institutions.

Figure 35. Economic pillar structure.



Note: Several central executive bodies, including the Ministry of Energy, the Ministry of Strategic Industries of Ukraine, and the Ministry of Agrarian Policy and Food, which exercise functions related to various sectors of economic development; however, the scope of their responsibilities does not cover tasks linked to human capital.

IMPACT OF WAR | The employment sector in Ukraine has suffered severely due to the full-scale invasion of the Russian Federation in 2022. The infrastructure destruction, migration of the population, security issues and other factors caused a number of problems on the labour market. While a lot of Ukrainians lost jobs due to displacement, closure of enterprises, reduction of the number of employees in companies because of financial problems or other reasons, the number of vacancies remained limited. Also, many people experience salary cuts which are often explained by the reduced revenue of companies. As a result, the unemployment rate has grown, as well as the inequalities related to job applications.

MINISTRY OF ECONOMY PROFILE

The Ministry of Economy is the key executive body in Ukraine that contributes to the formation and implementation of the state policy of economic and social development of human capital, implements the state policy in the field of labour, employment, labour migration, labour relations, and social dialogue.

Role in the framework | The Ministry of Economy plays a special role within the institutional framework of human capital in Ukraine. On the one hand, as the central executive body it is responsible for developing, implementing and monitoring the state policy in the field of labour which includes creating equal opportunities for the employment of the citizens of various groups, taking measures to prevent unemployment or underemployment, regulating labour market, etc. Thus, the Ministry's obligations fall within the economic output pillar of human capital development. On the other hand, the primary task of the Ministry is to form and implement the state economic policy, which also covers the assessment of labour force productivity and taking relevant measures to increase such productivity. Therefore, as the state institution the Ministry of Economy has the duty of monitoring and evaluating the economic outcomes of human capital on the national level. For the purpose of this research the human capital related functions of the Ministry of Economy are considered within the framework of the economic output pillar of human development.

Functions | The activities of the Ministry are regulated by the Resolution of the Cabinet of Ministers of Ukraine of August 20, 2014 No. 459 On Approval of the Regulation on the Ministry of Economy of Ukraine⁶⁴. Keeping in mind the specific role of the Ministry and the primary focus on the employment policy, the Policy Formulation and Decision Making function of the Ministry can be defined as demonstrated on Figure 36.

Figure 36. Functions of the Ministry of Economy.



Defining economic principles of demographic and social development Developing strategy and for the implementation of the innovation, scientific policy and of policy on incomes of the population Analyzing the economic situation in the social and humanitarian sphere Analyzing the state of the labour market Analyzing the implementation of state social Forming the state order for training of specialists Submitting the draft budget of the Compulsory State Unemployment Insurance Fund Carrying out state supervision of social insurance against unemployment Coordinating the activities of central executive Providing organizational and methodological guidance Developing the Classifier of Occupations and preparing proposals for amendments thereto Other services not directly related to the field of human capital, as monitoring the functioning of industrial parks, etc.

The Implementation related functions of the Ministry of Economy in the human capital sector can be differentiated by two main categories: the first one has to do with the employment and labour market policies, while the second one is linked to providing social protection to the workforce. The former category includes such functions as providing organizational and methodological guidance and coordination of work related to the development and implementation

Regulation on the Ministry of Economy of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of August 20, 2014 No. 459. URL: https://zakon.rada.gov.ua/laws/show/459-2014-%D0%BF#n10.

of state target programs by central and local executive authorities, forming the state order for training of specialists, scientific, scientific-pedagogical and working personnel, advanced training and retraining, and submitting the draft budget of the Compulsory State Unemployment Insurance Fund to the Cabinet of Ministers of Ukraine for approval. At the same time, the social policy related functions of the Ministry cover carrying out state supervision in the field of compulsory state social insurance against unemployment and coordinating the activities of central executive authorities on the formation and implementation of the state policy in the field of social dialogue, collective bargaining and regulation of labour and socio-economic relations, and interaction with the National Tripartite Social and Economic Council.

Furthermore, the Ministry of Economy is entitled to fulfilling the human capital related functions at the Evaluation stage, some of which include conducting economic analysis of the efficiency of the pension system, monitoring the area of labour remuneration and standardization, and analyzing the implementation of state social guarantees that provide for social protection, including material support for citizens in case of illness, full, partial or temporary disability, loss of breadwinner, unemployment due to circumstances beyond their control, as well as in old age and in other cases provided for by law. According to the representative of the Ministry of Economy, some examples of evaluation activities include: analyzing the employment market, based on the results of which a forecast is made which professions are lacking in the economy in order to place relevant state orders for educational services at universities; analyzing the EU directives to determine the level of compliance of the Ukrainian legislation with the EU acquis and form proposals of what should be taken into account for the future.

DUPLICATION OF FUNCTIONS

Even though the main focus of the Ministry of Economy within the field of the human capital is the employment policy, it coordinates with the related executive bodies in other sectors as well. In particular, the institution coordinates with the Ministry of Education and Science regarding the development of scientific and technical policy. Despite the primary responsibility of the latter to "develop the principles of scientific and technical development", "form priority directions for the development of science and technology and innovative activity", and "form state target scientific and technical programs in the priority areas", the former "participates in the development of strategy and implementation mechanism of the state scientific and technical policy and preparation of proposals for determining the scope and target direction of budget financing of innovative, scientific, and technical activities". This cooperation indicates the importance of scientific development for human capital from two perspectives: first, the improvement of knowledge and skills of the population with the purpose to become more productive as a workforce; second, the role of scientific and technical advancement in national economic growth.

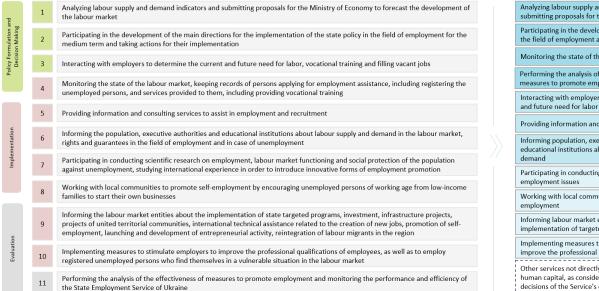
STATE EMPLOYMENT SERVICE OF UKRAINE PROFILE

The tasks of the Ministry of Economy are supplemented by the activities performed by the State Employment Service of Ukraine which is in charge of implementing state policy in the field of employment and labour migration, social protection against unemployment, as well as analyzing the state of the labour market, the data of which will be needed for human capital analysis. The centralized system of state institutions of the Service includes the State Employment Center which is the main institution within the system and the interregional and regional employment centers which are accountable to the State Employment Center. The functions in the field of employment and labour market are distributed between state, interregional and regional employment centers according to the sphere of their responsibilities.

Role in the framework | The State Employment Service is a state institution performing functions related to the implementation of measures within the framework of state employment policy. The work of the Service is coordinated and controlled by the Ministry of Economy of Ukraine.

Functions | According to the Regulation on the State Employment Service of Ukraine approved by the Resolution of the Ministry of Economy, Trade and Agriculture Development of Ukraine of December 16, 2020 No. 2663⁶⁵, the majority of responsibilities of the Service lay in the policy implementation domain. In spite of this, the executive body also participates, within the share of its competences, in policy formulation procedures. In this regard, the functions of the state, interregional and regional employment centers include such as: analyzing labour supply and demand indicators and submitting proposals for the Ministry of Economy to forecast the development of the labour market; participating in the development of the main directions for the implementation of the state policy in the field of employment for the medium term and taking actions for their implementation; interacting with employers to determine the current and future need for labour, vocational training and filling vacant jobs, etc. (see Figure 37).

Figure 37. Functions of the State Employment Service of Ukraine.



Analyzing labour supply and demand indicators and submitting proposals for the Ministry of Economy Participating in the development of the state policy in the field of employment and its implementation Monitoring the state of the labour market Performing the analysis of the effectiveness of measures to promote employment Interacting with employers to determine the current Providing information and consulting services Informing population, executive authorities and educational institutions about labour supply and Participating in conducting scientific research on Working with local communities to promote self-Informing labour market entities about the implementation of targeted programs and projects Implementing measures to stimulate employers to Other services not directly related to the field of human capital, as considering complaints against decisions of the Service's officials, etc.

The state, interregional and regional employment centers bear the responsibility to perform a variety of functions regarding the policy implementation. As for this stage of the policy cycle, it is appropriate to consider the tasks with regard to the duties of employment centers of different levels. With this in mind, the State Employment Center executes the following functions:

Regulation on the State Employment Service of Ukraine approved by the Resolution of the Ministry of Economy, Trade and Agriculture Development of Ukraine of December 16, 2020 No. 2663. URL: https://zakon.rada.gov.ua/laws/show/z1305-20#n15.

- monitoring the state of the labour market;
- keeping records of persons applying for employment assistance, including registering the unemployed persons, and services provided to them, including providing vocational training;
- providing information and consulting services to assist in employment and recruitment;
- providing social services and paying financial support in accordance with the national law;
- forming a database of vacant jobs (positions) based on information received from employers and business entities providing employment mediation services;
- informing the population, executive authorities and educational institutions about labour supply and demand in the labour market, rights and guarantees in the field of employment and in case of unemployment;
- participating in conducting scientific research on employment, labour market functioning and social protection of the population against unemployment, studying international experience in order to introduce innovative forms of employment promotion.

The following are the functions assigned to the interregional and regional employment centers:

- organizing, coordinating and controlling the work of educational institutions and branches of interregional and regional employment centers;
- registering the unemployed persons and persons applying for employment assistance, and keeping records of services provided to them, including vocational training;
- providing information and consulting services to assist in employment and recruitment;
- working with local communities to promote self-employment by encouraging unemployed persons of working age from low-income families to start their own businesses;
- analyzing the situation on the regional and local labour markets, the effectiveness of active labour market programs and making proposals to the State Employment Center for their improvement;
- informing the population, executive authorities and educational entities about labour supply and demand in the labour market, rights and guarantees in the field of employment and compulsory state social insurance against unemployment;
- informing the labour market entities about the implementation of state targeted programs, investment, infrastructure projects, projects of united territorial communities, international technical assistance related to the creation of new jobs, promotion of self-employment, launching and development of entrepreneurial activity, reintegration of labour migrants in the region;
- implementing measures to stimulate employers to improve the professional qualifications of employees, as well as to employ registered unemployed persons who find themselves in a vulnerable situation in the labour market.

Despite the functions of the State Employment Center and interregional and regional centers being interrelated, the institutions are responsible for fulfilling them on a different level - national and regional/local, respectively. Additionally, the State Employment Center has the obligation of conducting activities attributed to the Evaluation stage, namely performing the analysis of the effectiveness of measures to promote employment and monitoring the performance and efficiency of the State Employment Service of Ukraine.

DUPLICATION OF FUNCTIONS

Keeping in mind the specific responsibilities within the spheres of competence of the Ministry of Economy and the State Employment Service, the mentioned executive bodies cooperate closely on the matters related to the development of state policies and implementing measures within the labour domain of human capital. For instance, the Ministry of Economy bears the responsibility to "analyze the state of the labour market, prepares proposals for regulating the labour market and employment of the population", which is complemented by the function of the State Employment Service to "participate in the development of the main directions of implementation of the state policy in the field of population employment for the medium-term period and their implementation". Additionally, the State Employment Service is in charge of "analyzing indicators of labour supply and demand and submitting proposals for forecasting the development of the labour market for the consideration of the Ministry of Economy, which, in turn, "prepares proposals for regulating the labour market and employment of the population". However, while the activities of the latter are mainly directed at the policy-making process, the former participates actively in the implementation of designed measures to ensure the realization of state policies in the indicated sector.

Nonetheless, the activities of the above-mentioned executive bodies are connected with those of the other institutions performing function within different pillars of human capital, some of which has been mentioned in previous sections. Hence, the Ministry of Education and Science has the function of "systematically monitoring and analyzing the needs of the domestic labour market, makes proposals regarding the scope and directions of state support for the training of specialists with higher education" which is linked to the Ministry of Economy's activities to "analyze the state of the labour market". Even though the former performs the indicated activities with the aim to determine the needs for the training of specialists, the question is whether it should be within the scope of responsibility of the Ministry of Education and Science to perform such analysis, or such functions should be performed in closer coordination with the Ministry of Economy.

With regard to the employment policy, a number of duplications can be observed as compared to the functions of the other central executive bodies. A few examples in this area include the duties of the Ministry of Education and Science and the Ministry of Health to support the employment of higher educational institutions graduates; the responsibility of the Ministry of Youth and Sports to assist in the employment of youth; the work of the Ministry of Veterans Affairs to provide opportunities of employment for veterans and members of their families; the activities of the Ministry of Reintegration of the Temporary Occupied Territories to inform and support the employment of internally displaced persons, etc. However, the functions of the Ministry of Economy encompass the population of the country as a whole, whereas the other Ministries indicated earlier deal with the needs of individual population groups. In line with this, it becomes unclear whether the employment policy is the sphere of exclusive responsibility of the Ministry of Economy and the State Employment Service of Ukraine, or it is the area which has to be divided between different executive bodies in the field of human capital.

Stakeholders with cross-cutting functions

INTRODUCTION | Two central executive bodies can be considered as the ones performing auxiliary functions to support the general system of human capital in Ukraine which cannot be prescribed to a specific pillar of human capital. These institutions, namely the Ministry of Justice and the Ministry of Finance, are performing activities to enable the effective functioning of the government stakeholders discussed in this chapter and ensure the successful policy-making and implementation of measures in the field of human capital management across all pillars. Additionally, the work of the local administrations cannot be attributed to any specific pillar because their functions are related to all the sectors of human capital with the difference encompassing the regional and local levels instead of the national one.

IMPACT OF WAR | The effects of war on the indicated executive bodies have been different. First, the work of the Ministry of Justice has seen some changes due to the growth in the number of people who need legal assistance as a result of their rights violations and other issues. Second, given that the Ministry of Finance is responsible for budget management, the institution had to take measures to restructure the state expenses with a primary focus on the defense sector but keeping in mind the economic regression in Ukraine. Importantly, a sufficient number of funds has to be reserved for the purpose of human capital development, especially taking into account the new war-related challenges mentioned earlier in this chapter. Third, the local administrations face the issue of growing inequalities between territories and communities caused by the different level of damages, security threats and other problems. Therefore, there arises a demand for adjustment of regional policies with regard to the specific challenges and needs of the communities.

MINISTRY OF JUSTICE PROFILE

The Ministry of Justice ensures the formation and implementation of the state legal policy of state registration of civil status acts, state registration of rights to immovable property, state registration of legal entities, public formations that do not have the status of a legal entity and individual entrepreneurs and ensures the formation of state policy in the field of archival affairs.

Role in the framework | The Ministry of Justice is a central executive body exercising a cross-cutting function of ensuring the legal framework in the field of human capital. The Ministry's activities cannot be considered within any particular pillar, yet they are important for the functioning of the institutional framework as a whole.

Functions | Although the Ministry of Justice is not defined as the main body of executive power that forms or implements public policy related to human capital, according to the Regulation on the Ministry of Justice of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of July 2, 2014 No. 228⁶⁶, the following functions of the Ministry are related to the human capital development (see also Figure 38):

- in policy formulation domain: conducting a gender-legal examination of legislative acts; carrying out an examination of normative legal acts for compliance with the provisions of the Convention on the Protection of Human Rights and Fundamental Freedoms and the practice of the European Court of Human Rights;
- in policy implementation domain: informing citizens about their rights and freedoms, the legal policy of the state, implementation of projects related to legal education of the population; promoting the development of the provision of legal services in order to realize the rights, freedoms and legitimate interests of citizens and legal entities; supervising the functioning of the system of providing free legal assistance to the citizens; participating in the development and distribution of educational programs in the field of protection of rights, freedoms and legitimate interests of citizens; organizing the provision of services for the convicts.

Figure 38. Functions of the Ministry of Justice.



According to the Ministry representative, the executive body also conducted evaluation of human capital within the scope of its policy formulation activities. In 2017-2019, the initiative "I HAVE THE RIGHT!" was realized to encourage people to become more interested in their rights and applied for free legal assistance. In particular, according to the results of 2019, 60% of Ukrainians consider themselves more aware of their rights, 9% more citizens know about free legal aid, 10% more citizens are ready to defend their rights, 36% of Ukrainians were covered by the Project, and more than 2 million people received legal assistance within the framework of the project. Also, 29,675,800 views of the legal advice platform "WikiLegalAid" were recorded in 2022 (compared to 14,963,077 in 2021). The platform was created by the Coordination Center for Legal Aid in order to improve the quality, completeness and efficiency of providing legal consultations to citizens.

Regulation on the Ministry of Justice of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of July 2, 2014 No. 228. URL: https://zakon.rada.gov.ua/laws/show/228-2014-%D0%BF#n8.

MINISTRY OF FINANCE PROFILE

The Ministry of Finance bears the responsibility to provide financial supervision for human capital in Ukraine, thus it ensures the formation and implementation of a unified state tax, financial, customs policy, state policy on the administration of a single contribution to the obligatory state social insurance, ensures the allocation of budget funds in accordance with the goals and priorities set out in the program documents for the economic and social development of human capital.

Role in the framework | The Ministry of Finance is a central executive body responsible for budget management, which is a cross-cutting function ensuring the operation of the human capital framework in Ukraine.

Functions | The tasks of the Ministry are defined by the Regulation on the Ministry of Finance of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of August 20, 2014 No. 375⁶⁷. Apart from participating in policy formulation process, namely developing draft laws and other regulatory legal acts on issues within his competence, the Ministry of Finance executes a number of functions in the field of human capital which are related to the implementation of state policies (see Figure 39). The latter include the following: managing the the electronic health care system (except for information about a person's state of health) in the part of conducting payment for the provision of medical services and medicines under the medical guarantee program, and taking into account the relevant recommendation of the National Health Service of Ukraine; evaluating the financial support of state target program projects; coordinating the work related to the initiation, preparation, implementation and examination of economic and social development projects of Ukraine supported by foreign states, foreign financial institutions and international financial organizations, monitoring the implementation of the specified projects, and providing methodical support for the specified work.

Figure 39. Functions of the Ministry of Finance.



DUPLICATION OF FUNCTIONS

Given the specific functions of the Ministry of Justice and the Ministry of Finance, no duplications of functions can be observed compared to the other stakeholders in the field of human capital. The main responsibility lying upon the Ministry of Justice is to ensure the conduction of legal expertise of policies and laws developed by the governmental bodies in the human capital domain, with the goal to certify the compliance of such acts with the current legislation of Ukraine as well as the international agreement. The Ministry of Finance, for its part, has the duty of financial planning of the State Budget and ensuring appropriate costs of programs and initiatives developed and implemented by the other executive bodies. On the whole, this provides a solid base for effective and balanced performance of the human capital system in Ukraine.

⁶⁷ Regulation on the Ministry of Finance of Ukraine approved by the Resolution of the Cabinet of Ministers of Ukraine of August 20, 2014 No. 375. URL: https://zakon.rada.gov.ua/laws/show/375-2014-%D0%BF#n8.

LOCAL ADMINISTRATIONS PROFILE

In addition to the activities conducted by the central executive bodies, the local administrations at municipal and oblast levels play an integral role in ensuring the balanced human capital development on the regional and local levels, being able to target specific areas that need improvement or are experiencing profound problems. Besides, they provide access to a variety of statistics and information on population, employment, education, health and other indicators that can help analyze the development of human capital in Ukraine.

Role in the framework | The local administrations at municipal and oblast levels perform activities related to all pillars of human capital. The key difference of their work is that the local administrations are primarily responsible for policy implementation rather than policy-making and conduct the necessary measures at regional and community level rather than the national one.

Functions | According to the Law of Ukraine On Local State Administrations⁶⁸, the latter have authorities to act, as related to human capital, in the sectors of socio-economic development; urban planning, housing and communal services, household, trade services, transport and communication; science, education, healthcare, culture, physical education and sports, motherhood and childhood, family and youth; social security and social protection of the population; and population employment, labour and wages.

In line with this, the functions predominantly belong to the Implementation stage of policy cycle. However, the local administrations, within their scope of authority, participate in Agenda Setting, Policy Formulation and Decision Making processes, namely through creation of projects of social and economic development programs and state target programs, conduction of studies of the processes on the labour market, in the field of population employment and professional training, their evaluation, and forecasting the demand and supply of labour force, as well as development of long-term forecasts and projects for the development of relevant branches of the national economy, their financial and economic support.

Figure 40. Functions of the local administrations at municipal and oblast levels.



Creating social and economic development projects and conducting labour market studies Implementing state policy in the field of providing social services, social and legal protection Developing long-term forecasts and projects for the development of branches of national economy Contributing to development of social security of socially vulnerable citizens Providing social services to persons with disabilities Carrying out measures of social patronage Taking measures to prevent mass unemployment. developing and organizing territorial employment programs Ensuring provision of subsidies Organizing the work of medical institutions to provide assistance to the population Promoting development of science and technology Other services not related to the field of human capital, determining and setting consumption rates for housing and communal services,, etc.

⁶⁸ Law of Ukraine On Local State Administrations. URL: https://zakon.rada.gov.ua/laws/show/586-14#Text.

Upon the local administrations there lays responsibility of implementing measures of state policies within specific sectors which were mentioned above. Therefore, the local administrations at municipal and local levels are accountable for taking the measures outlined on Figure 40.

Therefore, local administrations are in charge of implementing individual measures within the state policies framework, including developing and organizing specialized programs on the regional and local level to provide support to the vulnerable population groups as well as ensures balanced development of various systems, including education, scientific research, healthcare, social services provision, employment assistance, etc.

DUPLICATION OF FUNCTIONS

The specific role of the local administrations within the human capital framework in Ukraine is that they bear the major responsibility for implementing measures within the vectors of state policies defined by the key central executive bodies in the relevant sectors in the field of human capital. Therefore, the activities of the local administration are closely linked to the functions performed by the Ministries and state agencies across all pillars of human capital.

However, such connections can barely be described as duplication for several reasons. First, while the central executive bodies develop, implement, and evaluate policies on the national level, the local administration carry out their activities on the municipal and oblast levels, focusing on the regional and local priorities for human capital development within the broad directions approved on the national level. Second, although the local administrations participate in the policymaking process in the part of designing regional socio-economic and other targeted programs, their major responsibilities lay within the implementation stage of the policy cycle, whereas the opposite is true for the central executive bodies developing policies in the field of human capital. Thus, the tasks and functions of the local administrations in human capital are complementary to those of the Ministries and institutions.

KEY TAKE-AWAYS

- The institutional framework in the field of human capital in Ukraine has a multilevel structure. While the top level is represented by the Prime Minister and the Deputy Prime Ministers of Ukraine who conduct general management and coordination, the key stakeholders responsible for policy formulation, implementation and evaluation are central executive bodies, namely the Ministries and state agencies whose work is related to human capital. In this research, the institutional framework is analyzed within four key pillars of human capital education, health, living conditions, and economic output, with the latter representing the economic outcomes of human potential created by three preceding pillars. Additionally, several executive bodies are considered as performing administrative tasks to enable the general functioning of the human capital system in Ukraine.
- The education pillar of human capital is represented by the Ministry of Education and Science, the Ministry of Culture and Information Policy, the Ministry of Youth and Sports, the Ministry of Digital Transformation, the State Service of Education Quality, the State Agency of Ukraine for Arts and Art Education, the Institute of Education Content Modernization, the National Academy of Educational Sciences, the Ukrainian Institute of Education Development, the National Research Foundation of Ukraine, and the National Council of Ukraine on Science and Technology Development. The education sector is considered as the principal sphere of human capital, therefore, as mentioned by the representatives of the state institutions, the Ministry of Education and Science plays the central role in developing human capital policies in Ukraine.
- The key functions of the indicated executive bodies are focused on improving the knowledge, skills and competences of the population, providing equal opportunities for education and training throughout life for all people, including those with special educational needs, and investing in innovative development. While the Ministry of Education and Science bears the responsibility to formulate policies in the field of education, scientific and technical development, the indicated state agencies predominantly focus on the policy implementation.
- Additionally, the activities of the Ministry of Youth and Sports are related to the development of physical
 activities and healthy lifestyle as well as assisting youth, the Ministry of Culture and Information Policy ensures
 the quality of arts education, whereas the Ministry of Digital Transformation has a task of improving the digital
 skills and competences of the population.
- The health pillar of human capital is represented by the Ministry of Health and the state institutions, namely the National Health Service of Ukraine and the State Service of Ukraine on Medicines and Drug Control. The former is a central executive body bearing the responsibility to form state policy in the healthcare sector, whereas the mentioned state services have the duties of developing the specific area of healthcare in Ukraine, namely the medical guarantees programs and the quality and safety control of medicines, respectively.
- The living conditions pillar is represented by the Ministry of Social Policy, the Ministry for Veterans Affairs, the
 Ministry for Communities, Territories and Infrastructure Development, the Ministry for Reintegration of the
 Temporary Occupied Territories, and the National Social Service of Ukraine. The fundamental focus of the
 mentioned institutions is to provide social support and assistance to the population with a specific focus on
 vulnerable groups.
- The Ministry of Social Policy is the main executive body within the living conditions pillar which is responsible for formulating policies regarding the social protection of the population, while the activities of the National Social Service of Ukraine are focused on implementing the measures of the state social policy determined by the Ministry. Additionally, the Ministry for Communities, Territories and Infrastructure Development ensures the development of policies and controls their implementation in the fields of regional and local development, infrastructure management and modernization.
- A distinguishing feature of the Ministry for Veterans Affairs, providing assistance to veterans and their families, and the Ministry for Reintegration of the Temporary Occupied Territories, which is responsible for providing aid to IDPs, people living in the temporarily occupied territories and ensuring the reintegration of formerly

- occupied territories, is that these institutions were established after the beginning of the Russian aggression in 2014 to address the new issues which emerged thereafter.
- The economic output pillar is represented by the Ministry of Economy and the State Employment Service of Ukraine, which are responsible for policy formulation and implementation in the field of employment, including providing equal opportunities for all, taking measures to address the issue of unemployment, ensuring provision of assistance in employment to vulnerable groups, etc.
- Several central executive bodies have cross-cutting functions which cannot be attributed to any specific pillar of human capital but conduct activities to ensure the effective functioning of the human capital system. These include the Ministry of Justice which provides legal assistance and expertise in policy formulation and the Ministry of Finance which is responsible for budget management. Also, the local administrations have the task of implementing the state policies in the field of human development at regional and local levels; given that such activities encompass the sectors of education, healthcare, social services, employment, etc., they cannot be defined as those belonging to a specific pillar of human capital.

3.2. NON-GOVERNMENT STAKEHOLDERS.

INTRODUCTION | The formulation and implementation of human capital development policies in Ukraine is ensured by a variety of stakeholders, which are represented both by government institutions, including central executive bodies and state agencies analyzed in detail in the previous chapter, and non-government entities. The latter include non-governmental organizations (NGOs), community organizations, think tanks, private sector organizations (businesses), foundations, professional associations, academic institutions and other institutions engaged in the process of policy-making and implementation of activities related to the field of human capital in Ukraine.

Similarly to the government stakeholder, the activities of non-government organizations, civil society representatives, private sector organizations, etc., can be considered within the framework of the key pillars of human capital development - education, health, living conditions, and labour. It is also common for non-government stakeholders to have a narrower scope of activities with regard to the spheres of their competencies either in relation to a distinct sector of a population group. Therefore, it is usually easier to determine the pillar of human capital to which the work of the stakeholder can be attributed.

The activities of non-government stakeholders are regulated by the Law of Ukraine on Public Associations⁶⁹, according to which a public association is a "voluntary association of individuals and/or legal entities under private law for the exercise and protection of rights and freedoms, satisfaction of public interests, in particular economic, social, cultural, environmental and other". The law determined that any associations are free to choose the sphere and territory of their activities, while the rights of such associations are guaranteed by the state. Along this line, the control upon their work is exercised by executive bodies and local authorities.

The government institutions cooperate actively with non-government stakeholders. According to the representative of the Ministry of Education and Science of Ukraine, a number of formal and informal mechanisms are used to ensure strong partnership between central executive bodies and non-government institutions. Such mechanisms include public discussions of draft laws, engaging the representatives of civil society to the working groups, participation of civil society representatives in strategic sessions, forums, conferences, etc., as well as the informal bilateral meeting with the representatives of civic organizations and businesses. The indicated formats enable to engage the non-government

⁶⁹ Law of Ukraine On Public Associations. URL: https://zakon.rada.gov.ua/laws/show/4572-17#Text.

stakeholders in policy-making and implementation processes together with building strong ties between the non-government organizations and associations and central executive bodies in Ukraine.

In this chapter the non-government stakeholders are analyzed according to their types; however, the examples of institutions by pillar are presented to illustrate sectors in which the major stakeholders execute their activities.

Non-governmental organizations (NGOs)

DESCRIPTION OF NON-GOVERNMENTAL ORGANIZATIONS | There are different types of NGOs in Ukraine, including public associations, community organizations, think tanks and others. The majority of non-governmental organizations in Ukraine are named as community organizations; however, due to the peculiarities of the Ukrainian market it is difficult to make distinctions between public associations, community organizations or other types of non-governmental unions which fall within the definition of NGOs but do not have specific characteristics. Therefore, in this section we will analyze the activities of such associations, except for think tanks which will be analyzed below, and refer to them as NGOs.

The non-governmental organizations (NGOs) are public associations founded with participation of individuals, conducting their activities independently from the state in the determined sector and territory. NGOs unite people willing to make positive changes in their geographical, professional, or other communities. Such organizations can be established based on specific characteristics, including the common territory, culture, social or professional status, etc. With regard to the field of human capital, NGOs unite people who either work in a specific sector related to education, healthcare, social support and employment, or show interest in solving specific problems in society. NGOs function on the non-profit basis and are often engaged in voluntary activities to organize their projects.

Role in the framework | The NGOs are among the most active representatives of non-government stakeholders in the field of human capital due to their number and the variety of work they conduct. According to the data of the Ministry of Justice of Ukraine as of June 2018, almost 97 thousand NGOs carried out their activities in Ukraine⁷⁰. A large number of these organizations were founded during and after the Euromaidan in 2013-2014 and later after the beginning of Russian aggression in 2014 to provide support and social assistance to vulnerable population groups, especially those who suffered from war or temporary occupation. Likewise, a significant number of organizations were founded after the full-scale Russian invasion on February 24, 2022, to address new challenges, mainly providing support for the Ukrainian army and the civilian population in times of war.

Examples | Generally speaking, a wide spectrum of domestic and international NGOs are engaged in human capital related activities in Ukraine. With regard to the **education pillar**, "Osvitoria"⁷¹ has launched the All-Ukrainian School Online after the start of the pandemic, and currently helps restore the education process and access to quality education for more than 7 million of Ukraine's children, including those who were affected by war and/or were forced to leave their permanent place of residence. A public organization "Smart osvita"⁷² works to improve the system of school education in Ukraine, including launching the New Ukrainian School website in mid-2017, conducting projects to support psychological resilience of educators, students, and parents. "Teach For Ukraine"⁷³ engages graduates and young specialists of various fields to teach for 2 years in small towns and villages, where they become role models and contribute to the development

Nashe Slowo. 7 Non-Governmental Organizations That Are Changing Ukraine. August 12, 2018. URL: https://nasze-slowo.pl/7-neurjadovih-organizaci-jaki-zminjujut-

⁷¹ Osvitoria. URL: <u>https://osvitoria.org/en/</u>.

⁷² Smart Osvita. URL: https://en.smart-osvita.org/.

⁷³ Teach For Ukraine. URL: https://teachforukraine.org/.

of the community. "EdCamp Ukraine"⁷⁴ unites over 40 thousand teachers and focuses on professional growth of teachers, raising the status of profession of a teacher, and reforming the education system in Ukraine. The organization "Bachyty Sertsem" ("Seeing with the Heart")⁷⁵ creates opportunities for children with disabilities in Ukraine and abroad to provide support and the right to a happy childhood.

Considering the **health pillar** of human capital, NGOs in Ukraine are engaged in various aspects of human capital development. For instance, Doctors Without Borders is an international medical humanitarian organization that provides medical care to vulnerable populations affected by the ongoing war in Ukraine, supports primary healthcare services, and addresses the mental health needs of the affected communities. Its teams evacuate patients from hospitals close to the frontlines, including trauma patients, and refer them to hospitals through two medically equipped trains, providing support to the emergency department and surgical and intensive care units at the Kostiantynivka Hospital.

Within the **living conditions pillar**, organization "Liga sylnyh" ("League of the Strong") works to provide social assistance for people with disabilities and their families, including almost 11 thousand people after the beginning of full-scale Russian invasion in cooperation with other NGOs and the European Disability Forum⁷⁶. "Fight for Right"⁷⁷ is another NGO involved in advocating for the protection of the rights of individuals with disabilities in Ukraine, which is committed to facilitating the safe evacuation of individuals with disabilities, providing them with targeted aid, psychological support, and legal counsel. Additionally, according to the representatives of the Ministries, the government bodies cooperate closely with the following NGOs: the Initiative Center to Support Social Action "Ednannia", which works with other civil society organizations and individual experts, leaders, activists, international organizations, etc., to support good public initiatives⁷⁸; Human Rights Centre ZMINA, which aims to promote the human rights, the rule of law and the ideas of civil society in Ukraine⁷⁹; Civil Holding "Group of Influence", which conducts advocacy and provides aid to IDPs and people who were affected by war⁸⁰; "Desyate Kvitnya" ("The Tenth of April"), which aims to protect the rights of vulnerable groups, namely refugees, internally displaced persons, stateless persons, and others⁸¹.

As for the **economic output pillar**, one example is the Reanimation Package of Reforms Coalition, which is a coalition of leading NGOs and experts from all over Ukraine whose goal is to promote the reformation process in Ukraine⁸². Among other things, the Reanimation Package of Reforms Coalition participated in the Ukraine Recovery Conference on the expert level and prepared recommendations for the National Recovery Plan.

Impact of war | The Russian aggression in Ukraine has become an impetus for the emergence of new NGOs and the shift in activities of the existing ones. For example, some NGOs, including those in the education and healthcare domains, have changed the focus of their work and concentrated on providing support to people who were affected by war and hostilities. Also, a notable quantity of NGOs provide assistance to people who were affected by the war since 2014. Such

⁷⁴ About EdCamp Ukraine. URL: https://www.edcamp.ua/en/about-edcamp-ukraine/.

⁷⁵ Bachyty Sertsem. URL: https://www.facebook.com/bachytysercem/.

The Ministry of Social Policy plans to involve the experience and capacities of public organizations in the development of the social services system, - Oksana Zholnovich. March 8, 2023. URL: https://www.msp.gov.ua/news/22647.html.

⁷⁷ Fight For Right - Who We Are. URL: https://ffr.org.ua/en/about-us/.

⁷⁸ About Ednannia. URL: https://ednannia.ua/en/about-us/about-isar-ednannia.

⁷⁹ Human Rights Centre ZMINA. URL: https://zmina.ua/en/.

⁸⁰ NGO "Civil holding "GROUP OF INFLUENCE" - About us. URL: https://www.vplyv.org.ua/about-us?lang=en.

⁸¹ Civil organization "The Tenth of April". URL: http://dk.od.ua/en.

⁸² Reanimation Package of Reforms Coalition. URL: https://rpr.org.ua/en/.

organizations include "East-SOS"⁸³, "Donbas-SOS"⁸⁴, and "Crimea-SOS"⁸⁵, all of which provide humanitarian aid, social and psychological assistance to people who were affected by war, including those who were forced to leave their permanent place of residence. In particular, "Crimea-SOS" is an organization protecting the rights of Crimean Tatars, including in case of their illegal deportation, detention, etc. Moreover, NGOs are important stakeholders regarding the reintegration of deoccupied territories as they are often the first ones to provide humanitarian assistance in such communities and can also become integral participants in the post-war recovery and reconstruction of Ukraine.

Think tanks

DESCRIPTION OF THINK TANKS | Think tanks, sometimes also referred to as policy institutes, are research institutes that perform research on a variety of topics, including social issues, economic relations, internal and external policies, military, science and technology development, cultural issues, etc. They publish reports on the topics which are of interest to the society and analyze the current state and forecast the development of the chosen field. Predominantly, think tanks are non-governmental associations which are funded from sources other than the state and are not affiliated with the government by any means. However, think tanks can do research for the government and, in general, their reports and recommendations are often taken into account by the government institutions in the process of policy formulation and decision making.

Role in the framework | Think tanks in Ukraine are, among others, engaged in activities related to the field of human capital. The research that is conducted is concentrated around the state policies in a specific sector, including education, healthcare, social assistance, and employment. Most commonly, the research of a specific think tank is conducted within a defined sphere, be it either social development, economy, international relations or others. Even though there are no think tanks that have human capital as a specific focus of their research, the related topics are within the scope of research of separate institutes.

Impact of war | The activities of Ukrainian think tanks have not been directly affected by war, with the exception of possible displacement of its workers. However, the outbreak of Russian aggression in 2014 and the full-scale invasion in 2022 have affected the scope of research conducted by such institutions. A decent number of think tanks conducted research on the impact of war on the Ukrainian economy in general, as well as on the sectors related to human capital such as education, healthcare, housing, employment, etc. Additionally, think tanks have contributed to the strategic vision of post-war recovery of Ukraine through providing relevant analytical material, reports and making forecasts.

Foundations

DESCRIPTION OF FOUNDATIONS | A foundation is a type of a charity non-profit organization that provides support through grants, public projects, or other forms of charitable activities. Foundations can be established on a community or private basis but are generally non-government entities which conduct their work independently from the state.

Role in the framework | In Ukraine, the activities of foundation are regulated by the Law of Ukraine On Charitable Activities and Charitable Organizations⁸⁶, according to which the sphere of charitable activity include, among others, education, science and scientific research, health care, social protection, social security, social services and poverty

⁸³ Vostok-SOS. URL: https://vostok-sos.org/en/about/mission/.

⁸⁴ Donbas-SOS. URL: https://www.donbasssos.org/en/.

⁸⁵ Crimea-SOS. URL: https://krymsos.com/en/.

⁸⁶ Law of Ukraine On Charitable Activities and Charitable Organizations. URL: https://zakon.rada.gov.ua/laws/show/5073-17#Text.

alleviation, sports and physical culture, human and citizen rights and fundamental freedoms, which are associated with the field of human capital.

Examples | There are several large foundations in the education pillar which aim to develop Ukrainian society through the support of education and science, including KSE Foundation - a charity foundation of the Kyiv School of Economics⁸⁷. Although development of education and scientific research projects of youth are in the center of attention of the mentioned foundations, it also participates in fundraising activities for the defenders of Ukraine and the population of Ukraine. Projector Creative & Tech Foundation⁸⁸ works to empower women and to support them in learning new professions in tech and creative industries. SavED is another charitable organization that focuses on supporting the development of education, particularly through restoring access to education in war-torn communities⁸⁹. It has been realizing projects in communities in Chernihiv, Kyiv, Zhytomyr, and Mykolaiv oblasts to assist in rebuilding educational infrastructure.

A significant number of foundations in Ukraine support human capital development through providing assistance to vulnerable groups. For example, Stabilization Support Services is a charity foundation which has been engaged in the advocacy activities of the rights of veterans and internally displaced persons, while after February 24, 2022, they provide humanitarian aid to and support internally displaced persons⁹⁰. Right to Protection is a foundation providing free legal assistance on issues related to internal displacement, border crossing, social benefits, etc., humanitarian, and psychological assistance to displaced persons and those affected by war, including stateless persons and refugees⁹¹. Charity foundation East-SOS, which was founded in 2015, provides humanitarian assistance to war affected people and internally displaced persons, mainly from Donetsk and Luhansk regions⁹².

Impact of war | As noted above, several foundations in Ukraine provide assistance to people who were affected by war through offering grant opportunities, humanitarian or other forms of aid. Foundations also invest in post-war recovery in Ukraine, such as rebuilding educational or healthcare infrastructure that was damaged due to hostilities or missile attacks.

Private sector organizations (businesses)

DESCRIPTION OF PRIVATE SECTOR ORGANIZATIONS | The private sector organizations (businesses) encompasses all types of profitable organizations which are owned by the private sector rather than the state. Despite the fact that the main goal of businesses is to increase revenue while also contributing to the growth of the national economy, they are important stakeholders in the field of human capital.

Role in the framework | First, a number of private sector organizations work in the sectors of education, health, living conditions, investing in human potential together with providing employment opportunities for the population. Second, the private organizations are also engaged in the policy-making processes, mostly in the formats of strategic sessions and bilateral or multilateral consultations, thus participation in the formulation of state policies in the respective field. In this matter, the economic output pillar of human capital is critically important since businesses, together with the government stakeholders, conduct labour market analysis and prepare proposals for the demand of specialists which, in turn, has an impact on the other pillars of human capital, mainly education.

⁸⁷ KSE Charitable Foundation. URL: https://foundation.kse.ua/en/.

⁸⁸ Projector Creative & Tech Foundation. URL: https://www.prjctrfoundation.com/en.

⁸⁹ SavED. URL: https://www.facebook.com/saved.savedschools/.

⁹⁰ Charity Foundation Stabilization Support Services - About us. URL: https://en.sss-ua.org/aboutus/.

⁹¹ Right to Protection. URL: https://r2p.org.ua/?lang=en.

⁹² Vostok-SOS. URL: https://vostok-sos.org/en/about/mission/.

Finally, due to the growing corporate social responsibility private sector organizations are actively investing in human potential and development of local communities in order to create favourable conditions for and to support development of educated, healthy and productive individuals who would further be able to have positive impact on economic outcomes on the local, national levels and beyond. As for Ukraine, corporate social responsibility has become the central pillar of activities of many businesses throughout the country.

Examples | To provide an example, a number of businesses provide educational services to the population, including private educational institutions (schools, universities, colleges, etc.), short-term courses and educational programs for all ages, extracurricular activities for children, and others. For instance, English language schools "Green Country" not only offer language classes but also STEM-courses in English⁹³. Company "EdPro" is a Ukrainian manufacturer of educational equipment, software and electronic textbooks. During the meeting of civil society and businesses representatives with the Minister of Education and Science Oksen Lisovyy the company presented the model for development and implementation of laboratory equipment, in particular interactive panels, in schools and stated is readiness to participate in the school reform of mathematics education⁹⁴. Online education studio "EdEra" has more than 150 educational products, in particular for improving the qualifications of teachers, preparing for external examinations, as well as interactive cases with communities of teachers⁹⁵.

Impact of war | After the beginning of Russian aggression in 2014 and especially since the outbreak of full-scale war with Russia in 2022, private sector organizations participate in numerous programs aimed at providing assistance to vulnerable groups of population. These include such types of support providing humanitarian assistance to internally displaced persons and those who experienced temporary occupation, offering free educational and healthcare services, creating opportunities for leisure, physical and psychological recovery, etc.

Professional associations

DESCRIPTION OF PROFESSIONAL ASSOCIATIONS | According to the Law of Ukraine on Professional Associations, their Rights and Guarantees of Activity⁹⁶, a professional association is a voluntary non-profit public organization that unites citizens connected by common interests by type of their professional and/or labour activity and/or education. The purpose of professional association is to represent and protect labour, socio-economic rights, and interests of their members. Additionally, professional associations have the right to create unions (councils, federations, confederations, etc.) on a voluntary basis based on industry, territory, or other characteristics.

The tasks and activities of professional associations in Ukraine vary by their professional sector and include associations related to the field of human capital. Generally speaking, they include such priorities as: guaranteeing the social and other rights of workers; ensuring the safety of labour; representing the interests of the professional associations and individual workers, etc. Professional associations also have the right to develop international cooperation and to build ties with relevant professional associations in other countries.

Role in the framework | Professional associations, including those within the education, health, living conditions and economic output pillars, perform activities related to human capital development on local, regional, and national levels. For example, professional associations provide social and other forms of support to the families of workers, including the

⁹³ Green Country. URL: https://greencountry.com.ua/.

⁹⁴ Ministry of Education and Science Initiates Cooperation with Charity Funds and Organizations: 12 Initiatives are Presented That are Ready to Transform School Education. April 21, 2023. URL: https://mon.gov.ua/ua/news/mon-iniciyuye-spivpracyu-z-blagodijnimi-fondami-ta-organizaciyami-predstavleno-12-iniciativ-yaki-gotovi-transformuvati-shkilnu-osvitu.

⁹⁵ EdEra. URL: https://www.ed-era.com/.

⁹⁶ Law of Ukraine On Professional Associations, their Rights and Guarantees of Activity. URL: https://zakon.rada.gov.ua/laws/show/1045-14#Text.

opportunities for recreation of children, promote the improvement of healthcare services for workers, the development of physical education and sports. Besides, the professional associations can conduct activities with regard to employment and youth policies, including working with youth of school age, in vocational schools and universities within the scope of organized professional training, round tables and seminars, joint projects and competitions, charity events, etc.

Examples | According to the official website of the Federation of Professional Associations of Ukraine⁹⁷, there are 43 professional associations which have the status of all-Ukrainian. The following are professional associations in the field of human capital:

- Professional Association of Education and Science Workers of Ukraine
- All-Ukrainian Professional Association of Athletes, Workers in the Fields of Physical Culture and Sports, Youth Policy and National-Patriotic Education
- Professional Union of Cultural Workers of Ukraine
- Professional Association of Healthcare Workers of Ukraine
- Professional Association of Social Workers of Ukraine
- Professional Association of Employees of the Pension Fund of Ukraine
- Professional Association of Employees of Housing and Communal Services, Local Industry, Household Services of the Population of Ukraine

The above-mentioned professional associations of workers in sectors related to education, health and living conditions, within the scope of their responsibility, play an integral role in the formulation and implementation of state policies in the relevant spheres, submit proposals for introducing innovative approaches or improving existing ones, and supporting workers in their professional growth and development, including providing a variety of opportunities for training and education.

Impact of war | The key priority of professional associations in the time of war is ensuring the protection of workers, including protection of their rights during martial law and provision of assistance to workers who were affected by war. Therefore, a number of professional associations provide additional support to workers and members of their families, including those who were forced to leave their permanent place of residence, are in difficult economic situations, need assistance for physical or psychological rehabilitation, etc.

Academic institutions

DESCRIPTION OF ACADEMIC INSTITUTIONS | Academic institutions include educational and scientific institutions which have an appropriate status. They can be divided into two main categories, although a number of them perform functions related to both of the mentioned groups. The first category encompasses educational institutions, namely tertiary schools, or schools of higher education, which provide opportunities for undergraduate, graduate and, most commonly, postgraduate education of students. The main role of such academic institutions through the prism of human capital development is to create a strong base of educational opportunities for people so that they are able to improve their level of knowledge, skills and competencies and, therefore, become more productive members of society.

The second category are R&D institutions the main goal of which is to provide scientific and analytical support to the functioning of the human capital framework in Ukraine, including conducting research in the field of human capital for government and non-government entities. Scientific and research institutions provide data and recommendations used during policy-making and can participate in policy formulation and implementation processes as independent

⁹⁷ Federation of Professional Associations of Ukraine. URL: https://www.fpsu.org.ua/.

stakeholders. Besides, R&D institutions are playing the role of bases for research technical development, encouraging innovation and technological growth which has a positive impact on human capital potential.

Even though a significant number of academic institutions, including both universities and R&D centers, are conducting activities in Ukraine, the vast majority of them are state-financed entities and cannot be considered as non-government stakeholders. Several private universities and R&D institutions have been founded in Ukraine in order to provide educational and research services; however, they are of much smaller size than the state-owned ones and do not play an equally important role in human capital development in Ukraine.

Role in the framework | Academic institutions provide educational, scientific and innovation support to human capital development either through conducting research, which is required during state policy formulation and implementation, or providing educational services, namely at undergraduate, graduate, and postgraduate levels.

Impact of war | The Russian aggression and the full-scale invasion have affected academic institutions in several ways. First, some academic institutions had to relocate to other cities in Ukraine due to temporary occupation, causing interruptions in work, difficulties with facilities, etc. Second, part of the personnel had to move internally or abroad, which led to staff shortages. Third, due to security issues academic institutions, especially educational ones, had to turn to digital work which influenced the effectiveness of their activities.

KEY TAKE-AWAYS

- Non-government stakeholders in the field of human capital in Ukraine include NGOs, community organizations, think tanks, private sector organizations (businesses), foundations, professional associations, academic institutions and other organizations engaged in the process of policy-making and implementation of activities related to the field of human capital. The indicated stakeholders represent all key pillars of human capital, while the focus of their activities is generally more specialized than that of the government institutions.
- NGOs include several types of organizations, namely public associations, community organizations, think tanks
 and others, conducting their activities on the non-profit basis and not being related to the state. NGOs are often
 established based on the geographical, professional, cultural, social, or other characteristics uniting the
 community of people willing to make positive changes in a specific sphere. In Ukraine, both international and
 domestic organizations are represented in different sectors. Ukrainian NGOs include Osvitoria, "Smart osvita",
 "Teach For Ukraine", "EdCamp Ukraine", "Bachyty sertsem", "Liga sylnyh", "Rebuild Ukraine. Inclusion", "Fight
 for Right", "Crimea-SOS" and others contributing to the development of education, healthcare, human rights,
 and social protection sectors in Ukraine.
- Think tanks are distinct types of NGOs which conduct research on topics related to human capital either independently or at an order of other organizations, businesses, or government. The work of think tanks mainly contributes to the policy-making process due to the preparation of reports, analytical materials, and recommendations.
- Foundations are charitable organizations which contribute to the development of human capital through grants, public projects or other forms of charity activities. Examples of foundations in Ukraine include KSE Foundation, Projector Creative & Tech Foundation, SavED, Stabilization Support Services, Right To Protection, and East-SOS.
- Private sector organizations, or businesses, include all types of privately owned profitable organizations. They
 participate in human capital development through conducting direct activities in the fields of education,
 healthcare, social assistance or others, creating employment opportunities, taking part in policy-making when
 engaged by the government, and conducting activities within corporate social responsibility.
- Professional associations are voluntary non-profit organizations established by citizens connected by type of their professional activity or education. There are 7 all-Ukrainian professional associations related to the field of human capital which contribute to human potential through providing opportunities for employment, engagement of youth, training of workers, and social protection of workers and their families.
- Academic institutions are educational or R&D centers which primarily contribute to the improvement of skills
 and knowledge of the population. Although Ukraine is home to a vast number of academic institutions, only a
 small share of them is privately owned.



STAKEHOLDERS COOPERATION AND COORDINATION MECHANISMS

"Both formal and informal mechanisms of cooperation and coordination are widely used by the government and non-governmental institutions to ensure the effective functioning of the institutional framework in the field of human capital. While the former is primarily used for the purpose of decision making, policy implementation and evaluation, the latter proved effective for sharing experience and knowledge and receiving consultations."

4. STAKEHOLDERS COOPERATION AND COORDINATION MECHANISMS.

The policy formulation and implementation of measures in the field of human capital require close cooperation and coordination between various stakeholders, involving both governmental bodies and non-governmental institutions. The key differences between formal and informal cooperation include the available formats for conducting communication, the quickness of starting and finalizing the communication, the level of representation and mutual trust between the parties, etc. In general, both formal and informal mechanisms are used by policy-makers to ensure the effectiveness of coordination in the field of human capital.

4.1. FORMAL MECHANISMS

INTRODUCTION | The formal cooperation mechanisms are based on the procedures established by the current legislation of Ukraine which provide a framework for interaction between state authorities and with non-government representatives. Due to the variety of formats, formal communication channels enable to address various issues concerning the human capital policies formulation and implementation, together with ensuring consideration of interests of all stakeholders engaged in the field of human capital. While the formal mechanisms normally involve a more lengthy process of preparation and decision making, they are used to achieve practical results in the respective sector and are normally preceded by several rounds of preparation and preliminary discussions. The formal communication is most often conducted by senior officials and does not necessarily require the establishment of mutual trust and close personal relationships between the parties.

Types of formal mechanisms | There are several formal mechanisms of cooperation which are used to maintain communication between the government institutions as well as with the non-government stakeholders. Such mechanisms are applied according to the current legislation of Ukraine and include but are not limited to the following: interdepartmental working groups; working groups with involvement of the civil society representatives; approval of legislation acts projects with central executive bodies; cooperation within the scope of the specialized committees of the Verkhovna Rada; public discussions of draft legislation acts; strategic sessions, forums, conferences, etc. (for detail - see Figure 41). Below are some examples of the application of formal cooperation mechanisms by the central executive bodies in Ukraine.

Formal cooperation of the Ministry of Education and Science | According to the representative of the Ministry of Education and Science, the Ministry cooperates with other governmental and non-governmental institutions within such formal mechanisms as interdepartmental working groups, working groups with involvement of the civil society representatives, the Verkhovna Rada Committee on Education, Science and Innovation, conducting strategic sessions, forums, conferences, etc. Given that the Ministry of Education and Science is one of the key stakeholders conducting activities in the field of human capital, it maintains close contact with other central executive bodies responsible for policy formulation and policy implementation in the related sectors. For instance, the indicated state body coordinates with the Ministry of Economy in the sphere of determining state priorities of training specialists depending on the needs of the labour market; with the Ministry of Culture and Information Policy to regulate the activities of specialized art educational institutions; with the Ministry of Health to define health requirements for students and teachers, including creating suitable conditions for students with special needs during studies and state exams; with the Ministry of Social Policy to ensure the implementation of social standards in the field of education and science. As mentioned by the representative of the Ministry of Education and Science, the institution also maintains regular dialogue with non-governmental groups of stakeholders, including NGOs, organizations of employers, community organizations of heads of educational institutions, parents, and others.

Figure 41. Formal and informal cooperation and coordination mechanisms.

	MECHANISM	DESCRIPTION	EXAMPLE*
Formal mechanisms	Interdepartmental working groups	A temporary advisory body formed by the Cabinet of Ministers of Ukraine with the purpose of solving specific tasks, including development recommendations regarding certain issues. Normally includes representatives of several central executive bodies	Ministry of Education and Science; Ministry of Culture and Information Policy; Ministry of Health; Ministry of Social Policy; Ministry of Economy
	Working groups	A formal group consisting of representatives of a central executive body working together on a common task. Working groups can involve, if necessary, civil society representatives	Ministry of Education and Science; Ministry of Health; Ministry of Social Policy; Ministry for Veterans Affairs
	Approval of legislation acts projects with central executive bodies	Prior to submission of regulatory legal acts for state registration to the Ministry of Justice and their state registration, legislation acts should undergo an approval procedure by the central executive body bearing primary responsibility for policy formulation in a particular sector	Ministry of Health; Ministry for Veterans Affairs; Ministry of Justice
	Specialized committees of the Verkhovna Rada	A body of the Verkhovna Rada of Ukraine, which is formed from the number of deputies to carry out legislative work in separate directions, prepare and pre-consider issues and perform control functions regarding specific issues in defined sector	Verkhovna Rada Committee on Education, Science and Innovation; Verkhovna Rada Committee on Youth and Sports
	Public discussions of draft legislation acts	Consultations with the civil society representatives and the general public, which are held regarding the draft legislation acts on issues of social and economic development	Ministry of Health; Ministry of Social Policy; Ministry of Justice
	Strategic sessions, forums, conferences, etc.	Multilateral meetings aimed at the joint formation of important state decisions in the process of dialogue between state authorities, civil society representatives, and other interested stakeholders	Ministry of Youth and Sports; Ministry of Culture and Information Policy; the Ministry for Reintegration of the Temporary Occupied Territories
Informal mechanisms	Bilateral meetings	Meetings of two parties interested in solving a particular task which can be held in person or online	Ministry of Youth and Sports; Ministry of Education and Science
	Consultations	Requesting and receiving expert advice on any issue within the relevant sector of interest	Ministry for Veterans Affairs
	Communication in the course of work	Regular or occasional communication maintained in forms of personal meetings, calls, etc., during the process of performing a particular task	Ministry of Justice
	Regular correspondence	Form of maintaining regular communication to ensure exchange of information regarding a specific issue	Ministry of Youth and Sports

* Note: Examples are based on information received from

Formal cooperation of the Ministry of Youth and Sports | The representatives of the Ministry of Youth and Sports stated that the Ministry conducts regular meetings, consultations and discussions with the relevant central executive bodies during agenda setting and policy formulation processes, including the Ministry of Social Policy, the Ministry of Education and Science, the Ministry of Finance, and the Verkhovna Rada Committee on Youth and Sports. Within the implementation and evaluation of policies the Ministry also coordinates its activities with the Ministry of Health, the Ministry of Culture and Information Policy, the Ministry for Veterans Affairs, the Ministry of Foreign Affairs, and others. Additionally, the contact is maintained with various NGOs through digital meetings, conferences, regular correspondence, etc.

Formal cooperation of the Ministry of Culture and Information Policy | As mentioned by the representative of the Ministry of Culture and Information Policy, the Ministry formally interacts with other executive bodies through interdepartmental working groups, namely with the Ministry of Education and Science, the Ministry of Social Policy, the Ministry of Youth and Sports, the Ministry for Veterans Affairs, the Ministry for Reintegration of the Temporary Occupied Territories, as well as the Ukrainian Institute of National Memory and the State Agency of Ukraine for Arts and Art Education. Besides, the representatives of civil society are involved in strategic sessions, round tables, and advisory bodies. Formal cooperation of the Ministry of Health | As per the Ministry of Health, the representative indicated that the formal cooperation is conducted by the means of interdepartmental working groups, discussions and approval of legislative acts, working meeting with the involvement of the Ministry of Economy, the Ministry of Education and Science, parties of social dialogue, bodies of state financial control, institutions of higher education, professional, human rights protection, patient organizations, student self-government organizations, representatives of the student or teaching community, etc. Additionally, the Ministry cooperates with international organizations, including the World Bank and the World Health Organization (WHO) during the discussion of draft program documents, public events, as well as by reviewing analytics of international institutions.

Formal cooperation of the Ministry of Social Policy | The representative of the Ministry of Social Policy mentioned that the executive body cooperates permanently with other government institutions. For example, during the development of

the Human Development Strategy, an interdepartmental working group was formed for the preparation of the Strategy project, which also included representatives of the National Security and Defense Council, the Secretariat of Cabinet of Ministers of Ukraine, the Ministry of Health, the Ministry of Education and Science, the Ministry for Reintegration of the Temporary Occupied Territories, the Ministry of Culture and Information Policy, the Ministry of Youth and Sports, the Ministry for Veterans Affairs. Also, the Ministry publishes the projects of regulatory and legal acts, in particular, which include determining the priorities of state policy in the field of human development for the purpose of public discussions with the participation of civil society. Other formal cooperation mechanisms involve organization of events, including forums, conferences, expert round tables, working group sessions, consultations, etc., with the participation of international organizations, including UNDP.

Territories | The Ministry for Veterans Affairs, according to the executive body's representatives, engages in formal communication with other Ministries and central executive bodies, state institutions, as well as public organizations in the field of supporting veterans and their family members through interdepartmental working groups, working meetings, processing proposals, and other. Similarly, the representative of the Ministry for Beintegration of the Temporary Occupied

Formal cooperation of the Ministry for Veterans Affairs and the Ministry for Reintegration of the Temporary Occupied

processing proposals, and other. Similarly, the representative of the Ministry for Reintegration of the Temporary Occupied Territories indicated that the institution interacts with Ministries, other central bodies of executive power, local self-government bodies, educational institutions, law enforcement agencies, etc. by holding meetings, consultations, interdepartmental working groups, discussions, etc.

Formal cooperation of the Ministry of Economy | As per the representative of the Ministry of Economy, it was stated that the Ministry cooperates formally with central executive bodies, regional military administrations, Joint representative body of representative all-Ukrainian unions of professional associations at the national level, Joint representative body of the employers at the national level. The coordination and cooperation are realized through the means of interdepartmental working groups, National tripartite socio-economic council, formal meetings, conferences, coordination meetings, etc.

Formal cooperation of the Ministry of Justice | In accordance with the Ministry of Justice representative, the formal coordination mechanisms include interdepartmental working groups, commissions, committees, coordination centers, councils, working groups, etc. as well as public discussion with the participation of international organizations, public associations and individual civil society representatives. The Ministry of Justice cooperates with a wide range of institutions, including the Ministry of Education and Science, the Ministry of Culture and Information Policy, the Ministry of Health, the Ministry of Social Policy, the Ministry for Reintegration of the Temporary Occupied Territories, the Coordination Center for Legal Aid, Ukrainian Parliament Commissioner for Human Rights, Government Commissioner for Gender Policy, the State Service for Ethnic Affairs and Freedom of Conscience, the State Organization "V. Mamytov Institute of Economic and Legal Research of the National Academy of Sciences of Ukraine", the National Institute for Strategic Studies, and others.

Generally, the formal coordination and cooperation mechanisms are the most widely used means of communication between government authorities as well as civil society representatives. A variety of mechanisms allow to engage different stakeholders, including public and private bodies, NGOs, and individuals conducting activities in the relevant field, which creates a solid basis for determining the key priorities of human capital related policies and to implement the measures on all levels.

4.2. INFORMAL MECHANISMS

INTRODUCTION | The informal cooperation mechanisms and channels are generally based on personal relations between certain individuals, including public servants from a variety of central executive bodies and state agencies, representatives

of NGOs, private sector organizations, academic institutions, civil society, etc. The main goal of informal communication is often to obtain consultation or advice on certain issues which do not necessarily require using formal mechanisms of coordination or to conduct preliminary discussion on the matter. The main advantage of informal communication is its relative speed compared to the formal channels and the opportunity to address the questions which cannot be discussed on the official level. Besides, informal channels involve mutual trust between the parties engaged in communication, while the communication itself is often conducted by middle employees rather than the senior officials.

Types of informal mechanisms | The main informal channels of communication include the following: bilateral meetings (in person and online), consultations, communication in the course of work, regular correspondence, etc. (for more information - see Figure 41).

Informal cooperation of executive bodies | According to the representative of the Ministry of Education and Science, a significant number of servants from the Ministry work using the informal horizontal communication which includes conducting bilateral meetings with the representatives of the other central executive bodies, NGOs, civil society representatives, etc. The representative of the Ministry for Veterans Affairs also indicated that informal meetings with government and non-government stakeholders, including veteran spaces and hubs, are used for the purpose of the exchange of information and experience on the topics of common interest, while the Ministry of Justice official mentioned that informal mechanisms include holding joint meetings or communication in the course of work. As stated by the representative of the Ministry of Youth and Sports, informal communication is less common; however, regular informal contact is maintained with NGOs, sports associations, civil society representatives, etc., through online meetings and correspondence.

Ultimately, the informal mechanisms do not have such variety as the formal ones; however, they play an important role in establishing contacts between the representatives of governmental bodies, as well as between the government and non-government structures. What is more, the informal communication establishes a strong foundation for further formal cooperation between the interested parties.

KEY TAKE-AWAYS

- Both formal and informal mechanisms of cooperation and coordination are widely used by the government and non-governmental institutions to ensure the effective functioning of the institutional framework in the field of human capital. While the former is primarily used for the purpose of decision making, policy implementation and evaluation, the latter proved effective for sharing experience and knowledge and receiving consultations.
- The formal mechanisms include interdepartmental working groups, working meetings, strategic sessions, commissions, committees, coordination centers, councils, conferences, public discussions, regular correspondence, etc. Formal cooperation is generally conducted between the government bodies, as well as between government and non-government stakeholders, including the participation of the latter in discussions of policy vectors, draft legislation acts, providing consultations, and others. Also, cooperation with international organizations is carried out within the framework of relevant sectors and mechanisms.
- Informal channels are common among all government and non-government stakeholders and perform a function of enabling quick communication between the interested parties. While informal mechanisms are based on the mutual trust between stakeholders and allow building cooperation on horizontal ties, they often create preconditions for further formal interactions within the decision-making process.



ANNEXES

List of contacted institutions and the questionnaire used for the collection of information.

ANNEX 1

MINISTRY	DEPARTMENT	DATE OF RECEIVED INFORMATION
Ministry of Education and Science	Directorate of European Integration, Budgeting and Policy Coordination	April 25, 2023
Ministry of Culture and Information Policy	Directorate of Strategic Planning and European Integration	May 4, 2023
Ministry of Youth and Sports	Office of Strategic Planning and Communications	May 4, 2023
Ministry of Health	Directorate of Strategic Planning and Coordination	May 8, 2023
Ministry of Social Policy	Expert Group for Strategy Formulation and Regional Development	May 10, 2023
Ministry for Veterans Affairs	Directorate of Strategic Planning and European Integration	May 5, 2023
Ministry for Communities, Territories and Infrastructure Development	Directorate of Strategic Planning and European Integration	May 4, 2023
Ministry for Reintegration of the Temporary Occupied Territories	Expert Group on European integration, International Technical Assistance and Cooperation with Microfinance Organizations	May 4, 2023
Ministry of Economy	Department of Legal Support	May 4, 2023
Ministry of Justice	Strategic and Operational Planning Expert Group of the Directorate of Strategic Planning and European Integration	May 4, 2023

ANNEX 2

Questionnaire on the project "Advisory Support on Redesigning the Institutional Framework for Policy Making in the Field of Human Capital Development in Ukraine"

Questions Pield of Human Capital Development in Okraine	Answers
General understanding	
How does your institution define the concept of "human capital" in the process of policy formation?	
Does your institution use the definition of human capital developed by international organizations (World Bank, Organization for Economic Cooperation and Development, etc.) in the process of policy formation?	
Has your institution evaluated human capital (or part of it) during its activities in the process of policy formation?	
Has your institution participated in the development of documents aimed at human capital development?	
What current documents in the field of human capital development could you name?	
Process of forming state policies - Agenda Setting	
What key functions of your institution related to the formation of policies in the field of human capital could you name?	
Is coordination with other state institutions conducted during the agenda setting in the field of human capital? If so, what are the formal and informal mechanisms of cooperation (interdepartmental working groups, meetings, etc.)?	
Is coordination with civil society conducted during the agenda setting in the field of human capital? If so, what are the formal and informal mechanisms of cooperation ?	
Is coordination with international organizations conducted during the agenda setting in the field of human capital? If so, what are the formal and informal mechanisms of cooperation?	
Process of forming state policies - Policy Formulation and Decision Making	
Is coordination with other state institutions conducted during the policy formulation in the field of human capital? If so, what are the formal and informal mechanisms of	

cooperation?	
Is coordination with civil society conducted during the policy formulation in the field of human capital? If so, what are the formal and informal mechanisms of cooperation ?	
Is coordination with international organizations conducted during the policy formulation in the field of human capital? If so, what are the formal and informal mechanisms of cooperation?	
Does your institution have enough information to formulate policy in the field of human capital? If not, what information is missing?	
Process of forming state policies - Implementation	
Is coordination with other state institutions conducted during the policy implementation in the field of human capital? If so, what are the formal and informal mechanisms of cooperation?	
Is coordination with civil society conducted during the policy implementation in the field of human capital? If so, what are the formal and informal mechanisms of cooperation ?	
Is coordination with international organizations conducted during the policy implementation in the field of human capital? If so, what are the formal and informal mechanisms of cooperation?	
Process of forming state policies - Evaluation	
How is the policy evaluation in the field of human capital in your institution?	
Does your institution have enough information to evaluate human capital policies? If not, what information is missing?	
Is coordination with other state institutions conducted during the policy evaluation in the field of human capital? If so, what are the formal and informal mechanisms of cooperation?	
Is coordination with civil society conducted during the policy evaluation in the field of human capital? If so, what are the formal and informal mechanisms of cooperation ?	
Is coordination with international organizations conducted during the policy evaluation in the field of human capital? If so, what are the formal and informal mechanisms of cooperation?	
Additional questions	

In your opinion, is the institutional structure in the field of human capital development policy optimal? What changes would you consider appropriate?	
Who would you recommend to talk to in order to better understand the research questions?	

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