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Public-Private Partnership: High-Impact Alliance for Sustainability Targets

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Abstract. Efficient organization of public-private partnership (PPP) has become especially urgent amid the economic crisis caused by the COVID-19 pandemic and numerous sanctions imposed on the Russian Federation. The importance of this issue stems from the fact that the Russian economy has found itself at a crossing of at least two fundamental systemic transformations.

On the one hand, all economic systems of the world, to a greater or lesser degree, have experienced limits to the development of a static economy. On the other hand, companies that have suffered the most from sanctions against Russia have leading-edge practices in organizing and participating in technological platforms and corporate ecosystems using B2C and B2B strategies. Therefore, a qualitative change in the economy to resolve the societal crisis is a universal challenge, and Russia is not the only country facing it.

In this light, the transformation of the static economic system into a dynamic one moves up the agenda. Such change usually starts with building new structural ties by sustainable big companies that must conform to the dynamic reality. Dynamics for an economy mean new development perspectives and enormous expansion potential. This new status bases on the principles of human-centrism and an important new role for talented, intellectually autonomous individuals in corporate and other structures.

This article outlines the author's interdisciplinary perspective on innovative and emerging evaluation knowledge and practice related to the environment, natural resources management, climate change, and development. In recent years, evaluation has emerged as an increasingly important function in determining the worth and value of development interventions in terms of their relevance, impact, performance, effectiveness, efficiency, and sustainability.

We aspire to prove that PPP for Russia, following the pandemic-caused economic crisis and under Western sanctions, may perform a fundamental mission far more important than participation in producing public goods for budget funds. It could help the country to ensure a leap in its economy from statics to dynamics.

This leap and respective transformations in corporate and social structures based on the human-centric principles could bring a multiplicative effect to the economy, quality of life, public policy, governance, and other spheres.

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Efficient organization of public-private partnership (PPP) has become especially acute amid the economic crisis caused by the COVID-19 pandemic and numerous sanctions imposed on the Russian Federation. It is related to the fact that the Russian economy has found itself at a crossing of at least two fundamental systemic transformations.

On the one hand, all economic systems of the world, to a greater or lesser degree, have experienced limits to the development of a static economy. This development was in line with the sophistication of structural ties formed based on direct and reverse cause-effect dependencies. In this context deceleration of economic growth stemmed from incomprehension of uncertainty factors of the post-COVID-19 economic reality. In this regard, the demand for deep theoretical approaches to understanding mechanisms of the dialectical leap of the static economic system to its new dynamic status has been increasing. Other public policies should also adopt these approaches as their foundation.

Problems with the static and dynamic economy dialectic are quite significant. J.B. Clark (Clark 1907) drew attention to these phenomena more than a century ago. He stated that the distinction between principles of economic statics and principles of economic dynamics was not clear. This idea was shared by J.A. Schumpeter (Schumpeter 1949), who in his famous work 'Theory of Economic Development' linked the development (self-development) of the economy only with those changes that were not implemented in the form of a cycle, systematic repetition of events and their oscillatory movements around a specific center.

These thoughts apply equally to any field of human activity, whether technology, economics, social relations, formal institutions, or the structure of human values and behavior of subjects in society. This assumption, formulated using the logic of the dialectical research method, turned out to be identical to the one formulated by W.B. Arthur in 2013. From his perspective, equilibrium economics is a particular case of non-equilibrium; therefore, complexity economics is economics in more general way. Such an economy perpetually invents itself, creating novel structures and possibilities for exploitation and while being permanently open to response[1].

[1] Arthur W.B. 2013. *Complexity economics: a different framework for economic thought*. Santa Fe: Santa Fe Institute, Working Paper 2013–04–012. URL: https://sfi-edu.s3.amazonaws.com/sfi-edu/production/uploads/sfi-com/dev/uploads/filer/a1/3e/a13e8ad4-cd39-4422-8cc3-86c543699f6d/13-04-012.pdf (accessed 31.10.2022).

Certain scholars stress the unique role of the private business in grasping new dynamic change. Under extreme conditions of blocked network ties, supply chains, and social interaction, the number of companies successfully adapting to the new reality has increased. Motion from decision-makers in government to top management in big companies or vice-versa may contribute to the formation of efficient alliances in PPP.

We aspire to prove that PPP for Russia, following the pandemic-caused economic crisis and under Western sanctions, may perform a fundamental mission far more important than participation in producing public goods for budget funds. The transformation of the static economic system into a dynamic one is a result of sustainable big companies building new structural ties as they conform to the new dynamic reality. The formation of these structural interactions starts from the horizontal level. A rupture in value formation chains due to the sanctions-caused breakdown of Russian companies' export-import operations pushes for restoring missing links in these chains within the country. Undoubtedly, fulfilling this task will take time.

On the other hand, companies that have suffered most from sanctions against Russia have leading-edge practices in organizing and participating in technological platforms and corporate ecosystems using B2C and B2B strategies. In this context, the significance of PPP for Russia under sanctions multiplies. Private and state-run business pave the way for building Corporate-led Sustainability Alliances (CSA), which will augment technocratic efforts of the executive branch of the government to restore a cohesive national economy. It will also allow to accomplish this task in the shortest time possible with the use of all of business giants' achievements in transferring operations to the new technological platforms and solutions.

To multiply the growth and breakthrough effect of the national economy, one can optimally combine the institutional potential of the government with practical experience and adaptation technologies of private business by providing space for new CSA forms within PPP[2]. It is essential in the context of the disintegration of global economic and political interactions amid strengthening sanctions against certain countries, with Russia in the foreground.

Such developments predetermine completely natural and objectively possible integration of the governmental and business efforts aimed at unifying different types of activities of companies, industries, service structures, and research centers based in the Russian Federation. Private business can be a driving force in setting up seamless production and supply chains and technological and platform-based interactions in various specialized activities in regions within national borders. In this regard, it is worth referring to the theoretical base formed at the beginning of the twentieth century by a prominent Russian scholar, A. Bogdanov, who created a comprehensive organizational

[2] Young D., Beck S. and Von Szczepanski K. 2022. How to Build a High-Impact Sustainability Alliance. URL: https://www.bcg.com/publications/2022/how-to-build-sustainability-alliance (accessed 31.10.2022).

science and called it tectology. According to Bogdanov (Bogdanov 1922), it is only necessary to match universal organizational processes, integration and disintegration, in an optimal way to reach a breakthrough economic effect driven by organizational ties optimization. Notably, the more profound and multi-faceted the differentiation of the subjects and objects of the exchange (diversity, disintegration, specialization) and processes, the more opportunities their integration within dialectical pairs of phenomena brings. PPP serves as an example of such dialectical connection, which can contribute to resolving problems of system change within systems created by people in the economic sphere. Besides, PPP can pave the way for Russia's advantages, such as colossal territory, diversity of production resources, qualified labor surplus resulting from foreign companies' exit from the Russian market, and significant scientific potential. All these advantages are necessary for building a cohesive national economy based on leading-edge technological solutions.

The system approach, dialectical methods of analysis, methods of analysis and synthesis, and organizational principles of the self-organization of system integrities in the economy lie at the foundation of the methodology in this paper. A significant share of our findings was inspired by geniuses of the past and present who anticipated the distant future: G.W.F. Hegel, I. Kant, F.W.J. von Schelling, K. Marx, F. Engels, L.H. von Mises, V.I. Vernadsky, M. Weber, E. Durkheim, T. de Chardin, P.L. Berger, T. Luckmann, and many other prominent scholars. They substantiated that any form of the phenomenon has its content, and any content has a form of its manifestation. Moreover, any system integrity, whether it is the Earth's biosphere, anthropogenesis, economy, or society, should be understood dialectically.

Thus, the goal of this article is the formation of theoretical approaches towards (1) understanding factors of the partnership of the state and private business, taking into account specifics of the post-COVID reality and strengthening of the Western sanctions, (2) explaining a new model of the partnership of public and private sectors in Russia in the form of CSA's in the conditions of the breakdown of international cooperation ties of the private business, and (3) elaborating practical steps aimed at diversifying PPP forms in Russia with the assessment of the economic effect of each form. To reach this goal, the following tasks should be solved:

– revealing the role of private business during the systemic transformation of modern economic systems caused by the pandemic and often serving as a testing ground for most recent technologies and practices of business,

– explaining the growing importance of the partnership of the state and business under Western sanctions against Russia, which is based on the ability of private companies Schumpeter's (1949) 'creative destruction',

– showing specifics of PPP in Russia in the context of the seamless integration of specialized types of activity based on leading-edge technological platforms.

The new mission of the private business in constructing a dynamic post-COVID reality: role of leading-edge technologies and business practices

The pandemic has seriously affected all national economies and their mechanisms. It makes us theoretically rethink the role of major players in the economic field. Considering the explanation of the role and place of private business in the system-formation processes of the post-COVID reality, the author shares the approaches and views of several scholars, notably Frisch (Frisch 1933), Slutzky (Slutzky 1937), Schumpeter (Schumpeter 1942), Robinson (Robinson 1962), Clark (Clark 1907), Khosrow-Pour (Khosrow-Pour 2012), Pilipenko et al. (Pilipenko et al. 2021a), who see the situation with the pandemic through the prism of the realization of the dialectical leap of economic systems from their static status into a dynamic one. A static economic system that has reached the limits of its self-organization does not stop in its development. Instead of its self-organization mechanism, i.e., strengthening its stability by multiplying structural ties and forming numerous structure levels, comes the mechanism of dynamic change of the whole system[3].

Large self-sustaining companies[4], serving as system structure-forming elements are of primary importance in this case. During the pandemic, they proved their stability and success amid lockdowns and social ties disruptions. As structure-forming elements, they cannot only form diverse structures in a stagnant economy but also transform them into a dynamic system. The beginning of dynamic change is inseparable from forming a new technological base. The formation of a new dynamic reality relevant to the post-COVID future starts when independent companies arrange the interactions into dialectical pairs.

Thus, to explain the new role of the partnership of the state and private business, it is necessary to assess the role of system-forming companies in static and dynamic economies that correspond to pre-COVID and post-COVID reality[5]. A growing variety of organizational solutions that self-sustaining companies will use in the context of system integrity self-development will be largely determined by new products, services, processes, and businesses, breakthrough technological tools such as cloud technologies, big data, the internet of things (IoT), and artificial intelligence (AI). In

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[3] Arthur W.B. 2013. *Complexity economics: a different framework for economic thought.* Santa Fe: Santa Fe Institute, Working Paper 2013–04–012. URL: https://sfi-edu.s3.amazonaws.com/sfi-edu/production/uploads/sfi-com/dev/uploads/filer/a1/3e/a13e8ad4-cd39-4422-8cc3-86c543699f6d/13-04-012.pdf (accessed 31.10.2022).

[4] Here and elsewhere, under independent companies, we mean companies that survive and develop purely on their revenues. They are independent market players with solid strategic initiatives which impact not only their business but whole industries and societies' development, nationally and/or globally. These companies shape the present and the future and have the potential to become the state's allies in various forms of cooperation for producing public goods and improving the quality of life, including public-private partnerships.

[5] *2021 global report: The state of the new-business building.* 2021. Annual report, 6 December. *McKinsey*. URL: https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/2021-global-report-the-state-of-new-business-building (accessed 31.10.2022).

other words, independent companies can structure diverse ties and interdependencies corresponding to the new realities of technological interactions in the context of their networking interactions for building corporate ecosystems, technological platforms, etc. All mentioned above explain the significance of participating in large self-sustaining companies in diverse possible forms of partnership with the state.

The importance of partnership between the state and large self-sustaining companies multiplies against the background of the collapse of export-import, supply, and commercial chains of products and services costs formation caused by the introduction of sanctions against Russia by the West. Because of post-COVID changes, the content of this partnership has been transforming. It allows the rethinking of conceptual approaches toward explaining processes within an organization formulated back at the start of the previous century by A. Bogdanov (Bogdanov 1922). The organization factor in the formation of integration consistencies at any level (enterprises, industries, regions, countries) multiplies in its importance, especially in the conditions of an abrupt sanctions-caused breakdown of the dialectically interconnected chains of cooperation ties. In this light, Russia has faced a severe challenge in substituting lost links in the chains of cost formation and logistical and commercial ties. Minimizing damage becomes a strategic task, and even more important is to reduce time costs. Large companies that concentrate their business in the Russian Federation take on the main burden of forming structural ties mediating the integration of numerous objects, subjects, and processes in the exchange.

The Russian proverb '*ne bylo by schastya, da neschastye pomoglo*' suits the situation quite well[6]. Big Russian business, which has been suffering, will be able not only to regain lost opportunities but also compensate for economic losses from the pandemic and sanctions policy of the Western countries. Their business goals are directly linked with the necessity to ensure a leap forward for the Russian economy as a dynamic system.

What lies under the enormous potential of independent companies in the realization of systemic transformations and restructuring of cost formation chains and logistical and commercial ties in the Russian economic system?

The first explanation is the challenges of the Fourth Industrial Revolution.[7] The dynamic state of the future economic system will be primarily associated with forming a new technological foundation. As technological progress is embedded into the mechanism of self-development of the economic system, the Fourth Industrial Revolution and new disruptive technologies are endogenous factors in the formation of the future dynamic reality. J. Mokyr (Mokyr 2005) identified technological progress as the determinant of the mechanism of self-movement of economic systems inherent

[6] The English analog is 'the darkest hour is the nearest dawn'.

[7] The Fourth Industrial Revolution is a commonly accepted term to describe the rapid change to technology, industries, and societal patterns and processes in the 21st century due to increasing interconnectivity and intelligent automation.

in them genetically. However, only large self-sustaining companies possess respective potential.

Second, as the pandemic demonstrated, in extreme conditions, independent companies were the first to respond quickly to the changing external environment of their operations. CEOs of these companies focused on new products and services, processes, and business, as the Fourth Industrial Revolution made it possible. Surveys on significant companies' CEOs' strategies and tactics for new-business building confirm this trend. According to McKinsey, by 2026, independent companies plan to come off half of their revenues from products, services, or businesses that have not yet been created.[8] Self-sustaining companies consider the new-business building to support sustainable, inclusive growth in the indefinite future (Fig. 1).

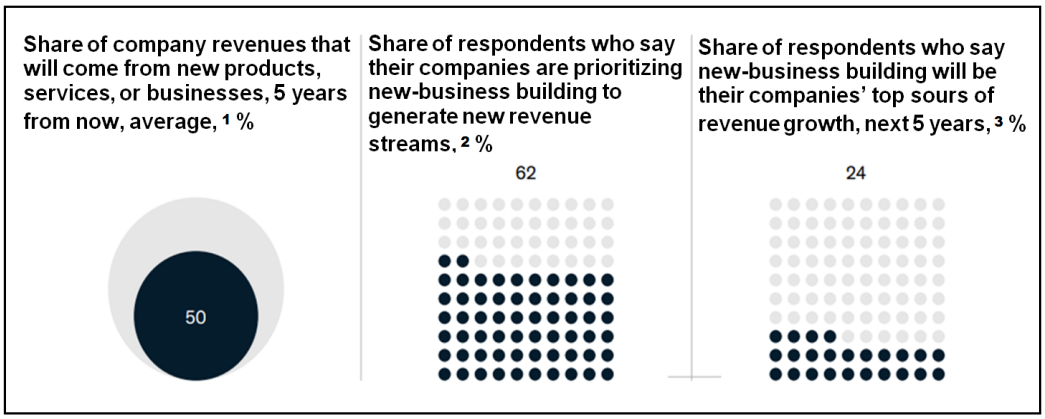

Figure 1. CEOs of self-sustaining companies are looking to bring in half of their companies' revenues from new products, services, or business by 2026

Notes: [1] Respondents were asked, "To achieve your organization's enterprise-wide revenue ambitions for five years from now, what share of that revenue do you expect will come from its current products and/or services (including upgrades and new versions)?"; n = 1,178.

[2] Questions were asked only of respondents who said the new-business building is at least a top-10 strategic priority for their companies; n = 1,069.

[3] n = 1,178.

Source: Leap by McKinsey (December 2021). 2021 global report: The state of the new-business building. McKinsey&Co

Fig. 1 shows that more than 80% of respondents regard the new-business building as a means to adapt to potential disruptions and changing demand, while 62% consider it to generate one or more new revenue streams. Accelerating this trend will

[8] *2021 global report: The state of the new-business building.* 2021. Annual report, 6 December. *McKinsey*. URL: https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/2021-global-report-the-state-of-new-business-building (accessed 31.10.2022).

mean that in five years, half of the revenues of independent companies will most likely come from new products, services, and business models. In other words, during the pandemic companies faced the challenge of diversifying their sources of income, taking advantage of the opportunities of the Fourth Industrial Revolution to strengthen their positions.

Thus, objectively, in the interconnections of independent companies, new objects of exchange and network interactions mediating them appear due to the challenges of digital business transformation. Theoretically, it is about forming a new object component in the self-development processes of independent companies associated with an expansion of intangibles (Roth 2019)[9].

The Fourth Industrial Revolution has brought to the world corporate ecosystems on technological platforms – a new technological base for corporate structural ties, mediated by new objects of exchange and new technology for combining them. They are often complex to build and replicate, but they allow self-sustaining companies-partners to create enduring competitive strength, outperform their peers, and develop resilience. Intangible assets are interdependent, and companies achieve more significant synergies by investing in all of them. In other words, the newest object component of the processes of structuring intercompany relations was brought to life by the Fourth Industrial Revolution and may produce an effect in case of implementation of new interaction technologies. This new opportunity has been grasped by independent companies whose digital transformation involves merging all four breakthrough technologies (cloud computing, big data, IoT, and AI) to multiply networking interactions that go far beyond the limits of one company[10].

This is how independent companies grow and expand already in their dynamic quality at the stage of their self-development. As a result, they start shaping the structural contours of the future dynamic economy. Intangible assets and digital technologies of the multiplication of market counterparties network interconnections will allow companies to quickly build new networking relationships in place of those left in a static economy. Then a critical mass of such companies will shape possibilities for expanding the entire economic system.

Based on the above, we may claim that only self-sustaining companies as leaders of digitalization can provide the economic system with a new technological base. Their optimization will ensure significant progress of the whole economic system. Besides,

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[9] Besides Roth, see Krishnan M., Mischke J., Remes J. 2018. Is the Solow paradox back? *McKinsey Quarterly*, 4 June. URL: https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/is-the-solow-paradox-back (accessed 31.10.2022); Banholzer M., Berger-de-Leon M., Dreischmeier R., et al. 2019. Building new businesses: How incumbents use their advantages to accelerate growth. *McKinsey,* 12 December. URL: https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/building-new-businesses-how-incumbents-use-their-advantages-to-accelerate-growth (accessed 31.10.2022).

[10] Dietz M., Khan H., Rab I. 2020. How do companies create value from digital ecosystems? *McKinsey,* 7 August. URL: https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/how-do-companies-create-value-from-digital-ecosystems (accessed 31.10.2022).

in partnership with such companies and taking advantage of their experience, the state will be able to bypass all 'prospectless' and 'inefficient' forms of cooperation. Besides, from its start, such an alliance will base on the latest technological and organizational solutions.

The modern technological revolution has changed what and how we do and who we are[11]. That is why human and relational capital, as one of the four groups of modern intangibles, plays a crucial role in modern technological progress, the digital transformation of independent companies, and the formation of a dynamic economy. In other words, human capital and optimal forms of organizing professional activities of talented employees could fuel a full-fledged digital transformation of companies and increase its multiplier effect through corporate ecosystems capable of self-organization and self-development. W.B. Arthur (Arthur 2009) saw this as a process of system sophistication that begins with the fact that new technology in the form of technological complexes generates unceasing waves of perturbation, causing new perturbations both in technology and in all areas of human activity.

Nowadays, such tectological shifts are visible in society only because of recent economic crisis developments that started in 2020. Under these conditions, large self-sustaining companies' interest in improving their work's environmental, social, and governance (ESG) aspects has become even more justified.

Born of socially responsible investing, environmental, social, and governance (ESG) investing went mainstream in the 2010s as global institutional investors gained a better understanding of the material impact of ESG-related risks on the assets they owned as well as the opportunities provided by new green investable projects. Increased public awareness of key ESG issues such as climate change, diversity, human rights, and the need for greater accountability and transparency are pushing the corporate world into a new era. Milton Friedman's 'shareholder primacy' is gradually making way for 'stakeholder capitalism'. This concept means that companies are beginning to focus on seeking long-term value creation by considering the needs of all their stakeholders and society.

To act as responsible owners and, ultimately, to benefit from strong investment returns, investors need to understand whether companies are efficiently managing the environmental and social impacts of their operations. Very soon, sustainability principles and an ESG approach will be as crucial to the business as financial reporting due to the demand of consumers, shareholders, and regulators. Many companies have made the first steps to develop a circular economy and support responsible consump-

[11] Schwab K. 2016. The Fourth Industrial Revolution: what it means, how to respond. *World Economic Forum,* 14 January. URL: https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond (accessed 31.10.2022); Schwab K. 2020. COVID-19's Legacy: This is how to get the Great Reset right. *World Economic Forum,* 14 July. URL: https://www.weforum.org/agenda/2020/07/covid19-this-is-how-to-get-the-great-reset-right (accessed 31.10.2022).

tion. If earlier it was more of a business venture, now it is becoming one of the competitive advantages and an essential factor for attracting investment. In this context, the ESG approach should be addressed as systematically as business digitalization or strategic development of diversity, equity, and inclusion (DEI).

Considering that almost everyone has faced a shortage of qualified staff, a drop in the number of responses to vacancies, and changing employee expectations, businesses will have to seriously work on their employee value proposition (EVP) to strengthen non-material motivation and opportunities for staff development. Here the most crucial role belongs to ESG issues. Today it is vital to have a mission, take on social, environmental, or other obligations and tell what you are doing to make the world around us better.

Evolution of PPP in a changing economy

In theoretical terms, fundamental changes occur when the system becomes dynamic in economic system structuring. Nowadays it is changing due to the dialectical interaction of the economic system and society. Talented workers go through changes of priorities in their professional activity: economic motives are being complemented or replaced with social ones. These individual preferences go beyond companies' limits into the economy and society in the process of upward causation.

Another problem that has so far remained outside the focus of the modern state is achieving social integrity and resolving problems caused by the societal crisis.[12] The fundamental character of the problem of interaction dialectic violation between the

[12] Societal ideas were first formulated by A.G. Keller, who interpreted societal systems as forms of social formations that perform economic, political, social, and spiritual functions. Later, the problems of societal systems and the specifics of their manifestations were studied by T. Parsons, R. Bales, Y. Habermas, G. Lyubarsky, V. Popov, and many others. The author's judgments are based on a systematic approach to understanding the patterns of changes in society and its societal manifestations.

Based on this, we assume that a societal system integrates its object, subject, and process components, which stand as system elements. The subject component is represented by representatives of society (people), the object component implements social exchange between them, and the process component makes interactions between subjects and objects of social exchange stable and recurring.

The quality of the process components determines the structural characteristics of society, which transform the social system into societal integrity. A societal system's integrity (stability, sustainability) depends on the quality of structural connections of all its components. They become permanently reproducible only if social exchange mediates interrelationships between dialectical pairs, whose participants are both the cause and effect of their relations. If dialectically interacting pairs realize all horizontal and vertical interactions in society, then it is impossible to destroy the structure of the societal system, and as such, it has structural integrity – societal integrity. In this case, there is unity (consistency, agreement, dialectical interrelations) between the subject and the society as a manifestation of their societal unity.

Consequently, a societal crisis means the rupture of structural ties and destruction of the dialectical interaction of the object and/or subject and/or process components. A unique role belongs to the subjective component of the societal system, as an individual brings results of his/her integration into social relations and acquires a unique quality due to adherence to social or antisocial norms of behavior, loyalty, or aggressiveness. It should be emphasized that a society representative simultaneously acts as a subject component of the economic system, a participant in the technological progress, educational process, mechanism of socialization, etc.

For more details, see: (Keller 1920); (Parsons 1949); (Bales, Parsons 1956); (Habermas 1989); (Lubarskiy 2004); (Popov 2018).

society and economy became apparent in connection with challenges that grew with the spread of the COVID-19 pandemic. A logical explanation here could be the following. Initially, humanity needed to provide material conditions for people's lives, and that predetermined priority of the economy compared with other structures and systems. The state, as a structure-forming agent, was supposed to ensure the stability of economic systems with all possible means at its disposal (including fiscal ones). In this context, it would be appropriate to quote the following words of the prominent Russian philosopher N. Berdiaev: 'The state exists not to turn earthly life into heaven, but to prevent it from finally turning into hell' (Tanzi 2011). Hence, in the post-crisis future political capacity of the state to restore social integrity as a basis for accelerating technological and economic progress will depend on how quickly and far the state moves away from the bottom line that the most disadvantaged part of the population approached during the pandemic.

According to M. Sandbu (Sandbu 2020), '...things will never be the same. However, how they will change is wide open, and policy choices made over the next few years will make a big difference in whether the post-COVID-19 world favors broadly shared prosperity more than the status quo ante… At rare moments, however, leaders' decisions help reset the course of their societies for a long time. This is such a moment". Success or failure in building post-crisis reality will be determined by structural interactions between the state and self-sustaining companies in a specific socio-economic system.

Downward and upward causation processes with the participation of self-sustaining companies strengthen the static economic system, but only to certain limits. As for the transformation of the static system into a dynamic one, such a dialectical leap is also mediated by such companies. It starts with the destruction of the static system structure, as levels-causes and levels-consequences arranged in the form of upward vertical structures reverse their motion vector towards downward organizational interconnections. This is precisely how the law of the negation of the negation[13] works: structural levels-consequences are destructed first, and then structural levels-causes are dismantled as well. As a result, the system integrity loses its structure and self-organization mechanism. It is time for a dialectical leap of the static economic system into an undetermined future economic reality. Moreover, here comes the turn of self-sustaining companies that play the role of structure-forming elements in this system. Such companies objectify themselves in the Schumpeterian function of 'creative destruction' by mediating upward and downward causation mechanisms. The most important aspect of this companies-driven creative transformation of internal and

[13] The law of double negation is one of the primary laws of dialectics. It expresses continuity, spiral development, the connection of the new with the old, a kind of repetition at the highest stage of development of some properties of several lower stages, and justifies the progressive nature of development.

external networking interactions is their role as agents of post-crisis reality structuring both in terms of the objective and subjective components, as well as the process component of these organizational transformations. From the theoretical perspective, these companies should construct new organizational ties that will be adequate for the dynamic post-crisis reality.

We formulate methodological approaches to interpreting self-sustaining companies' special role in structuring the post-crisis reality using a theoretical heritage of representatives of the general systems theory (Haken 1977), synergetics (Von Bertalanffy 1968), tectology (Bogdanov 1922), catastrophe theory (Arnold 1986; Guckenheimer 1973; Zeeman 1977; Thom et al. 1969, 1974), the modern theory of complexity economics (Arthur 1999; Arthur et al. 1997; Anderson et al. 1988; Hausmann et al. 1996), et al. Besides, many our thoughts have been inspired by the geniuses of the past and present who anticipated the distant future (Hegel 1892; Marx, Engels 1955-1974; Bogdanov 1922; Keynes 1936; Schumpeter 1949; North 1981, 1996), and many other prominent researchers.

For an in-depth understanding of this phenomenon, we use dialectical logic in interpreting the organizational potential of self-sustaining companies and mechanisms for its implementation at the stage of the leap of the existing economic systems from statics to dynamics of the post-crisis reality (Pilipenko A et al., 2021b). In other words, all networking interactions with the participation of such companies can be interpreted from the interaction of integration (cooperation, association, inclusion) and disintegration (differentiation, separation, diversity), regulated by dialectical laws.

The system approach and dialectical logic will be helpful in understanding the significance of the organizational transformations in the system, which transform its integrity and predetermine its statics or dynamics. The methodological principle of dialectic interrelation and interaction of elements in any human-made system, be it economic or social, becomes essential in this case. Strengthening internal networking interactions between elements and the system makes the system coherent. In other words, the formation of structural (stable, long-repeated, network) interactions in the system, their growing diversity, constant recurrence, and permanence predetermine the system integrity. This system feature appears in its structural determinacy and specific peculiarities permanently (cyclically) reconstituted (resumed) through stable direct and reverse interconnections organized by the causality principle.

Ultimately such an explanation of the integrity feature leads us to the idea that the system persists in its specific configuration because of its ability to self-organize. The self-organization principle ensures the system's integrity and mediates its sophistication through multiplication and repetition of causal relationships between dialectically interconnected elements. At the same time, the persistence and stability of the system are always relative since they rely on constantly changing structural interconnections. Nevertheless, a coherent system can self-organize in the course of preservation and multiplication of its elements which mediate the recursion mechanism of its internal interactions.

The stability of an integral system is provided by the endless repetition of interconnections forming its structure that mediates the process of its self-organization. In this context, self-organization mediates the processes of system sophistication by increasing the number of its elements and multiplying interconnections among them. A unique role belongs to system elements that organize numerous connections that predetermine the system structure and, thereby, mediate the work of the self-organization mechanism.

It follows thence that independent companies are their structure-forming elements, taking the modern economy and society as integral systems capable of self-organization. The quality of network connections and stability of the whole system depends on these elements since they mediate the system's self-organization mechanism. Thus, if one understands patterns of the network connections organization by self-sustaining companies as well as factors predetermining radical change, it will be possible to minimize the uncertainty of the future system reality in the economy and society after the crisis.

To define patterns of organizational change in an integrated system with an internal self-organization mechanism, it is necessary to get an in-depth understanding of the theoretical side of the issue. Taking an economic system as an example, it is gradually forming as integrity along with optimization of division and labor cooperation as interrelated aspects of a single process of joint economic activity. At any given moment, these forms of economic activity organization are mutually dependent on each other in such a way that they could be called the abscissa and ordinate of the economic curve describing the systemic integrity. Dialectics of such a quality of interconnections predetermines the stability of networking interactions performed by independent companies. In these conditions, economic exchange represents an internal moment of the organization of companies' economic activity and is characterized by stability and conservatism concerning changes in its forms. It is these properties of exchange that provide for structural connections in the system. In practice, self-sustaining companies mediate networking interactions described above.

Differentiation of economic activity presumes a positive selection of its specialized types, increasing their diversity. Integration, using various types of specialized labor, implements their negative selection, generates connections between them and coordinates forms of their manifestation. That is why the integration results are significantly inferior in scale to various differentiated types of companies' business activities.

Bogdanov (Bogdanov 1922) compared processes of differentiation and integration to a universal regulatory mechanism in all spheres of human activity. This mechanism, called here self-organization, is mediated by self-sustaining companies, which, by establishing their network connections, determine the quality of the economic system integrity. By complicating its forms, the differentiation of human activity (positive selection) increases the heterogeneity of being and delivers ever-increasing material for it. As for its integration (negative selection), it orders the latter by simplifying this material, eliminating from it all fragile, discordant, contradictory, and introducing homo-

geneity and consistency in its connections. Complementing each other, both processes spontaneously organize the world.

Applying these conclusions to system integrities and self-sustaining companies as their elements, we may claim that these companies realize the self-organization mechanism by establishing numerous networking interactions in this framework. These companies turn part of these networking interactions into structural ones due to their constant repetition, stability, and immutability. Such quality of networking interactions can arise only within the framework of dialectical pairs. However, as soon as a company mediates dialectical interconnections and launches the system self-organization mechanism, they become exposed to dialectical laws of the unity and struggle of opposites, transition from quantity change into quality change and the negation of the negation. Dialectical laws of self-movement of system integrity in the economy are implemented through the exchange of economic activity and its results.

It is necessary to acknowledge from the systems theories perspective that the progress of a dynamic economy in comparison with its precedent static condition is determined by its expansion possibilities. Applied to the modern economy, the issue at hand is rebuilding its dialectical interaction with society within the integrity of the socio-economic system. Self-sustaining companies mediate the expansion of possibilities of the system that integrates both the economy and society. This is what largely predetermines significant opportunities for the progress of a new, more sophisticated dynamic economy. Besides, the growing diversity of organizational solutions to be applied by companies in the conditions of self-development of system integrity will be, to a considerable degree, predetermined by a new technological base stemming from the Fourth Industrial Revolution. A logical consequence of the expansion of business processes, digitalization, and automation is the problem of attracting a workforce with specific experience and expertise significantly different from those that were enough for running a static economy. The interdependence of the Fourth Industrial Revolution with the workforce necessary for developing its results highlights the problems of substituting capital-centric principles with human-centrism in organizing networking interactions within companies and the system.

The state, a central element of the system, plays a conservative part, as it limits the diversity of companies' structural ties to sustain the static system. Institutionalizing all domestic networking ties is the essence of structuring interactions between the state and economic agents. The braking started even before the COVID-19 pandemic: a slowdown in major countries' economic growth, deepening of polarization in societies, middle-class squeeze, deterioration of healthcare quality and the education system as public goods, aggravation of corruption at the public level.

The pandemic enhanced these negative trends, triggering various crises, from economic, societal, healthcare, and education to humanitarian and environmental catastrophes. In this situation, almost all countries mainly used the most counterproductive instruments to fight the virus – the economic lockdown and social distancing, which crippled structural ties in the economy and society. Such state behavior showed inef-

ficiency as a central element of the economic and social systems responsible for their integrity. This behavior became evident in the deliberate blocking of structural interactions. The use of selected budget and taxation practices and policies aimed at reviving the economy during continuing waves of coronavirus came up short and resulted in the loss of trust of the people in the state.

It can therefore be claimed that in at least part of developed economies, the self-organization potential has run out, and the only condition for progress is ensuring a dialectical leap of the system into post-crisis reality with undefined characteristics. Following the dialectical logic, the importance of independent companies as drivers of horizontal and vertical organizational change in the economic system is evident. It was described above how vertical upward causal connections strengthen the system's stability. However, the 2008-2009 financial crisis showed an instant reorientation of causal connections from upward to downward, which ruined them as a house of cards to the horizontal dialectical level. Although companies' structural ties self-organize in an objective fashion, the breakdown of the dialectical laws of the unity and struggle of opposites, as well as the transition from quantity change into quality change, may be explained only by growing discrepancies between organizational ties built by companies, on the one hand, and institutions ensuring these ties from the side of the state, on the other. If the Federal Reserve had been able to deal swiftly with the threat of growing off-balance activities of transnational commercial banks and foresee a high risk of losses for non-qualified investors who had been buying high-rating compound structured instruments, the upper structural level of the organizational hierarchy of financial instruments exchange could have been saved from collapse. Furthermore, those events were not the first demonstration of state conservatism which more and more restrains organizational opportunities of the companies.

The pandemic aggravated the situation with the inadequacy of the state in performing its main functions that were formed in the past. Rapidly changing technological base paved the way for the companies' quick rebuilding of internal and external interconnections. At the same time, the state underwent no similar transformation: budget parameters projects till 2030 analyzed by countries around the world showed that nothing had changed with the state while almost everything around the state had changed drastically. Therefore, nowadays, one cannot extrapolate past trends to future reality: in the past, there was statics, while in the future, it will almost certainly be dynamics.

In times of crisis, a new objective component of structure-formation processes has started to develop rapidly. Self-sustaining companies are the main participants in these processes. They have increased investments in intangible assets, which objectify new products and services, new processes, and new business-building. These new exchange objects allow such companies to actively form more extensive structural connections about market transactions with them. Latest technologies, which provide various novel configurations of technologically interrelated partners, only accelerate these processes. The Fourth Industrial Revolution has given a new technological base

for corporate structural ties mediated by new objects of exchange and new technology in their combination. These corporate ecosystems and technological platforms are often complex to build and replicate, but they enable self-sustaining companies-partners to create enduring competitive strength, outperform their peers, and develop resilience. Intangible assets are interdependent, and companies achieve more significant synergies by investing in all of them.

New and newest products, services, and processes emerged due to the Fourth Industrial Revolution. Being by and significant intangible assets, they are distinctive in that their most economical return is provided by their mediation of multi-way interactions of the maximum possible number of exchange participants. A new quality of their technological support, including such breakthrough technologies as cloud computing, big data, IoT, and AI, allows them to develop their emergent characteristics and launch the mechanism of networking interactions multiplication. This is how the process of dialectical ties formation in business and market exchange with the participation of self-sustaining companies works. They mediate the mechanism of upward causality to provide conditions for the functioning of a dynamic economic system.

Modern corporate ecosystems are capable of self-organizing and self-developing. They may serve as a model of a qualitative transformation of intangibles in the form of new products, services, processes, and new businesses with the newest breakthrough technologies. According to experts' estimates, out of the global business's total $190 tn revenue, around 30% will be generated by ecosystems by 2025 (Siebel 2019).

The ecosystem may be presented as a customer-centric business model embracing two or more groups of products, services, and information for customer satisfaction.[14] The key idea at its foundation is to collect services at a single technological platform that could satisfy various customer demands. As a rule, the leading providers of such services are significant players – independent companies concentrating ideas, talents, and other resources within their existing ecosystems and providing them with platform infrastructure. A full-fledged technological platform unites breakthrough technologies of cloud computing, big data, IoT, and AI based on a model-controlled architecture[15].

As almost all services are interconnected, customer acquisition costs (CAC) decrease with each consequent service of the ecosystem, while company profits and lifetime value (LTV) per customer increase. Corporate ecosystems mediate the digital transformation of companies' external environment and customer interaction, allowing their participants to spend less on marketing and earn more per client by providing

[14] Chung V., Dietz M., Rab I., et al. 2020. Ecosystem 2.0: Climbing to the Next Level. *McKinsey Quarterly,* 11 September. URL: https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/ecosystem-2-point-0-climbing-to-the-next-level (accessed 31.10.2022).

[15] Close K, Gourévitch A., Schuuring M. et al. 2020. Digital Acceleration is Just a Dream without a New Approach to Tech. *Boston Consulting Group,* 28 July. URL: https://www.bcg.com/publications/2020/how-to-successfully-accelerate-digital-transformation (accessed 31.10.2022).

a broader spectrum of services instead of increasing prices. In this case, we witness win-win relations (mutually profitable cooperation) of partners within an ecosystem by consolidating all services on a single technological platform. In perspective, the pace and depth of technological progress will depend on the quality of self-sustaining companies' digital transformation. This transformation, in turn, depends on companies' capability to provide conditions for limitless expansion of the intellectual potential of their talented employees.

Intangibles are not equal in their impact on the pace and direction of networking interactions structured by independent companies. Out of three components of the mechanism of their self-movement – objective, subjective, and process – it is the subjective component that plays a unique role in transforming the digital environment in business. All intangible assets known today and the four newest instruments (cloud computing, big data, IoT, AI) of their integration on a corporate technological platform may deepen and expand only with the participation of creative personalities and adequate integration of their professional activities within a company. In this case, intellectual endowments of a personality will make perspectives of implementation of the Fourth Industrial Revolution genuinely endless.[16]

Therefore, human and relational capital, as one of the four groups of modern intangibles, plays a crucial role in recent technological progress, the digital transformation of independent companies, and the formation of a dynamic economy as a whole. In other words, human capital and optimal forms of professional activities organization for talented employees may contribute to the realization of a full-fledged digital transformation of companies and expand its multiplying effect with the help of corporate ecosystems capable of self-organization and self-development. W.B. Arthur (Arthur 2009) wrote about system sophistication that starts from the point where new technology in the form of technological complexes generates incessant waves of disturbance, provoking new disturbances both in technology and all spheres of human activities.

Therefore, if a self-sustaining company mediates economic system self-movement by transforming Fourth Industrial Revolution opportunities into new organizational solutions, its progress will depend on how successfully CEOs unite employees with various talents in a corporate team.

It is pretty telling that companies adjust their internal self-organization in connection with the conditions of talent attraction and socialization. Companies associate their accelerated digital transformation and future success in an uncertain reality with such talents. CEOs face the need to rebuild internal structures considering principles of inclusion for intellectually autonomous personalities, different not only in their pro-

[16] Schwab K. 2016. The Fourth Industrial Revolution: what it means, how to respond. *World Economic Forum,* 14 January. URL: https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond (accessed 31.10.2022); Schwab K., Malleret T. 2020. *COVID-19: The Great Reset.* Forum Publishing, 2020. URL: http://reparti.free.fr/schwab2020.pdf (accessed 31.10.2022).

fessional capabilities but also in individual preferences shaped by their socialization. Significant changes in organizational structures of self-sustaining companies are coming because the socialization of talented individuals is impacted by their personified assessments of the realization of the equity principle. With the integration of this principle into corporate strategies, companies are forced to reorganize internal teams with a focus on human-centrism (Fig. 2)[17].

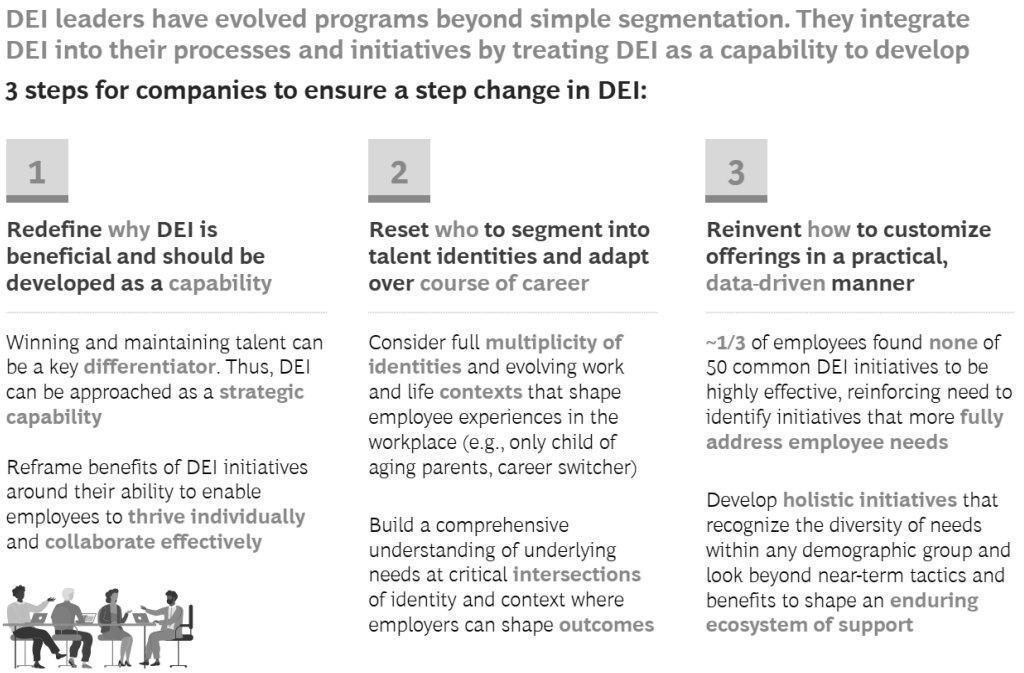

Fig. 2. Investing in DEI principles to support employees' diverse inclusion in the intra-firm team organization.
Source: BCG Executive Perspectives. (July 2021).

John Rawls called social justice 'the first virtue of social institutions which takes shape in the institutionalization of the game's rules in the system formation processes (Rawls 1971). Aristotle called justice the highest social good since, in his opinion, with the creation of conditions for a just social organization, the solidarity of the citizens would come itself as its objective consequence. In this context, justice is not merely a question of how to treat individuals, but also a social phenomenon serving as the foundation of any society.

[17] Novacek G., Lee J., Krentz M. 2021. It is Time to Reimagine Diversity, Equity, and Inclusion. *Boston Consulting Group.* URL: https://web-assets.bcg.com/0b/c4/c45a07e54f48ae0dc784667a66dd/bcg-its-time-to-reimagine-diversity-equity-and-inclusion-may-2021-r.pdf (accessed 31.10.2022).

Infrastructure projects of public significance as a vital contribution to a more inclusive societal environment

With the enormous significance of the instability problem and the factors that generate it, it is necessary to form high-impact alliances to address sustainability challenges. The state should be the main inspiring force of such cooperation, where it is necessary to ensure the coordination of interests of all stakeholders. The organization of high-impact alliances based on PPP has excellent potential. At the same time, full-scale use of this potential is possible only if interaction dialectics between private business and the state constitute a form of implementation of a high-impact alliance focused on stabilizing the economy and society and restoring the environment.

There are three primary ways of engaging public and private actors in a collective action to support sustainability targets: *public-private sustainability partnerships, public-private ecosystems, and PPP-led sustainability alliances.*

Public-private sustainability partnerships are contractual relationships typically established along participants' value chains to deliver on sustainability goals in realizing capital-intensive projects as public goods. This type of collaboration tends to be a one-to-many relationship; that is, a public sector coordinates with a set of sustainability partners. Various forms of partnership enable partners to develop their separate ecosystems.

Sustainability of public-private ecosystems. Business ecosystems are a form of collective action wherein a dynamic group of independent businesses creates products or services that constitute a coherent solution to a marketplace or consumer need with the goal of public goods production in publicly significant areas of the economy. Monetary value exchange is explicitly built into the partners' business ecosystem design to align the participants' incentives. While there may be such a controlling and/or coordinating force as the public sector, business ecosystems are rarely hierarchical.

PPP-led sustainability alliances. These alliances are a form of multi-stakeholder collective action that focuses on setting industry standards of public goods and increasing data transparency across value chains, influencing regulation and shaping customer preferences, or supporting innovation through joint R&D and catalyzing capital. What distinguishes PPP-led sustainability alliances from other forms of sustainability alliances is that public-private business partners and their priorities are the driving force behind the alliance, shaping the collective agenda to enable businesses to implement more sustainable practices in an economically viable way.

Several arguments prove that sustainable infrastructure is critical to rebuilding post-crisis economies and shaping a more inclusive societal environment. The pandemic has shown that access to sustainable infrastructure is far from equitable; investing in sustainable and resilient infrastructure is a critical factor in post-crisis rebuilding of economies and healthcare as well as creating jobs; there are good examples of how to initiate an infrastructure project through the lens of lowering carbon foot-

print and integrating ESG principles[18]. An example could be the reconstruction of the LaGuardia Airport Terminal B in New York[19].

After economic and social lockdowns have eroded the structural integrity of socio-economic systems, only publicly significant infrastructure can provide shared use for rebuilding a web of collective interdependence, sharing spaces, equity of access, and common ground within communities. A developed system of public infrastructure refers to vital physical resources, both public and private, shared by communities in facilitating all aspects of our daily lives: transportation (roads, tunnels, rail lines, airports, bridges); education (schools, universities); health (hospitals, research, and testing laboratories, mobile health facilities); civic life (justice centers, government facilities) as well as all of the technology and its related grid that allows us to live, learn, work and commute every day. In this sense, we discuss infrastructure as a core of the post-crisis inclusive societal environment (Fig. 3).

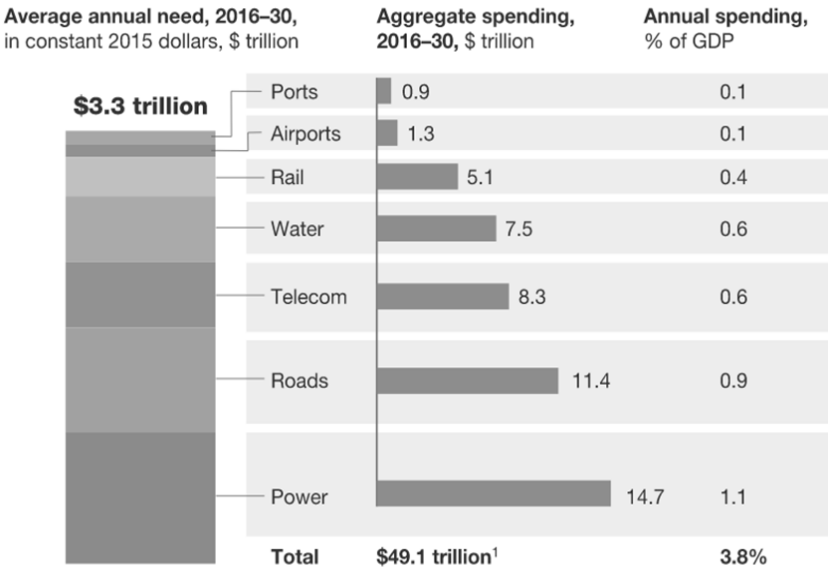

Figure 3. The dynamics of the global need to invest in economic infrastructure from 2016 to 2030

Source: McKinsey Global Institute. Infrastructure productivity: How to save $1 trillion a year. 2013. McKinsey & Company.

Note: The estimate of total demand is lower than the $57 trn projection in previous MGI research. It has been adjusted for the following reasons: the projection covers 15 years (2016-2030)

[18] Deau T. 2020. Why Sustainable Infrastructure is Vital to Rebuilding the Post-COVID Economy. *WEF*, 8 September. URL: https://www.weforum.org/agenda/2020/09/sustainable-infrastructure-post-pandemic-rebuilding-economy-great-reset-meridiam-laguardia-terminal-b-project (accessed 31.10.2022).

[19] The project includes a mix of sustainable strategies, including energy efficiency, water conservation, site selection, material selection, and waste reduction. For more details, see https://www.laguardiab.com/sustainability (accessed 31.10.2022).

rather than 18 years (2013-2030); water numbers have been reduced by 40%, as Global Water Intelligence adjusted its water capital-expenditure definition to exclude equipment spending; base-year prices have been revised from 2010 to 2015, and GDP growth forecasts have been revised downward by IHS.

This approach includes, among other things, moving beyond essential compliance with core labor and human rights standards to increase inclusivity, diversity, and opportunity for communities and prioritize local recruitment; using these project platforms to drive local economic development and capacity building, and more broadly improve the quality of life in the surrounding community and region. Uncertainty surrounding the COVID-19 pandemic, its associated health risks, and the following economic crisis caused many individuals, households, and businesses to opt out of routine activities – even if no formal restrictions were in place. Eliminating that uncertainty is essential to fuel further growth, as well as to return the trust of the households. In this case, it is successful infrastructure development that predetermines progress in many ways[20].

Available data suggest that PPP spending accounts only for about 3% of global infrastructure spending and 8% of private infrastructure spending. Hence, yearly global infrastructure spending is about $3 tn, which is around 5% of the world GDP. Around 75% of PPP spending ($45-75 bn per year) is in the transport sector[21]. Another 20% of PPP spending is for government services ($12-20 bn per year), while the remainder ($3-5 bn per year) goes to the electricity, telecoms, water, and waste sectors[22].

Despite glaring gaps and the generally understood importance of shoring up backbone systems, infrastructure investment has declined as a share of GDP in 11 G20 economies since the global financial crisis of 2008-2009. The G20 European Union economies, the United States, Russia, and Mexico, are among these countries. By contrast, Canada, Turkey, and South Africa have increased investments. If the current trajectory of underinvestment continues, the global figures will fall at least by roughly 11%, or $350 billion a year[23]. The size of the gap will triple if the calculations include the additional investment required to meet the new UN Sustainable Development Goals. Thus, sending finance flows for projects of urgent importance appears to be critical.

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[20] *Prioritizing health: A prescription for prosperity.* 2020. Executive summary, 8 July. McKinsey Global Institute. URL: https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/prioritizing-health-a-prescription-for-prosperity (accessed 31.10.2022).

[21] According to EIB and PPIAF, investment in transport PPPs over the last 25 years has been considerable, adding €203 bn in Europe and $535 bn in developing countries. For more details, see the private participation in infrastructure (PPI) database.URL: https://ppi.worldbank.org/en/ppi (accessed 31.10.2022); EIB open data. URL: https://www.eib.org/en/infocentre/eib-open-data.htm (accessed 31.10.2022).

[22] Engel E., Fischer R., Galetovich A. 2014. Risk, and public-private partnerships. *CESifo DICE Report*. 12(3), P. 3-7. URL: https://www.ifo.de/DocDL/dicereport314-forum1.pdf (accessed 31.10.2022).

[23] For more details, see The private participation in infrastructure (PPI) database. URL: https://ppi.worldbank.org/en/ppi (accessed 31.10.2022).

A vast share of infrastructure will likely continue to receive funding from the public and corporate sectors. Significant efforts have been made to connect institutional investors with projects that need their capital and expand the role of public-private partnerships. Even in the face of fiscal concerns, there is substantial potential for increasing public infrastructure investment. Governments could increase funding by raising user charges, capturing property value, or selling existing assets with a subsequent investment of the proceeds into new infrastructure. In addition, public accounting standards could be in line with corporate accounting so that infrastructure assets depreciate over their life cycle instead of being immediately added to deficits during construction. This change could gradually change pro-cyclical public investment behavior.

Corporate finance makes up around three-quarters of private finance. Unleashing investment in privatized sectors requires regulatory certainty and the ability to set prices that give an acceptable risk-adjusted return and introduce enablers like spectrum or land access, permits, and approvals. Beyond ramping up financing, there is even more significant potential in making infrastructure spending more efficient. Improving project selection, delivery, and management of existing assets could save up to 40 percent of funds. Every location needs expertise in building and establishing correct organizational structures for developing critical skills and sharing best practices. This effort could produce considerable dividends, as infrastructure influences the quality of life everywhere and paves the way for productivity growth and competitiveness.

PPP and formalization of the state's efforts to build a more inclusive societal environment

The partnership between the state and private business is promising from the point of view of eliminating the fundamental cause of the current societal crisis, as it bases on coinciding interests, preferences, and partners' values. In addition, PPP refers, as a rule, to long-term, capital-intensive, and publicly significant projects. This means that implementing PPP projects in public goods implies a significant number of stakeholders who, through their actions, transmit consent (disagreement) with each other's actions, including the state. With a post-crisis agenda, there is a strong case for PPPs to get a bolder role in addressing society's major issues[24].

As said above, it is hard to overestimate the economic effect of PPP. Before the COVID-19 pandemic, the existing infrastructural capacities in various countries were not enough to meet the demand. The decrease in PPP investments during the pandemic only aggravated the situation. In the late 2010s, the world invested around $2.5

[24] Reeves M., Kell G., Hassan F. 2018. The Case for Corporate Statesmanship. *Boston Consulting Group,* 1 March. URL: https://www.bcg.com/publications/2018/case-corporate-statesmanship (accessed 31.10.2022).

tn a year on transportation, power, water, and telecommunications systems. Nevertheless, it was not enough, and needs were only growing steeper. A study by the McKinsey Global Institute showed a need for the world to invest an average of $3.3 tn annually to support currently expected growth rates (Fig. 3). The partnership between the state and private business is promising from the point of view of eliminating the fundamental cause of the current societal crisis since it is built on the coinciding interests, preferences, and values of partners. According to Boston Consulting Group experts, three things must be priorities for governments worldwide (Fig. 4).

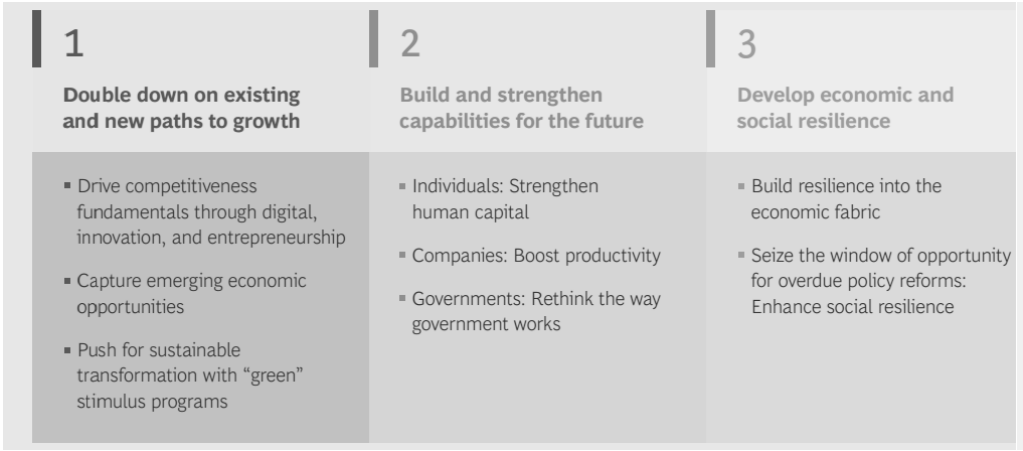

Figure 4. Key priorities of institutional support of PPP by the state will allow for overcoming the societal crisis's consequences.
Source: Schwaerzler C., Henderon G., Patel J., et al. 2020. Beyond the curve: How governments can galvanize their nations for the rebound. Boston Consulting Group, May. URL: https://www.bcg.com/publications/2020/three-government-priorities-for-rebuilding-post-covid (accessed 31.10.2022)

Alongside positive effects for citizens, the institutionalization of PPP in publicly significant spheres can demonstrate to a private business that it is increasingly stepping up on sustainability and corporate responsibility. It is because of growing evidence of a positive link with financial performance. This alignment of finance with corporate responsibility could significantly contribute to rebuilding societal integrity regarding environmental stewardship, workplace conditions, and good governance. In essence, corporate responsibility is a long-term maximization of self-interest in which private investors ensure they do not damage themselves by undermining their environments.

In other words, an adequate institutionalization of PPP forms by the state allows for expansion of the sphere of coincidence of interests of companies (and their employees), society, and the state. This is how state should implement its policy aimed at minimizing the negative consequences of the societal crisis. Corporate responsibility is fundamentally about individual values and actions in ways that are compatible with

a common interest. In other words, it means 'doing well by doing good' within an existing policy of fighting the social crisis caused by pandemic shock (Fig. 5).

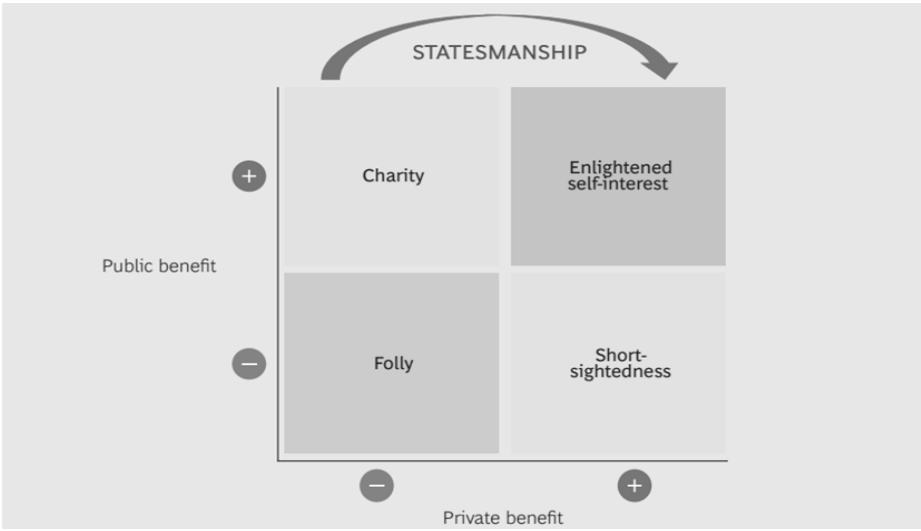

Figure 5. Fighting the societal crisis as the institutionalization of coinciding interests of the state and private business in initiating PPP projects
Source: Brimmer A., Chin V., Hayden P., et al. 2020. Beyond the Curve. How to Restart in the Wake of COVID-19. The Boston Consulting Group's Henderson Institute, April. URL: https://www.bcg.com/publications/2020/restarting-the-economy-post-covid-19 (accessed 31.10.2022)

The PPP specifics are due to the dialectic of interaction between the state and private business, and the variety of operations with public goods depends on the functions and fiscal capabilities of the state in society. There are several reasons for that. Firstly the state combines subjective and objective principles; secondly, it institutionalizes activities of both market agents and business entities acting on behalf of the state; thirdly, it de-facto redistributes to its budget a significant part of the national income created by society; fourthly, it follows its norms of behaviour contrary to the implementation of the function of maximizing public utility; fifthly, it introduces conflict into its relations with the society and citizens as a result of inadequate aggregation of individual values in public choice; sixthly, the state is the object of all social discontent provoked by its inability to deal efficiently with the crises. Still, and despite all these circumstances, it is the state that sets the conditions for the implementation of PPP projects.

In light of this role of the state, it is necessary to focus on elaborating political solutions for dealing with the societal crisis. First, one needs to take into account specifics of formal institutions that mediate interaction dialectic of mechanisms of the realization of publicly significant norms of behavior, on the one hand, and penalties for not following these norms, on the other. Second, the state needs to recognize the phenomenon of societal integrity as a key one in all conditions, including such ex-

traordinary situations as pandemics. Besides, all decisions will have a delayed impact since, initially, the state should recognize the necessity to review its role in institutionalizing societal structural ties. To reach the target effect, a focus should be made on constructive (not destructive) opportunities of formal institutions. Before all, it is about adequately assessing citizens' values as family members, society members, employees, social activists, voters, etc. The state should understand the reasons for different perceptions of these values by citizens, society, and the state itself, as well as make an expert assessment of the complex of state actions and specific features of formal institutions that will expand the sphere of coincidence of individual and public preferences. Any mistake in this way could potentially lead to severe social and economic damage. State-formed formal institutions should undergo tests in one publicly important sphere, and only in case of success, with the restoration of citizens' trust in their government's policies, would it be appropriate to implement them on a broader scale, aiming at resolving the societal crisis.

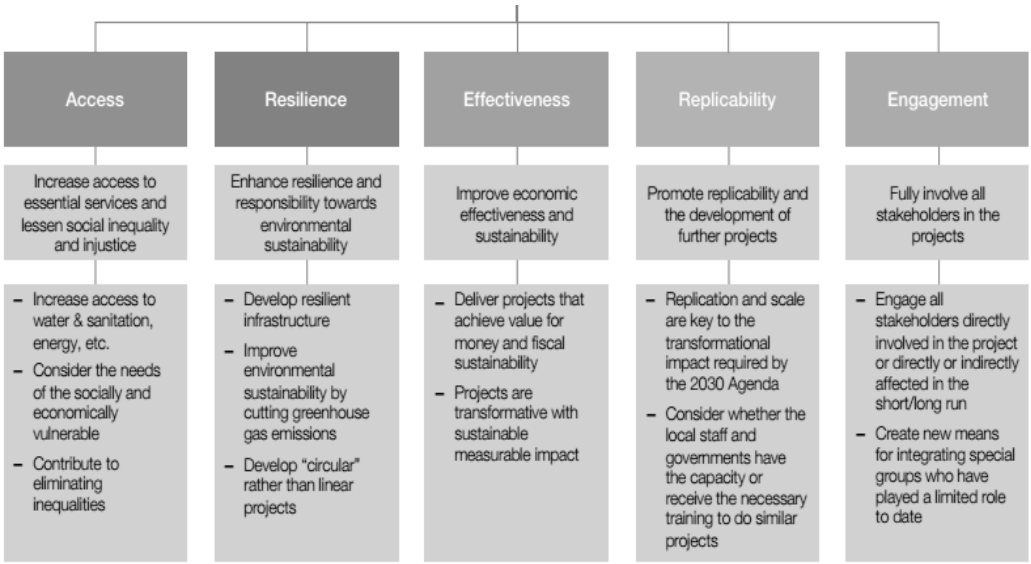

Table 1. UN-5 People-first Outcomes
Source: UN, World Economic Forum's Global Future Council

The crisis refocused on structural and economic issues, which touch upon personal and political spheres. Many of them could have been addressed a long time ago as well as the tools and techniques. Nevertheless, the crisis has become the right time to look forward and begin the hard work of rebuilding national economies and societies. Resolving the societal crisis in many ways conforms to the realization of the UN people-first model that is meant to be consistent with the Sustainable Development Goals (SDGs). Thus, PPPs should be 'fit for purpose' and meet the needs of 'people-first'. In this case, the UN people-first model stipulates five desirable outcomes (UN-5) that can be applied to infrastructure PPP projects (Table 1).

Results and discussion

A robust economic recovery fuelled by restored societal integrity will benefit everyone if it relies on improved social security networks and adequate forms of PPP organization (Pranov, Rassokhina, 2019). Besides, it is necessary to be aware of severe financial difficulties that only broad-based fiscal partnerships can solve. This includes public-private health care investment, infrastructure, and climate change[25]. This task is not easy to fulfill. Policymakers should choose how to invest for the future in a fiscally prudent way, adopt well-planned discretionary policies to stimulate demand, and enhance social security nets and unemployment benefits[26]. For that goal, we presented an experimental model of the institutional matrix (Vaslavskiy 2021), which could be a form of application of pre-set parameters of a planned PPP project.

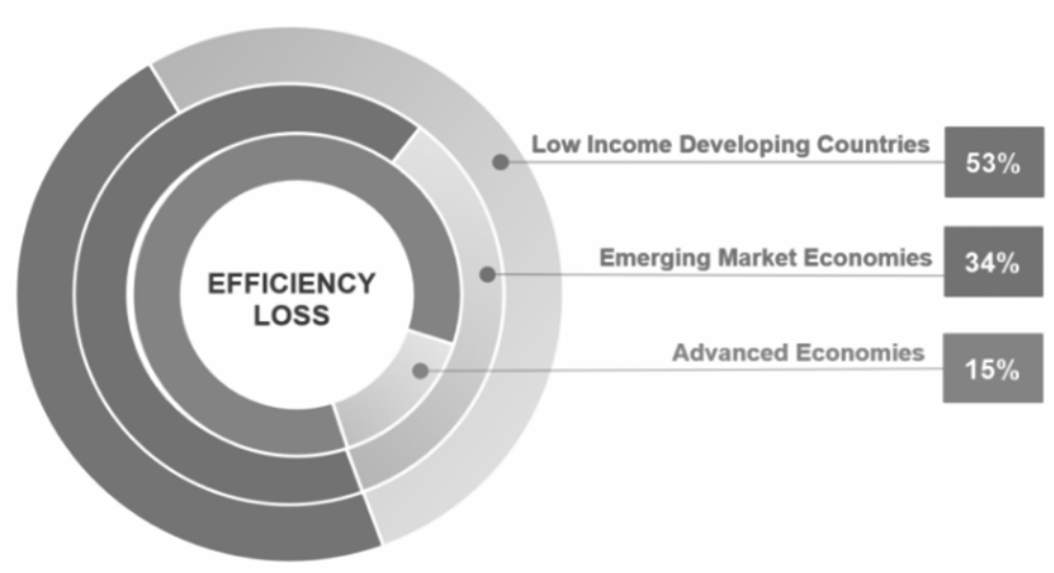

Figure 6. Countries waste anywhere from 30 to 50% of the money spent on infrastructure. *Source: Baum A., Mogues T., Verdier G. 2020. Getting the most from public investment. Schwartz G., Fouad M., Hansen T.S., et al., eds. 2020. Well spent. How strong infrastructure governance can end waste in public investment. International Monetary Fund, 3 September. DOI: 10.5089/9781513511818.071.*

[25] Monteiro R., Sakrak O.A. 2020. What is the COVID-19 Crisis Impact on Public-Private Partnerships? *Public Financial Management Blog, IMF*, 30 April. URL: https://blog-pfm.imf.org/pfmblog/2020/04/-what-is-the-covid-19-crisis-impact-on-public-private-partnerships-.html (accessed 31.10.2022).

[26] Gaspar V., Lam W.R., Raissi M. 2020. Fiscal Policies for the Recovery from COVID-19. *Public Financial Management Blog,* IMF, 6 May. URL: https://blogs.imf.org/2020/05/06/fiscal-policies-for-the-recovery-from-covid-19 (accessed 31.10.2022).

Solid infrastructure that stimulates and supports economic and human development is key to a growing economy, creating wealth, and reducing inequalities (Schwartz, Fouad, Hansen et al. 2020).

With the pandemic and its economic fallout, creating good infrastructure through strong infrastructure governance is more important than ever and key to supporting economic recovery. It becomes evident that most countries will find it challenging to meet critical public investment needs. Various options – raising revenues, borrowing more, cutting unproductive spending, or getting more private-sector participation – can help increase infrastructure spending. Nevertheless, all the alternatives have limitations and are insufficient on their own.

Losses in public investment are often systemic. Inefficiencies entail losing over one-third of the resources spent on creating and maintaining public infrastructure (Fig. 6).

These inefficiencies are the product of poor infrastructure governance, defined as institutions and frameworks for planning, allocating, and implementing infrastructure investment spending. Estimates suggest that, on average, better infrastructure governance could make up more than half of the observed efficiency losses (Baum, Mogues, Verdier 2020).

In the wake of the pandemic, lockdowns, and crisis, more infrastructure investment and strong infrastructure governance are likely to become even more important[27], because with economic growth turning negative, public investment will have to be part of stimulating weak aggregate demand. Public investment can increase demand in the short term and productivity in the long term, sometimes even with limited increases in indebtedness, if spending is done efficiently[28].

Many advanced economies have aging infrastructures and urgent spending needs for their upkeep and modernization. For example, in the United States, the American Society of Civil Engineers estimates cumulative spending needs at more than $10 tn through 2040 to maintain, repair, or rebuild existing infrastructure[29]. In Europe, the European Commission presented an Investment Plan to unlock more than €315 bn for

[27] *The Great Lockdown*. 2020. World Economic Outlook, April. *IMF*. URL: https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020 (accessed 31.10.2022); IMF (2020) *Policies to Support People During the COVID-19 Pandemic*. 2020. Fiscal Monitor, April 2020. *IMF*. URL: https://www.imf.org/en/Publications/FM/Issues/2020/04/17/Fiscal-Monitor-April-2020-Policies-to-Support-People-During-the-COVID-19-Pandemic-49278 (accessed 31.10.2022).

[28] *Legacies, Clouds, Uncertainties*. 2014. World Economic Outlook, October. *IMF*. URL: https://www.imf.org/en/Publications/WEO/Issues/2016/12/31/Legacies-Clouds-Uncertainties (accessed 11 August 2022); IMF (2015) *Making Public Investment More Efficient*. 2015. IMF Policy Paper, June. *IMF*. URL: https://www.imf.org/external/np/pp/eng/2015/061115.pdf (accessed 31.10.2022).

[29] American Society of Civil Engineers. 2021. *Failure to act*. A report by ASCE and EBP, March. URL: https://infrastructurereportcard.org/wp-content/uploads/2021/03/FTA_Econ_Impacts_Status_Quo.pdf (accessed 31.10.2022).

investment spending[30]. The IMF called for a spending push to help support both short-term demand shortfalls and longer-term development needs[31].

Under the Japanese presidency in 2019, the G20 presented a set of quality infrastructure investment (QII) principles, building upon earlier principles established by the G7 under the Japanese presidency in 2016 and endorsed by the G20 under the Chinese presidency in the same year[32].

Numerous experts claim that the state should thoroughly prepare PPP projects in any field, especially in infrastructure. Otherwise, they will not be effective. Moreover, it will be successful only if good preparation attracts private investment to implement capital-intensive long-term projects. At the same time, following the pandemic and subsequent crisis, many governments could not provide total budget financing, putting at risk the realization of various infrastructure projects with significant potential middle- and long-term economic effects. Generally, nowadays, governments associate the post-crisis future with bringing forward rather than postponing or canceling projects to support employment and economic growth. Nevertheless, then, it is necessary to eliminate the negative impact that the current economic crisis has been bringing on the PPPs, namely (1) additional costs for all PPP projects, particularly those that are operational, primarily due to disinfection of equipment and facilities, and workforce shortages; (2) decreasing revenue of user-funded PPP projects, particularly transportation and energy projects, due to reduced demand; (3) specific challenges to projects that are in the construction phase, such as construction delays and supply chain disruption.

Estimates confirm substantial scope for improving public investment efficiency in most countries[33]. Figure 7 shows estimations of investment efficiency for up to 164 countries (using various efficiency score estimation methods) as well as results. The estimated median efficiency gap is significant because public investment process entails losing over one-third of resources. The gap ranges between 33% for data envelopment analysis estimation and 43% for stochastic frontier analysis (adjusted for skewness), with wide variation across countries around this overall range. Efficiency varies widely across income groups and regions. In general, the gap shrinks as income rises. For

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[30] *Investment plan*. 2016. EC, 18 January. *European Commission*. URL: https://ec.europa.eu/info/publications/investment-plan-results-so-far_en (accessed 31.10.2022).

[31] *Legacies, Clouds, Uncertainties*. 2014. World Economic Outlook, October. *IMF*. URL: https://www.imf.org/en/Publications/WEO/Issues/2016/12/31/Legacies-Clouds-Uncertainties (accessed 31.10.2022); Boone L. 2019. *Growth is Taking a Dangerous Downward Turn*. OECD Ecoscope, 19 September. URL: https://oecdecoscope.blog/2019/09/19/growth-is-taking-a-dangerous-downward-turn (accessed 31.10.2022).

[32] *G20 principles for quality infrastructure investment*. G20 Osaka Leaders' Declaration, 29 June. URL: https://www.mof.go.jp/english/policy/international_policy/convention/g20/annex6_1.pdf (accessed 31.10.2022); MoFA, Japan. *G7 Ise-Shima Principles for Promoting Quality Infrastructure Investment*. G7 Ise-Shima Leaders' Declaration, 27 May. URL: https://www.mofa.go.jp/files/000160272.pdf (accessed 31.10.2022).

[33] Baum A., Mogues T., Verdier G. 2020. Getting the Most from Public Investment. Schwartz G., Fouad M., Hansen T.S., et al., eds. 2020. *Well spent. How strong infrastructure governance can end waste in public investment*. International Monetary Fund, 3 September. DOI: 10.5089/9781513511818.071.

example, as Figure 7 demonstrates, panel 1 (data envelopment analysis, non-adjusted efficiency scores), on average, low-income developing countries face an efficiency gap of 53%, while emerging markets have a gap of 34%, and advanced economies – a gap of 15%. The gap between top and bottom performers shortens as income rises.

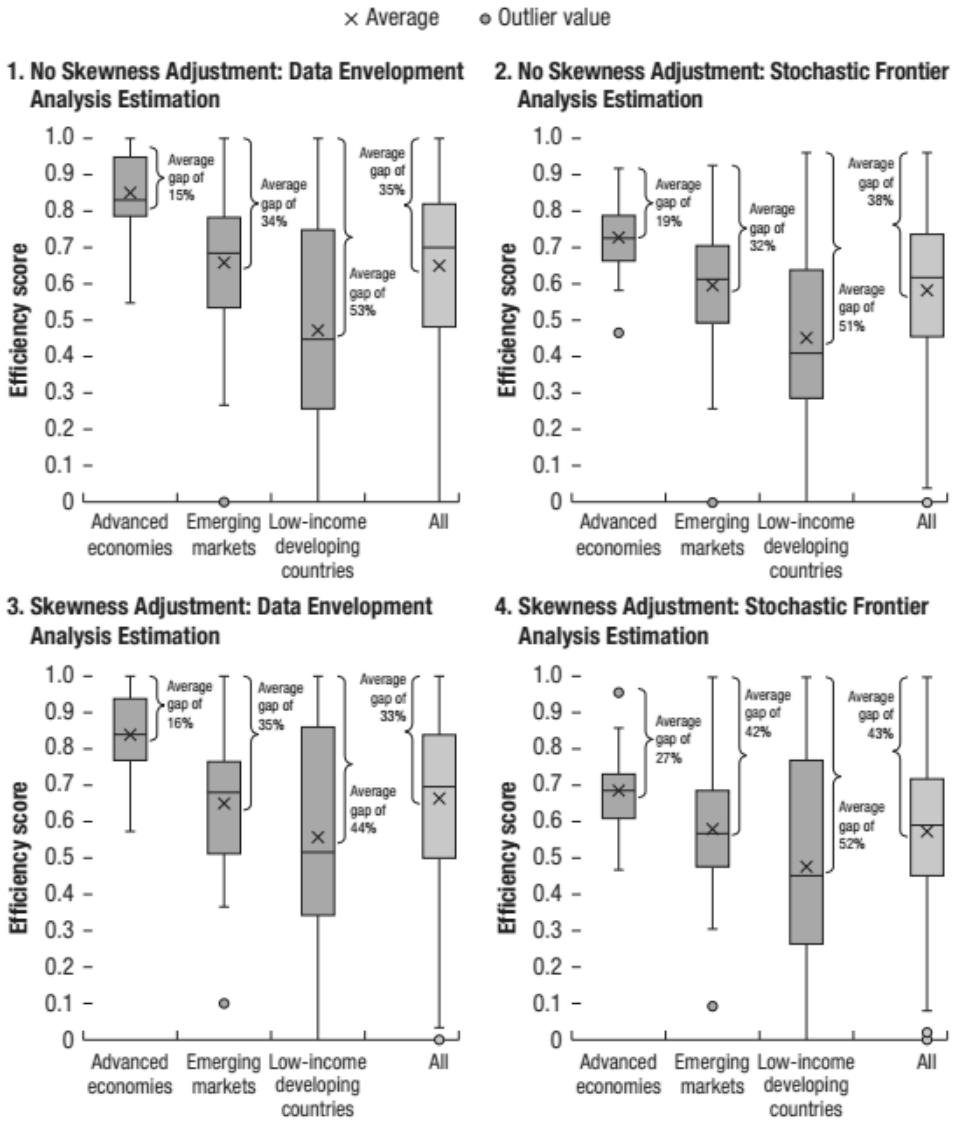

Figure 7. Public capital and infrastructure performance: hybrid public investment efficiency score by income level.

Source: Baum A., Mogues T., Verdier G. 2020. Getting the most from public investment. Schwartz G., Fouad M., Hansen T.S., et al., eds. 2020. Well spent. How strong infrastructure governance can end waste in public investment. International Monetary Fund, 3 September. DOI: 10.5089/9781513511818.071

Note: Each box shows the median and the 25th and 75th percentiles, and the whiskers show the nonlinear maximum and minimum values. Scores range between 0 and 1. The average efficiency gap equates to the mean percentage difference between the highest and the average efficiency scores. The four panels reflect different combinations of two aspects in the efficiency score derivation methodology.

Therefore, inefficiencies in public investment spending are substantial. Better infrastructure governance would raise public investment spending efficiency and improve infrastructure outcomes. Adopting public investment practices of best performers could help other countries to close about half of their efficiency gap. In this situation, it becomes evident that other conditions being equal, good use of formal institutions by the state could deliver a considerable economic effect. The following steps seem necessary in this light: state-led professional institutionalization of conditions; eliminating corruption at the top level of the government; decreasing the share of shadow economy; reducing socio-economic inequality; understanding value orientations of people which found themselves in a difficult economic and quality of life situation because of state's tackling such challenges as a pandemic.

In other words, in crisis conditions, the state should direct formal institutions, especially during the realization of capital-intensive infrastructure PPPs of public significance, to form an adequate, more inclusive societal environment, and reduce the share of informal institutions causing irrational antisocial behavior of economic agents. Only such an approach will allow the state to regain the people's trust and efficiently coordinate joint efforts to restart the economy post-crisis.

* * *

Theoretical exploration of system-formation logic within self-sustaining companies is essential for defining drivers of the post-crisis reality. A society based on human-centrism can extrapolate this foundation on structural ties in the economy and technology. Self-sustaining companies play an intermediary role in building human-centric organizations in the society, economic and technological spheres. It becomes possible as such companies are dialectically sophisticated elements generated by pre-crisis socio-economic systems. They have the potential to structure a new post-crisis reality using their mechanism of self-movement and self-development. Inside a company, it is a downward causation mechanism that launches processes of self-organization of dialectically sophisticated companies (internal structures). Outside it is an upward causation mechanism realizing the company's self-development. While transforming inside, private companies develop an ability to 'creatively destruct' the outside environment by integrating into the society, economy, and technological sphere to implement their mechanism of self-movement.

Self-sustaining companies cement their place in a new dynamic reality because to them investing in intangibles are a means of their expansion as they generate a vast number of networking interactions. Companies that have invested across all categories

of intangibles are further ahead in their digitization journey, less likely to be disrupted because they are highly innovative, and highly likely to be able to attract and retain top talent. All of this can create value and, importantly, the value that can endure a deep market and economic disruption. Besides, investments in different intangibles interact with a high correlation, creating synergies. Thus, independent companies turn dynamic, getting an expansion and new self-development opportunities driven by ecosystems expansion, new technological platforms formation, and strategies amplification with ESG agenda actively used.

Meanwhile, the process of companies' expansion takes place through objective, subjective, and process components of the system-formation both at the micro- and macro level of the economy and society. In this context, the subjective component has a priority since it mediates the technological progress and dynamic characteristics of the economic and social spheres. The fundamental character of this problem is predetermined by its complexity and dialectic interrelation of two mechanisms of human self-organization: education as a basis for diversity and socialization as a basis for inclusivity, engagement, and integration. Together, these phenomena pave the way for equity as the quality of the social environment and their combination represents a fundamental challenge that has not been solved in any country in the world. A society that will head this race for a constructive personality, able to solve the most comprehensive problems autonomously, will become an undisputed leader of future progress.

The subjective aspect of organizational change within a firm, including the institutionalization of individuals and collective behavior, becomes essential in understanding the strategic actions of companies in an uncertain post-crisis reality. Self-sustaining companies go through economic crises more quickly if they adapt their teams' organizational structure. Moreover, from a long-term perspective, they show better results not only during post-crisis recovery but also afterward. Precisely in this sense, these companies stand as drivers of organizational change in the economy and society, as they understand the significance of DEI, ensure their structural stability and adapt individual habits and behavior of their employees through causality mechanisms.

Nowadays, the successful companies will be the ones that through their own experience in crisis conditions have come to need to organize their teams on the principles of human-centrism with the attraction of highly-qualified humans resources to obtain a new quality of professional alliances. These alliances, 'superteams', consist of diverse specialized groups of people and groups of specialized computers. Now it is pretty challenging to forecast perspectives of such fundamental transformations, but the value of a person that is capable of self-development and possesses an expansive and, from the theoretical point of view – even priceless – intellectual capital, is beyond doubt. (Malone 2018).

We assume that companies and their CEOs should provide adequate socialization of educated personalities at the level of their corporate structures. In this context, we highlight the main problem areas linked to the optimization of DEI principles at the level of companies. Reaching considerable progress on this path is a matter of compre-

hending CEOs' fundamental principles of inter-company organization. They tend to reject leadership as a manifestation of diversity and have a negative attitude towards such inclusion characteristics as equality and openness. From the theoretical point of view, it is about mediating the downward causality mechanism considering critical principles of employees' adequate socialization.

Thus, the solution to the societal and economic crises caused by the pandemic and its consequences largely depends on state efficiency. This efficiency, in turn, directly depends on restoring interaction and mutual trust between the state and society. State-created formal institutions, adapted to the new reality of the societal crisis, become essential. In the post-crisis reality, they should be tasked with creating a more inclusive societal environment. This, among other things, means substituting redistributive fiscal functions of the state with its professional (expert) mission to adequately assess value preferences that dominate in the society and to search for relevant institutional opportunities of their relatively full consideration in the aggregation of public choice. Private business gets a priority status in this case as it represents the interests of numerous stakeholders. In this light, PPP stands as a good platform for testing formal institutions allowing the state to assess the preferences and values of private investors and increase their congruence with public policy.

The latter is most feasible on the example of the accelerated development of PPPs in those areas of state activity that have been most affected by the COVID-19 pandemic. It is about the sphere of public goods which until the pandemic were a priority area of partnership between the state and private business. Now the state has to consider budgetary constraints and make informed choices among possible forms of 'alliances' with private investors. In this case, traditional goals of minimizing transaction costs and increasing the efficiency of transactions with public goods, as well as time parameters for obtaining socially significant results, should be taken into account.

Primary forms of PPPs allow the state and private business to optimize risk-sharing and the burden of expenses as capabilities of the public segment expand in creating optimal 'rules of the game', conditions, and efficient incentives to maximize the potential of the national economy. As the state often cannot provide full-budget financing, PPPs' success during economic recovery largely depends on how the technology of attracting private investment to capital-intensive long-term projects works. Investments in infrastructure quickly result in economies recovering from the crisis through immediate job creation in construction and industry, while employment growth helps support consumer demand. Nevertheless, most importantly, a short-term increase in demand is followed by long-term multiplier effects.

These goals require a trust-driven recovery environment that is a collaborative, partner, and stakeholder friendly. National governments should review infrastructure PPP projects in sectors most affected by the crisis: airports, ports, roads, public transport, and energy – to understand demand- and supply-side impacts. Main problems that require immediate solution include (1) obtaining an adequate assessment by governments of the efficiency of contractual provisions on PPP projects, (2) expert

consideration of restructuring and coordination of contract financing sources, and (3) review of contracts and problem assets management tools. This requires a dialogue between the governments, their private partners, and other relevant stakeholders such as financiers and regulators.

A rise in the number of completed PPP projects of public significance will indicate positive dynamics. The absence of such dynamics or the low pace of private investors' attraction in joint projects with the state will mean incompetence of the state and inadequate PPP institutionalization. Overall, it could indicate the state's unwillingness (or inability) to create a more inclusive societal environment. The latter outcome is quite possible as creating a more inclusive societal environment has at its foundation the restoration of societal integrity in a post-crisis reality. It is to achieve by changing focus in the realization of PPP projects. Before the pandemic, paternalism was typical for the state in all spheres, as projects of public importance fully or mostly received financing from state budget funds. Logically, the role of private investors was limited to the status of junior partners. In these conditions, the state tended to neglect the value orientations of its partners as insignificant. In many ways, this explains the low pace of PPP development in different countries.

Creating a more inclusive societal environment and reopening businesses is possible only in case of adequate consideration of value orientations of households and private businesses by the state. Therefore, the state's mission to professionally treat the potential of formal institutions, changing focus from mechanisms of repression to creating a more inclusive societal environment for the work of private business, comes to the forefront. In any case, the state will try to restore its powers in a total pre-crisis volume. Private business, in its turn, will not fix its growth strategy if it does not see prospects of reducing uncertainty as a feature of the post-crisis reality. Furthermore, ultimately, it will mean the societal crisis continuation: the state does not shift from fiscal preferences to value preferences, making it impossible to restore societal integrity.

Therefore, PPP in its various forms allows to gradually substitute the paternalistic approach of the state towards the private business with a partner approach paving the way for creating a more inclusive societal environment for business activity. In this context, we find essential to institutionalize the match of value preferences of private companies, representing numerous stakeholders, on the one hand, and the state that is supposed to provide support, on the other hand. Institutional specification of the relations of the state and private business during the realization of publicly significant PPP projects allows for assessing the adequacy of formal institutions. We could either witness the domination of repression mechanism for the opportunistic behavior of partners, or adequate socialization of citizens as representatives of companies treating socially recognized norms of behavior as indisputable. A definitive preference for partnership against opportunism in the state and private business behavior is the key to success in solving the problem of societal crisis and creating a more inclusive societal environment.

Eventually, it is possible to achieve a multiplicative macroeconomic effect: each $100 bn of spending on infrastructural PPP projects gives around 1 million full-time jobs. Each dollar invested in transport infrastructure contributes 1,5-2 dollars to the country's economic growth, including trade growth, development of business processes in provinces, and a rise in population mobility[34]. The state, in its turn, may vary forms of PPP concerning the coincidence of preferences of private investors and the state itself.

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Государственно-частное партнёрство: высокоэффективный альянс для достижения целей устойчивого развития

Я.И. Ваславский
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В условиях экономического кризиса, вызванного пандемией COVID-19 и многочисленными санкциями, введенными против Российской Федерации, эффективная организация государственно-частного партнерства (ГЧП) стала особенно актуальной. Важность этого вопроса обусловлена тем, что российская экономика попала в перекрестье, как минимум, двух фундаментальных системных трансформаций.

[34] *Investitsii v infrastrukturu: Rynok proektov v krizis.* 2020. An analytical review. InfraOne. URL: https://infraone.ru/sites/default/files/analitika/2020/rynok_proektov_v_krizis_infraone_research.pdf (accessed 31.10.2022).

С одной стороны, все экономические системы стран мира в той или иной степени достигли пределов развития статичной экономики. С другой стороны, наиболее пострадавшие от санкций против России компании представляют собою структуры с передовыми практиками в сфере организации и участия в технологических платформах и корпоративных экосистемах с использованием стратегий B2C и B2B. В связи с этим, осуществление качественной трансформации экономики для выхода из социального кризиса является универсальной задачей, которая стоит не только перед Россией.
В этих условиях на повестку дня выходит превращение статичной экономической системы страны в динамичную. Трансформация такого рода обычно начинается с создания новых структурных связей устойчивыми крупными компаниями, которые должны соответствовать динамично меняющейся реальности. Переход к динамичной модели будет означать открытие новых перспектив развития и огромного потенциала к расширению. Основами этой новой модели станут принципы человекоцентризма и повышения значимости талантливых, интеллектуально автономных личностей в корпоративных и других структурах.
В статье излагается междисциплинарная точка зрения на инновационные знания и практики в области оценки эффективности, связанные с окружающей средой, управлением природными ресурсами, изменением климата и развитием. В последние годы экспертиза стала играть всё более важную роль в определении значимости и ценности мероприятий по развитию с точки зрения их актуальности, влияния, эффективности, результативности и устойчивости.
Авторы стремятся доказать, что после экономического кризиса, вызванного пандемией, и в условиях западных санкций, государственно-частное партнёрство может выполнять для России фундаментальную задачу, гораздо более важную, чем участие в производстве общественных благ за бюджетные средства. ГЧП могло бы помочь стране перейти от статичной экономики к динамичной.
Такая трансформация и соответствующие преобразования в корпоративных и социальных структурах, основанные на принципах человекоцентризма, могут дать мультипликативный эффект в экономике, качестве жизни, государственной политике, управлении и других сферах.

Ключевые слова: экономический кризис; социальный кризис; государственная политика; PPP; государственно-частное партнерство; устойчивое развитие; социально-экономическое развитие; развитие инфраструктуры; ESG (экологическое, социальное и корпоративное управление)

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