



## “İQTİSADI İSLAHATLAR” elmi-analitik jurnal

### AZERBAIJAN DIGITAL HUB: STRATEGY IN ACTION



№ 2(7)-2023  
səh. 7-20

Prof. Dr. Vusal GASIMLI,  
Executive Director of the Center for  
Analysis of Economic Reforms and  
Communication of Azerbaijan





## Azerbaijan Digital Hub: Strategy in Action

Prof. Dr. Vusal GASIMLI,  
Executive Director of the Center for Analysis of  
Economic Reforms and Communication of Azerbaijan

### SUMMARY

The article explores the digital transformation landscape under pandemic and post-pandemic conditions. As global internet traffic continues to surge, nations worldwide are prioritizing digital strategies to keep pace with this rapid transformation. Azerbaijan, an oil-rich country seeking economic diversification, has taken a strategic approach to become a key player in the digital landscape.

Neqsol Holding, utilizing its capital from the oil and gas industry, initiated the Azerbaijan Digital Hub, a comprehensive program comprising the Digital Silk Road, a Regional Data Center, an Internet Exchange Point, and the development of a digital ecosystem. The hub aims to reshape the internet map along the Silk Way and thrive amidst disruptive changes through three consecutive stages: ideation, incubation, and scaling.

The article highlights the strategic choices made by Azerbaijan in establishing the Digital Hub and its potential impact on the nation's economy. It presents the shift from the "Castles" quadrant to the "Connectors" quadrant, adopting new power models and values for sustainable growth. The dynamic capabilities of the Digital Hub are explored, emphasizing its transformative nature and adaptability to rapid technological advancements.

In conclusion, the article suggests that the success of the Azerbaijan Digital Hub depends on effective management of continuous change, fostering a culture of innovation, and leveraging strategic advantages through mergers, alliances, and investments. By navigating a complex and uncertain environment, the Digital Hub can solidify its position as a crucial player in the digital era.

**Keywords:** Azerbaijan, Digital Hub, economic diversification, innovative development, digital ecosystem.

**JEL code:** O31; O32

### INTRODUCTION

The speed of digital transformation has increased under pandemic and post-pandemic conditions. According to an UNCTAD report, it has been estimated that global Internet traffic in 2022 will exceed all the Internet traffic up to 2016 (UNCTAD.org, 2021). The latest figures show that in 2022 an estimated 5.3 billion people of the earth's eight billion are using the Internet, or roughly 66 percent of the world's population. Three quarters of the population aged ten years and over own a mobile phone (www.itu.int, 2022). Taking into consideration the four key enablers of the digital economy: digital strategies and regulations, digital infrastructure, data, and digital skills (described by Huawei, (e.huawei.com, 2021), governments and the private sector in nations across the globe are trying to keep pace with the digital transformation.

Oil-rich Azerbaijan is aiming for economic diversification by relying on innovative development and by strengthening its role in the strategic geographical position it holds at the crossroads of the North-South and East-West trade route corridors. After gaining independence, Azerbaijan actively initiated and participated in a number of important regional and transcontinental energy and transportation projects, including the Baku-Tbilisi-Ceyhan oil pipeline, the Southern Gas Corridor and the Trans-Caspian International Transportation Route (Baghirov, 2020).

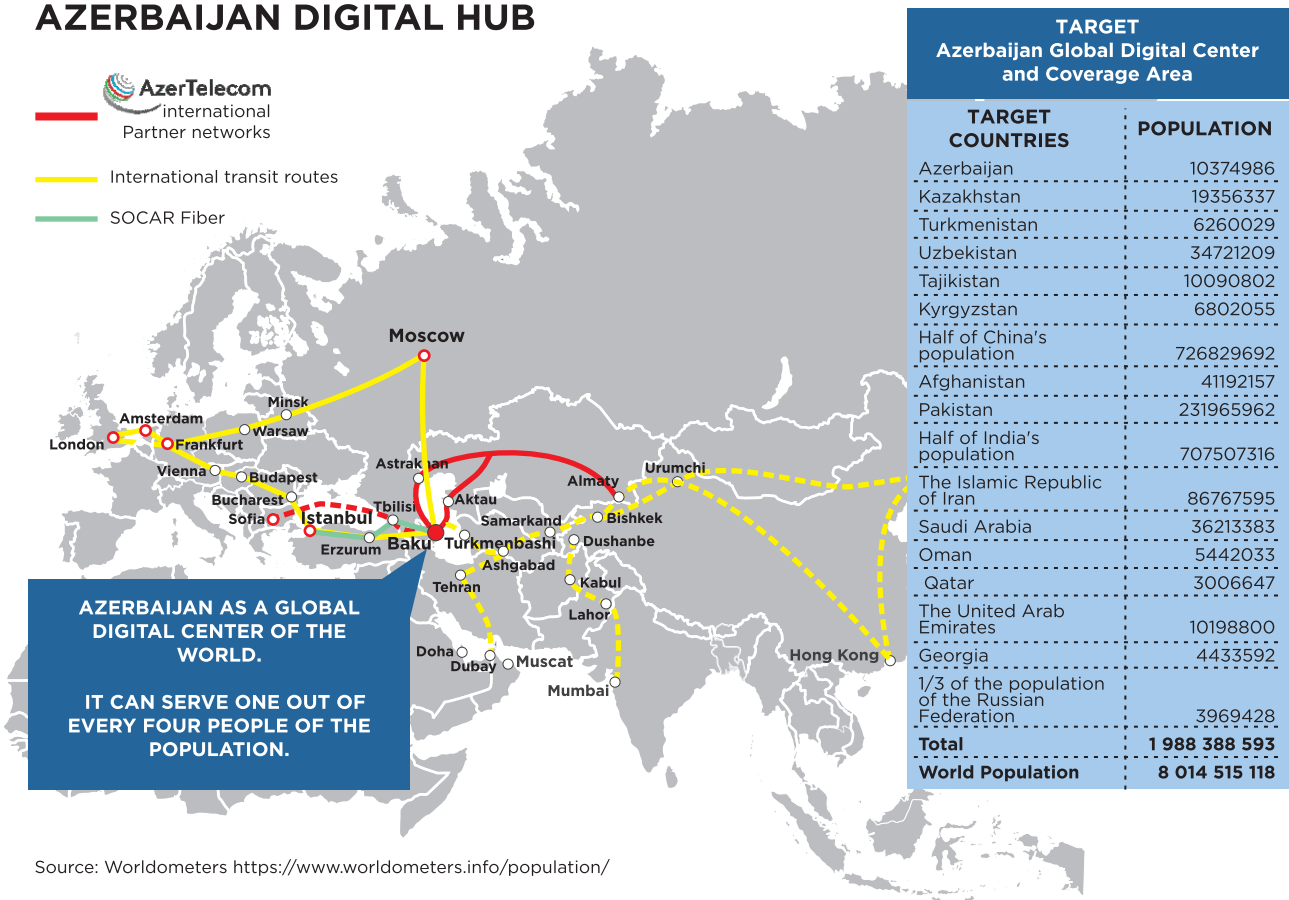
As part of its quest to ameliorate oil and gas export infrastructure and transport and logistics projects along the Silk Road, Neqsol Holding initiated the Azerbaijan Digital Hub, integrating

program components such as the Digital Silk Road, a Regional Data Center, an Internet Exchange Point and the formation of a digital ecosystem. The Azerbaijan Digital Hub program, aimed at reshaping the internet map along the Silk Way, uses three consecutive stages of algorithms to thrive in the face of imminent disruption: ideation, incubation and scaling, terms coined by Charles O'Reilly and Andrew J. M. Binns (O'Reilly and Binns, 2019). Nevertheless, Neqsol Holding, using capital generated from the oil and gas industry in the early 1990s, has preferred periodic innovation to develop new capabilities and assets.

The ambidextrous leadership paradigm, described by Rosing and others, can also be considered in the case of Neqsol Holding, as it scaled its new venture—the Azerbaijan Digital Hub—while balancing both its exploring and the exploiting businesses.

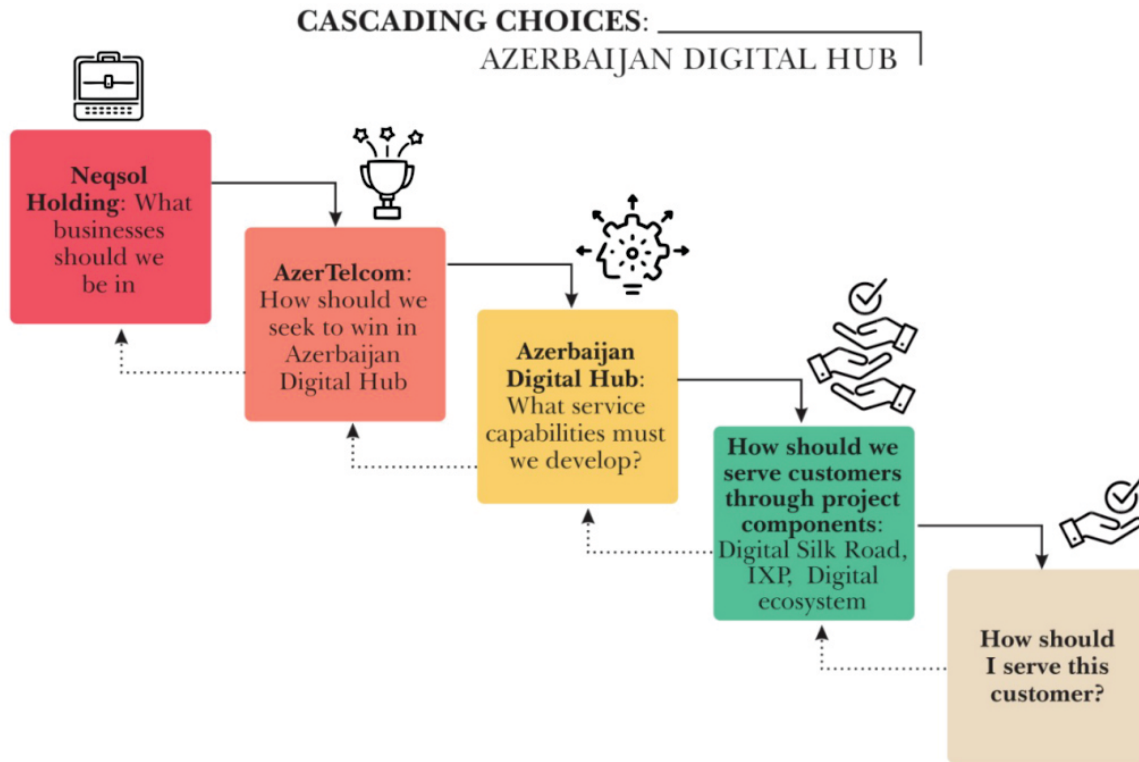
As the assignment should first clearly delineate the problem, we have identified the development of the Azerbaijan Digital Hub project in the fast-changing environment described above as the main question to be addressed.

## AZERBAIJAN DIGITAL HUB



## CASCADING CHOICES

Following Martin's idea that "strategic choices need to be made simultaneously, not sequentially," (Martin, 2017), we introduce "cascading choices" as a framework for Azerbaijan's Digital Hub strategy:



Using the virtuous cycle strategy, top management of Neqsol Holding receives feedback from mid-level management and employees. In this way, all staff can be considered the brain, arms and legs of the organization. Employees are made to feel ownership and this kind of empowerment reinforces the Azerbaijan Digital Hub. Martin argues that, unlike the strategy-execution approach, in which leaders dictate set strategies and expect subordinates to mechanically follow, the choice-cascade model has senior managers empowering workers by allowing them to use their best judgment in the scenarios they encounter (Martin, 2010).

### GLOBAL CONTEXT FOR THE AZERBAIJAN DIGITAL HUB

The strategy for the Azerbaijan Digital Hub is not being implemented in a vacuum—global and regional context matter. For this reason we decided to describe the global and regional environment influencing the Azerbaijan Digital Hub. In the age of a “polycrisis,” Mazzucato thinks that the real solutions are complex and will require investment and regulation, as well as social, organizational, and technological innovations, not only by government or business, but also by individuals and organizations across civil society (Mazzucato, 2023).

Pankaj Ghemawat mentioned that globalization has bound people, countries, and markets closer than ever, rendering national borders relics of a bygone era—or so we are told (Ghemawat, 2007). But a close look at the data discloses a world that is just a fraction as integrated as the one we thought we knew. MGI's new document indicates that growth in global flows is now being driven by intangibles, services, and talent (www.mckinsey.com, 2023). This is useful for the Azerbaijan Digital Hub. Geopolitical dynamics are creating significant headwinds to global cooperation, which often acts as a guardrail to global risks (www3.weforum.org, 2023). Radziyevska mentioned that the general number of regional agreements has increased quite significantly, from 445 in 2011 to 669 in 2018 (www.e3s-conferences.org, 2020). According to the US National Intelligence Council's Global Trends 2040 report, no single state is likely to dominate all regions or domains, and a broader range of actors will compete to advance their ideologies, goals, and interests.



## INTERNET PENETRATION LEVEL IN VARIOUS COUNTRIES

Country	Population	Penetration	Penetration %
 Azerbaijan	10,223,342	7,991,630	<b>78.2 %</b>
 Georgia	3,979,765	3,222,000	<b>81 %</b>
 Turkmenistan	6,117,924	1,562,794	<b>25.5 %</b>
 Kazakhstan	18,994,962	14,669,853	<b>77.2 %</b>
 Turkey	82,961,805	69,107,183	<b>83.3 %</b>
 Uzbekistan	33,935,763	17,161,534	<b>50.6 %</b>
 Tajikistan	9,749,627	3,013,256	<b>30.9 %</b>
 Kyrgyzstan	6,628,356	3,123,000	<b>47.1 %</b>
 Afghanistan	39,835,428	7,337,489	<b>18.4 %</b>
 Pakistan	225,199,937	100,679,752	<b>44.7 %</b>

- "Azerbaijan Digital Hub" will connect Europe and Asia.
- Eastern Europe, Anatolia, Caucasus, Central and South Asia regions and countries located in these regions will be provided with high-speed Internet access and advanced digital services.
- "Azerbaijan Digital Hub" will form the shortest, fastest and most advanced route for digital connectivity between Europe and Asia.

Source: Internet World Stats — [www.internetworldstats.com](http://www.internetworldstats.com)

The rate of increase in the KOF Globalisation Index, which measures the economic, social and political dimensions of globalization, has been slowing during the last decade (Gygli et al., 2019). Among countries covered by the Azerbaijan Digital Hub, Georgia has the most globalized economy with a KOF Globalisation Index of 70, which ranked it in 54<sup>th</sup> place in 2019, followed by Turkey (56<sup>th</sup>), Azerbaijan (72<sup>nd</sup>), Kazakhstan (81<sup>st</sup>), and Turkmenistan (180<sup>th</sup>). Currently, the KOF Globalisation Index in Europe is at its highest level. Different preferences on globalization depend on geo-economics and geopolitics, as well as the diverse affiliations of countries covered by the ADH with various regional structures. Huntington (Harrison and Huntington, 2000), Sachs (Sachs, 2000), and Porter (Porter, 1998) argue how culture influences development.

The World Bank Group also encourages regional integration through trade, investment and domestic regulation; transport, ICT and energy infrastructure; macroeconomic and financial policy; the provision of other common public goods (e.g., shared natural resources, security, education) ([www.worldbank.org](http://www.worldbank.org), 2023).

In the heart of Eurasia – Heartland, the Azerbaijan Digital Hub, as well as the Digital Silk Road along the Middle Corridor, have the potential to boost development driven by a regional value chain (RVC).

Neqsol Holding and its Azerbaijan Digital Hub project could be identified as an emerging market multinational. Guillen argues that these companies do have a distinct advantage, which stems from a mindset formed by business environments that are in constant flux, where labor is abundant and inexpensive but often unskilled, infrastructure is far from state-of-the-art, regulations may change unpredictably, and political instability is common (Guillén and García-Canal, 2012). Like the Orascom strategy described by Guillen (Guillén and García-Canal, 2012), in each negotiation with the government, the ADH has offered a win-win approach. For this reason the ADH managed to obtain consent from the Azerbaijan, Georgia, Kazakhstan and Turkmenistan governments to build fiber optic line through their territories.

In general, the ADH, as well as the Digital Silk Road, coincides with the Belt and Road initiative (BRI) generated by China, as well as the Transport Corridor Europe-Caucasus-Asia (TRASECA) transport project involving the EU and twelve member states of Eastern Europe, the Caucasus and Central Asia. At the same time, ADH is supported by the Organization of Turkic States in its *Turkic World Vision – 2040*, which states: "Achieve digital connectivity and communication





through the effective use of space technologies in all spheres of social-economic life, and harmonize national space policies and establish result-oriented cooperation among the Member States through joint programs and projects, including sharing knowledge, experience and know-how, and capacity building programs."

The Digital Silk Road overlaps with the Middle Corridor, which starts from the China-Kazakhstan border, and is a route connecting Asia with Europe, passing through the countries of Central Asia and the Caspian Sea, through Azerbaijan, Georgia, and Turkey. Given the fruitful geopolitical conditions in the region, interest in the Middle Corridor, which is the shortest and most convenient route between Europe and Asia, has increased. With the Middle Corridor, which is the main alternative to the Northern Corridor, it is possible to travel 7,000 kilometers from China to Europe (instead of 10,000) in twelve days. The annual trade turnover between European countries and China is over \$600 billion. In 2021, between China and Europe, a total of \$84.9 billion worth of cargo was transported just by rail in both directions. The central idea of this part is to analyze how the ADH project complements trans-Eurasian transport with a logistics infrastructure that reinforces its importance.

Although the availability of broadband access has been envisioned (by ITU and the UN) at a price less than two percent of monthly GNI per capita by 2030, in low-income countries it is on average nine percent. Therefore, the ADH commitment to improve internet access in Central Asia coincides with the UN's Sustainable Development Goals.

### THE IMPACT OF THE ADH ON THE ECONOMY OF AZERBAIJAN

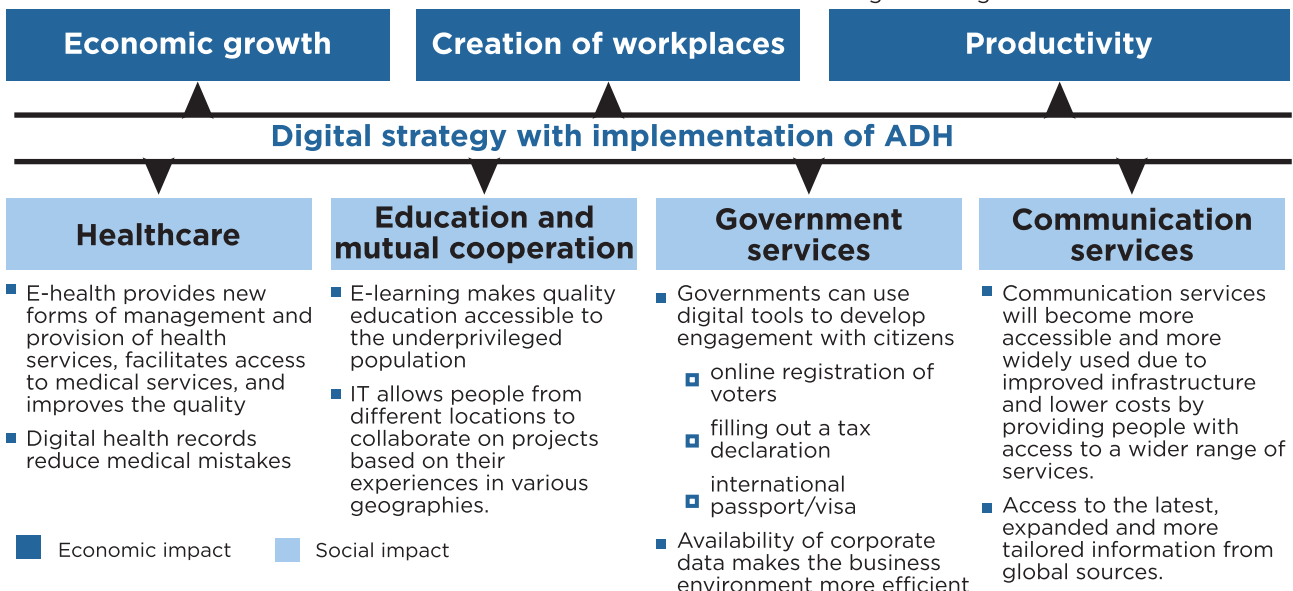
According to the ADH business strategy, the company plans to invest \$250 million until 2028. Another key fact is that ADH is interested in both public and private investment. Principal areas of investment are:

- Construction of Trans-Caspian submarine cables;
- Purchase of the only fiberoptic cable in the Black Sea;
- Purchase of a relevant provider company in Kazakhstan;
- Construction of the Data Center to attract Google, Amazon, Facebook etc.

After analyzing ADH business strategy, the following conclusions could be summarized:

### ECONOMIC AND SOCIAL IMPACT OF THE "AZERBAIJAN DIGITAL HUB" PROGRAM ON THE COUNTRY

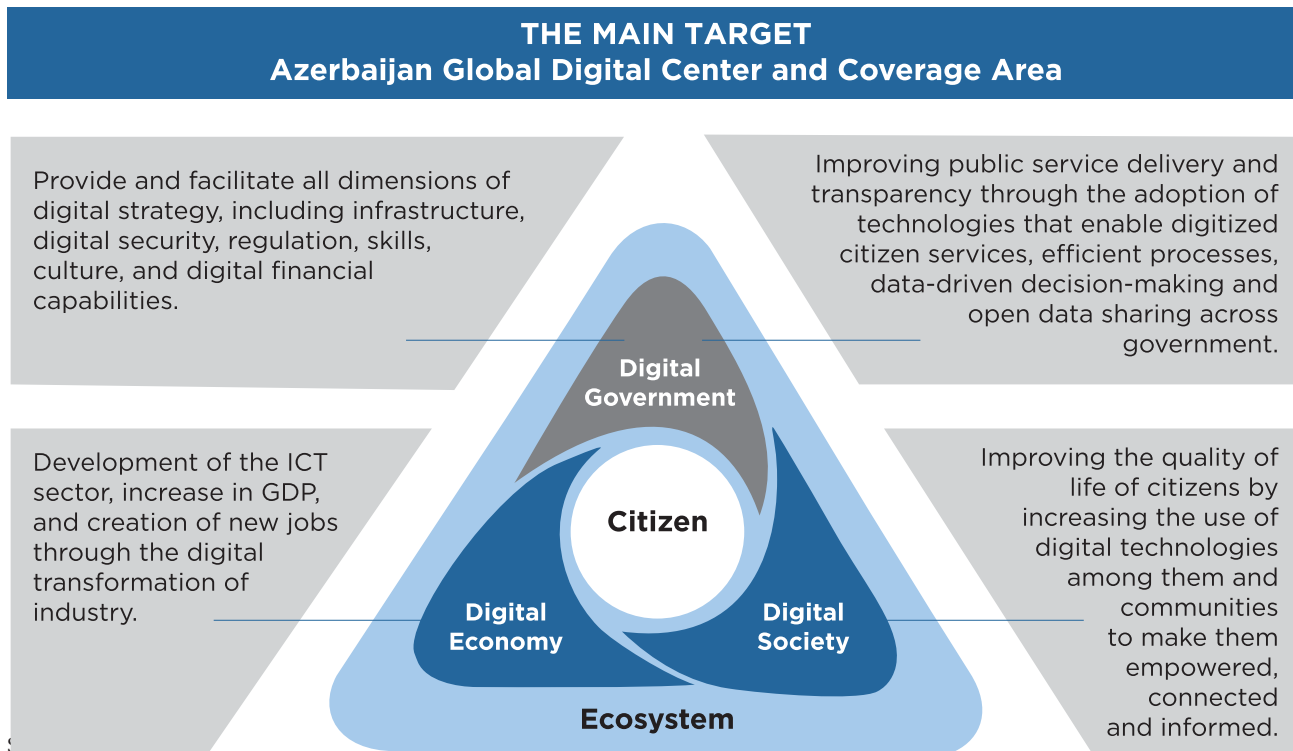
- There is a strong correlation between digitization and non-oil GDP
- According to ITU research, 1% increase in the development index of digital ecosystems leads to 0.13% increase in GDP per capita
- Digitization has a strong exponential effect: International experience shows that every digital job creates 2-4 new workplaces in other sectors of the economy
- These jobs are 30% more profitable than others
- Digitized supply chains mean increased efficiency, reduced costs, and improved inventory levels
- Industries where digital technologies are most widely used derive benefit the highest productivity and greatest growth
- SMEs that make more extensive use of digitization grow faster



Source: Worldometers <https://www.worldometers.info/population/>

In this way, about 25 percent of internet information by land between China and Europe will be conducted via the infrastructure introduced by the ADH. At the same time, the direct impact of the ADH on Azerbaijan's economy is estimated to be about \$350 million, while indirect impact on Azerbaijan's economy is forecast at about \$100 million. To summarize, the whole impact of the ADH on the Azerbaijani economy is forecast at about \$450 million USD.

## “AZERBAIJAN DIGITAL HUB” PROGRAM - CITIZEN-CENTRIC DIGITAL ECOSYSTEM TRANSFORMATION



### MOVING FROM “CASTLES” TO “CONNECTORS”

In order to achieve “Understanding 'New Power'” as described by Jeremy Heimans and Henry Timms, (Heimans and Timms, 2014) in the case of Neqsol Holding, Neqsol's old power—the oil and gas industry—works like a currency held by a few, while new power—the Azerbaijan Digital Hub—operates differently, like a current. That is why the Azerbaijan Digital Hub should be open and transparent, participatory for all stakeholders along all the countries it traverses, and be peer-driven. If we implement the quadrant approach of Jeremy Heimans and Henry Timms, then we could say that Neqsol Holding was in the bottom left quadrant, “Castles,” as it used old power models and had old power values, when a group of companies initially developed it from various businesses established in the oil and gas industry in the early 1990s. As the owner of Vodafone Ukraine, Bakcell, Azerconnect and Azertelecom, Neqsol Holding moved from the “Castles” quadrant to the top left quadrant, “Connectors.” The Azerbaijan Digital Hub presents a new power model, but the old power sensibilities could still be identified as “Connectors.” In their groundbreaking book, Abhijit V. Banerjee and Esther Duflo, winners of the Nobel Prize, demonstrate how economics, when done right, can help to solve problems in hard times (Banerjee and Duflo, 2019).

### DYNAMIC CAPABILITIES OF THE DIGITAL HUB OF AZERBAIJAN

Apart from operational capabilities, building dynamic capabilities is important for the ADH in an environment of rapid technological change. Solving the connectivity gap between Asia and Europe via an access to international bandwidth is crucial for sustainable economic development in line with SDG. AzerTelekom, with a view to transforming Azerbaijan into a regional digital hub,



sensed this opportunity more quickly than its competitors. Fuad Allahverdiyev, Chairman of the Board of Directors at AzerTelecom, said that in order to identify optimal breadth of scope, "Management of the project learnt from past experience—i.e., the Trans-Eurasian Information Super Highway (TASIM) project initiated by the Government of Azerbaijan, whose aim was to lay a transnational fiberoptic line covering the countries of Eurasia from Western Europe to Eastern Asia." A preference for leadership by the private sector is the main lesson drawn from the TASIM experience. Haussmann argues that governments should not be picking winners, but rather let the market allocate resources across industries in a way that reflects consumer preferences and technological possibilities (Haussmann, 2023). Examining the presence of disruptive technologies and envisioning new futures in order to compile scenarios have formed other components of the peripheral vision. As part of identifying sub-capabilities, AzerTelecom emphasized the implementation of learning, not relying solely on its team, but also outsourcing consulting services to McKinsey, Boston Consulting Group, etc.

The creation of the Azerbaijan Digital Hub together with its components, the Digital Silk Way, Regional Data Center and Internet Exchange Point, has involved seizing and transforming stages within the Dynamic Capabilities Framework, developed David Teece and his colleagues (Day and Schoemaker, 2017). In addition, the Azerbaijan Digital Hub is an embodiment of Technology Dynamics, Nascent Markets and Organization Capabilities, in other words T-M-O, created by Ventresca and Seidel (Ventresca and Seidel, 2020).

Along with "probe-and-learn experimentation," ADH management can utilize other sub-capability to seize opportunities, for example, deploying real options like obtaining research services from leading consulting companies, as well as supporting research in its own lab.

The last component of the Dynamic Capabilities Framework is Transforming. The ADH provides organizational redesign in line with new projects and external shaping. The Azerbaijan Digital Hub's external networking is composed of two directions: 1. Membership in civil society organizations, such as the Caspian Energy Club, the American Chamber of Commerce in Azerbaijan (AMCHAM) and the German-Azerbaijani Chamber of Commerce (AHK Azerbaijan); 2. AzerTelecom actively cooperates with telco companies in various countries under the "Azerbaijan Digital Hub" program, including but not limited to Transtelecom, Caucasus Online, China Telecom, Huawei, DE CIX, TransTeleCom, McKinsey and Company, Axiom and Detecon (adh.az, 2022).

### **CORPORATE DIPLOMACY**

In order to build a fiberoptic network connecting Europe to Central and South Asian markets through the South Caucasus, AzerTelecom uses corporate diplomacy to affect the rules of the game by influencing government rule-makers via building coalitions, negotiating and public relations. The decree of the President of the Republic of Azerbaijan, dated February 23, 2017, covers additional measures for strengthening the position of the Republic of Azerbaijan as a Digital Trade Hub and the expansion of foreign trade operations. This approach could be explained as a public interest influence game. All available e-trade services and trade-related service networks for local and global service providers will be integrated into the Digital Trade Hub to provide end-to-end support to businesses for cross-border trade, networks and knowledge sharing, which will drive innovation within the internet ecosystem (dth.az, 2023). This topic is important as the ADH will ensure a framework for influencing key outside players in the Digital Silk Road. The Digital Silk Road via the Caspian Sea has two directions, toward Kazakhstan and Turkmenistan. "AzerTelecom" from the Azerbaijani side and "TransTeleCom" and "KazTransCom" from the Kazakh side have created a joint consortium for the construction of the northern branch of the Trans-Caspian fiberoptic cable, with a planned length of 380-400 kilometers (ordu.az). On November 28, 2019, an interstate agreement was signed between Azerbaijan and Turkmenistan on building the southern branch between Siyazan in Azerbaijan and Turkmenbashi in Turkmenistan (300 km of cable).

Leading telecom operators of Azerbaijan, Kazakhstan, Kyrgyzstan and Uzbekistan will





cooperate on the TransCaspian Fiber Optic (TCFO) project; the parties signed two Memorandums during the CIS GCCM 2021 conference, which was held in Nur-Sultan, the capital of Kazakhstan. One of the documents was signed among Transtelecom JSC, AzerTelecom LLC and ElKat LLC, representing, Kazakhstan, Azerbaijan and Kyrgyzstan, respectively. The other one was among Transtelecom JSC, AzerTelecom LLC and Telegraph Management GmbH LLC, representing Kazakhstan, Azerbaijan and Uzbekistan, respectively (en.trend.az).

The submarine digital infrastructure project across the bottom of the Caspian Sea between Azerbaijan and Kazakhstan, to be implemented by AzerTelecom, a backbone Internet provider connecting Azerbaijan to the global internet network, was discussed at a business meeting "Kazakhstan-Azerbaijan: New Opportunities for Cooperation" in March, 2021 (adh.az, 2021). In September, 2022, after signing a strategic partnership memorandum for the project to lay a fiberoptic cable line along the bottom of the Caspian Sea as part of the "Digital Bridge," during the international technological forum held in Astana between AzerTelecom and Kazakhtelecom, Kuanyshbek Yessekeyev, Chairman of the Board of Kazakhtelecom said, "Today, the most optimal formula for solving joint problems and interests for us is building direct relationships. Joint activities with AzerTelecom involve the exchange of information, best practices, experience and promotion of joint projects. All this, in turn, will contribute to the development of new market opportunities in terms of availability and increase in network bandwidth in both countries." (AzerTelecom, 2022).

In addition, the Azerbaijan Digital Hub program envisions the installation of fiberoptic cable lines along the protection line of Azerbaijan's railway corridors. To make that happen, in early 2019, AzerTelecom signed an agreement with the national railroad operator, Azerbaijan Railways (Baghirov, 2020).

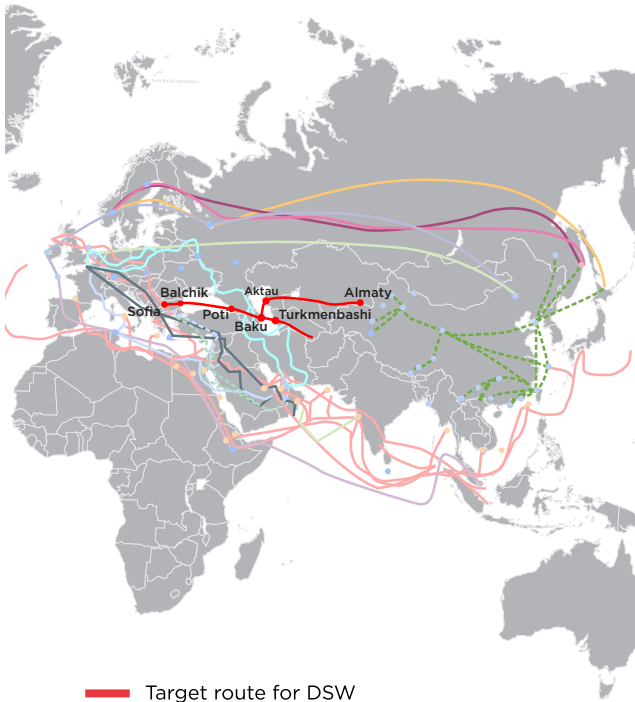
The Digital Trade Hub Consortium is a public-private partnership created for the development of digital infrastructure and a cross-border e-commerce platform in Azerbaijan, as well as the strengthening of the country's positions on a regional and global scale. An agreement to establish a consortium was signed by private companies PASHA Bank, B.EST Solutions and AzerTelecom together with the Center for Analysis of Economic Reforms and Communication of the Republic of Azerbaijan, which represented the public sector at the third forum on digital trade, the "Digitalization of the Silk Road," held in Baku on October 9, 2019 ("Azerbaijan Digital Hub," 2019). This creation of an alternative coalition is described by Johnson, G.; Yip, G. S.; and Hensmans, M. as a "virtuous cycle for strategic transformation" (Johnson et al., 2012).

### **CONCLUDING REMARKS**

Johnson, Yip and Hensmans argue that companies that are able to radically change their entrenched ways of doing things and then reclaim leading positions in their industries are the exception rather than the rule (Johnson et al., 2012). Therefore, the ADH should be considered an innovative project of Neqsol Holding, which started its activity in the oil and gas industry and only later invested in telecommunications. Referring to the ADH business strategy the below-mentioned map concludes:



## MAIN TRANSIT NETWORKS EUROPE AND ASIA



Route names	Launch Date	Capacity	Latency
<b>i Routes via Egypt</b>			
SMW5	2017,Q1 fully operational	24 Tbps	136 ms
SMW4	2005	4.6 Tbps	N/A
AAE-1	2017, June	40 Tbps	One of the lowest
IMEWE	2009	3.8 Tbps	N/A
<b>ii Routes via Middle East</b>			
EPEG	2012	3.2 Tbps	N/A
AMEER	2014	6.4 Tbps	110 ms
JADI	2010 (inactive now)	800 Gbps	N/A
RCN	2015	6.4 Tbps	N/A
GBI	2013, February	10 Tbps	N/A
<b>iv Routes via Russia</b>			
DREAM	2013	8 Tbps	175 ms
Eurasia Highway	Upgraded in 2010	3.2 Tbps	191-247 ms
TEA	2014	2 Tbps	156-194 ms
CR2	2017	N/A	153 ms
China routes linking to TEA	2016	800 Gbps	147-240 ms
Transit - Mongolia	N/A	1.6 Tbps	185-195 ms
<b>v Routes via Caspian</b>			
DSW	2025	High capacity	Low latency

The Azerbaijan Digital Hub is experiencing all the ups and downs of running a business in "Heartland," a geographic location coined by Halford John Mackinder. The Azerbaijan Digital Hub is a project of AzerTelecom LLC, a telecommunications operator in Azerbaijan established by NEQSOL Holding, an international group of companies working across several industries and countries. The ADH consists of three parts: 1. The Digital Silk Road will connect Frankfurt and Mumbai with a fiberoptic line through the Black Sea, Georgia, Azerbaijan, two Trans-Caspian branches, Central Asia and Southeast Asia. 2. An Internet Exchange Point (IXP) will be constructed in Baku. 3. Development of a digital ecosystem.

As a new IXP, along with more established hubs such as London, Frankfurt, Sofia, Istanbul, Moscow, Amsterdam and Dubai, Baku will improve access to various digital services for 1.8 billion people. Turning Baku into an Internet Exchange Point means that regions such as Central and South Asia and the Middle East will no longer receive Internet services from European internet centers, but from the nearer city of Baku, which will lead to higher internet speeds, less latency and affordable tariffs. The internet has become more affordable in all regions of the world and among all income groups, based on the assessment from ITU, the United Nations specialized agency for information and communication technologies (ICTs). Cost, however, remains a major obstacle to internet access, especially in low-income economies (Facts and figures 2022). According to Facts and Figures 2022, prices are lower but still too high for too many. Since some people live in digital darkness in Central Asia, the ADH is committing the resources that will allow everyone to access the internet in line with human-centered digital development. Based on the logic of the World Bank, the Azerbaijan Digital Hub could broaden regional integration allowing for substantial economic gains, such as improving market efficiency, sharing the costs of public goods or large infrastructure projects, deciding policy cooperatively as an assistance to reform, creating a building block for global

### NEED TO KEEP INTERNET

"The Internet may be more affordable overall, but for billions of people around the world, it is just as out of reach as ever," said ITU Secretary-General Houlin Zhao. "We need to keep Internet affordability moving in the right direction even as the global downturn cuts deeper into the economic prospects of many countries."



integration, reaping other non-economic benefits, such as peace and security.

As T. B. Lawrence and others recommend, in order to manage the cycle of continuous change, the ADH needs to provide the necessary conditions for each of the four types of champions: evangelists, autocrats, architects and educators (Lawrence et al., 2006).

According to the growth share matrix, the digital market has a high growth rate, but low share for Neqsol Holding. Taking into account company competitiveness and market attractiveness, and using the Boston Consulting Group Matrix approach, Neqsol Holding should invest in or discard these "question marks," depending on their chances of becoming stars.

The ADH will navigate an increasingly complex environment, as OECD's latest Economic Outlook indicates that the global economy is expected to slow further in the coming year. Therefore, the ADH should analyze the non-market environment before framing a global strategy.

As the ADH embraces experimentation in its new projects, it should be comfortable with the uncertainty and ambiguity mentioned by Pisano (Pisano, 2019). Pisano argues that innovative culture needs discipline and management: tolerance for failure, but no tolerance for incompetence; willingness to experiment, but a highly disciplined approach; psychologically safe but brutally candid; collaboration but with individual accountability; flat but strong leadership. Building an innovative culture in a team dealing with countries along the Digital Silk Road with such diversified backgrounds is difficult. Top management needs to regulate counterbalancing forces to develop an innovative culture. Because, as Kambeck, the Head of Group HR at Klökner & Co, states, "During the course of the digital journey, we have learned that a digitalization strategy cannot succeed without a change in culture" (Korotov & Sack, 2019). Continuous change requires a cultural component that is forward-looking with a focus on helping employees gain the expertise and motivation not only to enact change but also to extend it (Lawrence et al., 2006).

If things are changing fast, as in the ADH, employees may fear losing their jobs. We would offer to create a Digital Academy for digital education during office hours to deal with any digitalization anxiety the ADH team might have.

It will not be easy for AzerTelecom to introduce valuable ongoing organizational advantages. A useful strategy would be if the ADH leverages Porter's five forces (Porter, 2008): Competition in the industry, the potential for new entrants into the industry, the power of suppliers, the power of customers and the threat of substitute products. It is clear that the current situation creates difficulties through increasing intensity of competition in the market, its attractiveness to other rivals, decreasing profitability and different national backgrounds along the Digital Silk Road. However, the ADH's strategically valuable resources could be strengthened by M&A, joint ventures, equity alliances, and non-equity alliances, as it looks for local and foreign investment.

## REFERENCES

1. Azərbaycanın Regional Rəqəmsal Qovşaq Yolunda - Daha bir qlobal layihədə birincilik, <https://ordu.az/az/news/226990>
2. "Azerbaijan Digital Hub" proqramının rəqəmsal iqtisadiyyat quruculuğuna töhfəsi müzakirə olunub, <https://az.trend.az/business/3193161.html>
3. AzerTelecom, Kazakhtelecom sign strategic partnership memorandum on Trans-Caspian project. [https://azertag.az/en/xeber/AzerTelecom\\_Kazakhtelecom\\_sign\\_strategic\\_partnership\\_memorandum\\_on\\_Trans\\_Caspian\\_project-2315015](https://azertag.az/en/xeber/AzerTelecom_Kazakhtelecom_sign_strategic_partnership_memorandum_on_Trans_Caspian_project-2315015)
4. Banerjee, A. V. & Duflo, E. (2019). Good economics for hard times. Public Affairs



5. Baghirov, O. (2020). The increasing role of Azerbaijan as a regional digital hub. *Eurasia Daily Monitor*, 17 (73)  
<https://jamestown.org/program/the-increasing-role-of-azerbaijan-as-a-regional-digital-hub/>
6. Bekauri, K.(2021). On NEQSOL: There are preconditions for mutual agreement to occur. *Forbes*  
<https://forbes.ge/kakha-bekauri-on-neqsol-there-are-preconditions-for-mutual-agreement-to-occur/>
7. Benefits of using DTH  
<https://dth.az/>
8. Day, G. S. & Schoemaker, P. J. H. (2017). How to sense and seize opportunities - and transform your organization  
<https://hbsp.harvard.edu/product/ROT355-PDF-ENG>
9. [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.e3s-conferences.org/articles/e3sconf/pdf/2020/26/e3sconf\\_icsf2020\\_13016.pdf](chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.e3s-conferences.org/articles/e3sconf/pdf/2020/26/e3sconf_icsf2020_13016.pdf)
10. Latest on global connectivity amid economic downturn, Facts and figures 2022:  
<https://www.itu.int/hub/2022/11/facts-and-figures-2022-global-connectivity-statistics/>
11. Measuring digital development: Facts and figures 2022,  
<https://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx>
12. Ghemawat, P. (2007). Why the world isn't flat. *Foreign Policy*, (159), 54-60.
13. Guillén, M. & García-Canal, E. (2012). Execution as strategy. *Harvard Business Review*, 103-107
14. Gygli, S., Haelg, F., Potrafke, N. & Sturm, J-E. (2019). The KOF Globalisation Index – Revisited. *Review of International Organizations*, 14(3), 543-574.  
[https://doi.org/10.1007/s11558-019-09344-2call\\_made](https://doi.org/10.1007/s11558-019-09344-2call_made)
15. Грузинские чиновники пытаются захватить азербайджанскую компанию,  
<https://haqqin.az/comics/185947>
16. Harrison, L. E. & Huntington, S.P. (2000). *Culture matters*. Basic Books.
17. Haussmann, R. (2023). Why industrial policy is back. *Project Syndicate*.  
[https://www.project-syndicate.org/commentary/why-economists-have-rediscovered-industrial-policy-by-ricardo-hausmann-2023-01?utm\\_source=Project+Syndicate+Newsletter&utm\\_campaign=759b5575d4-covid\\_newsletter\\_02\\_01\\_2023&utm\\_medium=email&utm\\_term=0\\_73bad5b7d8-759b5575d4-107109909&mc\\_cid=759b5575d4&mc\\_eid=0272b88f2b](https://www.project-syndicate.org/commentary/why-economists-have-rediscovered-industrial-policy-by-ricardo-hausmann-2023-01?utm_source=Project+Syndicate+Newsletter&utm_campaign=759b5575d4-covid_newsletter_02_01_2023&utm_medium=email&utm_term=0_73bad5b7d8-759b5575d4-107109909&mc_cid=759b5575d4&mc_eid=0272b88f2b)
18. Heimans, J., & Timms, H. (2014). Understanding “new power.” *Harvard Business Review*, 92(12): 48–56.
19. <https://www.adh.az/en/cooperation>
20. Huawei (2021). Accelerating the digital economy: Four key enablers.  
<https://e.huawei.com/kz/eblog/industries/insights/2021/accelerating-digital-economy>
21. Huy, Q. N. (2002). Emotional balancing of organizational continuity and radical change: The contribution of middle managers. *Administrative Science Quarterly*, 47(1): 31–69.
22. Johnson, G., Yip, G. S. & Hensmans, M. (2012) Achieving successful strategic transformation. *MIT Sloan Management Review*, 53(3): 25–32.





23. Kazakhstan-Azerbaijan: New opportunities for cooperation (2021). Discussion of Trans-Caspian Fiber Optic Cable Project.  
<https://www.adh.az/en/news/transcaspian-fiber-optic-cable-project-discussed-at-kazakhstanazerbaijan-new-opportunities-for-cooperation-event-05-03-2021>
24. Kegan, R. & Laskow Lahey, L. (2001). The real reason people will not change. Harvard Business Review
25. Korotov, K. & Sack, N. (2019). Gisbert Rühl: Leading digital transformation at Klöckner & Co. Harvard Business Review
26. Lawrence, T.B., Dyck, B., Maitlis, S. and Mauws, M.K. (2006). The underlying structure of continuous change. Sloan Management Review 47(4), 59-66.
27. Maitlis, S., Vogus, T. J. & Lawrence, T. B. (2013). Sensemaking and emotion in organizations. Organizational Psychology Review, 3(3), 1-26.  
<https://doi-org.ezproxy-prd.bodleian.ox.ac.uk/10.1177/2041386613489062>
28. Martin, R. L. (2010). The execution trap. Harvard Business Review, 88(7/8), 64–71.
29. Martin, R. L. (2017). Strategic choices need to be made simultaneously, not sequentially, Harvard Business Review.  
<https://hbr.org/2017/04/strategic-choices-need-to-be-made-simultaneously-not-sequentially>
30. Mazzucato, M. (2023). For the common good, Project Syndicate, 2023,  
[https://www.project-syndicate.org/commentary/common-good-governance-key-elements-by-mariana-mazzucato-2023-01?utm\\_source=Project%20Syndicate%20Newsletter&utm\\_campaign=759b5575d4-covid\\_newsletter\\_02\\_01\\_2023&utm\\_medium=email&utm\\_term=0\\_73bad5b7d8-759b5575d4-107109909&mc\\_cid=759b5575d4&mc\\_eid=0272b88f2b&barrier=accesspaylog](https://www.project-syndicate.org/commentary/common-good-governance-key-elements-by-mariana-mazzucato-2023-01?utm_source=Project%20Syndicate%20Newsletter&utm_campaign=759b5575d4-covid_newsletter_02_01_2023&utm_medium=email&utm_term=0_73bad5b7d8-759b5575d4-107109909&mc_cid=759b5575d4&mc_eid=0272b88f2b&barrier=accesspaylog)
31. McKinsey.  
<https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/global-flows-the-ties-that-bind-in-an-interconnected-world>
32. O'Reilly, G. C. & Binns, A. J. M. (2019). The three stages of disruptive innovation: Idea generation, incubation, and scaling. California Management Review, 61(3), 49 –71.  
<https://cmr.berkeley.edu/assets/documents/sample-articles/61-3-oreilly.pdf>
33. Pisano, G. (2019). The hard truth about innovative cultures. Harvard Business Review, 62–71
34. Porter, M. (1998). The competitive advantage of nations. Harvard Business Review Press.
35. Porter, M. (2008). The five competitive forces that shape strategy. Harvard Business Review, 86(1), 78-93.
36. Reid, T. (1878). Essays on the intellectual powers of man, 10th ed. J.H. Butler and Co.  
[https://ia800500.us.archive.org/4/items/10edessaysoninte00reiduoft/10edessaysoninte00reiduoft\\_bw.pdf](https://ia800500.us.archive.org/4/items/10edessaysoninte00reiduoft/10edessaysoninte00reiduoft_bw.pdf)
37. Sachs, J. (2001). Notes on a new sociology of economic development, in Samuel P. Huntington, Culture matters: How values shape human progress, Basic Books, 29-43.
38. Telecom operators of Azerbaijan, Kazakhstan, Kyrgyzstan and Uzbekistan signed a Memorandum of Cooperation,  
<https://en.trend.az/azerbaijan/business/3497801.html>





39. UNCTAD: Digital economy report (2021).  
<https://unctad.org/webflyer/digital-economy-report-2021>
40. Ventresca, M. J. & Seidel, V. P. (2020). The T-M-O framework: Strategic innovation across technology, markets, and organization. Said Business School Teaching, Note TN-2020-001.
41. WeForum (2023). Global risks report.  
[https://www3.weforum.org/docs/WEF\\_Global\\_Risks\\_Report\\_2023.pdf?\\_gl=1\\*drjd1w\\*\\_u p\\*MQ..&gclid=CjwKCAiAzp6eBhByEiwA\\_gGq5EZi-Z2XEixV1yohC3hMWL0ZaeQnbKKMPS6RDJD6\\_SOwfkraTrQddhoCiw8QAvD\\_BwE](https://www3.weforum.org/docs/WEF_Global_Risks_Report_2023.pdf?_gl=1*drjd1w*_u p*MQ..&gclid=CjwKCAiAzp6eBhByEiwA_gGq5EZi-Z2XEixV1yohC3hMWL0ZaeQnbKKMPS6RDJD6_SOwfkraTrQddhoCiw8QAvD_BwE)
41. World Bank.  
<https://www.worldbank.org/en/topic/regional-integration/overview>

## AZƏRBAYCAN RƏQƏMSAL HABI: STRATEGİYADAN FƏALİYYƏTƏ

Prof. Dr. Vüsal QASIMLI

İqtisadi İslahatların Təhlili və Kommunikasiya Mərkəzinin icraçı direktoru

### XÜLASƏ

Məqalədə pandemiya və post-pandemiya dövründə rəqəmsal transformasiyanın ümumi mənzərəsi araşdırılır. Qlobal internet trafiki artmaqda davam etdikcə dünya ölkələri bu sürətli transformasiya ilə ayaqlaşmaq üçün rəqəmsal strategiyaları həyata keçirməyə başlayırlar. İqtisadiyyatın şaxələndirilməsinə can atan zəngin neft ölkəsi olan Azərbaycan da rəqəmsal mənzərədə əsas oyunçu olmaq üçün özünəməxsus strateji yanaşma qəbul edib.

Neqsol Holding neft və qaz sənayesindən gələn kapitaldan istifadə edərək Rəqəmsal İpək Yolu, Regional Məlumat Mərkəzi, İnternet trafiki mübadiləsi mərkəzi və rəqəmsal ekosistemin inkişafını özündə cəmləşdirən Azərbaycan Rəqəmsal Qovşağının təşəbbüskarı olub. Bu qovşaq İpək Yolu boyunca internetin xəritəsini dəyişdirmək və üç ardıcıl mərhələdə dağıdıcı dəyişikliklər fonunda inkişaf etmək üçün nəzərdə tutulmuşdur: ideya, inkubasiya və geniş tətbiq etmə.

Məqalədə Azərbaycanın Rəqəmsal Qovşağın yaradılmasında etdiyi strateji seçimlər və onun ölkə iqtisadiyyatına potensial təsiri vurğulanır. Qovşaq davamlı inkişaf üçün yeni güc modelləri və dəyərləri qəbul edərək "Qalalar" kvadrantından "Birləşdiricilər" kvadrantına keçidi təqdim edir. Tədqiqatda Rəqəmsal Mərkəzin dinamik imkanları araşdırılır, onun transformativ təbiəti və sürətli texnoloji irəliləyişlərə uyğunlaşma qabiliyyəti xüsusi qeyd edilir.

Sonda məqalədə vurğulanır ki, Azərbaycan Rəqəmsal Qovşağının uğuru davamlı dəyişikliklərin effektiv idarə olunmasından, innovasiya mədəniyyətinin təşviqindən və birləşmələr, ittifaqlar və investisiyalar vasitəsilə strateji üstünlüklərdən istifadə etməkdən asılıdır. Rəqəmsal Mərkəz mürəkkəb və qeyri-müəyyən bir mühitdə naviqasiya etməklə rəqəmsal dövrdə həlledici oyunçu kimi mövqeyini möhkəmləndirə bilər.

**Açar sözlər:** Azərbaycan, Rəqəmsal Qovşaq, iqtisadiyyatın diversifikasiyası, innovativ inkişaf, rəqəmsal ekosistem

Məqalə redaksiyaya daxil olub: 11.06.2023

Çapa qəbul olunub: 14.07.2023