ключовим фактором для досягнення стратегічних цілей у вирішенні економічних, соціальних і технологічних викликів. Сполучення цифрових ініціатив, розвиток технологічної інфраструктури та підготовка кадрів створюють фундамент для успішного переходу до цифрового економічного управління. Ці напрями сприяють створенню цифрового економічного середовища в Китаї, що, зі свого боку, допомагає ефективному управлінню ресурсами, розвитку інновацій, нових можливостей для підприємств. Китай приділяє увагу впровадженню блокчейн-технологій у різні галузі, зокрема фінансову, логістичну, охорону здоров'я та інші. Блокчейн сприяє створенню децентралізованих і надійних систем, що полегшує ведення документації, підтвердження транзакцій і забезпечує безпеку даних. У контексті цифрової економіки Китай зосереджує увагу на підготовці висококваліфікованих кадрів для успішного впровадження та розвитку цифрових ініціатив [2].

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## XUAR DEVELOPMENT LANDSCAPE IN THE CONTEMPORARY CHINA

**Key words:** XUAR, Free Trade Zones, contemporary China.

The Xinjiang Uygur Autonomous Region (XUAR) has been playing an important role in the national and foreign economic policies of the China State since the collapse of the Soviet Union in 1991. The creation of the Central Asian states began the start of trade relations between XUAR and the newly independent neighbors, while at the same time the region continued to be a major supplier of raw material to areas of China that had a higher industrial level, the co-called formula of the "double openness." In the eighth five-year plan (1991–1995) Xinjiang received a special status – the Chinese section of "The Great Islamic Ring," which connects China with Central Asia and the Middle East [3]<sup>1</sup>.

Vast natural resources have become the basis for the economic development of Xinjiang, which attracted capital investment in associated infrastructure in the 1990s and caused in-migration of labor force. That, combined with the State's development programs<sup>2</sup>, produced a highly visible transformation in the region. Besides oil, gas and other mineral resources, agriculture, trade, and tourism industries in the context of the Western Development policy have brought Xinjiang to a higher level of development, helped to decrease poverty, and improved the infrastructure and well-being of the people.<sup>3</sup> Primarily, oil and gas production in Xinjiang attracted local and foreign investments. The 4,200-kilometer natural gas pipeline operating by PetroChina<sup>4</sup> had become the premier project under "Develop the West" initiative; and cooperation with Royal Dutch Shell in Xinjiang<sup>5</sup> considered as the largest foreign-investment projects were in oil and gas industry.

Xinjiang's GDP demonstrates a positive tendency that had lasted almost four decades. During the early period of development<sup>6</sup>, GDP rose at around 10.3 percent per year. Since Xi Jinping announced the initiative "One belt,

<sup>&</sup>lt;sup>1</sup> K. Warikoo also proposed the terms "Great Northeast Asian Ring," representing the connection of China with the Russian Far East, Japan, Korea; "South China Economic Ring" connecting Fujiang, Guangdong Provinces, Hong Kong, Taiwan; and "Great International Ring" – integration of Chinese coastal provinces with the Asia-Pacific region.

<sup>&</sup>lt;sup>2</sup> The most ambitious central government project is "Develop the West" (西部大开发), launched in 2001.

<sup>&</sup>lt;sup>3</sup> However, the greater economic development in the region affected the ethnic minorities' identity and region's landscape. The observers stressed out that the Han ethnicity and foreign businesses benefit the most from this progress.

<sup>&</sup>lt;sup>4</sup> This pipeline is also well-known under the brand name "West-East Gas Pipeline", which runs from Lunnan in Xinjiang to Shanghai.

 $<sup>^5</sup>$  The history of Shell operations in China, access:  $\label{limit} $$ https://www.shell.com.cn/en_cn/about-us/who-we-are/shell-history-in-china/_jcr_content/par/textimage.stream/1468531404098/71ba96f4fb7485cc77b7c388e7b015b5f330c699a976f6a99b5e57fac91cb601/shell-story2004.pdf$ 

 $<sup>^6</sup>$  The mentioned period is 1978-2000, since Deng's policy reform and opening, according to the Xinjiang statistical yearbook, 2001 (Beijing: China Statistics Press, 2001. p. 38).

one road" (BRI) in 2013, Xinjiang has played a geostrategic role as four of the six major BRI land routes run through Xinjiang, and it's a big traffic hub for China-Europe freight trains (China-Europe China Railway Express (CR Express) [1, p. 99]. The regional GDP has continued to demonstrate progress, even during the Covid-19 years, reaching 1.77 trillion yuan in 2022, compared to about 1.6 trillion yuan in the previous year<sup>7</sup>.



Figure 1. GDP of XUAR (in billion yuan)

Source: The National Bureau of Statistics of China<sup>8</sup>

According to Millward, the China state uses the "Silk Road" (丝绸之路) term to promote Xinjiang marketing potential as a "cross-continental linkage," showing the openness of China and its leading position to the world [2]. However, cultural or religious exchanges or any other interactions other than tourism or trade are strictly prevented.

The XUAR has benefitted from Sino-Central Asian relations, especially after the establishing the multilateral "Shanghai Five" organization in 1996, which was transformed into the Shanghai Cooperation Organization (SCO) in 2001. During Xi Jinping's era, the SCO has become a powerful tool of influence in the region, and Kazakhstan has become the main trade partner of Xinjiang and a reliable security counterpart of Beijing. Since the November 2023, the

<sup>9</sup> The "Shanghai Five" format included China, Kazakhstan, Kyrgyzstan, Tajikistan, and Russia.

More economic development statistics can be found in my another article "China's Northwest economic importance for stability in Central Asia" Access: https://chinesestudies.com.ua/index.php/journal/article/view/220/206.

<sup>8</sup> The National Bureau of Statistics of China. Access: https://www.stats.gov.cn/sj/ndsj/2022/indexeh.htm.

Kazakhstan-China Mutual Visa Exemption Agreement has come into force, facilitating the business and private people-to-people relations<sup>10</sup>.

Three development zones were created in Urumqi (乌鲁木齐), the XUAR capital, at different time to attract businesses and innovations, promote trade, and boost production: the Urumqi Economic and Technological Development Zone; the Urumqi High-tech Industrial Development Zone; and the Ganquanbao Economic and Technological Development Zone (甘泉堡经济技术开发区). The last one acts like national industrial cluster for new energy development projects.

Among other development zones of the regions, there are Shihezi (石河子), Ili (伊犁) with the Yining High-tech Industrial Development Zone (益阳高新技术产业开发区), and Kashgar. Each of them has its own specifics and purpose.

Shihezi is a textile hub of China, a large producing area of cotton and other agricultural products. Ili serves as a commercial hub due to its location bordering Mongolia, Russia, and Kazakhstan. The Yining High-tech Industrial Development Zone provides benefit for the following industries: biotechnology, information technology, processing of agricultural products, building materials, coal, electricity, and others. Kashgar became a special economic zone in 2010, designated as the "New Eurasian Land Bridge" connecting with Central and South Asian countries.

In October, 2023, Beijing inaugurated the XUAR as a Pilot Free Trade Zone (PFTZ). As announced, "the zone will serve the construction of core areas of the Belt and Road Initiative, support the golden channel between Asia and Europe, and lead the opening-up of the western regions, and contribute to the China-Central Asia shared community" 11. The PFTZ includes Urumqi, Kashgar, and Khorgos and will focus on "emerging industries, labor-intensive industries, and modern service industry". It's too early to analyze the effectiveness of this new project, but it's obvious that the China State is aiming to find a new strategy to boost the economy in the less industrialized region, while at the same time, securitizing the western border by creating a beneficial business climate of cooperation in the region.

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## ПРОВАЙДИНГ ВИБУХОВИХ ТЕХНОЛОГІЙ ШТУЧНОГО ІНТЕЛЕКТУ В АГРАРНІЙ СФЕРІ: ІМПЛЕМЕНТАЦІЯ ДОСВІДУ КИТАЮ

Ключові слова: штучний інтелект, аграрна сфера, трансфер технологій, безпілотні летальні апарати, сільськогосподарські роботи.

Останнім часом використання дронів в аграрній сфері вже не  $\epsilon$  чимось новим і стало найпопулярнішим сучасним напрямом, оскільки має як економічні переваги, так і переваги в часі. У період 2021–2022 років, що характеризується підвищенням рівня диджиталізації у світі, у нашій країні спостерігався розквіт використання дронів в аграрній сфері, що було