

## Technological Free Economic Zones In Developing Countries And Opportunities For Their Implementation In Uzbekistan Teacher Of Tashkent State Institute Of Oriental Studies

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**Annotation.** This article explores the experience of China and Turkey in the creation and development of technologically free economic zones. The level of innovation development in the countries is analyzed depending on the level of Internet access, high-speed internet access and Global innovation index.

**Keywords:** China, Turkey, Innovation, Technological Free Economic Zone, Global Innovation Index.

### Introduction

According to the information of 2019 [1], there are 5,400 special economic zones in 147 economies of the world economy. Special Free Economic Zones (SEZs) are widely used in many developing and developed countries. In these geographically segregated areas, the government provides industrial activity through financial and regulatory incentives and infrastructure support.

SEZs are classified into many types. The main free zones for the development of trade logistics are common in developed countries. Developing countries use integrated zones to develop industry-wide, diversified, specialized or innovative opportunities.

New types of SEZs and innovative regional development programs are emerging. While industrial, trade and integrated zones are one of the traditional forms of free economic zones, free economic zones that are designed to address environmental development, commercialization of science, regional development, or urban regeneration are modern technological free economic zones.

Table 1

The traditional direction of free economic zones in developed and developing countries \*

In developed countries	Developing and countries with economies in transition
Information and communication technologies	Agriculture
Professional Services	Food industry
Finance and insurance	Extraction and processing
Chemical industry	Transportation and logistics services
Food industry	
Nano, algal and bio technologies	
Big data, quantum technology, internet in industry, robotics and sensors, wireless systems, virtual technologies	

*\*Table is developed by author*

Typically, in developed countries, such as Japan and South Korea, special technology zones are created to encourage the creation of digital technologies, nano, bio and algal technologies. However, there are some developing countries, but they have special technology zones, and special privileges and conditions for the development of Big data, quantum technology, the Internet, robotics and sensors, wireless systems, virtual technologies. China and Turkey are the most advanced countries

### **Main part**

The first national techno park in China, Zhongguancun Science Park, or Silicon Valley, China, was established in 1988.

The technology park is located in Beijing on a 260 square kilometer area and includes 17 technology parks in Zhongguancun specializing in information technology, life sciences, aerospace technologies, energy conservation and more, with 39 universities, more than 400,000 students, 140 research centers, and nearly 20,000. includes more than half a million high-tech companies and more than half a million employees. Most of these activities are in the IT sector.

Zhongguancun Technopark is not only an incubator for innovations in technology, business and finance, it is also a test ground for liberalizing the Chinese economy and testing government reforms.

The leading areas of this technology park are:

- 1) software development and information services;
- 2) new materials;
- 3) new types of energy and environmental protection;
- 4) information communications;
- 5) new technologies for biological projects and drug production.[2]

Preferential tax regimes are created in the territory of industrial parks, as in free economic zones.

The main benefits for the people of China's technology parks are:

- VAT “zero” rate for resident companies that have received the status of “high-tech enterprise” in the first three years of production has been reduced by 7.5% over the last 3 years and is 15% after six years of operations;
- for enterprises exporting more than 40% of their products, the tax rate is reduced by 10%;
- lowering the corporate tax rate for high-tech enterprises by 50 percent, increasing the cost of technical modernization by 10 percent compared to the previous year;
- applying a “zero” rate of income tax for high-tech enterprises;
- Compensation of the first living space and purchase of a car for employees of high-tech enterprises.

In the legal and economic literature, the "innovation cluster" represents a strategic partnership mechanism between enterprises, research organizations, universities, venture funds and intermediary structures that provide synergistic effects

of mutual support in the development of new innovative products and services in China.

According to the concept of the Ministry of Science and Technology of China, announced in 2001, the creation of innovative clusters in China should be done primarily by developing the innovative potential of existing industrial clusters based on the use of state zones and other privileged subjects of technical and economic development.

In September 2010, the China Industry Cluster Innovation Report 2010-2011, published by the Institute of Industrial Economics of the Chinese Academy of Social Sciences, published a report on the innovative structure of traditional "industrial" clusters with the following characteristics: The function is:

1. Unlike industry clusters, innovation clusters produce not only competitive but also fundamentally new products.

2. Innovative clusters are designed to gather the scientific and production potential of various businesses and organizations to create a unified chain of innovative products.

3. The goal of innovation clusters is not only to create a chain of traditional contacts and resources, but also to access the global network to create products using new technological advances.

4. Industrial clusters are distinguished by their profile profile with a very simple organizational structure, while the innovation cluster has a favorable innovation environment with different forms of collaboration between its participants.

5. The innovation cluster is a key point for the rapid development of extensive networks in the surrounding region. [3]

Successful industrial clusters that are in the process of becoming innovative clusters are:

- Zhangguancun Integrated Circuit Industrial Cluster in Shanghai;
- Computer Software Industry Cluster in Sichuan, Chengdu;
- Industrial cluster of railway transportation equipment in Juan Province;
- Industrial cluster of semiconductor and lighting fixtures in Yangzhou, Jiangsu Province;
- Industrial cluster of new metals in Danyang, Jiangsu Province;
- Fujian, Jinjiang Shoe Industry Industrial Cluster;
- Industrial cluster of shut-off valves for heating systems in the city of Taizhou, Zhejiang Province;
- Industrial cluster of engineering and construction equipment in Changsha, Hanshan Province;
- Industrial cluster of machinery in Shenyang Tesi district of Liaoning province.

The first technological development zones were established in Turkey in the 1990s, and their interest is growing day by day because of tax incentives for companies operating in technology parks. In total, 50 technology parks have been created in Turkey, of which 34 are active, 16 are approved and are in the process of creation.

Six such zones are located in Ankara, five in Istanbul, four in Kocaeli, three in Izmir, and one in each province (Bursa, Eskişehir, Kutahya, Manisa, Denizli, Antalya, etc.). About 1,200 companies are located in the active industrial parks.

The main advantages of technology parks and their benefits are:

- Income from software development and other research and development is exempt from corporate income tax and other corporate taxes until December 31, 2023;
- Profit from sales of applied software released only in technological development zones is exempt from VAT until December 31, 2023. These include management, data management, commercial software solutions in various areas of operations, Internet, mobile phones, and military operations management systems;
- By December 31, 2023, the salaries of researchers and technicians operating in the technological zone are exempt from all taxes. The number of service personnel covered by this exemption should not exceed 10% of the total IT personnel;
- At the discretion of the management company and with the permission of the Ministry, the enterprises may make investments in the technological development area necessary for the production of technological products obtained from research projects [4]

The first science park in the country is METU technopoly, created in the early 1980s, the first incubation center - SMEDO-METU in 1991, METUTEK and TABITAK-MAM in 1998.

On average, there are 52 companies registered in each park and most of them are on campus.

The largest and most successful technology park in Turkey is the METUTEK technopolis, established in 1991 on the basis of the Middle East Technological University, located on the university campus, 7 km away from the capital of Ankara, Ankara. The university is one of the largest universities in the country with over 23,000 students. The area of the university is 1,200,000 m<sup>2</sup>. The university has 40 research centers and 365 laboratories.

The purpose of the park is to increase the scientific and technological potential of the country, to strengthen cooperation between the university and industry, to support entrepreneurship and innovation, to create favorable conditions for the development of advanced technologies and to employ qualified professionals.

The leading structures of the technology park are: business incubators, technology parks, software centers, silicon blocks, silver blocks, production centers, defense technology research centers and others.

Information and communication technologies, electronics, telecommunications, medical and biomedical technologies, defense technologies, energy, automated systems, chemistry, biotechnology and environmental technologies are the main areas of technology. Research activities are mainly exported to the US, EU countries, Japan and Israel.

Criteria for companies applying for registration in METUTECh technology are developed. These include:

- 1) assistance in improving the economic and technological potential and competitiveness of the park, and on the basis of research and software;
- 2) IT and software development;
- 3) development of cooperation with universities and research institutes;
- 4) the need to become one of the means of technological development of the region and sustainable development of the country as a whole;
- 5) accounting the level of entrepreneurship, nature and innovation of the company;
- 6) promoting employment of university graduates;
- 7) to carry out only permitted (prototype) and limited types of production on the basis of scientific and research activities;
- 8) prohibition of activities that may pollute the environment.

All of these procedures should not exceed 60 days from the date of application.

Successful Business Examples :

1. Center for New Ideas for New Business, established by Middle East Technological University and Technopark. It is intended to support start-up companies that have started their work in the Technopark.

2. METUTEK-BAN - Turkey's first business angel network established to support small and medium-sized businesses. Information and communication technologies are of high priority.

3. Precubation Center for Future Technologies Research in Virtual Modeling. The Center utilizes the scientific potential and skilled workers. One of the main goals of the pre-incubation center is to empower and develop the business and entertainment technologies, animation and simulation technologies.

In general, Turkish practice is characterized by the active creation of a network of new technology parks and the efficient operation of existing parks.

The development of technology and innovation in the country is closely linked to such indicators as the availability and level of access of the population to the Internet and the provision of high-quality Internet to the population, which is reflected in the country's Innovative Development Index.

Table 2

Innovative potentials of China and Turkey [5]

		2007 йил		2013 йил		2017 йил	
		China	Turkey	China	Turkey	China	Turkey
1	The percentage of Internet users, as a percentage of the population	16,0	28,6	45,8	46,3	54,3	64,7
2	Number of users of high-quality internet	66,4million	4,7million	188,9 million	8,9 million	394,2 million	11,9 million
3	Indicators in the Global Innovation Index			44,66	36,03	52,54	38,90

By 2017, 54.3 percent of China's population and 64.7 percent of Turkey's population used the Internet. In 2017, the number of high-tech Internet users in China increased almost 7timescompared to 2007, while in Turkey it was almost 2.5times.

China's Global Innovation Index of 2017 was 52.54, while Turkey was 38.90. The index is calculated as the relative number of indicators of the two groups. The first group includes the development of existing resources and conditions for innovation (Innovation Input), institutions, human capital, research, infrastructure, internal market and entrepreneurship. The second is the Innovation Output, which is based on the development of technology and science, as well as the results of creative activity. [6] Therefore, based on this rating, China's innovative development experience (including the creation of technologically free economic zones) is effective.

### **Conclusion**

The long-term experience of thousands of free economic zones in the world economy shows:

-The strategic objectives of the SEZs and development program are very important. Regional policies should not be formulated in a broader political context, including their investment attractiveness, trade and tax policies. Zones and their specialization should be based on existing competitive advantages and opportunities. The creation of a free economic zone must be carried out in accordance with the strategic plan for the long-term purpose;

- Financial support is important in the establishment of special FEZs and should provide opportunities for sustainable development of residents;

- Development of cluster method. Providing opportunities for interconnected development of research, production and infrastructure.

- Successfully formed regulatory framework, strong institutions and good governance are among the factors of success. The legal infrastructure of the SEZs should ensure consistent, transparent and predictable implementation of SEZs policies.

As a result of the study of technologically free economic zones in China and Turkey, we may conclude:

-Coordination of scientific-research and production-education plays a key role in the creation of technological free economic zones in both countries;

-Establishment and development of industrial clusters in research anddevelopment;

-The main reformer of the state in the development of innovative activities.

Proceeding from the above, it is proposed to introduce the following aspects of the experience of China and Turkey in the establishment and development of technologically free economic zones in Uzbekistan:

1. Support of industrial and innovative research clusters in the creation of technologically free economic zones;

2. To support researchers in innovative development. In particular, the application of the “0” income tax rate, the implementation of special-purpose programs for living and research in the technological area.

### References

1. World investment report 2019. Special economic zones. United Nations publication issued by the United Nations Conference on Trade and Development. UNCTAD/WIR/2019
2. Wei Wei Silicon Valley of China // Models, systems, networks in economics, technology, nature and society. 2013. No2 (6). URL: <https://cyberleninka.ru/article/n/silikonovaya-dolina-kitaya> (accessed: 12/13/2019).
3. Features of the functioning of innovative infrastructure and innovation development territories in China <https://pandia.ru/text/80/204/40800.php>
4. <https://infoturk.biz/texnoparki-turcii-osobennosti-usloviya-vedeniya-deyatelnosti/>
5. [www.knoema.uz](http://www.knoema.uz)
6. Expert: “Global Innovation Index depends on the economic development of the country and export level” <https://mininnovation.uz/en/news/18-10-2019-expert-global-innovation-index>