

Looking toward 6G: Israel in the Age of Technological Decoupling

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In September 2020 the fifth generation communications network (5G) was launched in Israel based on Western infrastructures, with no Chinese infrastructure. With that development, Israel effectively joined the United States Clean Network program. A Chinese initiative, launched in response to the US program, shows that there are signs in the international system of a trend toward technological decoupling, which is expected to have strategic consequences – political, economic, and technological. Israel would do well to identify the future focus of technological friction between the two superpowers and harness the government, academic, and private sectors toward its integration as a significant player in future technological developments, including the sixth generation (6G), in the framework of the technological coalition taking shape under US leadership.

On September 29, 2020, when the frequencies tender for the fifth generation network (5G) in Israel was closed, the Ministry of Communications distributed frequency licenses to cellular providers and thus announced that the 5G network had begun operating in Israel. The cellular network of Cellcom-Golan and We4G would be based on equipment made by Nokia, while Partner-Hot Mobile and Pelephone would use Ericsson equipment. Although Israel did not publicly announce China's disqualification as a supplier, it was previously made public that the Israeli security establishment had decided not to permit the involvement of Chinese companies in Israel's communications infrastructure. The launch of 5G in Israel based on Western infrastructures is a practical expression of a strategic choice in the 5G struggle between the superpowers, including a considerable American effort to dissuade its allies from installing Chinese communication infrastructures. Israel also received public warnings from the United States, although its actual policy on this matter was already even more stringent than the US policy.

Israel is not the only party that has closed the door to Chinese involvement in 5G infrastructures. In recent months cellular providers in many Western countries have decided to sign contracts with Ericsson and Nokia for the supply of 5G infrastructures, and were praised by senior US officials for this decision. Britain, for example, after labeling Chinese companies as a danger to national security, decided that by 2027 all existing infrastructures manufactured by Huawei will be removed; Sweden decided to block the

entry of Chinese communications companies for reasons of national security (this decision was subsequently halted by the Stockholm administrative court); and Canadian cellular providers signed contracts with Western competitors, before the government adopted an official position on this matter. Canada's policy is evolving in the context of the ongoing legal fight against Meng Wanzhou, deputy financial officer of Huawei, who is accused by the United States of violating sanctions against Iran and North Korea, while in retaliation China has taken punitive steps against two Canadian citizens who were arrested in its territory.

As part of the growing technological competition between the United States and China, the US State Department announced on August 5 [the expansion](#) of the Clean Network program, which was launched this past April. This is part of the attempt to form a coalition of countries that agree with the need to secure their communications networks, including future technologies, "by relying on only trusted vendors who are not subject to unjust or extra-judicial control by authoritarian governments, such as the Chinese Communist Party." The initiative is intended to prevent the transfer of personal and business data of US citizens to China to serve the interests of the Communist Party. The expanded initiative covers six areas in all that ban participation by Chinese companies: communications networks, communications providers, app stores, apps, cloud data storage, and underwater cables. The document ends with a call to US allies to join the initiative, which as of October already included over 40 countries with "clean" communications networks, among them, Britain, Vietnam, Taiwan, Japan, Czechia, France, Canada, Sweden, and Israel.

In a move perceived as a response to the US Clean Network program, in early September 2020, the Chinese Foreign Ministry [announced](#) a Global Initiative on Data Security, based on the principle of the "sovereignty" of the national network, whereby every country has the sovereign right to manage the internet space within its territories according to its own rules, with no interference from other countries. The Chinese initiative has eight points, including a call to technology companies to refrain from creating "back doors" in their products and services; respect for the sovereignty of other countries and their right to manage their network data; a call to governments to undertake not to damage the critical infrastructures of other countries or steal their data; and a call to governments not to force internet companies to store information generated in other countries on their territory, and to oppose mass monitoring of other countries. Finally, the Chinese government declares that it will not ask Chinese technology companies operating overseas to transfer data to its domain.

A number of countries have already expressed public support for the Chinese initiative, including Belarus, Laos, Pakistan, Kazakhstan, Russia, and Syria. The Syrian Foreign Ministry, for example, announced that the Chinese initiative is "an additional step taken by

China towards a world dominated by equality in opportunities, justice, freedom and respect and protection of nations and ideas,” and that “the initiative deserves the support of all countries keen on the security of global data and the development of the digital economy.” Other countries – particularly developing or authoritarian countries, or those that are financially dependent on China – will likely support the initiative as well. Apart from public statements, at present it is not clear how the initiative is to be implemented, or how it will be expressed in the involvement of supporting countries, if at all.

In contrast with the American initiative, the Chinese initiative opposes the concept of the internet as a global space without boundaries, operating according to uniform rules that were in effect defined by the United States. While the US initiative explicitly calls on countries to avoid Chinese communications technologies as a condition for joining, the Chinese initiative does not mention the United States explicitly and does not reject specific technology companies or technologies. Therefore, although it appears that for China there is no reason not to support its initiative while simultaneously joining the Clean Network program, in the American view, the two initiatives are mutually exclusive. The “initiatives competition” between the powers in fact expresses a global struggle for standards and dominance in the age of information technologies.

Countries that have not yet identified with either of the emerging camps, and are still hesitating whether to permit Chinese 5G infrastructures, will probably face American pressure in the form of a carrots and sticks campaign. In response to statements from senior officials in Brazil that they were considering the participation of Huawei in their 5G infrastructures, in July 2020 the US Ambassador in Brazil warned that such a move would have “consequences.” In October 2020 it was reported that a memorandum of understanding was signed in Brasilia with the United States, whereby Brazil would receive up to a billion dollars to purchase non-Chinese communications infrastructure, and in November it was announced that Brazil had joined the Clean Network program.

The two initiatives symbolize the growing strength of the decoupling process in the area of communications and information technology, where the techno-economic sphere is becoming the main focus and test of political and security loyalty in the competition between the powers. Apart from cellular infrastructures, Israel must also consider the other areas where the Clean Network program bans participation of Chinese companies, including apps; identify existing and emerging gaps; and address them. Israel’s current conduct, which involves an intimate dialogue and cooperation with the United States, while avoiding any damaging declarations against China, will continue to be correct.

The United States and China have already begun working on the development of sixth generation communications infrastructures (6G), which will be able to transmit data at

speeds of 1 terabyte per second, and which are expected to be ready around 2030. It is still too early to identify the potential of this technology, but it will likely also be the focus of friction between the powers. In addition to the US and China, countries such as Finland, South Korea, and Japan have begun promoting preliminary research and development of 6G applications, with the aim of achieving an advantage in the race. In October a new initiative was announced, [the Next G Alliance](#), formed by leading Western technology companies; its work groups will start operating in 2021 to promote standards for the new generation. Israel must formulate a national policy on this subject and examine how to encourage Israeli companies to take part in the race.

In Israel there are some thirty companies engaged in the development of 5G applications, as well as numerous leaders in the fields of the Internet of Things, apps, artificial intelligence, big data, and network security. They could be an important component for strengthening Israel's technological links with countries and Western companies in the fields of communications, including future 6G applications. The Chief Scientist in the Ministry of Science and Technology, and the Research & Development Administration for Weapons and Technology Infrastructure in the Ministry of Defense should advance a mechanism for local R&D on 6G applications, together with other technologies based on communications and information. In addition, relevant efforts in the government, academic, and private sectors should be integrated toward constructive collaboration. The objective is to encourage Israeli technologies and position Israel as an active player in the emerging technology coalition, in order to exploit its relative advantage and strengthen its political, security, technological, and economic ties throughout the world.