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The Silicon Dome

Israel needs to make itself indispensable to the technological future

ISRAEL stands today at a consequential crossroads, situated in its third founding moment. History teaches us that countries are not formed once; they are formed cyclically upon the eventual decay and expiration of a once-powerful political idea. We must look to examples such as Ronald Reagan, Margaret Thatcher, and Deng Xiaoping, all of whom refounded their respective polities with a bold and assertive vision, while noting the failure of the Soviet Union to introduce such reinvention and its subsequent collapse. When we look at the magnitude of the challenges facing Israel today — domestically and geopolitically — the years 1948 and 1985 should come to mind. Those years, which served as dual founding moments for the Jewish state, saw Israel chart its political and economic course for the decades that followed.

Will 2026 be Israel's third founding?

To understand where we must go, we must first understand the distinct nature of these previous turning points.

In 1948, the core of the founding moment was physical sovereignty: the triumph of Jewish self-determination after millennia of Diaspora. The War of Independence was a struggle for sheer existence. Israel's second founding, in 1985, was noticeably different. Facing hyperinflation that reached around 450 percent, the Israeli government introduced a major economic-stabilization plan. The plan included severe budget cuts, wage and price controls, and a significant devaluation of the shekel, which helped curb inflation and transition the country to a more capitalist economy. The Israeli new shekel (NIS) was introduced in September and became the country's official currency in January 1986.

Now, in the aftermath of October 7, Israel is at the cusp of its third founding moment. The challenge this time is quite different from those of the past foundings. The political framework that has governed the Israeli polity since 1985 — its geopolitical posture, its social contract, and the national narrative — has decayed. Without a thorough redefinition, the current framework will fail.

The task before us is more than the work of repair. We must ask not only how we may secure Israel's survival through continued incremental changes, but how we must position it to thrive and to renew its strategic, civic, and moral foundation for at least a generation ahead.

For the "Founding Grandchildren" who choose to carry this burden of reinvention in Israel, there is a dimension beyond the traditional arenas of geopolitics and economics. This dimension is the heart of our argument: In an era of geopolitical fragmentation and realignment, a nation's weight is no longer measured solely by army size, demography, or territory. What matters equally, if not more, is technological indispensability and the ability to generate globally significant innovation.

The example of Taiwan — a small, vulnerable island nation in a volatile region, with a contested past and a global role today — is perhaps the clearest illustration of this shift. Taiwan's dominance in semiconductor fabrication has, at least for the time being, secured its geopolitical survival. The world's most powerful nations have a deep interest in Taiwan's stability and sovereignty; this helps to deter China from annexing the small island. Taiwan's innovation has provided its citizens a shield, not of steel but of silicon.

Israel needs a corresponding strategy. We call this strategy the Silicon Dome, a set of industrial technologies that will embed Israel as an indispensable partner for other nations. Taiwan also offers a cautionary tale that Israel must internalize. Its own silicon shield, once thought impenetrable, is showing cracks. Under sustained pressure from Washington, Taiwan Semiconductor Manufacturing Company (TSMC), the cornerstone of Taiwan's status as an indispensable nation, has committed to a staggering $165 billion investment in the United States — billed by the chipmaker as the single largest direct foreign investment in U.S. history. TSMC has also been expanding production to Japan and Germany. The implications are profound: What happens to Taiwan once that silicon shield is redistributed across the globe?

For Israel, the Taiwan case study proves that a small nation can punch far above its geopolitical weight through technological indispensability. But it also demonstrates that such indispensability must be constantly renewed and strategically defended. A shield that can be replicated elsewhere eventually loses its protective power. Therefore, Israel cannot build its Silicon Dome using technologies that can be easily transferred or outsourced. It must

anchor its indispensability in domains where its unique ecosystem provides an irreplaceable advantage.

Israel's investment in R&D stands at approximately 5.6 percent of its gross domestic product, making it No. 1 in the world in this all-important measure. It boasts more unicorns — independent start-ups valued at $1 billion or more — per capita than any other country. It is among a handful of countries to have designed, built, and launched satellites into space. (Notably, it's the only one to have done so westward, against the direction of Earth's rotation, to prevent failed launches from falling into enemy hands.) It was among the first to deploy and operate unmanned aerial vehicles in both tactical and strategic operations as early as the 1970s, when such technology was top-secret.

This high performance in technological innovation was not an accident. It emerged from what can be called Israel's triple helix: the defense establishment, the academic system, and the entrepreneurial sector. The Israeli Defense Forces are not merely a national conscription mechanism; they are, functionally, a sovereign elite research university. Units such as 8200, Talpiot, and Unit 81 teach a cadre of university-age Israelis every year; the training provides them with advanced proficiency in machine learning, cryptography, systems architecture, and algorithmic reasoning, each student having led multidisciplinary teams under real-world pressure.

In academia, Israeli universities are not only intellectual reservoirs but also sovereign engines of commercialization. Strategic arms such as Yissum (Hebrew University), Ramot (Tel Aviv University), and YEDA (Weizmann Institute) have global reach. Collectively, these institutions have generated tens of thousands

of patents ranging from pharma to quantum computing and have spawned hundreds of spin-off companies, which are effectively the third strand, along with thousands of other private start-up firms.

This triple-helix architecture worked marvelously during the first quarter of the 21st century, making Israel one of the wealthiest nations on the globe in GDP per capita. But it was forged in an era when software could be built and replicated quickly, when geopolitical integration seemed steady, and when the frontier of technology was accessible through improvisation. That era is ending.

The next wave of technologies will be capital- and talent-intensive, and infrastructure-heavy. They will demand long horizons, deep interdisciplinary teams, and state-level orchestration. The ad hoc convergence of army, academy, and entrepreneurs might no longer be enough. Unlike Taiwan, Israel cannot afford to outsource its national security to alliances alone; our doctrine remains clear: We must be able to defend ourselves, by ourselves. The Silicon Dome is not a substitute for the Iron Dome; it is its complement. Where Iron Dome intercepts rockets, Silicon Dome intercepts irrelevance.

The urgency of this Silicon Dome was underscored by the release of the latest U.S. National Security Strategy document in December 2025. The White House explicitly identified three specific domains — AI, biotech, and quantum computing — as "core, vital national interests" that will "drive the world forward." The strategy was given tangible expression in the Department of State's Pax Silica initiative in global defense technology with the Netherlands, the United Kingdom, Israel, the United Arab Emirates, Japan, South Korea, Singapore, and Australia, all of whom "recognize that a reliable supply chain is indispensable to our mutual economic security." The message from Washington is clear: These are new frontiers where the United States is not leading as decisively as it should. Therefore, it will prioritize partnerships with nations that can help it maintain dominance in those areas.

To address the growing challenges of our volatile reality — from climate instability to fragile digital infrastructures — Israel must assert leadership in six revolutionary fields, coined MARQSS:

Materials science: This is the quiet foundation of every technological revolution. New alloys, advanced silicon and carbon compounds, and nanostructures unlock advances in energy storage, aerospace, computing, and defense. The Netherlands became indispensable through advanced semiconductor materials lithography (ASML), a company based there, and its mastery of the lithography machine; similarly, any country that holds key patents and manufacturing know-how in next-generation materials controls the starting block of future industries.

Artificial intelligence: AI is becoming a general-purpose technology like electricity, permeating every industry from health care to national security. While the United States and China build the dominant compute infrastructure, the real opportunity for Israel lies in control over models, data, and deployment at scale.

Robotics: This field merges intelligence with physical action, covering everything from warehouse automation to surgical systems and autonomous defense swarms. While other nations build hardware, Israel already excels in developing the cognitive and perceptual systems that provide the "minds" for robotics.

Quantum computing: Quantum promises breakthroughs in materials, finance, logistics, and cryptography. However, hardware remains fragile and capital-intensive, and the direct race is led by the United States and China. Israel has chosen a leverage point that fits its scale: companies that build the control planes, compilers, and orchestration frameworks that make quantum processors usable.

Synthetic biology: This field turns organisms into programmable plat-

forms, with the potential to produce sustainable food, new therapeutics, clean energy, and climate-resilient agriculture. As supply chains are weaponized and food systems stressed, a nation that can design biology for global needs becomes a partner the world cannot ignore.

Space: Space enables strategic advantage and technological leadership beyond Earth. Israel is one of a select few nations capable of independently designing, launching, and operating its satellites. The Ofek satellite program, including the recent Ofek 19 with advanced synthetic aperture radar, provides persistent, high-resolution intelligence that secures regional power.

While Israel does not start from scratch in these fields, it falls short in scale and ambition. The Israeli deep-tech ecosystem has attracted more than $28 billion in investments since 2019. Yet the uncomfortable truth is that public investment in frontier technologies remains modest compared with the size of the challenge and the spending of rivals, most immediately the Gulf states.

The Israel Innovation Authority's annual budget (including grants) stands at approximately NIS 2 billion (roughly $600 million), a figure that has not been substantially raised in the last decade; *Globes* magazine described it in 2024 as a "marginal organization on the overall investment landscape." The percentage of R&D funding in Israel that comes from the government is the lowest in the OECD. We're getting better, but not fast enough. Israel's new national AI program was recently set up with an R&D budget of more than $130 million, a serious commitment that nonetheless pales in comparison to the tens of billions being deployed by the United States, China, and the Gulf states. The private sector cannot carry this burden alone; the shift to deep tech requires the state to act as a strategic orchestrator and risk-taker.

And as Israel debates public investment in emerging technologies, a new competitor is emerging. The Gulf Cooperation Council states, led

by Saudi Arabia and the UAE, are deploying sovereign wealth to position themselves as global innovation hubs. Under Vision 2030, Saudi Arabia has allocated more than $100 billion to technology investments, while King Abdullah University of Science and Technology (KAUST) was opened with a $10 billion endowment. At a single conference in February 2025, Riyadh announced $14.9 billion in AI and digital-infrastructure investments. The UAE is pursuing a parallel strategy with massive blockchain projects and entities such as the AI development company G42.

These states possess resources Israel cannot replicate: virtually unlimited capital, abundant energy from oil for data centers, and a large landmass. However, they face structural limitations: a severe shortage of skilled technical talent and an educational system misaligned with industry needs. They lack the indigenous innovation ecosystem that emerges from decades of cultivating an entrepreneurial culture.

For Israel, the rise of the Gulf states presents a paradox. They are regional competitors, yet the Abraham Accords have opened up unprecedented opportunities for cooperation. The 2025 U.S. National Security Strategy document reinforces this path, since it views the Middle East as a "place of partnership, friendship, and investment." With the United States seeking to expand the Abraham Accords, a tech-centric alliance between Israel and the Gulf would be a strategic asset to Washington. Israel might recognize the UAE and Saudi Arabia as potential infrastructure partners. A strategic approach could see Israeli innovation running on Gulf-funded compute infrastructure, accessing capital and markets while Gulf states gain access to technologies they cannot develop domestically. But Israel must ensure that collaboration does not become dependency, avoiding the technology transfer that has weakened Taiwan. The MARQSS strategy must focus on domains where Israel's unique ecosystem provides an irreplaceable advantage: the cognitive layers, algorithms, and bio-designs that cannot simply be purchased.

To address this challenge, Israel has a secret weapon: Jewish people all around the world. In a world where talent trumps territory, Israel and the Jewish people enjoy a unique advantage. Jews are about 0.2 percent of the world's population yet have accounted for more than 20 percent of Nobel laureates in the sciences. From the discovery of DNA's double-helix structure to the development of algorithms powering Google, Jewish ingenuity has been a disproportionate driver of modernity.

This advantage is currently being recognized by the market. By 2026, Nvidia is on track to surpass Intel as the largest private high-tech employer in Israel, seeking to hire hundreds of new Israeli personnel, a recruitment effort equal to its search across the rest of the world combined, excluding the United States and Taiwan. This signal is echoed by the personal decision of individuals such as Ilya Sutskever, co-founder of OpenAI, to base his next transformative venture in Israel. This is not a return to a refuge but an arrival at the premier platform for global innovation.

Consequently, building the Silicon Dome should be not only an Israeli national project but also a mission for the entire Jewish world. For decades, the relationship between the Diaspora and Israel has been framed primarily through philanthropy, political advocacy, or trauma solidarity. Now, a new paradigm is urgently needed: a partnership of co-creation.

The resources to achieve this are staggering. The North American Jewish community holds a position of profound influence, steering firms that manage trillions of dollars and overseeing foundations with tens of billions in endowments. This financial capital is matched by intellectual capital in elite universities and venture firms. What is required is a new vehicle for this engagement: not just a Birthright trip, but a "Birthright Laboratory." Not just fundraising galas for memory, but groundbreaking scientific fellowships for future-making.

Consider the following policy proposal: Israel dedicates an addi-

tional 1 percent of its GDP (roughly $5 billion) to fund dozens of world-class research laboratories in each of the MARQSS domains. This amount — a fraction of the annual defense budget — could be partially funded or even matched by private equity, venture capital, or philanthropy, both in Israel and the Diaspora to double the impact. These labs would be designed to attract the world's most brilliant minds to a mission rooted in scientific excellence.

The labs would not be ivory towers. They would be engines of policy, economy, and security. Their impact would radiate outward, cementing Israel's role as a partner in global regeneration. Imagine a materials lab in the Negev developing atmospheric water-harvesting technology to combat desertification in Africa; a robotics lab in Tel Aviv creating affordable remote surgical systems for rural Asia; and a synthetic biology lab in Jerusalem designing self-fertilizing crops to restore depleted soil in Europe. This is the vision: an Israel that is not only a start-up nation, but a level-up nation for the entire world.

Israel's first founding moment gave Jews a state. The second gave that state a modern economy. The third must give it leverage.

The Silicon Dome is a proposal for how Israel can serve the world while securing itself. It answers Washington's strategic call for allies to "stand on their own feet," and it shows how relations between Israel and the Diaspora can be reconstituted as a partnership of scientific co-creation, sending a clear signal to friends and rivals alike that the Jewish state is an indispensable part of civilization's future. But the window for action is narrowing. Taiwan's silicon shield is being redistributed; the Gulf states are deploying sovereign wealth at scales Israel cannot match; and China and the United States are engaged in a technological cold war that will reshape global power structures.

In this environment, incrementalism is not caution, it is a risk. The absence of a transformational strategy is itself a strategic choice, one that silently accepts gradual marginalization. The Silicon Dome offers a different path. It recognizes that Israel's greatest asset is not its territory or military hardware, but the minds of the people who love it. ✳

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