

of very robust legal and technical frameworks. As implicitly and explicitly stated in official remarks, investment must be “legitimate” and aligned with national interests and security. This means investment contracts must be structured to yield maximum benefit for Iran and prevent potential risks. A crucial requirement is mandating technology transfer within contracts. The mere entry of capital and profit generation by foreign firms is insufficient. We should make sure that

up-to-date technical knowledge is brought in, particularly in industries where Iran suffers from technological lag — such as oil and gas (in areas like enhanced oil recovery, advanced drilling technologies, and LNG production) and the power sector (high-efficiency power plant technologies, smart grids, and renewable energy). This technology transfer should not be limited to equipment delivery but must encompass design, engineering, manufacturing, operation, and maintenance knowledge. Another vital condition is the requirement for participation in upgrading the country’s infrastructure. Foreign investors

should commit to contributing to the improvement and modernization of related infrastructure alongside their projects, ensuring the benefits of the investment are sustainable and long-term. A third key requirement involves training and developing human resources. Contracts must include specific, well-defined programs for training Iranian personnel at various technical and managerial levels. This aims to create employment while enhancing the skill level of the domestic workforce, thereby reducing future dependence on foreign expertise. This approach aligns with studies

showing that the effectiveness of FDI in boosting economic growth significantly depends on the host country’s absorptive capacity, particularly its education levels and human capital. Therefore, FDI should be directed in ways that contribute to strengthening this absorptive capacity. Alongside these contractual requirements, success in attracting sustainable and productive FDI necessitates creating and reinforcing a conducive and predictable domestic business environment. This demands modernizing laws and regulations and continuously improving

development indicators. Efforts to attract sustainable foreign investment must, therefore, be coupled with fundamental efforts to transform Iran into an attractive and reliable destination for global capital. These reforms benefit not only foreign investors but primarily domestic economic actors and the general public, contributing to a more dynamic and efficient national economy. Global experience shows that countries succeeding in attracting FDI by creating stable, transparent, and competitive environments have reaped benefits in the form of higher economic growth, increased job creation,

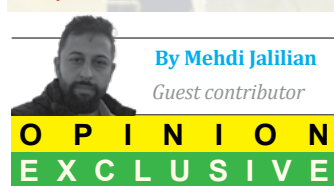
export diversification, and technological advancement. It is hoped that the emerging political will to open new pathways for economic engagement with the world will be accompanied by meticulous planning, active and targeted diplomacy, and modern approaches to governance in economic and social spheres. May this significant development, in turn, usher in a fruitful chapter of economic development and strengthen Iran’s international standing in the current Persian calendar year, officially designated as the year of “investment for production”.

Industrial research centers spur Iran’s growth & employment



The photo shows a view of a laboratory of the Petrochemical Research and Technology Company, established by the Iranian National Petrochemical Company in 2002.

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By Mehdi Jalilian
Guest contributor

In an era when the competitive advantage of countries is determined by innovation and technology, research is more critical than ever before as the bedrock for sustainable development. Even though Iran has enormous academic potential and professional human resources, there is a huge gap between industry and academia. Industrial research centers in such a scenario can be a critical bridge between the two as drivers of employment generation and national development across the country. One of the most significant features of industrial research centers is their capacity to suit the comparative advantage of every area. In contrast to centralized one-size-fits-all models, these institutions have the capacity to be located within specialized clusters of different provinces and cities, suiting technology development and job provision to

local conditions.

For instance, in Yazd, ceramic and refractory research centers, utilizing the long-existing capacities of the region, can create new materials, upgrade the quality of products for export, and localize manufacturing technology.

In Khuzestan, with gigantic oil, gas, and petrochemical complexes, industrial research centers dedicated to downstream technology and recycling with oil could reverse the trend of resource consumption, create added value, and form specialized labor markets.

In East Azerbaijan, research centers for automotive and high-tech auto parts manufacturing will be used to reduce import reliance by localizing the development of technology, thus making the country’s own automobile industry more competitive. Kermanshah Province, due to its geographical location and abundant agricultural and petrochemical resources, is the ideal location for the establishment of agro-industrial processing and light industrial machine-building research centers. For example, an

industrial research center in the Islamabad-e-Gharb Industrial Zone can specialize in the development and production of advanced packaging machinery for local produce such as chickpeas, wheat, and oilseeds. This will not only improve production efficiency but also provide employment opportunities for mechanical, electrical, and automation engineers.

Besides, since it is situated near the Iraqi border and has high export potential, Kermanshah could benefit from R&D on export-oriented packaging technology and thereby create Iranian brands in adjacent markets. Long-term unemployment of university graduates — particularly those in engineering and technical fields — is one of the most pressing problems of Iran’s economy. The majority of graduates, having studied, are isolated from the labor market. Industrial research centers can be “work-and-learn” places, linking this human capital with real industrial projects.

Think of Ferdowsi University of Mashhad or Isfahan University

of Technology. With research institutes focused on manufacturing technologies, robotics, and industrial automation, project work can be commenced that directly and indirectly involves engineers, technicians, and applied researchers.

One of the most important barriers to Iran’s sustainable industrial growth is the over-centralization of decision-making and the lack of a regional development approach. Industrial research centers, if mission-oriented and sensitive to local environmental and economic conditions, can contribute to a more balanced and geographically equitable model of development.

For example, mining technology research centers in Kerman, Zanjan, and Hamedan provinces can localize advanced extraction and processing techniques, prevent raw material exports, and hire individuals along the value chain. To realize this vision, a major overhaul of Iran’s industrial and scientific policymaking is necessary. The Vice Presidency for Science and Technology, the Ministry of Industry, Mine and Trade,

and the Ministry of Science must work together to develop a national roadmap for industrial research centers by establishing an intelligent, integrated system of these centers across the country. This network — backed by universities, technology parks, and domestic industries — can be a catalyst to sustainable development, extensive employment, and a solid international competitive advantage in innovation and production.

Iran is a country of maximum climatic, industrial, and human diversity. By making use of this diversity in a distributed network of industry research centers, it can be a model for successful regional development, sustainable employment, and industry acceleration. Provinces like Kermanshah, with their own strengths, are ideal models for that potential.

It is time to take research out of the ivory towers and onto the factory floor. Industrial research institutes are not a choice — they are a survival imperative for the industrial economy of Iran in the future.



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Board members of an Iranian company visit the Mineral Processing Research Center of Fakoor Sanat Tehran in Shahriar, Tehran Province, Iran, on January 2, 2024.

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