

## FEATURE ARTICLE

# Industrial Revolution 4.0: The Leap Toward a New Economy

Localization, smart factories and a wave of Fourth Industrial Revolution technology are remaking Saudi industry — led by its national champions.

FORMAT: FEATURE ARTICLE | SECTOR: INDUSTRY & MANUFACTURING | MARKET: SAUDI ARABIA | FEATURING: JOHNSON CONTROLS ARABIA, SGR, AMIANTIT, ZOUJAJ, ALAT

Amid a transformative push toward economic diversification, Saudi Arabia's industrial landscape is witnessing a seismic shift, driven by localization and the Kingdom's vision of reducing reliance on imports. In 2023 the non-oil sector surpassed 50% of real GDP seven years ahead of schedule, and cumulative industrial investment reached \$111 billion.

*"Saudi Industrial Development Fund has partnered with various funds and world companies to take advantage of new opportunities in technology."*

MOHANAD AL-SHAIKH · CEO, JOHNSON CONTROLS ARABIA

A key pillar is the National Industrial Development and Logistics Program, launched in 2019 to raise production to 85% of local demand and localize 70% of the supply chain by 2030. It is joined by the Made in Saudi initiative and the Future Factories Program, which targets an ecosystem of 4,000 smart factories.

"Government incentives cover 75% of mining costs and make it feasible for companies to invest," said Suliman Saleh Alothaim, chairman of Saudi Gold Refinery. Feras Bin Ghassab Al-Harbi, CEO of Saudi Arabian Amiantit, affirmed that challenges met by companies are answered with proactive government support.

Private-sector players are ramping up their own capabilities. "Our state-of-the-art production lines are constantly being upgraded and can produce any design requested by our clients," said Walid Afyouni, CEO of Zoujaj Glass. In February 2024 the Kingdom launched Alat, a state-backed champion expected to contribute \$9.3 billion to non-oil GDP by 2030.

The shift is being reinforced by local-content mandates — the government now requires a minimum 25% local content for engineering jobs — and by upskilling drives across the private sector, as national champions race to meet the Vision 2030 industrial agenda.

# Industrial Revolution 4.0: The Leap Toward a New Economy

Amid a transformative push toward economic diversification, Saudi Arabia's industrial landscape is witnessing a seismic shift in 2024 driven by a bold commitment towards localization and the Kingdom's vision of reducing reliance on imports and boosting homegrown capabilities. The following economic milestones have been passed in 2023: the nation's goal of having the non-oil sector contribute 50% of its real gross domestic product was surpassed, seven years ahead of schedule; annual non-oil revenue in Saudi Arabia reached a value of \$655 million, representing a year-on-year growth of 3.8%; and investment in its industrial sector reached a cumulative \$111 billion. In 2024, the Kingdom is expected to benefit greatly from its efforts with its galvanized national champions poised to vastly increase market size, export potential and internal capabilities. "Saudi Arabia is currently looking to increase our number of factories under the Vision 2030 initiative. Our leadership realizes that the balance of trade will diminish greatly as oil imports recede, and we have a window of opportunity to bridge the gap in the next ten years," said Mohamad Al-Shaikh, CEO of Johnson Controls Arabia, the country's leading manufacturer of heating, ventilation and air conditioning technology. "There are now around 11,000 factories in Saudi Arabia that have been launched since the Kingdom was established 93 years ago. Under the latest National Industrialization Strategy, we aim to increase this number to around 36,000 by 2035."

Since launch of the Vision 2030 initiative, the government has continuously launched satellite programs to support the private sector in increasing Saudi Arabia's industrial output. A key pillar in Kingdom's localization efforts is the National Industrial Development and Logistics (NIDL) program, launched in early 2019 to advance the country's following main sectors: energy, mining, logistics, minerals and industry, such as manufacturing. The initiative aims to increase production to meet 85% of local demand and localize 70% of the supply chain by 2030. Another key program is the Made in Saudi initiative launched in March 2021 by NIDL that helps local producers to promote products under the Saudi Made brand both in the country and in international markets. Additionally, the government launched the Future Factories Program Initiative in 2022 to bolster production

by fostering an ecosystem of 4,000 smart factories in the country. While these programs have laid the groundwork, the private sector is now utilizing these new incentives to advance Saudi Arabia's industrial capacities to the next level.

Suliman Saleh Alotheim, chairman of Saudi Gold Refinery Company points to specific investments in the country's nascent mining industry as crucial for rapid expansion. "Government

*"Saudi Industrial Development Fund has partnered with various funds and world companies to take advantage of new opportunities in technology."*

**Mohamad Al-Shaikh**  
CEO, Johnson Controls Arabia



incentives cover 75% of mining costs and make it feasible for companies to invest. This support is crucial for attracting international investors and achieving the Vision 2030 initiative's goals." Saudi Gold Refinery Company intends to become Saudi Arabia's second largest mining company behind state-owned mining giant Ma'aden and increase Saudi Arabia's competitive pool. Feras Bin Ghassab Al-Harbi, CEO of local water infrastructure powerhouse Saudi Arabian Amiant Company also affirms the government's strong support of private companies in the Kingdom. "Any challenges met by companies are met with proactive support from the government and regulatory bodies." In May 2024, the private infrastructure development company signed six contracts worth \$46 million for supply and installation of pipes for government-mandated

*"Our state-of-the-art production lines are constantly being upgraded [...] and can produce any design requested by our clients."*

**Walid Afyouni**  
CEO, Zoujaj Glass



infrastructure projects, with plans to use its international footprint and local research facility to become a critical player in modernizing the water sector in Saudi Arabia.

A key lynchpin in Saudi Arabia's industrial

development is heavy adoption of fourth industrial revolution (4IR) technologies and integrating advanced digital practices such as artificial intelligence, robotics and the internet of things across key sectors, including manufacturing and health sciences. "Saudi Industrial Development Fund – which is geared towards financing industry-based projects – has partnered with various funds and world companies to take advantage of new opportunities in technology," said Al-Shaikh. In December 2023, the Centre for the Fourth Industrial Revolution or C4IR Saudi Arabia was officially launched in Riyadh to spearhead implementation of 4IR across the nation's manufacturing sector and increase local skillsets in cutting-edge innovations. In February 2024, Saudi Arabia launched Alat, a new state-backed national champion focused on technology manufacturing, including semiconductors, robotic systems, heavy machinery and devices for health sciences, that is expected to contribute \$9.3 billion to the country's non-oil gross domestic product by 2030, create employment for 39,000 workers and supply domestic and international markets. In May 2024, Alat announced plans to invest \$100 billion by 2030 to develop smart manufacturing after launching two new business units in electrification and artificial intelligence.

Established private sector players are now capitalizing on this local momentum to ramp up their digital capacities and outmatch the national agenda. "We aim to keep improving our technology to produce positive results and give comfort to our investors. We are on the right track," said Walid Afyouni, CEO of National Company for Glass Industries, a local company that has revolutionized glass manufacturing in Saudi Arabia. "Our state-of-the-art production lines are constantly being upgraded and maintained at the highest levels of quality and can produce any design requested by our clients." Local producers in all sectors are embracing the 4IR transformation, including one of Saudi Arabia's largest pharmaceuticals manufacturers. "We are also adopting the Pharma 4.0 operating

model and integrating automation and artificial intelligence across the company," said Jerome Cabannes, CEO of Saudi Pharmaceutical Industries & Medical Appliances Corporation. "Our localization efforts align with the country's biotech strategy and the Vision 2030 initiative to create value for Saudi Arabia."

Saudi Arabia is also ramping up efforts to bolster local talent and enhance domestic content in its workforce, with Saudi Arabia's sovereign wealth fund Public Investment Fund targeting a 60% contribution to the Saudi economy through local content from its affiliates. NIDL has set out to attain 30% local content rates in the pharmaceuticals industry and 20% in the defense

*"Government incentives cover 75% of mining costs and make it feasible for companies to invest."*

**Suliman Saleh Alotheim**  
Chairman, SGR Company



and military industry by 2025 by stimulating the private sector. In July 2024, the government mandated companies to maintain a minimum 25% local content rates for engineering jobs, the latest in a slew of recent Saudization mandates including a set local content rate of 40% in consultancy positions.

Private sector entities are taking these initiatives one step further by actively engaging in upskilling programs for its current employees, future workers and their industries at large, such as Saudi Pharmaceutical Industries & Medical Appliances Corporation. "We established an academy to ensure our employees are continuously trained and retrained to achieve the status of employer of choice," said the company's CEO. "Our partnerships with universities help us transfer knowledge and increase the resilience of our ecosystem." Other industry leaders such as Saudi Arabian Amiant Company are utilizing internationalization as a key input for workforce advancement. "Growing deep technical knowledge has also been fundamental to our development," said Al-Harbi. "Our training efforts are aided by our extensive international footprint [...] to disseminate technologies." According to the NIDL, Saudi Arabian workers increased by 113,000 in 2023, including 51,000 female workers, due to the efforts of the country's national champions.



THE WALL STREET JOURNAL · SAUDI ARABIA REPORT · 2024