

Middle East's Iron Horse: The Growing Force in Regional Infrastructure

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The Middle East, a region historically synonymous with oil and gas, is undergoing a dramatic transformation. A key driver of this shift is the rapid expansion of its rail infrastructure. With ambitious projects and significant investments, the region is positioning itself as a global transportation hub.

A Booming Market

The Middle East's rail infrastructure market is experiencing exponential growth. Factors driving this expansion include increasing urbanization, growing population, and the need for efficient transportation solutions. Governments across the region are prioritizing rail projects to reduce congestion, lower carbon emissions, and stimulate economic development.

The upcoming Saudi Rail Conference and Exhibition, scheduled for November 20-21, 2024, this year in Riyadh, will serve as a platform to showcase the latest advancements and opportunities in the Middle East's rail sector. This event will bring together industry leaders, policymakers, and investors to discuss the future of rail transportation in the region.

Employment Opportunities and Industry Flexibility

The burgeoning rail industry is creating a wealth of employment opportunities across the Middle East. From engineers and technicians to project managers and logistics experts, the sector is in high demand for



skilled professionals. As the industry continues to evolve, it is also nurturing a culture of innovation and flexibility. Companies are adopting advanced technologies, such as artificial intelligence and automation, to optimize operations and improve efficiency. Unhindered by outdated infrastructure seen in countries such as the UK, the region is benefiting from a clear canvas from which to start.

Key Rail Projects Shaping the Region

Several high-profile rail projects are currently underway in the Middle East:

- United Arab Emirates: The UAE is investing heavily in rail projects to enhance connectivity within the country and with neighboring regions. The Etihad Rail network, which will eventually span 1,200 kilometers, is a major component of the UAE's long-term vision.
- Oman: Oman is focusing on developing its rail network to support economic growth and facilitate trade.
 The Sohar-Buraimi railway project is a key initiative aimed at connecting the Sultanate's industrial hub with the UAE.
- Jordan: The National rail project is one of the largest proposed projects, with the private sector contributing USD 2.2 billion and the state taking responsibility for all land acquisitions for all rail tracks and operations facilities.
- Saudi Arabia: The development of a comprehensive rail network, connecting major cities and industrial hubs. The Haramain High-Speed Railway, which links Makkah, Madinah, Jeddah, and King Abdullah Economic City, is a prime example of Saudi Arabia's commitment to modernizing its transportation infrastructure.

In fact the expansion of the Middle East's rail infrastructure aligns seamlessly with Saudi Arabia's Vision 2030, a transformative economic and social reform plan. This ambitious initiative aims to diversify the Saudi economy, reduce reliance on oil, and improve the quality of life for its citizens. By investing in rail infrastructure, Saudi Arabia can achieve several key objectives of Vision 2030:

- Economic Diversification: Efficient rail networks can facilitate the movement of goods and people, stimulating trade and commerce. This can contribute to the growth of non-oil sectors and create new job opportunities.
- Sustainable Development: Rail transportation is a more environmentally friendly mode of transport compared to road and air travel. By reducing carbon emissions and air pollution, rail can help Saudi Arabia achieve its sustainability goals.
- Enhanced Quality of Life: Improved connectivity through rail networks can enhance the quality of life for citizens by reducing travel time, improving accessibility to jobs and services, and promoting tourism.

By integrating rail infrastructure into its broader development plans, Saudi Arabia will position itself as a global logistics hub and contribute to the overall growth and prosperity of the Middle East region as a



whole.

Interlinking Rail and Airports: A Synergistic Approach

The integration of rail and airport infrastructure is a key strategy to enhance connectivity and efficiency in the Middle East. By seamlessly linking these two modes of transportation, the region will further reinforce its position as a global transportation hub.

Interconnected rail and airports provide convenient access for passengers, reducing travel time and improving overall travel experiences. Reducing overall Congestion, by diverting passengers from road transportation to rail. Connected cities benefit by alleviating commuter traffic as well as improved air quality.

Rail and airport hubs underpin increased economic activity. Stimulating economic growth by facilitating trade, tourism, and business travel. Rail transportation is a more environmentally friendly option compared to both road and air travel, contributing to reduced carbon emissions. Placing the rail at the forefront of sustainable transport options.

Middle East opening the doors as a Global Transport Hub

The Middle East, with its strategic geographic location and significant investments in infrastructure, is wellpositioned to become a global transportation hub. By leveraging the synergy between rail and airport infrastructure, the region can further solidify its position as a key transit point for both passengers and freight.

Rail-Airport Integration examples in the Middle East include:

- Saudi Arabia: The Haramain High-Speed Railway connects the holy cities of Makkah and Madinah with Jeddah Islamic Port and King Abdulaziz International Airport, providing seamless travel options for pilgrims and tourists.
- United Arab Emirates: The Etihad Rail network is being developed to connect major cities and industrial hubs, including Abu Dhabi International Airport and Dubai International Airport.

As the Middle East continues to invest in its rail and airport infrastructure, the target of becoming a global transportation powerhouse is set. By embracing innovation and sustainable practices, the Middle East will unlock the full potential of its transportation sector.

The Electrification Challenge

The industry is not without its challenges, the key amongst them being the need to switch from a predominantly diesel locomotive fleet to an electrified railway.



Several countries in the Middle East, including the United Arab Emirates (UAE) and Saudi Arabia, have pledged to become carbon neutral by 2050 or 2060. In 2021, the UAE announced that it would be the first country in the Middle East to achieve net-zero carbon emissions by 2050. The UAE also pledged to reduce carbon emissions by 23.5% by 2030. Saudi Arabia announced that it would achieve net-zero carbon emissions by 2060. The country plans to use the Circular Carbon Economy approach to achieve this goal.

Rail requires 12 times less energy than other transportation modes. Energy efficiency could be further improved by reducing energy consumption or decarbonising energy supply. Nevertheless, alongside with reducing direct GHG emissions, the Middle East railways need to continue boosting passenger and freight trains energy efficiency.

According to IEA, 75% of passenger movements and 50% of freight rely on electricity. The global market volume for railway electrification is expected to rise at a Compound annual growth rate (CAGR) of 0.7% per year until 202543. In the Middle East, high prevalence of diesel locomotives, technological barriers, and significant costs are still the main reason of a low railway electrification share across the region.

The Middle East Railways Vision 2050 suggests electrifying all new rail projects and international corridors or switching to non-fossil fuels, such as hydrogen or batteries. All of these options are expensive, that is why it is suggested to concentrate on the projects referring to regional priorities (backbone network), that, in its turn, may boost trade and economic growth, and provide the capital to fund the innovative projects required.

Realizing the opportunity

If you are interested in working in the Rail or transport sector in the Middle East there is unlikely to be a better time than now. Both local and international firms are recruiting. Opening up opportunities to both experienced and novice project professionals. To find out more about roles in the Middle East rail infrastructure sector, readers can explore the following resources:

Our pick of the online Platforms and Job Boards include:

- LinkedIn: This professional networking platform is an excellent resource for finding job openings and connecting with industry professionals.
- $\circ\,$ Indeed: This popular job board lists a variety of rail-related positions in the Middle East.
- GulfTalent: This job portal specializes in Middle Eastern job markets, including the rail industry.
- Bayt: Another popular job board in the Middle East, with a focus on engineering and construction roles.
- PMRecruiter: And why not try Project Management Global's in house Jobs platform, PMRecruiter with over 2000 job opportunities, including roles across the Middle East Region and worldwide.

Industry Associations and Organizations:



- Union Internationale des Chemins de fer (UIC): The International Union of Railways is a global organization that represents the interests of the world's railways. It can provide valuable insights into industry trends and opportunities. Reports on the Middle East Rail sector include
- International Railway Industry Association (IRIA): This association represents the interests of the global railway industry, including manufacturers, suppliers, and service providers.
- Local Rail Authorities and Companies: Researching specific rail authorities and companies in the Middle East can provide information on current projects and future plans.

Government Websites and Publications:

- Government Websites: Check the websites of relevant government agencies in the Middle East, such as the Ministry of Transport or Infrastructure, for information on upcoming projects and tenders.
- Industry Publications: Read industry publications like Railway Gazette International and International Railway Journal for news and analysis on the global rail industry, including the Middle East.

Networking and Conferences:

- Attend Industry Events: Participating in conferences, seminars, and workshops can help you connect with industry professionals and learn about the latest trends and opportunities.
- Build Relationships: Networking with other professionals in the industry can lead to valuable job opportunities and partnerships.

As the Middle East's rail infrastructure continues to expand, it is poised to revolutionize the region's transportation landscape. By embracing innovation and sustainable practices, the industry can drive economic growth, improve quality of life, and position the Middle East as a global leader, not just in rail transportation, but as a global hub for travel, both to local and international markets.