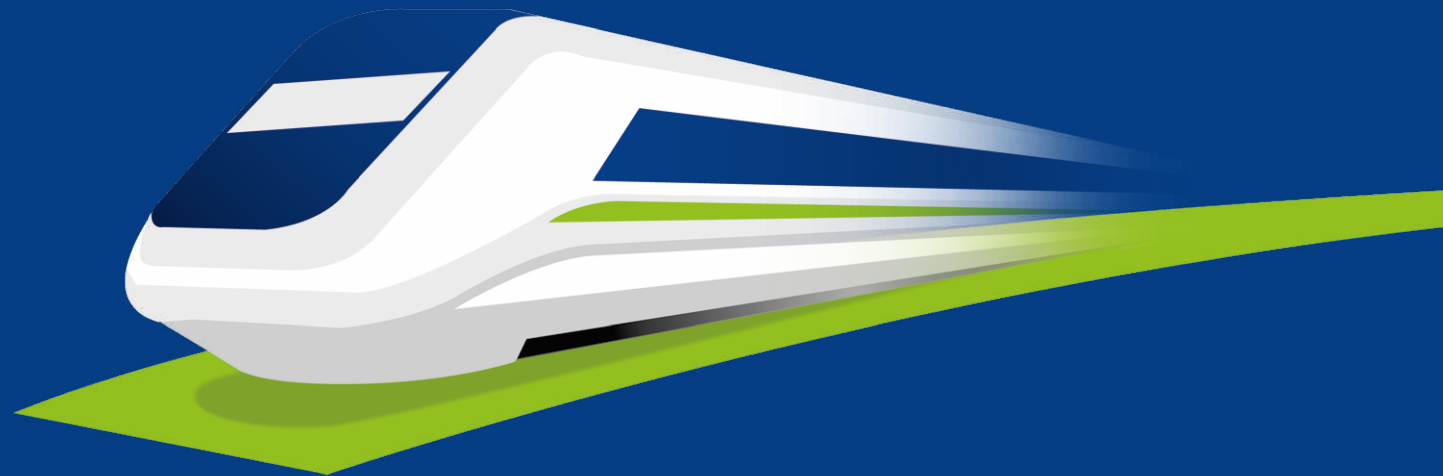


Middle East Rail Market Report

Discover the biggest opportunities, challenges and projects shaping the Middle East rail industry.



Revolutionizing transport in the Middle East

In the next decade we will see a complete reform of mobility within the Middle East. Currently in the GCC there are a handful of operational rail lines, however, within 10 years almost every major city will host a state of the art metro and each country a national rail network.

Expansion on this scale, in this time span has never been seen before; the GCC will face many challenges when trying to meet these ambitious targets. However, the rich opportunities for innovation and industry leading rail projects will no doubt attract attention from across the globe.

The following market report was put together using the 7th annual Middle East Rail market survey and a series of interviews with both regional and international rail experts. You will find detailed reviews of the projects underway in Saudi Arabia, Qatar, Oman, UAE and Iran, with a special focus on the relevance of the metro.

I hope you will find this report as interesting to read as it was to write and please continue to follow our Middle East Rail series, which will include reports focusing on freight rail and metro's.



Chloe Higman

Content Manager

T. +971 4 440 2560

Email: Chloe.Higman@terrapinn.com



Overview

The Middle East has over \$106 Billion invested in current railway projects and a virtually blank canvas to build the world's most advanced mechanised passenger and freight transport systems. Driven by heavily congested urban roads, increasing populations, a greater appreciation for rail as a sustainable means of transport and a wish to propel the economic development of region, the Middle East has created a rail industry which will continue to experience robust growth for many decades to come.

When envisioning the GCC rail networks we see a 5* system - a combination of Australia's freight capacity, Hong Kong's metro efficiency and Italy's enhanced passenger experience. However, the Middle East will need to overcome several obstacles before achieving this vision. Project finance and operational structures have yet to be defined, regional conditions such as sand and harsh summer conditions have always been a deterrent for public transport and last, but certainly not least, the regional reliance and preference for the car.

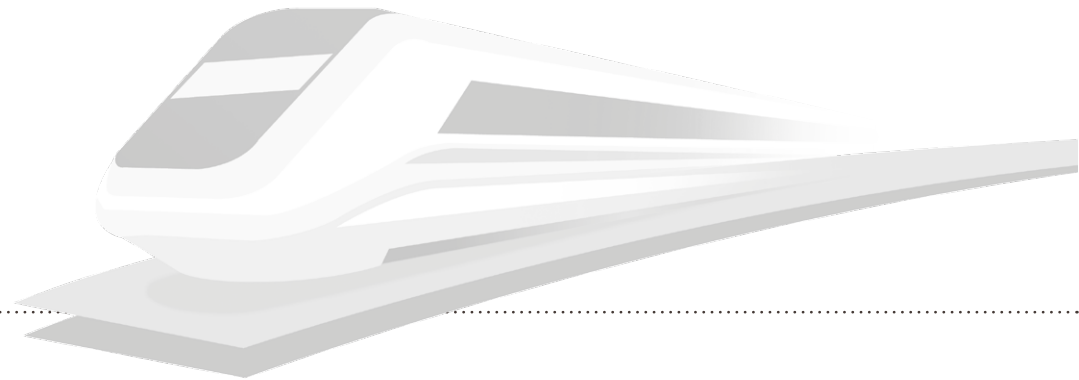
'Getting the industry structure right is imperative, because this industry is a long term investment. It is a completely new industry for the region, so requires a high level of strategy and political commitment'

Bassam Mansour, Expert- Trains & Railway Systems, **National Transport Authority**, UAE

This market report will take into account the responses of the 7th Annual Middle East Rail market survey and a series of interviews with regional rail experts, to bring you an analysis of the latest advances in the rail industry.

What will be covered in this market report?

1. **Runaway train** – It's moving exceptionally fast, everyone wants to join the ride and there are some worries this project might come off the rails. With a deadline of 2022, Qatar features the region's largest rail investment plan and strictest deadlines, making it one of the region's most important rail industries.
2. **Long distance rail, metro's and high-speed** – With more metro plans than any other country across the globe, the Middle East's first high speed rail track and the premier functioning freight line, Saudi Arabia is leading the pack when it comes to regional rail development.
3. **A metro for every city** – Almost every major city in the Middle East is currently running feasibility studies to build the optimum urban transport structure. The question on everyone's mind is what is driving this new metro craze? Will it reduce congestion in Middle East cities or simply act as a sign of technological success?
4. **Countries to keep an eye on** – All of the Middle Eastern countries have significant pipelines of proposed rail projects. According to our recent survey, after Qatar and Saudi, the three top rail markets for investment are UAE, Iran and Oman. Each offering unique opportunities and challenges over the next decade.



Qatar

With an astonishing \$40bn worth of projects planned and underway in Qatar, it may come as a shock that this is only a small part of Qatar's incredible infrastructure investment plans to re-invent Doha in time for the 2022 Fifa World Cup and the 2020 Olympic games. This comes hand in hand with the renewed appreciation for the impact an efficient and sustainable transport industry can have on increasing tourism and diversifying the economy.

The Qatar integrated railway project is a plan of immense size, including the following key projects:

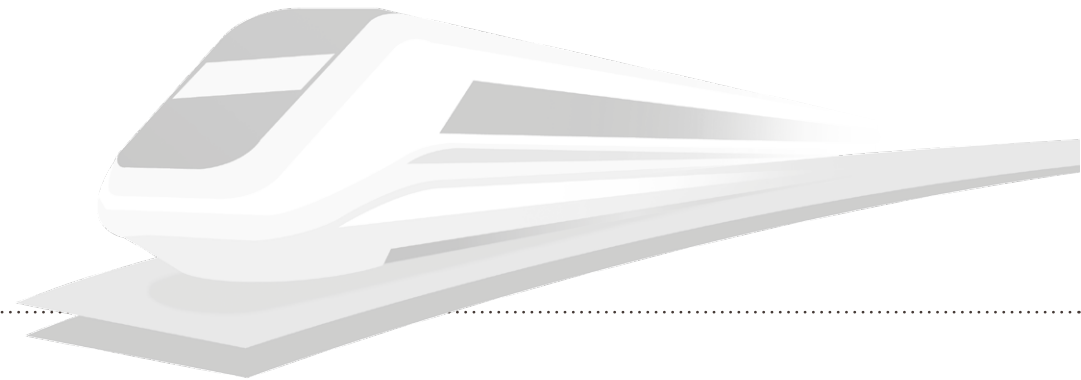
- **Qatar metro project** – A metro consisting of four metro lines will connect the Doha suburbs with city centre and key business districts to ease congestion and decrease journey times during large scale events. Having recently begun the bidding process by asking companies to signal their interest in the project, the first section of the metro will be completed in 2018.
- **High-Speed rail network** – The 'envisaged' HSR network between Doha International Airport, Doha city centre and the Kingdom of Bahrain. It will connect to Bahrain through the causeway and down into Saudi Arabia, and will also connect to Ras Laffan and eventually Al Shamal. Although the train could operate at speeds up to 350km/h the actual speed will be a lot less.
- **West Bay People Mover** – To reduce the dense congestion in the west bay area, this 10km track will eventually meet the blue metro line and provide a feeder track for the west bay area. Whether the WBPM will still be built underground is currently under debate.
- **Light Rail Transit (LRT)** – This light rail network will connect various districts within Lusail city. It will support the Qatar National 2030 vision by building a low energy consumption line. It is the most advanced network in Qatar so far, as most of the infrastructure is already built. The main network will have four key tram lines with both underground and over ground sections.

Qatar integrated railway project offers plenty of opportunities for innovative and industry changing networks. Much like the Palm in Dubai, if Qatar can finish the projects on schedule for the 2022 Fifa World Cup it will be one of the great urban industrial achievements of the 21st century. However, there are many challenges Qatar will need to overcome to create this state of the art network. For example, achieving a good return-on-investment when building a mass urban transport system for large scale events will be challenging. Also one of the key obstacles facing the project is the lack of expertise in the Middle East; with over \$1.6bn worth of projects planned, the region is in dire need of both international and regional trained experts.

Qatar will need to initiate pioneering revenue management structures to ensure a sustainable public transport system in the aftermath of the 2020/2022 events. The country also needs to appreciate the importance of developing regional talent to assist in the completion and operations of the network.

'A key challenge for the region is the transfer of knowledge and technology to the region and having the right human resources to serve the railway industry'

Bassam Mansour, Expert - Trains & Railway Systems, **National Transport Authority, UAE**



Saudi Arabia

Saudi Arabia is the fastest growing infrastructure market in the Middle East and this is truly reflected in its extensive rail plans. After waiting almost 40 years to add to its rail industry, projects in Saudi Arabia have suddenly been propelled into action. With recent plans released for metro systems in Makkah, Jeddah and Riyadh, alongside the large scale national lines coming into fruition, Saudi Arabia represents the most promising rail market in the region.

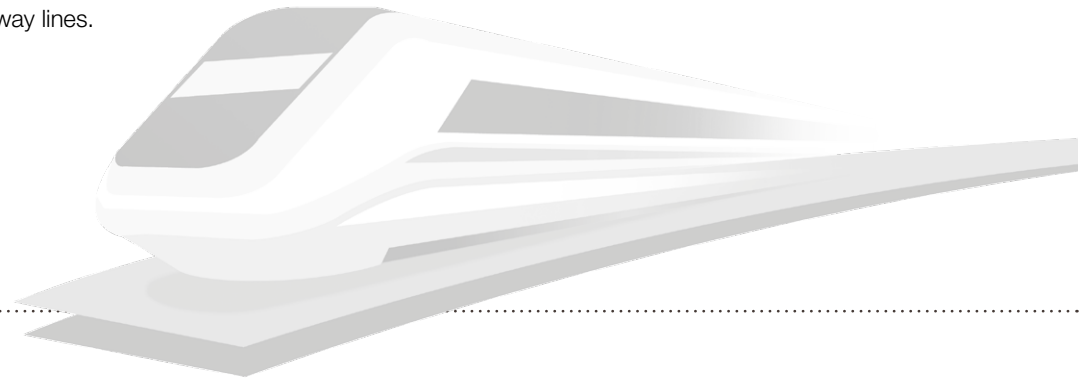
- **Riyadh** - One of the most anticipated metro systems in the region has recently prequalified four international consortia for the main contract. Out of 38 top international bids, the four consortia leaders chosen were Vinci Construction, Bombardier, FCC Construction and Strabag. Each group now has to deliver financial and technical bids by the end of January 2013. The plans suggest there will be six lines reaching a length of 175km.
- **North south** – The GCC's first fully active freight line, which also promises passenger capabilities within three years, has been servicing the regional commodities industry for over a year now. According to recent statements, in the next 24 months we should see the completion of the station contracts.
- **Haramain High-Speed rail** - This will be the regions first high-speed rail line with operations beginning in 2014. Predicted to carry over 15,000 people during Haj and Umrah, this will increase the efficiency and decrease traffic during the most important occasions of the year. This project was originally due to be a PPP scheme, however, due to the problems encountered on the Landbridge project it was restructured into a private scheme.
- **Landbridge** – After an entire decade of delays, ministers have given approval for this troublesome project. The vision for the Landbridge was to cut days off the freight trip from the gulf to the red sea and reduce the journey to only 18 hours. Unfortunately, due to trouble with the BOT PPP scheme, the project tenders were continuously delayed. Now that the government has taken the funding lead and the first bids have been returned this year, it seems like the project is well and truly back on track.

As you can see by the large scale projects listed above and also in the metro section, Saudi Arabia still represents one of most important markets in the region. Yet, without a doubt it has also seen the most setbacks of any regional rail market. The main issue that has caused Saudi projects to be delayed time and time again is the complex procurement and organisation structures that were originally selected for key projects. **Choosing between private and public funding was the second biggest challenge facing the Middle East industry according to our 2012 market report.** Originally attempting to implement a PPP structure which is generally considered to be the optimum choice for rail projects, the majority of projects have now chosen to opt for private funding to allow them to move forward.

'Using a PPP agreement will automatically ensure project quality, as the people constructing the railway will also be in charge of long term maintenance. This minimizes government monitoring and involvement and also reduces costs and maintenance issues.'

Ankala Saibaba, Chief Engineer, Indian Railways

The largest challenge listed in our recent survey was creating regional standards of safety and security, which for Saudi Arabia is absolutely crucial. After the recent crash on the 60 year old Dammam-Riyadh line, Saudi Railway Organisation has been receiving criticism for poor maintenance and unsafe lines. In a budding rail industry attempting to convert citizens from road to rail, it is essential to have safe and secure railway lines.



The Rise of the Middle East Metro

'A metro for every city' is a phrase currently used in the Middle East. Within the last few years we have seen an increase in metro feasibility studies every year, but what is driving this sudden interest in mechanised urban transport? There are many driving factors boosting the metro industry in the Middle East, the first being the increase in mass urban development in the last 20 years. A decade ago, Dubai was a fraction of the size it is today with a population of less than 4 million people - today it has over 8 million people transiting across the narrow city.

The metro has become a status symbol. Just as the having the largest mall was the craze for Middle Eastern cities in the first few years of the new millennium, the metro has become a way to be viewed as a true metropolis in this decade. This is complemented by the drivers discussed earlier in the report such as the need to reduce traffic within cities and the understanding that rail transport can foster and sustain economic development.

'Railway industry is here to help the transport industry achieve the modal shift from road to rail. It needs to be a part of the congestion solution and improve environmental conditions'

Bassam Mansour, Expert- Trains & Railway Systems, **National Transport Authority, UAE**

Regional metros in the making

- **Jeddah** - The new metro plans said to resemble Dubai's futuristic design will be inviting interested parties to bid in the near future. The system will include a 108km track, over 39 stations and an integrated bus route using 816 buses. Without a doubt the biggest challenge for this metro lies not in the construction phase but in getting the 96% of the population who currently use cars to join the public transport train.
- **Makkah** - In early August the Saudi Government approved the Makkah Mass Transit System, including the budget of \$16.5 billion to overhaul the entire public transport system. The Makkah Mass Transit system will be the longest of the 3 metros, with a planned route of 182km.

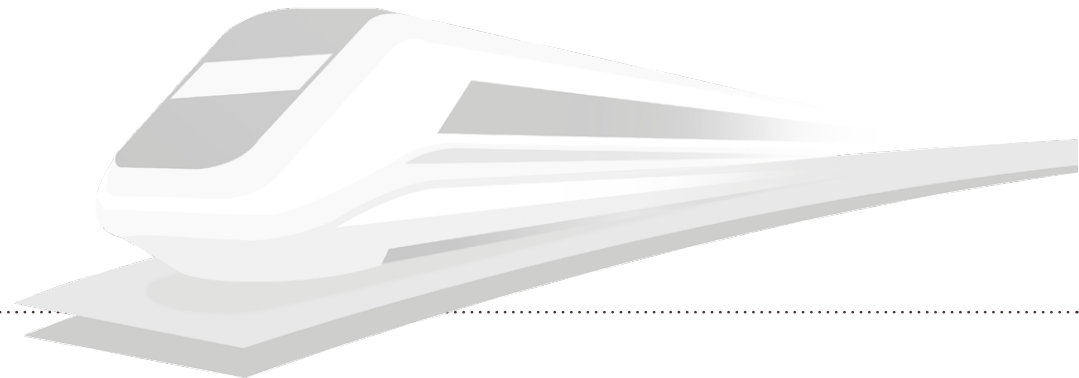
- **Kuwait** – One of the most exciting metro projects, Kuwait metro has, unfortunately been delayed by governmental shifts and feasibility holdups. However it has recently begun the second phase of the original tender processes and we should hopefully see the submission offer phase completed by the start of 2013. The metro will consist of 69 stations on 3 lines and is due to be operational by 2020.

Our survey highlighted the immense investment intended for metro systems in the Middle East; by 2030 almost every major city in the GCC will have a metro and this will fit into the dynamic evolution of the Middle Eastern city. The fundamentals of the regional metro industry are clear: the metro should act as a catalyst for economic growth, improve quality of life in cities and reduce the environmental footprint of each city.

'The main driver for the new system is to allow the city to continue to grow by providing relief for other modes of transport and providing new journey opportunities.'

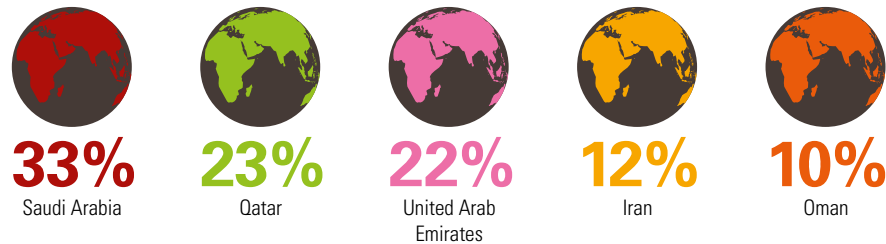
Mike Stubbs, Director Overground & Crossrail Operations, **Transport for London**

The governments will need to overcome a lot of challenges, many of which we have already discussed but the paramount challenge for the Middle East metro is getting people to step out of their cars and onto public transport. There are many ways in which the Middle East can do this, including elasticity (the only place in the world that could run a free metro), enhanced passenger experience, door to door urban planning and much more.



Countries to keep an eye on

Where are the top 5 markets for railway development?



The results of our recent survey indicated that the five top markets for railway development in the Middle East were Saudi Arabia, Qatar, Oman, Iran and the UAE. Below you will find a summary of the key projects in Oman, Iran and the UAE to date, each country offers unique opportunities that will be progressing within the next 5 years.

UAE

The most developed GCC rail industry to date, including Dubai's extensive public transport system and the regional rail network currently under construction. This is all complemented by Abu Dhabi's dense urban transport plans, which if completed should be one of the most efficient urban systems in the region.

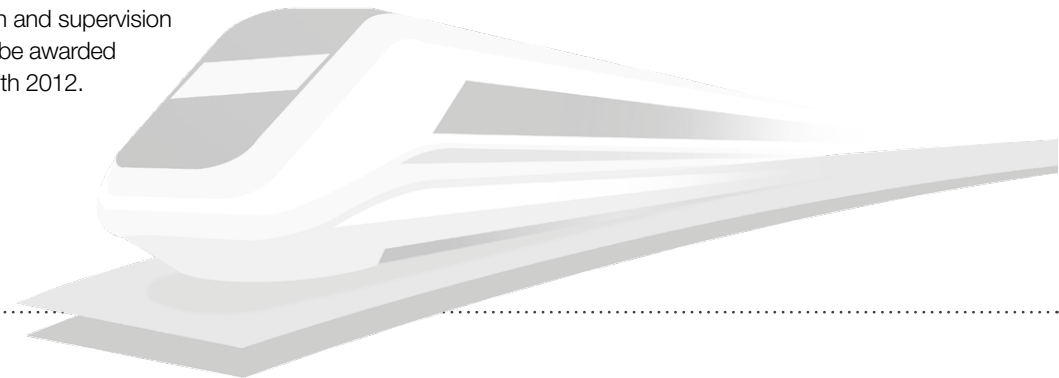
The Etihad rail network is currently in the first phase and has signed up a number of key clients to use its freight services to date. It is still set to be completed in 2015-2016. The regions first tram, Al Sufouh in Dubai has encountered many problems, mainly related to project financing, however the tram is now on track and should be completed by 2014. The colossal Abu Dhabi surface transport master plan is progressing slowly; however, the government has begun design on the 131km metro line planned for completion in 2015-2016.

Iran

In the unique position of having vast experience with building and operating different types of railway systems, Iran's recent plans to revitalize the rail industry makes it an attractive market for rail investment. It is estimated that Iran currently has over 11,000km of railway lines under construction. The last line to be completed is the Iran – Heart line, which is due to become operational in the last quarter of 2012.

Oman

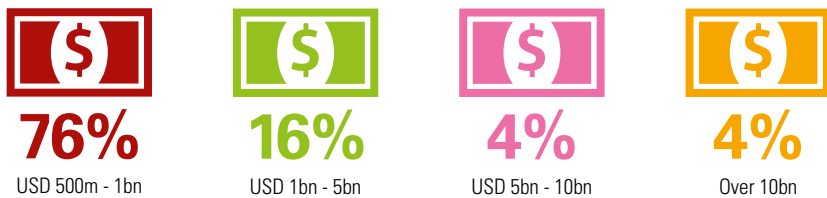
In 2008 Oman launched its first feasibility study to examine the potential benefit for the country from freight, long distance passenger and urban transport. The details are still relatively sparse; however the recent tenders for the national line indicated the plans will include an integrated multimodal transport network that will encompass ports, airports and highways. The first rail tender for the design and supervision package will be awarded on October 5th 2012.



Conclusion

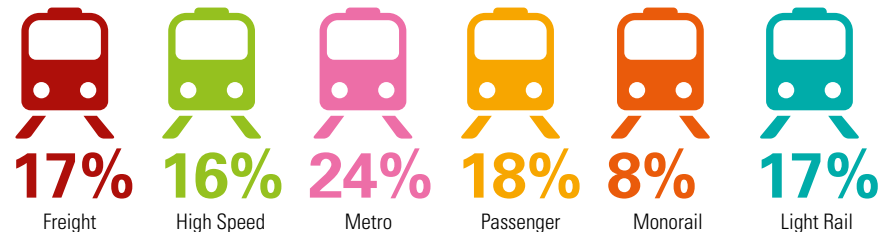
In 2011 we saw a slowdown in the rail industry which prompted many to question whether the drivers were strong enough to achieve the GCC rail vision. However our 2012 survey and market research indicates that in fact the Middle Eastern rail market is stronger than ever. As you can see by the responses below, the investment potential for rail projects will be realized within the next 18 months and the majority of the projects discussed will be moving full steam ahead by 2014.

How much will be invested in railway development in the next 18 months?



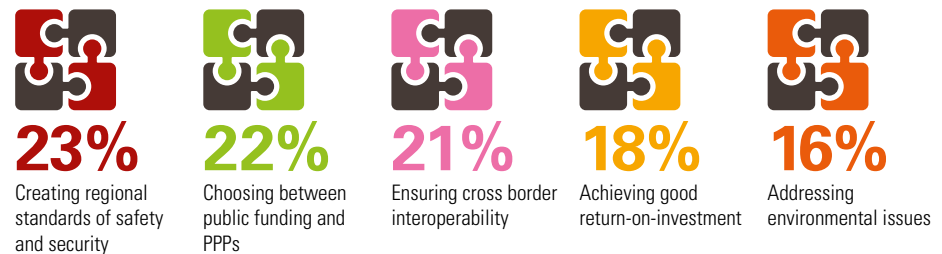
The focus will continue to be on metro, LD passenger and freight lines, with the majority of progress made taking place in Saudi Arabia or Qatar. These ambitious projects will set the bar for the Middle East rail industry and ensure having a state of the art public transport system becomes the status symbol of an advanced economy.

Which type of railway networks are being invested in?

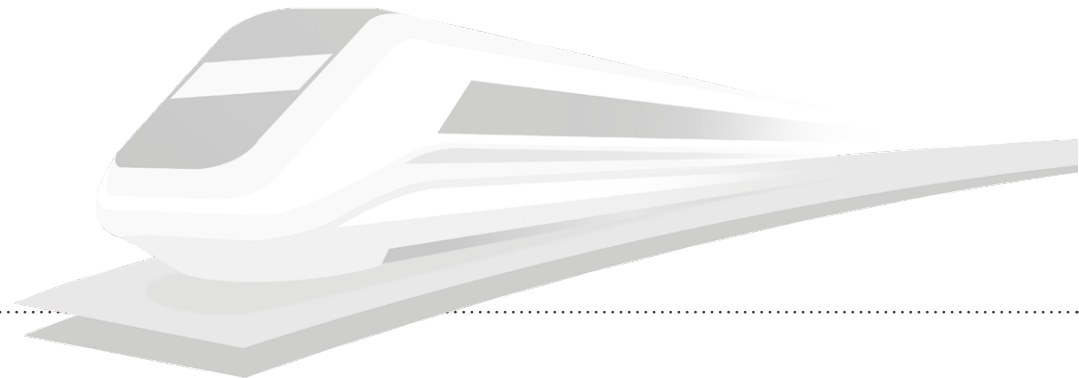


The Middle East Rail industry has laid strong foundations to ensure the success of projects over the next decade. Yet, there are key challenges that will undoubtedly cause delays; regional standards, procurement processes, revenue management, unique regional conditions, lack of talent and many more.

What are the top 5 challenges facing the Middle East railway industry?



In the next decade we will watch the Arab railway vision shape and revolutionise transport for millenniums to come. The full network will connect the entire Middle East and many of the North African countries, making these projects only a small part of true Arabian railway masterplan. This report was designed to share the 7th annual Middle East rail projects survey and regional research carried out by Terrapinn Middle East.



We'd love to meet you too...

We're running the Middle East's largest rail show in February 2013 and would love to see you there.

Speakers confirmed include



Saad Ahmed Al Huhannadi
CEO
Qatar Railways Company



H.E. Abdulla Al Katheeri
Executive Director
Land Transport
National Transport Authority



Gassim Al Gassim
Deputy CEO
Saudi Railway Company

Regional government, rail operators, transport authorities and world-class solution providers will be talking about:

- How to deliver projects on time
- How to integrate wireless communications
- How to procure rolling-stock
- How to address environmental issues
- How to increase ridership
- How to deliver projects in budget
- How to incorporate signalling
- How to reduce operating costs
- How to develop urban master plans
- How to create a clear organisational structure

As rail projects transform the transportation infrastructure of the region, the 7th annual Middle East Rail is ideally positioned for buyers, sellers and rail experts to learn and do business.

Find out more at www.terrapinn.com/merail

