



China express

Amid a global railway revival, Beijing has ambitious plans to connect Asia with Europe, reports Michael Binyon

*The Bullet trains
from Beijing*

RAILWAYS



Centuries ago the Orient supplied Europe with the wondrous luxuries it craved – jewels, silk, jade, spices – sending its produce along the dusty caravan route known as the Silk Road. Today, China has become the world’s workshop and Europe has an insatiable appetite for its exports. Most now arrive on giant container ships. But as ports become clogged and delivery times critical, China is once again looking to the old land routes across Asia. But the new Silk Road China is planning will be made of steel.

At both ends of the route, rail systems are being developed and modernized apace. In Europe, new high-speed corridors are spreading across the continent, with exporters taking advantage of the rebuilt infrastructure across the old Iron Curtain and Brussels promoting Europe’s railway integration.

In China, billions of pounds are being

spent each year on a new network of 42 high-speed lines criss-crossing the country and opening up distant provinces to the wealth of its industrial heartlands. The problem, however, lies in the vast distance between East and West. Where are Asia’s missing links? What is the best direct rail route from Beijing to London? And who will pay for this new Iron Silk Road?

A new Trans-Asia integrated freight railway has been on the drawing board for 40 years, the brainchild of the United Nations Economic and Social Commission for Asia. The commission has identified four possible routes: a northern corridor, linking Europe and the Pacific via Germany, Poland, Russia, Kazakhstan, Mongolia and China; a southern corridor from Europe to southeast Asia, via Turkey, Iran, Pakistan, India, Burma and Thailand; a southeast Asian network, consisting mainly of a link between Singapore and

‘The Trans-Siberian is capable of carrying 100m tonnes of freight a year but is almost saturated’

OVERLEAF: PETER PARKS/AFP/GETTY IMAGES



EAST MEETS WEST

The map shows the existing Trans-Asia route, the Trans-Siberian railway, from Vladivostok or Beijing, through Russia and Belarus to western Europe. For Chinese exports, the most likely route is through Kazakhstan and Turkmenistan and then by ship across the Caspian Sea through Azerbaijan, Georgia, Turkey, and then

Marmaray Tunnel under the Bosphorus, to Europe. A more direct route, avoiding the Caspian, would pass through Iran. China is also considering a route through Afghanistan, via Herat and into Iran and Turkey, because of its growing mining interests in the region. Afghanistan has never had a railway system.

Key

- Built
 - Being built or planned
 - Built but now shut
 - Ferry crossing (Caspian Sea and Lake Van)
 - Choke points
- Thickness of line denotes the different rail gauges
- Indian broad gauge
 - Russian broad gauge
 - Standard gauge

Kunming; and a north-south corridor from Helsinki through Russia to the Caspian, then splitting into three routes – to western Iran via Azerbaijan, across the Caspian Sea to Iran, and an eastern route via Turkmenistan and Uzbekistan. All three would converge on Tehran and go on south to the Iranian port of Bandar Abbas.

Of the four identified by the commission, the northern route already exists. It is based largely on the Trans-Siberian railway, the world's longest route, begun in a blaze of tsarist fervour in 1891 and completed in 1916. Electrified and double-tracked, it runs 9,250 kilometres from Moscow to Vladivostok, with a southern single-track branch through Mongolia to Beijing. A strategic line planned to enforce Russian control of the Far East, the Trans-Siberian is now being promoted by Moscow as an international East-West route. In the final days of Communism,

it suffered serious degradation, thefts, late trains and uncertain scheduling. But it has recently been upgraded, cut its charges and now carries vast amounts of international freight, especially from Japan to Europe.

The Trans-Siberian is capable of transporting 100 million tonnes of freight a year, but is almost saturated. An alternative is needed. The North-South routes, giving the former Soviet states of Central Asia an outlet to the sea without being dependent on the Russian network, are of little use in moving freight from China to the West.

It is the central corridor, via Kazakhstan and Turkey, which is the most promising. This route, roughly following the old Silk Road, was long hampered by two missing links: between former Soviet Central Asia and Iran, and across the Bosphorus from Asiatic Turkey into Europe. But the past decade has seen rapid progress. Turkey has long had a well-developed network of rail-

ways of the same standard gauge as western Europe, though they have been run down in recent years. But now, with a booming economy and ambitions to play a bigger role in the Middle East and Central Asia, Turkey is tackling two natural barriers: Lake Van and the Bosphorus.

A new rail ferry has been opened across Lake Van, allowing trains to continue farther east and into Iran. The ferry, however, is cumbersome and already there are plans to build a new line that skirts the lake. The Bosphorus is a bigger obstacle. It is fast-flowing and immensely deep. Two road bridges are already saturated, and a third, now planned, has no provision for rail. Instead, Turkey is building a 13.3km rail tunnel. Costing £1.9 billion, the Marmaray Tunnel is due to open this year, marking the 90th anniversary of the Turkish Republic. It will carry freight and high-speed trains as well as heavy



CHINA/OPRESS/GETTY IMAGES

A CRH380A Bullet train speeds through the mist on the high-speed line from Beijing to Guangzhou which opened on Boxing Day

commuter traffic into Istanbul from the Asian side. The tunnel's strategic importance is immense: it will be the first and only way of reaching Europe from Asia without passing through Russia.

China has already begun its own push west. It has a crossing point over the Alataw Pass in northwest Xinjiang into Dostyk, in Kazakhstan, and in 2009 completed a second link across the border into Khorgos. Kazakhstan, stable and wealthy, was once part of the Soviet rail network and has a Russian broad gauge. It announced in 2004 that it was looking for investors to build a 3,083km standard gauge line from the Chinese border across Kazakhstan to the Caspian Sea. Nothing has come of this.

There is already a line running from Almaty, in Kazakhstan, through Tashkent, in Uzbekistan, to Tejen, in Turkmenistan, and ending at Turkmenbashi, a port on the

Caspian Sea. In 1996, a branch was built south across the border into Iran. This was the missing link. In theory, a train from China can now enter Iran and cross south to the Gulf port of Bandar Abbas. Or it can turn west through the Caucasus or across to the Turkish border.

Three big obstacles are still holding up the completion of a Trans-Asian network, however: the different rail gauges; the need for agreed transit permits; and the unstable politics in central Asia and Iran.

The gauge question was once formidable. The entire Soviet system uses a 1,520mm gauge. Turkey, Iran, China and Europe use standard gauge – 1,435 mm. Railways in India and Pakistan use Indian broad gauge – 1,676 mm. And most of South-East Asia is metre gauge.

All passenger trains running from Russia to Berlin still have to be lifted up and have all the wheels changed. But for freight, al-



CLAUDIA WIENS/CORBIS

The Marmaray Tunnel opens this year

most all now containerized, it would be cheaper when crossing Asia simply to lift the containers off one broad-gauge train on to flatcars of a standard-gauge train.

Any East-West route would encounter a number of such changes: at the borders of China and the old Soviet system, and again at their borders with Iran and Turkey. There must also be agreement on standardized voltage, couplings, brakes, loading gauges and signalling systems.

More difficult to coordinate is the bureaucracy. A train travelling through six or seven railway administrations needs agreed paths, customs clearances and permits. Who would coordinate the flow of international freight trains is unclear, and the chances of delay and opportunities to demand bribes are immense.

Perhaps the most difficult issue, though, is politics. Iran is a key link in any route to Turkey but is far from stable. It has poor relations not only with the United States and western Europe, but, increasingly, with Turkey which strongly opposes the Iranian role in the Syrian civil war. Washington is unlikely to approve any major international investment in the Iranian rail system if this involves Western help and technology. Ankara, too, may find it increasingly difficult to negotiate with Tehran, even on technical matters.

Central Asia, too, is hardly welcoming to outside investment. Its rail systems are still run in close cooperation with Moscow, and the Russians are hostile to anything – such as a switch of gauge to a European standard – that would reduce Russian influence in its former republics. Corruption in these countries is rife, and Uzbekistan is currently blocking rail traffic to and from Tajikistan. There have been mysterious explosions and incidents that appear intended to sabotage plans for through routes.

One alternative is to build a line through western Afghanistan. A proposed 392km route would go from Kashgar in China to Iran via Herat, passing through Kyrgyzstan and Tajikistan. China has big copper mining interests in Afghanistan and is likely to underwrite most of the finance, and Iran announced earlier this year its willingness to join such a scheme.

For more than a century, plans have been around to lay rails through Afghanistan, but successive Afghan governments were suspicious of anything that could have helped the Russian or British empires to gain easier access to their country.

KEEPING THE DREAM ON TRACK

At 9am on Boxing Day, a silver and white CRH380A Bullet train rolled out of Beijing on its maiden journey. It was a proud moment for China, the inauguration of the world's longest high-speed rail line, running from the north to south of China, from Beijing to Guangzhou.

It used to take a full day and night to travel the 2,300km journey, but the new train did it in eight hours.

For the Ministry of Railways, the opening of the new line was a badly needed fillip after two years of safety issues, corruption investigations and financing worries.

For eight heady years from 2003 to 2011, China rolled out the world's most impressive high-speed rail project: 12,000km of new track and investment of more than \$240 billion. It was one field in which China could legitimately claim to be leading the world.

But it began to unravel in 2011. First, Liu Zhijun, the Minister of Railways, was arrested on corruption charges. A few months later, in July, a signalling failure caused two Bullet trains to crash near the southern city of Wenzhou, killing 42 people and injuring 192 more. Then holes began to appear in the finances.

Now, however, the grand plan appears to be back on track. 'You need to realize we are still working to a target,' said Sheng Guangzu, the new Railways Minister.

Five new lines were opened in the second half of last year and another 360 billion yuan (\$58 billion) is earmarked for high-speed rail this year. The plan is to have four lines running north to south and four east to west.

The expansion of the high-speed network has an added bonus: the old tracks can increasingly be used for freight. Several foreign companies, including HP, Acer, BMW and Volkswagen, are now using rail to trade with Europe overland.

For several years, freight has moved along the Trans-Siberian railway but last November another route opened from Chongqing, through the far west region of Xinjiang, over the Alataw Pass into Kazakhstan. From there, trains run



Workers clearing wreckage after a train derailment near Wenzhou

to Russia, Belarus and Poland before reaching Germany.

Already, some 6,000 containers a year are travelling this route, taking between 16 and 20 days to covering 11,000km. The new line costs twice as much as sea freight but takes half the time.

'These two lines are becoming an important part of our business,' said a spokesman for DB Schenker, the German logistics company. 'We are certainly hoping for a continuing increase.'

While laptops and gadgets are going to Europe from Chongqing, coming the other way are car parts and petrochemicals.

China is also stretching rail lines into its southern neighbours under a Trans-Asian rail agreement signed in 2006.

One 400km high-speed project, planned for Laos, will cost \$7 billion, almost the equivalent of its gross domestic product. Laos will finance the link using Chinese loans some of which it can repay with its natural resources.

China, meanwhile, is keen to eventually link its network with Bangkok and then to Burma. Not only will this help expand its trade to the south, but it would provide a way for freight to bypass the congested Malacca Straits and reach the Indian Ocean.

Malcolm Moore is the Beijing Correspondent of The Daily Telegraph

STR/AFP/GETTY IMAGES

RAILWAYS

Last year, the first permanent railway was opened from the Uzbek border to Mazar-i Sharif, a short 75km stretch. Costing \$165 million, this had the firm approval of the Americans, as it will help when Nato moves its heavy weaponry out of Afghanistan next year. It is also of help in bringing vital imports into Afghanistan. The geography of this mountainous country is one obvious barrier, but experts say that, as long as the Hindu Kush range can be skirted, the engineering challenges are surmountable – at a cost. The big problem is confidence in the country's stability.

Similarly, plans for a cross-Caucasus line via Georgia into eastern Turkey are bedevilled by the enmity between Armenia and Azerbaijan and by the long closure of Armenia's land border with Turkey.

All these schemes depend on vast investments, and most countries are looking to China for finance. The Chinese have been lavish in their promises to help and whenever a minister visits the region, he tends to announce a new Chinese-sponsored rail project. The record is less impressive. China, for example, has made much of a so-called New Eurasian Land Bridge from Lianyungang in Jiangsu province, through Kazakhstan, to Rotterdam – a distance of 11,870km. But the route is still unclear, and so far only a few special trains have been sent on circuitous journeys to test the options.

Meanwhile, other regions are proposing transnational systems. Saudi Arabia is well advanced with a north-south line up to the border with Jordan, with the eventual aim of linking up to Turkey via Syria. At the moment politics and war make that extension impossible. The kingdom has, nevertheless, begun another cross-country scheme from the Gulf to the Red Sea, which will include a high-speed stretch to Mecca and Medina. Altogether, the Saudis plan to spend \$45 billion (£28 billion) on 7,000km of new railway. But a new Middle East network would still find difficulty linking in with any new Iron Silk Road.

Perhaps, in the end, like the old caravan routes, there will be a multiplicity of options, all broadly connecting the East and the West. Until the politics and the economies of the region can be better aligned, however, piecemeal progress is all that can be expected.

Michael Binyon is a former diplomatic editor of The Times