

August 2023 | VOLUME 1

InfraInsights


 Blueprints for Tomorrow

L&T bags 'mega' order from bullet train project

The National High-Speed Rail Corporation Limited (NHSRCL) has awarded L&T Construction a 'mega' contract to build the 135.45 km stretch MAHSR - C3 package as part of the prestigious Mumbai Ahmedabad High-Speed Rail Project, the company said in a stock exchange filing.

The approximately 508 km Mumbai-Ahmedabad High-Speed Rail project, also called the MAHSR Bullet Train project, will cover 155.76 km in the State of Maharashtra, 4.3 km in the Union Territory of Dadra & Nagar Haveli and 348.04 km in the State of Gujarat with 12 stations along the route. Upon completion, the High-Speed Rail will operate at a speed of 320 Kmph, covering the entire distance in approximately 2 hours with limited stops and in 3 hours with all stops.



Lavasa sold!!!

The NCLT order approving the resolution plan submitted by Darwin came after the lenders voted in favour of the resolution plan. It envisages a payout of Rs 1,814 crore over eight years; it includes Rs 929 crore to lenders and spending Rs 438 crore on delivering fully constructed houses to home buyers. Their admitted claims total Rs 409 crore. The total claim amount admitted by the company, including from lenders and operational creditors, is Rs 6,642 crore. The resolution plan envisages the delivery of fully constructed properties to homebuyers within a period of five years of receiving environmental clearance on an actual cost basis.

InfraShorts

In what would increase infrastructure financing, the **Reserve Bank of India** has **relaxed regulations of Infrastructure Debt Funds (IDF)** to enable them better access to funds.

India's Ambuja Cements has **acquired** a 56.74% stake in smaller rival **Sanghi Industries** for INR50bn (\$604.4m), in its first major acquisition this year.



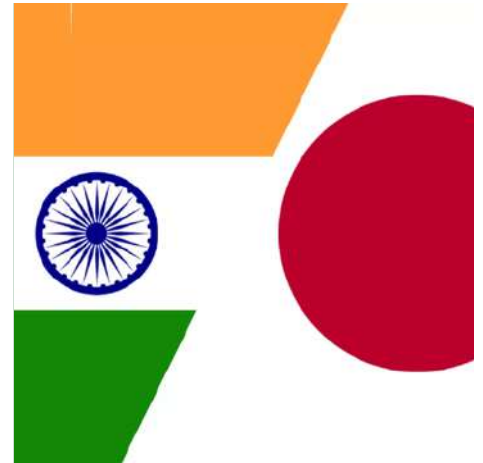
EU invests €6.2 billion in sustainable, safe and efficient transport infrastructure

The European Commission has selected 107 transport infrastructure projects to receive over €6 billion in EU grants from the Connecting Europe Facility (CEF), the EU's instrument for strategic investment in transport infrastructure.



Here's how each U.S. state is benefiting from Biden's \$1.2T infrastructure law

States with higher populations and larger areas such as California (\$20 billion), Texas (\$15 billion), and New York (\$10.9 billion) received the highest amounts of total funding compared to New Hampshire, which received the least (\$855 million).



Japan commits Rs 7,084 crore for three infra projects in India

Japan would fund Patna Metro Rail Construction Project of Rs 5,509 crore, Project for Forest and Biodiversity Conservation for Climate Change Response in West Bengal of Rs 520 crore and Rajasthan Water Sector Livelihood Improvement Project of Rs. 1055.33 crore.

China rules the \$94-trillion global infrastructure market. India wants a share of the pie

The world would need \$94 trillion between 2017 and 2040 to create infrastructure that can improve lives, according to Oxford Economics. PwC estimates the requirement at \$3.9 trillion annually. While the numbers vary depending on the research focus, what is clear is that infrastructure development is big business.

Experts say Indian companies have been making their presence felt in this segment. In May 2022, Minister of Commerce and Industry Piyush Goyal asked project exporters to diversify and foray into markets of the developed world and urged them to not restrict themselves to work in government or the developed world. To put this in context, the African Development Bank says the African continent needs \$170



billion per year by 2025 to overhaul its infrastructure, with two-thirds of that needed entirely for new infrastructure. The potential is not just in Africa. The global infrastructure financing gap is estimated to be around \$15 trillion by

2040, according to the Global Infrastructure Hub, a G20 think tank. It observed that Asia, in particular, has the largest infrastructure needs, requiring nearly \$51 trillion of investments during 2016-2040 and accounted for more than half of global infrastructure investment needs.

Currently, 5-7% of Tata Projects' revenue comes from overseas projects; it wants to grow this to 15% in three years. The company's major presence is in the transmission & distribution (T&D) segment outside India, with a typical project duration of 18-36 months. Other project exporters echo similar views, mentioning how the potential of such exports from India needs to be tapped more effectively.



Huawei proposes to enable international new infrastructure with digital technologies

Ma Yue, Vice President of Huawei and CEO of Huawei's Smart Road, Waterway, and Port BU at an event expressed his views that the interconnection between highways, urban roads, ports, customs, and other infrastructure not only lays a foundation for the movement of people, vehicles, and goods, but also provides an important channel for smooth operations of both industry and supply chains. Digital transformation starts with and relies on infrastructure digitalization. The wide application of digital technologies like 5G networks, cloud computing, big data, and AI will drive the upgrades of traditional infrastructure and industry.

Guwahati Smart City Struggles: NITI Aayog reveals underperformance

The report prominently showcases that there are 32 smart cities that have exceeded their initial project completion targets, some even surpassing them by fourfold. Even in the face of adversities posed by the COVID-19 pandemic, coupled with political and regional considerations, as well as local land and labour challenges, an astonishing sum of Rs 390.85 billion worth of projects were successfully accomplished nationwide within the past year. The financial aspect of the Smart Cities Mission also demonstrates positive indicators. Funding allocated by the Central Government experienced an increment



from Rs 283.15 billion to Rs 348.87 billion by the culmination of 2022, underscoring renewed

dedication to accelerating the growth of smart cities. Concerning Guwahati, the city acquired a financial grant of Rs 3.96 billion from the Ministry of Urban Development, which remained untapped until the year 2022. The total financial outline for Guwahati's five-year Smart City blueprint was set at Rs 22.56 billion, with the anticipation that the Central Government and the state administration would each contribute Rs 5 billion. The remaining portion was anticipated to be generated via various avenues by urban local bodies, encompassing user charges, beneficiary fees, land monetisation, debts, and loans.

Modernizing Infra: India to be a developed nation by 2047



Union Minister R K Singh has outlined India's path to achieving developed nation status by 2047, citing swift infrastructure modernization as the driving force. He highlighted the remarkable surge in expressway length from 353 km in 2014 to 3,106 km today, attributing this progress to Prime Minister Narendra Modi's leadership. The minister underscored a nearly fivefold increase in infrastructure capital expenditure since 2014 and spotlighted the impressive growth of the Vande Bharat Express service as a testament to India's modernization endeavors. Currently, 25 Vande Bharat train sets operate on electrified tracks nationwide, with plans to introduce 150 more services this year and over 800 by 2030. Notably, capital expenditure will rise from Rs 5.5 lakh crore in 2021-22 to Rs 10 lakh crore in 2023-24. The country's peak power demand has surged to 223 GW, including 50 GW conventional power capacity under construction. In renewable energy, India aims to achieve 50 GW annual development, targeting 500 GW by 2030.

India's impressive 33% emission reduction

According to officials familiar with the latest assessment submitted to the United Nations, India's emissions rate dropped by an impressive 33% over a span of 14 years. This substantial reduction was fueled by the surge in renewable energy production and a notable expansion of forest cover. India's annual reduction rate in emissions rose from 1.5% to 3% between 2014 and 2019, largely attributed to governmental efforts in promoting renewable energy sources. This advancement could also alleviate international pressure on India to curb coal usage.

Missing link to bridge the major two cities closer

Despite monsoon challenges, Maharashtra State Road Development Corporation (MSRDC) engineers aim to finish the 'missing link' project on Mumbai-Pune expressway by December 2023 or early 2024. The 13-km project includes a crucial viaduct, currently at 34% completion, with load testing scheduled. Shortening the Khopoli-Sinhgad Institute route by 5.7 km, the link saves 20-30 mins and avoids ghat sections. The cable-stayed bridge must endure strong winds and cyclones. MSRDC plans substantial progress by September, aiming for project completion by early 2024 if needed.

Bangalore prepares to unveil its largest Metro station

Bangalore is gearing up to introduce its largest Metro station, the Jayadeva Junction Interchange, by the end of 2023. Part of the Yellow Line (RV Road to Bommasandra) and Pink Line (Kalena Agrahara to Nagawara), the station can handle 25,000 peak-hour passengers. Despite slight delays, the Bangalore Metro Rail Corporation has completed 90% of construction. The Yellow Line is expected to open in 2023 and the Pink Line is anticipated by March 2025. It is expected to promote and enhance city connectivity. It is set to redefine city's commute and usher in a new era of modern, efficient transportation.



➤ **Antaranga Roy,**
MBA IDM, Batch 2023-25,
SCMHRD

Porsche's Revolutionary Synthetic Fuel: Paving the Way to a Green Future of High-Performance Driving

Porsche pioneers a groundbreaking solution in the automotive world by using synthetic fuels (eFuels) that combine sustainability with high-performance driving. These advanced fuels offer a viable alternative to traditional fossil fuels, allowing Porsche to maintain iconic sports cars while reducing their carbon footprint.

eFuels, produced from renewable sources like water and carbon dioxide, can make combustion-powered vehicles as eco-friendly as electric cars throughout their production and use cycle, according to Frank Walliser, Vice President of Porsche Motorsport and GT Cars.

The most compelling advantage of eFuels is their potential to achieve an 85% reduction in carbon dioxide emissions compared to traditional fuels, aligning with Porsche's commitment to sustainability and positive change in the automotive industry.

Porsche invested \$100 million in eFuel research, supporting HIF Global, a synthetic fuels research company, which successfully built a prototype factory, Haru Oni, producing chemically identical gasoline from thin air. The 93-octane eFuel behaves like regular gasoline, compatible with existing infrastructure and vehicles, and easily storable.

Promising early tests spurred Porsche to substantially increase eFuel production, aiming for 130,000 test liters by 2022 and a long-term goal of 550 million liters within five years, showcasing their dedication to a greener future without compromising performance.

HIF Global envisions a massive expansion of eFuel production, generating 300 MW of power from wind turbines and producing 66 million liters (17 million gallons) of e-fuels annually, with further plants planned in Texas and Tasmania targeting 6.3 million gallons of e-fuel per day.

Porsche's commitment to eFuels represents a holistic approach to sustainable mobility, preserving driving pleasure while reducing emissions and evolving traditional combustion engines in the era of electric mobility. This journey may revolutionize the automotive industry's perception of sustainable mobility.

The longest bridge in the world is Danyang-Kunshan Grand Bridge in China

Located between Nanjing and Shanghai in China, the 164.8 kilometre Danyang-Kunshan Grand Bridge is by far the longest bridge in the world. Spanning both land and water, the bridge is more than four times lengthier than the world's longest water-spanning bridge. Construction of the bridge began in 2006 and took four years, 10,000 workers and \$8.5 billion of funding to complete. Built to transport trains on one of China's premier high-speed railways, the bridge is as strong as it is long: designed to withstand a magnitude eight earthquake and direct impact from naval vessels weighing up to 300,000 tons.

Railways will spend over 24,470 crore to redevelop 508 stations

Prime Minister Narendra Modi laid the foundation stone for the redevelopment over video-conferencing on 6 August. The stations to be redeveloped include 55 each in Uttar Pradesh and Rajasthan, 49 in Bihar, 44 in Maharashtra, 37 in West Bengal, 34 in Madhya Pradesh, 32 in Assam, 25 in Odisha, 22 in Punjab, 21 each in Gujarat and Telangana, 20 in Jharkhand, 18 each in Andhra Pradesh and Tamil Nadu, 15 in Haryana, and 13 in Karnataka.

This is the first time Railways will be taking up the redevelopment of a large number of stations at one go.


Indian Railways to fast-track modernisation with 800 semi-high-speed Vande Bharat train sets by 2030


Launched in February 2019, 25 train sets of the indigenously developed semi-high-speed Vande Bharat are currently operating 50 services on various routes of the world's first-largest rail network. The Railways has targeted to roll out 75 train sets or 150 services in the current fiscal. It also intends to have more than 800 train sets operational by 2030. Similarly, gross budgetary support to the Railways for capex has increased from Rs 28,174 crore in 2013-14 to Rs 2,40,000 crore in 2023-24, which is more than eight times.

The yearly average capex during 2014-23 was Rs 1,32,781 crore - cumulative Rs 11,95,031 crore - which was three times the average yearly capex of Rs 45,980 from 2009-14.



FOR MORE INFORMATION

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