



Industrial and Warehousing

MMLP: **Reshaping** India's Logistics Sector

Is Multi-Modal Logistics Parks (MMLP) paving the way to a robust future?

Foreword from MPWLC

About the State of Madhya Pradesh

Madhya Pradesh State is the 2nd largest state in the Country with a unique advantage of being centrally located in the country with 18 national highways passing across it, 7 railway divisions (highest in the country), 20 major railway junctions and 5 operational airports. The State shares borders with 5 major states, is in close proximity to 9 states and well connected to both sea-coasts of the Country. The State plays a very important and vital link connecting East-West and North-South corridors.

The State is doing extremely well in Agriculture, Horticulture and Forest Produce; is rich in Mineral Resources (home to largest reserves of diamond and copper in India) and has a well-established Tourism Industry. The State is not only home to 5 big Industrial Hubs at Mandideep, Pithampur, Dewas, Jabalpur and Gwalior but also has 6 Ordnance Factories manufacturing variety of products for the Indian Armed Forces.

MPWLC – Logistics Contributor to State GDP

Madhya Pradesh Warehousing and Logistics Corporation, a nodal body under Department of Food and Civil Supplies and Consumer Protection, Government of Madhya Pradesh for providing scientific storage of agriculture and minors forest produce, seeds, manures, fertilizers, agricultural implements and notified commodities offered by individuals, co-operative societies and other institutions. Corporation is committed to provide scientific storage facilities with entire satisfaction of our customer.

With the above inherent advantages, the State now intends to set up world class Multi-Modal Logistics Parks across various strategic locations on a PPP mode that shall compete with the best at national level and meet the AtmaNirbhar vision of the State to become “The Storage and Logistics Hub of the Nation” and be a stimulus to the growth of the economy of the State. MPWLC has designated to create the infrastructure for the state.

About the Report

Globally reputed Industrial Real Estate Consulting Firm, Jones Lang LaSalle Property Consultants India Pvt. Ltd., has engaged to carry out detailed study cum transaction advisory services towards achieving the goal of MPWLC. The attached report has given its glimpses of overall success drivers of MMLP facility globally and applicability of the same for Madhya Pradesh as its potential destination.

MPWLC will act as a trusted partner to private entrepreneurs / investors exploring the state as their proposed facility in rail linked logistics facility.

Tarun Pithode, IAS
MD, MPWLC



Foreword from CII

The outbreak of COVID-19 pandemic and subsequent lockdowns has ensured that Logistics, which was assumed to be a supporting service sector, is transformed into an essential one. The logistics sector helped in ensuring that the global flow of goods, particularly essential items, remained largely unhindered despite the lack of transport & disruptions in the supply chain.

The performance of logistics sector in the economic development of India has never been more compelling. The logistics sector is poised to expand at roughly 1.2 times the rate of India's gross domestic product growth through 2032, and several established brands across country are only boosting this growth by leveraging cutting-edge technologies.

However, there remain significant challenges to the sector's development. Indian Industry is burdened with high logistics costs, which account for approx. 13% of the value of goods sold in the economy compared with 8% in other major economies. The average cost to export/import one container in India is about 72% higher than in China making India Inc. uncompetitive in globally.

Multi-Modal logistics Parks facility with dedicated railway siding area, storage area and handling area for domestic and EXIM cargo along with other support services have immense opportunity to reduce the need to rail link transportation system and is certainly a silver lining in current scenario.

Madhya Pradesh being strategically located in the centre is ideally poised to be the logistic hub of the country. Multi Modal Logistical Facilities will support the ecosystem of already established industrial clusters like Automobile, Electrical Components, Pharma, Textile by reducing cost and making local industries globally competitive.

It is our privilege to partner with MPWLC and JLL for this report, we hope that this will leads to a productive discourse among policymakers, investors & developers, industry players and other stakeholders on revitalising Madhya Pradesh's logistics sector and Multi-Modal Logistic Parks (MMLPs) are certainly all set to pave the way to the future.

Saurabh Sangla
Chairman
CII Madhya Pradesh



Preface from JLL

The Indian Logistics Industry is reshaping its identity from traditional scattered and isolated modes to modern integrated forms. Modern logistics is a driver of achieving cost and time efficiency with professional expertise. In addition, it supports in completing the supply chains from production to consumption. The logistics sector comprises two key components, Warehousing and Transportation, both having major impact on logistics efficiency.

During the last few years, the Indian warehousing sector has experienced multitudes of changes in development and operational dynamics. The Presence of organised developers, institutional funding, demand for compliant Grade A warehouse space and increased occupiers take up size (more than 200,000 sq.ft.) are key factors in increased efficiency in warehousing. Typically, a one million sq.ft. Grade A warehouse space has the potential to handle around three million tonne* of cargo p.a.

Another important factor for the sector, Transportation, deals with almost 50% of the overall logistic cost. Enhanced efficiency in transportation has the potential to optimise logistics cost and efficiency. Interestingly, railway transportation has the solution to achieve the objective. JLL study indicates that modal shift to railway can achieve 45% and 50% of cost and travel time savings, respectively. Thus, any attempt to shift to railway mode would bring down the overall logistics cost significantly.

The Government of India is also having a target to reduce the share of Logistics in GDP from 14% to 7-8% (Source: CII Report on Reimagining India's supply chain, 2020). Considering current market dynamics on warehousing and transportation, Multi-Modal Logistics facility (with dedicated railway siding) has an immense role to play to achieve this objective. Key benefits of multi-modal logistics facilities are:

- Reduction in transportation cost
- Reduction in CO₂ emissions
- Congestion reduction
- Performance improvement of hinterland logistics infrastructure facility, e.g. ICD, CFS, PFT

The Vision of National Rail Plan, 2030 shall be the key catalyst programme initiated by the Government of India to popularise rail transportation. The plan is to develop capacity, infrastructure and enhance rail freight share (from 28% to 45% by 2030) ahead of the demand. Several infrastructure development programmes, including multiple DFCs, are proposed under this plan, that will act as facilitators to increase PAN India Rail cargo transportation share.

Through this report, JLL has tried to explore the opportunities of MMLP facilities in India with a special focus on developing MMLP in the state of Madhya Pradesh. This report provides more insights on the National Rail Plan, 2030 and how it will act as a catalyst to the development of MMLP facilities in India.

Happy Reading!

Yogesh Shevade
Head - Industrial Services, India JLL

*average storage of 3 tonne per sq.m., 75% space utilisation and 1 month holding period



Logistics in India

India's logistics sector is one of the fastest, an industry of **USD 215 billion, growing at a CAGR of 10.5%** (Source: IBEF), in the world. Compared with the traditional logistics industry consisting of scattered and single-operation activities, modern logistics is systematic and integrated, providing a full range of one-stop service through extensive application of information technology and industry expertise. It supports the entire supply chain from transport and freight, warehousing management, and order processing to delivery and customer service. There are two key components for the logistics sector, comprising Warehousing and Transportation.

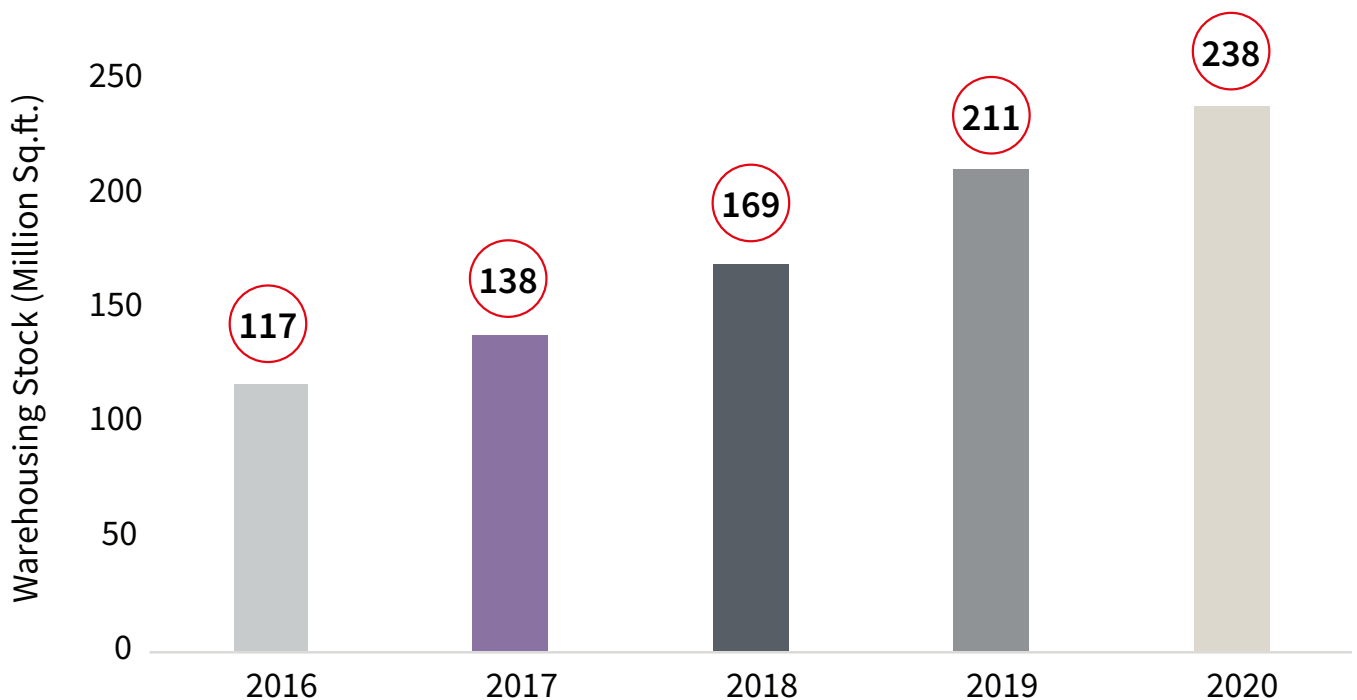
India Warehousing Scenario

Indian warehousing is currently passing through a transformation phase with an enhanced quality of storage space (primarily Grade A space), demand for large boxes and absorption and positioning of storage location.

The year 2020 witnessed a **13% y-o-y growth** in total stock in Grade A and B warehousing space in the top eight cities. The overall warehousing space stands at **238 million sq. ft. at the end-2020** compared to 211 million sq. ft. in the previous year. COVID-19 has shown an impact on project completions and absorption levels since the third week of March due to lockdown in the entire country. In Q4 2020, the market started gaining momentum with the highest supply and absorption post-COVID-19 lockdown.

2020 witnessed a **net absorption of 22 million sq. ft.** However, the gross absorptions (including renewals) stand close to 31 **million sq. ft.** Interestingly, Grade A properties have been in demand due to adherence to additional hygiene and safety norms, and more than half of the absorptions were in Grade A spaces.

India Warehousing Stock (Million sq.ft.)



Source: JLL Research

Total of Grade A and B warehousing stock in top 8 cities (Ahmedabad, Bengaluru, Chennai, Delhi NCR, Hyderabad, Kolkata, Mumbai, Pune)

Q4 2020 witnessed the highest supply as compared to the other quarters of the year as the delayed projects started getting completed in this quarter. In 2020, the warehousing supply addition of Grade B decreased, whereas Grade A witnessed an increase in supply due to changing developer preferences because of COVID-19. A similar trend was observed in the net absorption in

2020. Q4 2020 witnessed the highest net absorption in the year as the industrial market started gaining impetus post-COVID-19 lockdown. These trends in supply and absorption are expected to continue in the coming years with more focus on Grade A spaces.

	2016	2017	2018	2019	2020	2021F
New Completions (million sq.ft.)	13.7	20.8	31.1	41.4	27.0	30-35
Net Absorption (million sq. ft.)	13.3	19.7	31.8	36.4	22.2	35

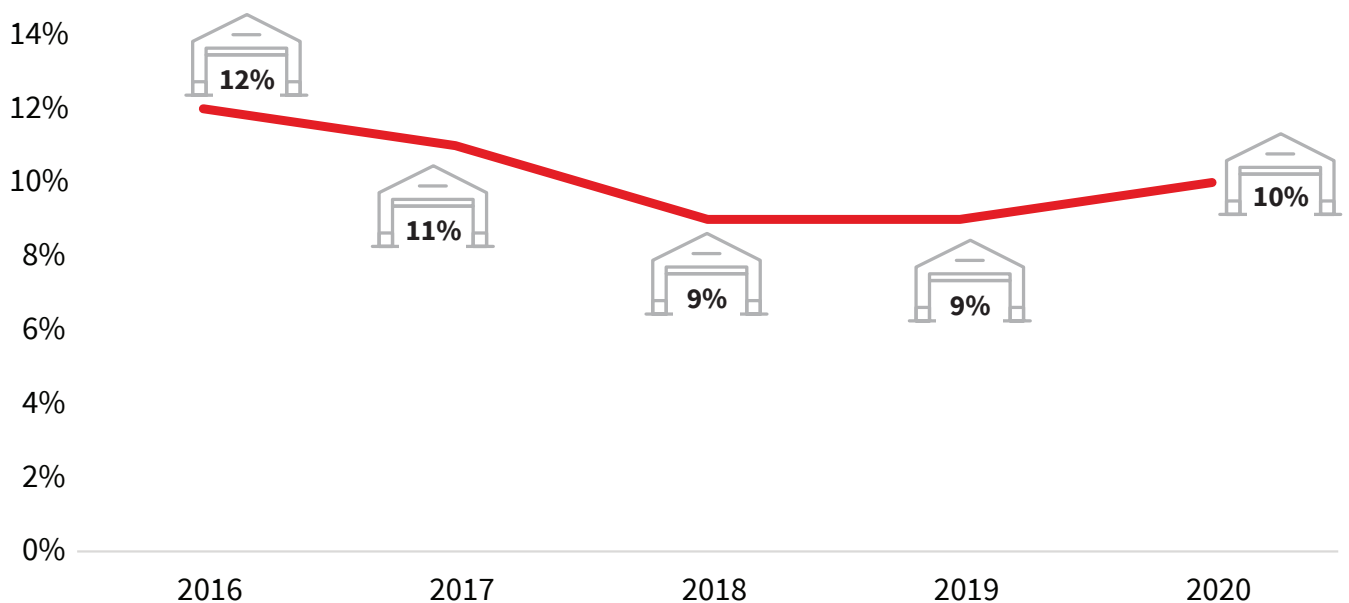
Source: JLL Research

Market Trends

Vacancy rates in the warehousing segment hovered around 10% for the last five years and had shown the same tendency even during 2020. The delayed projects of 2020 are expected to be completed in 2021, resulting in an increase in supply.

Therefore, the vacancy is expected to marginally increase, however, it would be still likely to hover around 10% in 2021.

Vacancy Rate (%)

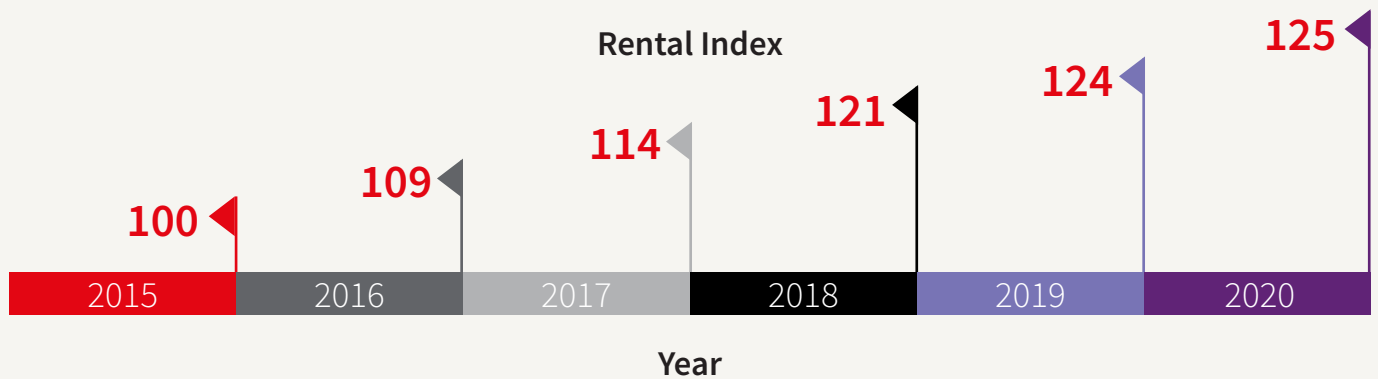


Source: JLL Research

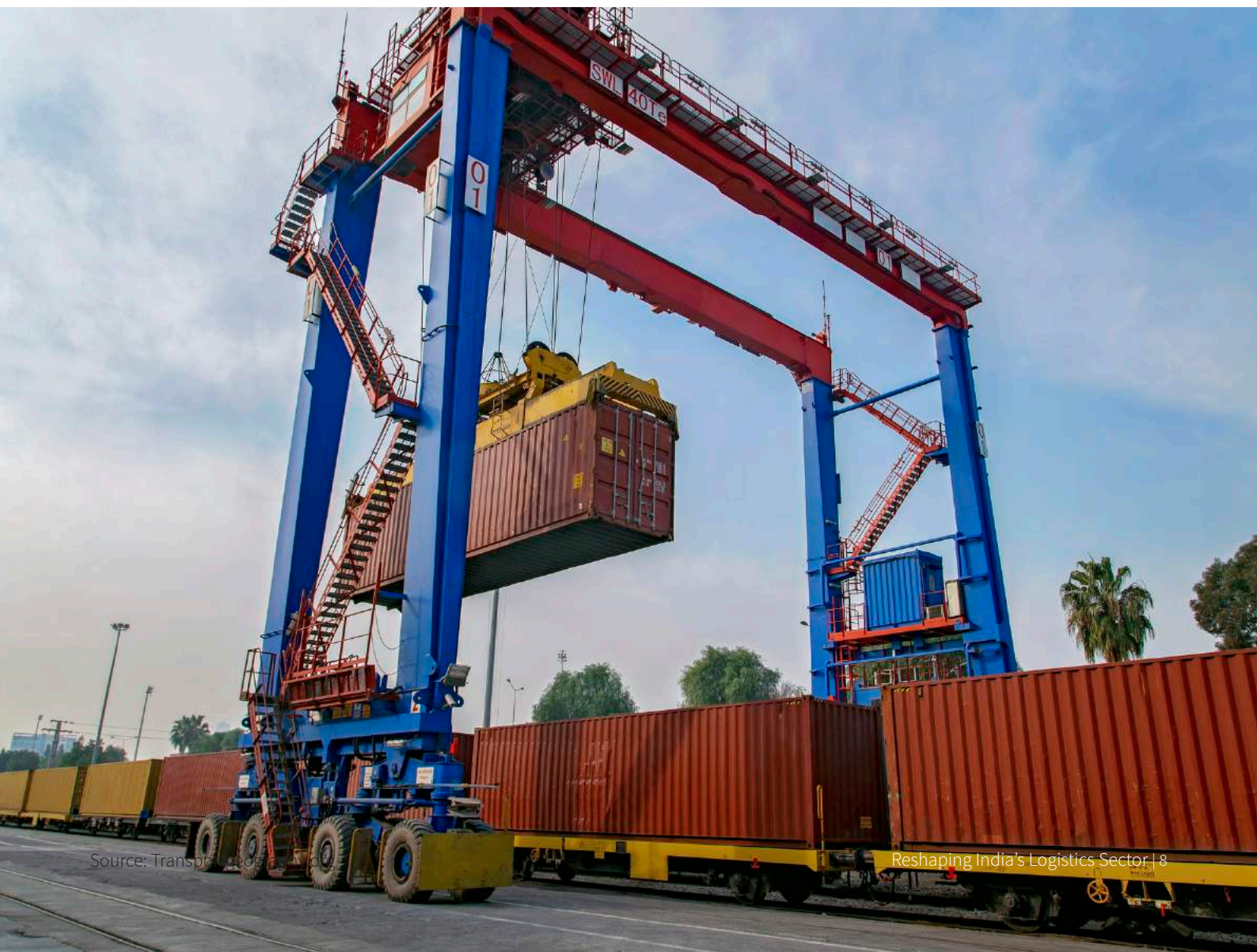
Rents of warehouse spaces in the eight major cities have been increasing for the last five years. Although 2020 observed stagnancy in the growth of rents due to market disruptions in COVID-19, it is expected to gain momentum in 2021.

This is due to the increasing demand of warehouse spaces from sectors such as 3PL and E-Commerce, especially during COVID-19.

Rental Index with 2015 as Base



Source: JLL Research
Rental index for Grade A and Grade B warehouses in top 8 cities

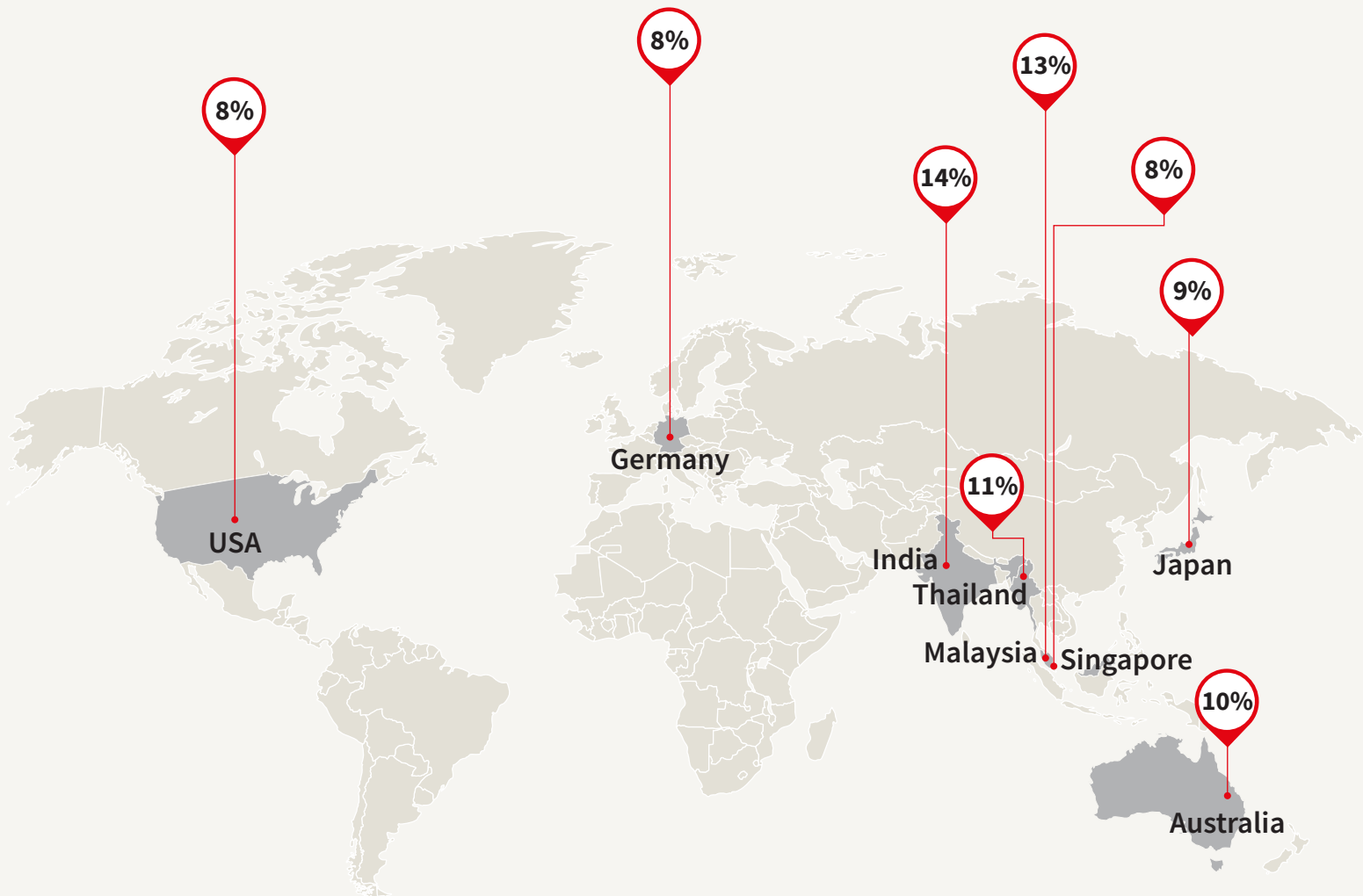


Shift in Logistics Sector

The current logistics cost of India is 14% of GDP, which is higher than Western countries such as the USA, Germany, as well as Asian countries such as Thailand, Malaysia, Singapore (Source: CII Report on Reimagining India's supply chain, 2020). In India, each segment of logistics encounters significant challenges leading to high cost and low efficiency. This demands India to lower its logistics cost to 7-8% of the GDP (Source: CII Report on Reimagining India's supply chain, 2020).

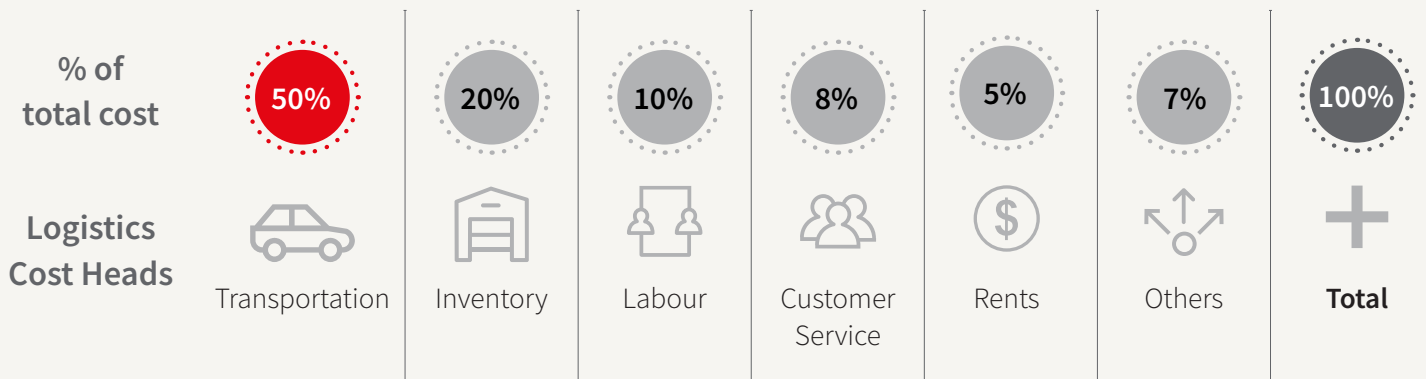
India's logistics sector is marred by an unbalanced logistics modal mix, high indirect costs, poor infrastructure, fragmented networks and lack of technology adoption.

Total Logistics Cost in Percentage of GDP



Source: transportgeography.org

Transportation comprises the largest piece of the logistics cost. Thus, any attempt to shift to a mode which reduces the cost of transportation would bring down the overall logistics cost significantly.

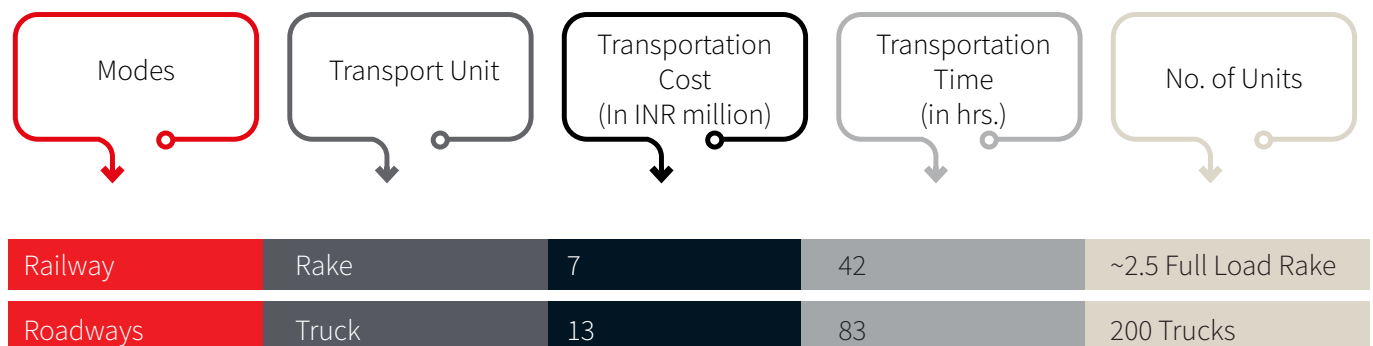


Source: Exchange, Inc: Logistics Cost and Service Report with logical modifications by JLL

Rail transportation can achieve 45% and 50% of cost and travel time savings, respectively. **This cost reduction helps the Indian economy to optimise logistics cost share in GDP.**

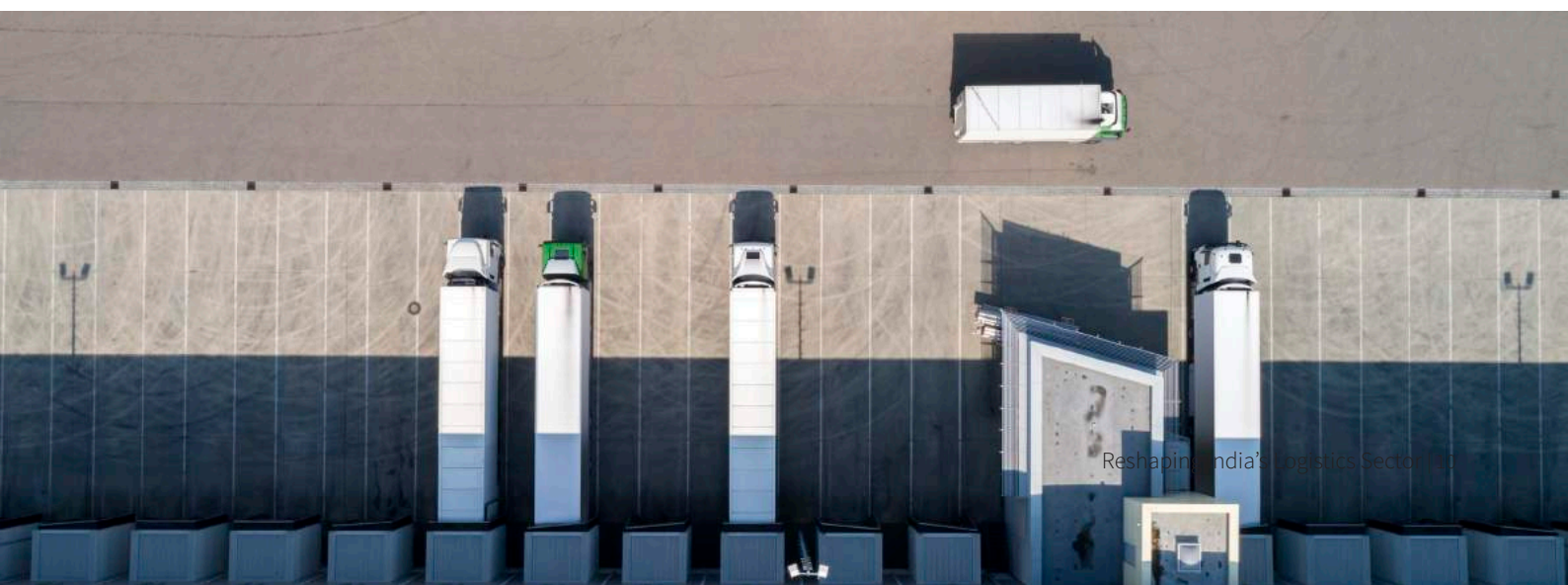
Moreover, it can achieve a significant reduction of human intervention and modal transport units for travelling 1,000 km distance.

Illustration of 5,000 tonne cargo to be transported by 1,000 km distance in Rail & Road



Note: Rake (train), a line of coupled freight wagons (excluding the locomotive) that typically move together.

Source: JLL, Industrial Services. JLL has considered certain standards and logical assumptions to derive the same.



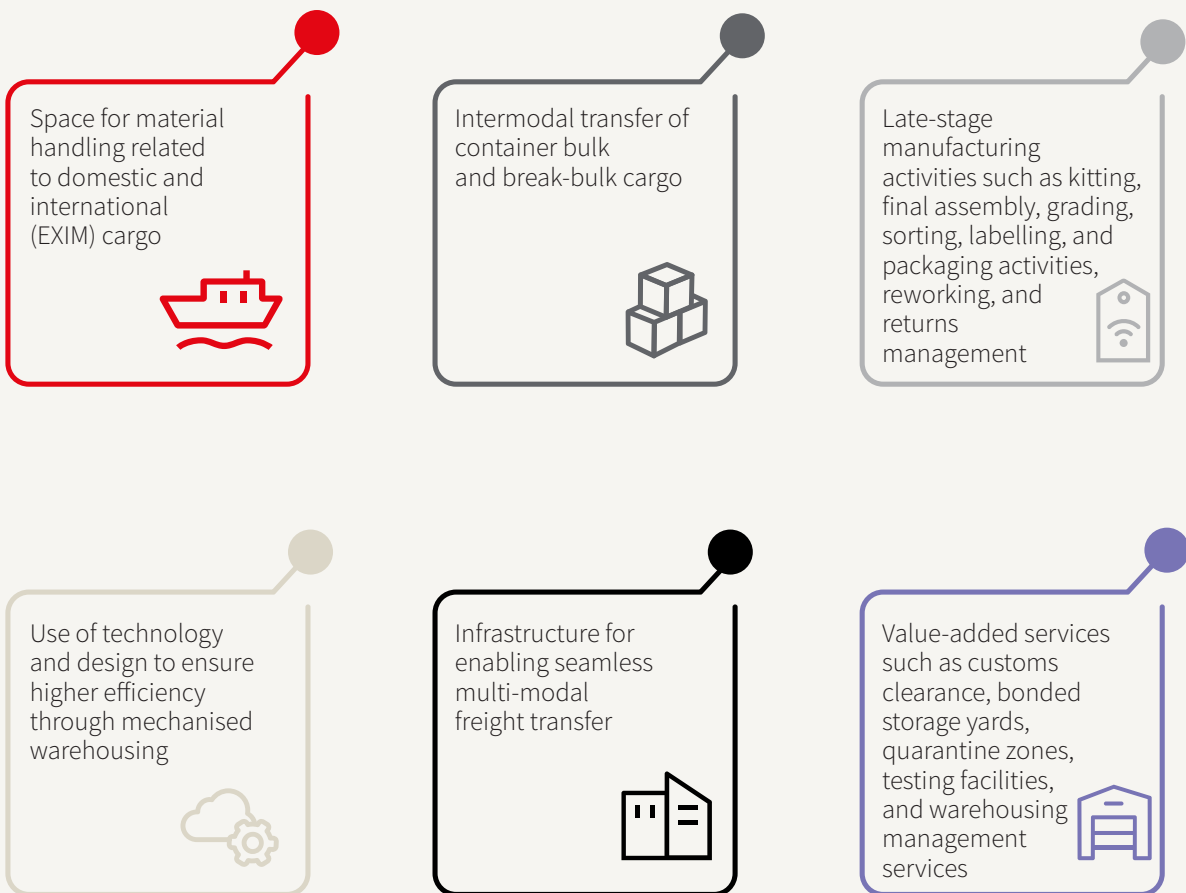
Multi-Modal Logistics Parks as an Emerging Trend

The development of Multi-modal Logistics Parks at strategic locations is envisaged as a key policy measure to rationalise the cost of logistics in India and improve its competitiveness.

MMLP is a freight handling facility with various modes of transport access and comprising mechanised warehouses, specialised storage solutions such as cold storage, facilities for mechanised material handling, and inter-modal transfer container and bulk cargo terminals.

MMLP brings the combination of Road and Rail: Two most important modal transport modes, which comprise 90% of countries cargo movement.

Multi-modal Logistics Park provides:



Benefits of Multi-modal Logistics Park

Reduction in transportation cost:

Logistics parks would drive about a 10% reduction in transportation cost by enabling freight movement on higher sized trucks and rail

Reduction in CO₂ emissions: Freight movement by rail has ~ 65% lower CO₂ emissions compared to road freight on a per tonne per km basis

Congestion Reduction:








Increased freight movement on higher sized trucks and rail will result in ~20% **reduction in freight vehicles** catering to the demands

MMLPs **improve the utilisation and performance of inland container depots (ICDs) & container freight stations** where they exist

(Source: Concept Note on Logistics Efficiency Enhancement Programme (LEEP) - Development of Multi-modal Logistics Park, Ministry of Road Transport & Highways)

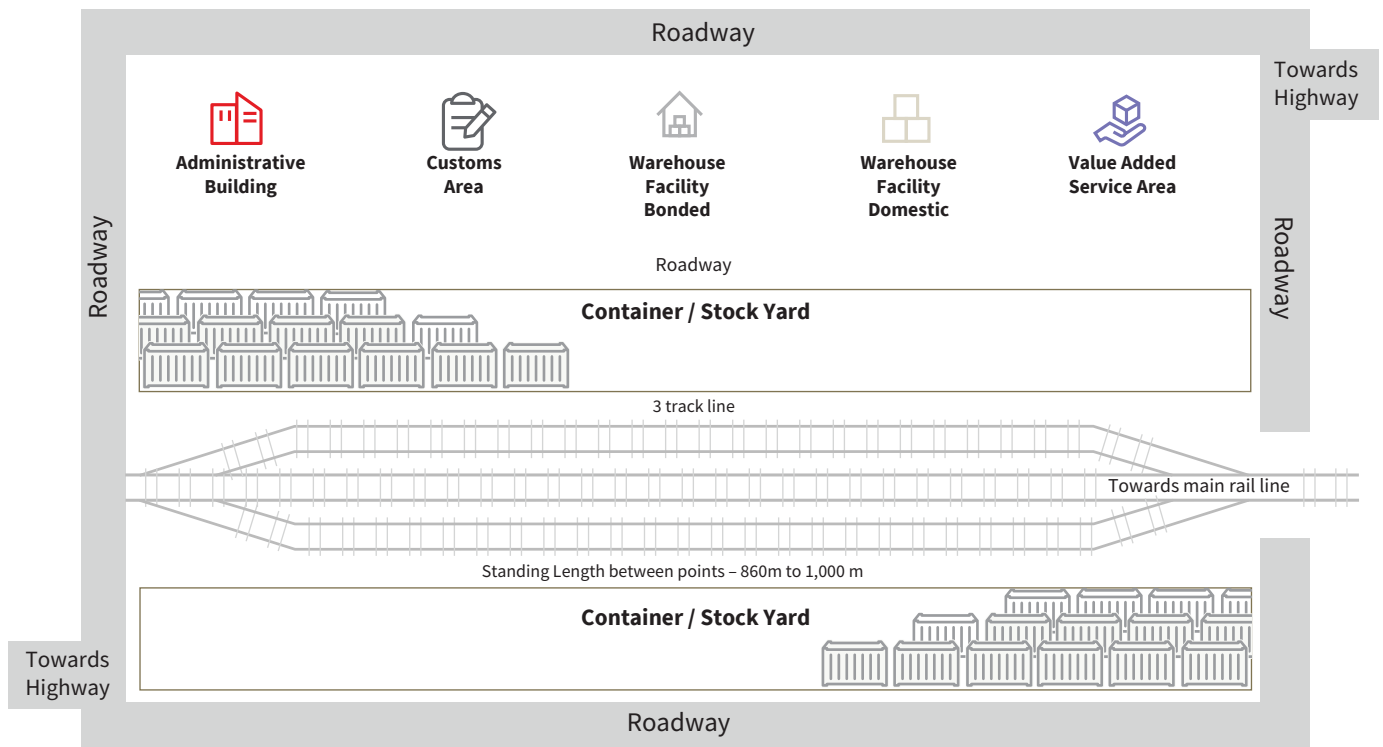


Adoption Levels of Various Commodities in Railways

	Commodities	Industry	Commodity Nature	Adoption Level
	Containers	Containers	Containers	High
	Provisions & Household Goods	FMCG	Break Bulk	
	Edible Oils (Packaged)	FMCG	Break Bulk	
	Milk & Products	Agriculture	Perishables	
	Parcels, Misc.	Other Manufactured Products	Break Bulk	
	Cement & Structures	Construction	Break Bulk	Moderate
	Rice, Wheat, Grams & Pulses	Grain	Dry Bulk	
	Fruits & Vegetables	Other Agriculture	Perishables	
	Cotton	Other Agriculture	Break Bulk	
	Wood / Plywood	Other Manufactured Products	Break Bulk	
	Paper & Products	Other Manufactured Products	Break Bulk	
	Electrical Goods	Other Manufactured Products	Break Bulk	
	Chemicals	Chemicals	Break Bulk	Low
	Building Materials	Construction	Dry Bulk	
	Granite / Marbles	Construction	Dry Bulk	
	Iron & Steel	Metal Industries	Break Bulk	
	Heavy Machinery	Other Manufactured Products	Break Bulk	

Source: Concept Note on Logistics Efficiency Enhancement Programme (LEEP) - Development of Multi-modal Logistics Park, Ministry of Road Transport & Highways

Typical Layout of an MMLP Facility



There are different infrastructure components of a typical MMLP, including rail siding, container/ stockyard, material handling zone, internal roads, etc.

Typical area calculations for the area required for the infrastructure components for a 100-acre land parcel are shown below:

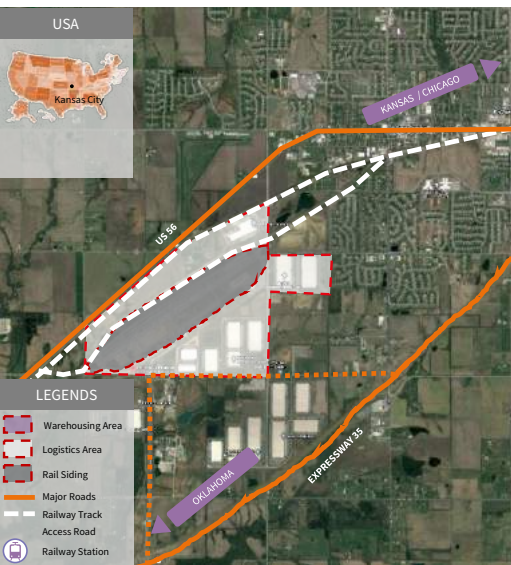
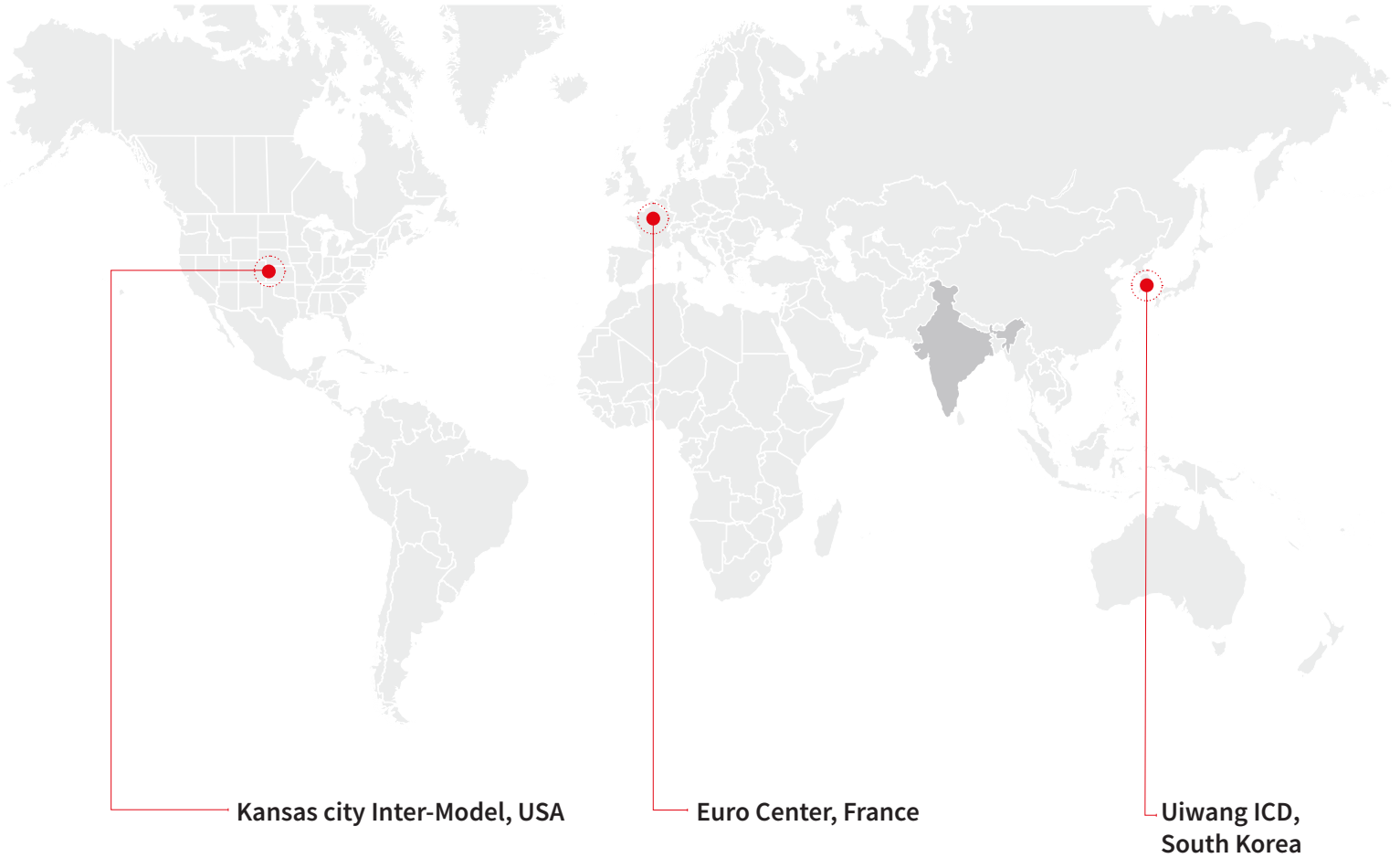
Base Area Calculations for 100-acre* land parcel

Type	Land Area (Acres)
Railway Siding	25 - 30
Internal Roads and Infrastructure	15 - 20
Material Handling Zone	15 - 20
Warehouse / Storage Zone	30 - 35 (Approx. 1 million sq. ft. BUA)
Others	5 - 10
Total	100

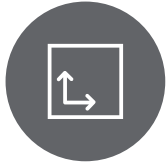
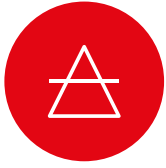
*The calculations are shown considering 100 acres of land parcel for MMLP development. The land area numbers will vary according to the land area and location

Multi-modal Logistics Parks Around the World

Integrated logistics hubs with multi-modal transport infrastructure, modern logistics facilities, along with dedicated areas for manufacturing and other trade-related activities, have emerged as clusters of regional industrial and economic development. These clusters play a crucial role in national logistics networks in countries such as the United States, Russia, Australia, Dubai, Canada, members of the European Union, as well as South Asian countries.



*Tentative layout of the MMLPs and their site surroundings

**Benchmark****Area
(in acres)****Proximity
to Logistics
Infrastructure****Proximity to
Urban Centres****Proximity
to Industrial
Clusters****Development
Rationale**Logistics Park
Kansas City, USA

1,500

Rail & Road:
Direct Access
Airport: 12 kmKansas: 70 km
(Population:
4.86 lakh)Kansas: 70 km
(27 million
sq. ft. of
ready-built
manufacturing
stock
42 million
sq. ft. of
ready-built
warehousing
stock)Strong Industrial
Cluster within
100 kmEuro Center
France

740

Rail & Road:
Direct Access
Airport: 30 kmToulouse: 25 km
(Population:
4.72 lakh)Toulouse
(Regional
Aerospace
Cluster): 25 km
(32 million sq. ft.
of warehousing
stock in
Midi-Pyrenees
Province)Strong Industrial
(Manufacturing)
Cluster within
30 kmUiwang Inland
Container Depot,
Seoul,
South Korea

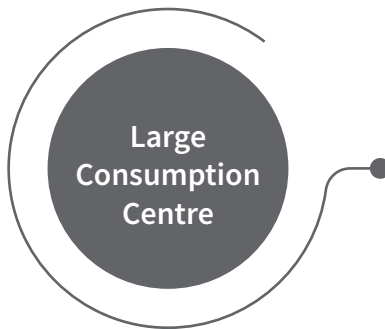
186

Rail & Road:
Direct Access
Airport: 35 kmSeoul: 35 km
(Population:
97.8 lakh)Seoul: 35 km
(200 million
sq. ft. of
industrial stock
– 42% of Grade A
stock)Strong Industrial
Cluster & Large
Consumption
Centre within
50 km

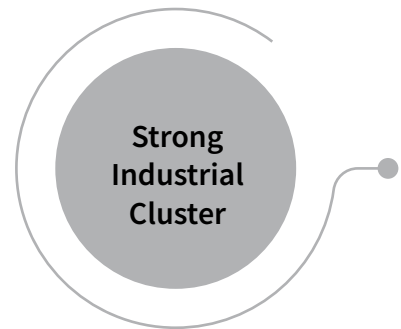
Some major success factors of these MMLPs include:



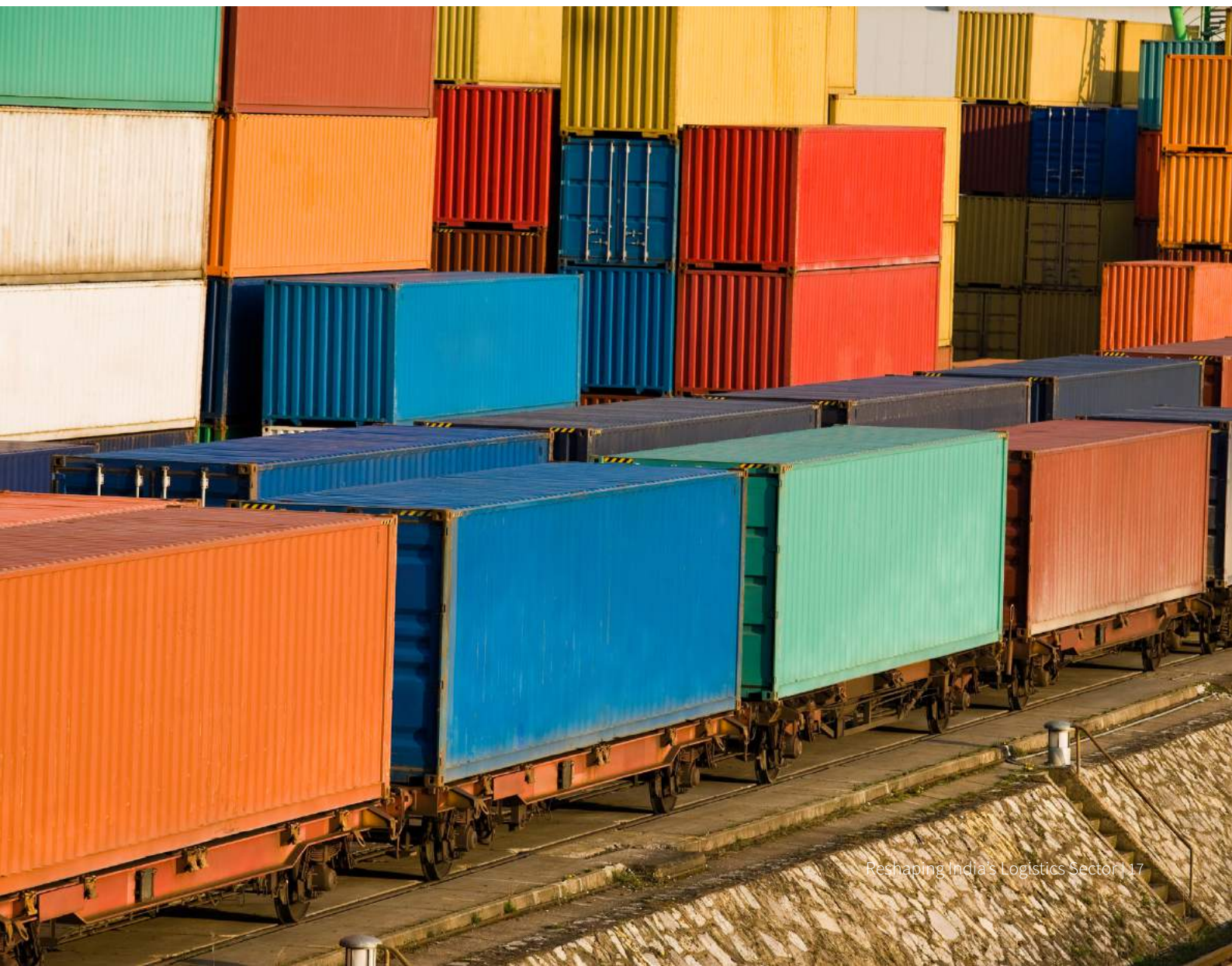
Presence of multi-modal transport connectivity that enables development of an integrated ecosystem with provision for logistics, trade services and solutions



MMLPs are positioned to capture the consumption in hinterland (population more than 50 lakh) in a radius of 20 km to 50 km



MMLPs located in close proximity to the existing industrial ecosystem (Presence of ready-built manufacturing and warehousing stock) for utilising the backward and forward linkages as well as common logistic infrastructure



Opportunities in Rail-linked Facilities in India

National Rail Plan, 2030

A long-term strategic plan called the National Rail Plan, 2030 has been developed to plan infrastructural capacity enhancement, along with strategies to increase the modal share of the railways in the total freight ecosystem of India.

Vision of National Rail Plan, 2030

To develop capacity, infrastructure and enhance rail freight share ahead of the demand. Develop capacity by 2030 that will cater to the growing demand of 2050.

Objectives of the Plan:

To create **capacity ahead of demand by 2030**, which in turn would cater to growth in demand right up to 2050



To **increase the modal share of railways** from 27% (currently) to 45% in freight by 2030 as part of a national commitment to reduce carbon emission and to continue to sustain it



Formulate strategies based on both operational capacities and commercial policy initiatives to increase modal share of railways in freight to 45% by 2030



Reduce transit time of freight substantially by increasing average speed of freight trains from present 22 km/h to 50 km/h



Reduce overall cost of rail transportation by nearly 30% and pass on the benefits to customers

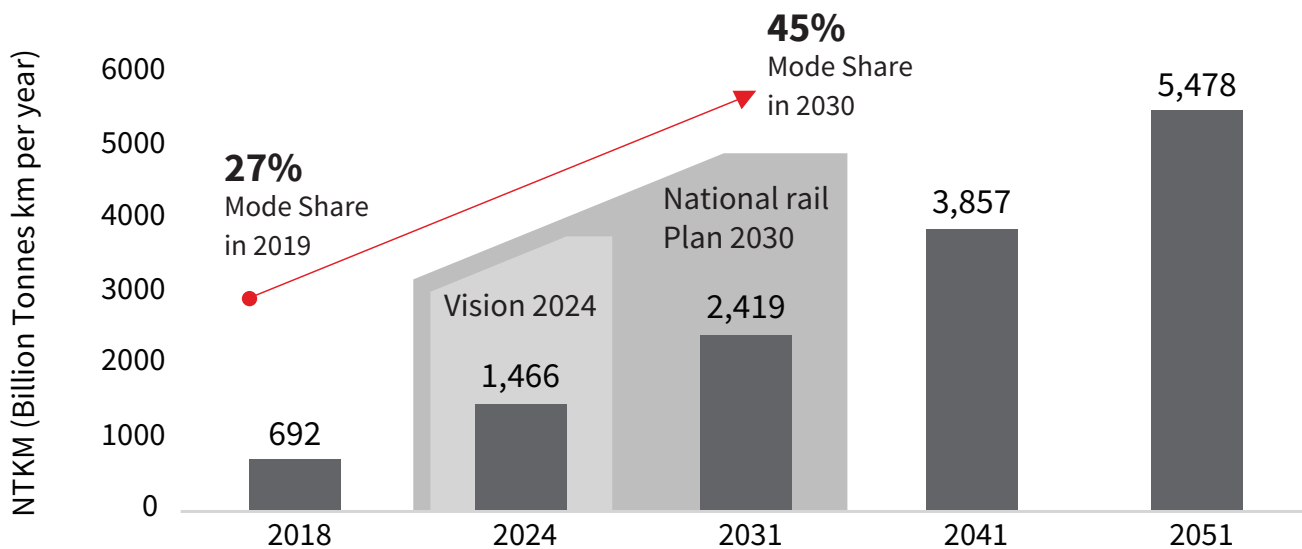


Vision 2024: As part of the National Rail Plan, Vision 2024 has been launched for accelerated implementation of certain critical projects by 2024, such as 100% electrification, multi-tracking of congested routes, up-gradation of speed to 160 km/h on Delhi-Howrah and Delhi-Mumbai routes, and 130km/h on all other Golden Quadrilateral-Golden Diagonal (GQ/GD) routes and elimination of all Level Crossings on all GQ/GD routes.

Target of National Rail Plan 2030: 45% Modal Share by 2051

Vision 2024 as a subset of National Rail Plan

Forecast of NTKM* and Average Lead of Rail Traffic & Mode Share Projection



*NTKM: Net tonne km

Source: National Rail Plan 2030, Ministry of Railways, India

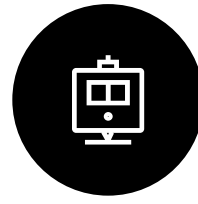
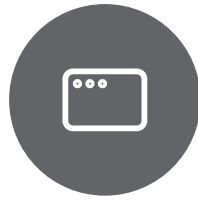
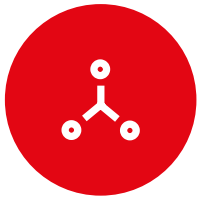
Out of more than 68,000 total route km of the railway network, 34,000 route km carries 96% of traffic:

High Density Network (HDN): 11,000 route km

High Utilized Network (HUN): 23,000 route km

In 2018-19, railways carried 1,221.5 Million Metric Tonnes (27%) of total freight generated (4,523 Million Metric Tonnes)















**Projected Rail Share
(Enhancement Average
Speed to 50 km/h with
30% reduced cost on
select commodities)**

Commodity

Commodity Nature

Existing Rail Share

Commodity	Commodity Nature	Existing Rail Share	Projected Rail Share (Enhancement Average Speed to 50 km/h with 30% reduced cost on select commodities)
BOG*	 Break Bulk	4%	22%
Cement	 Break Bulk	37%	51%
Coal	 Dry Bulk	65%	74%
Container	 Container	24%	48%
Fertilizer	 Break Bulk	87%	90%
Food Grains	 Break Bulk	16%	32%
Iron Ore	 Break Bulk	65%	82%
Pig Iron	 Break Bulk	49%	70%
POL*	 Liquid Bulk	18%	48%
Steel RM	 Break Bulk	56%	60%
Total		27%	45%

*BOG: Balanced Other Goods *POL: Petroleum, Oil & Lubricants

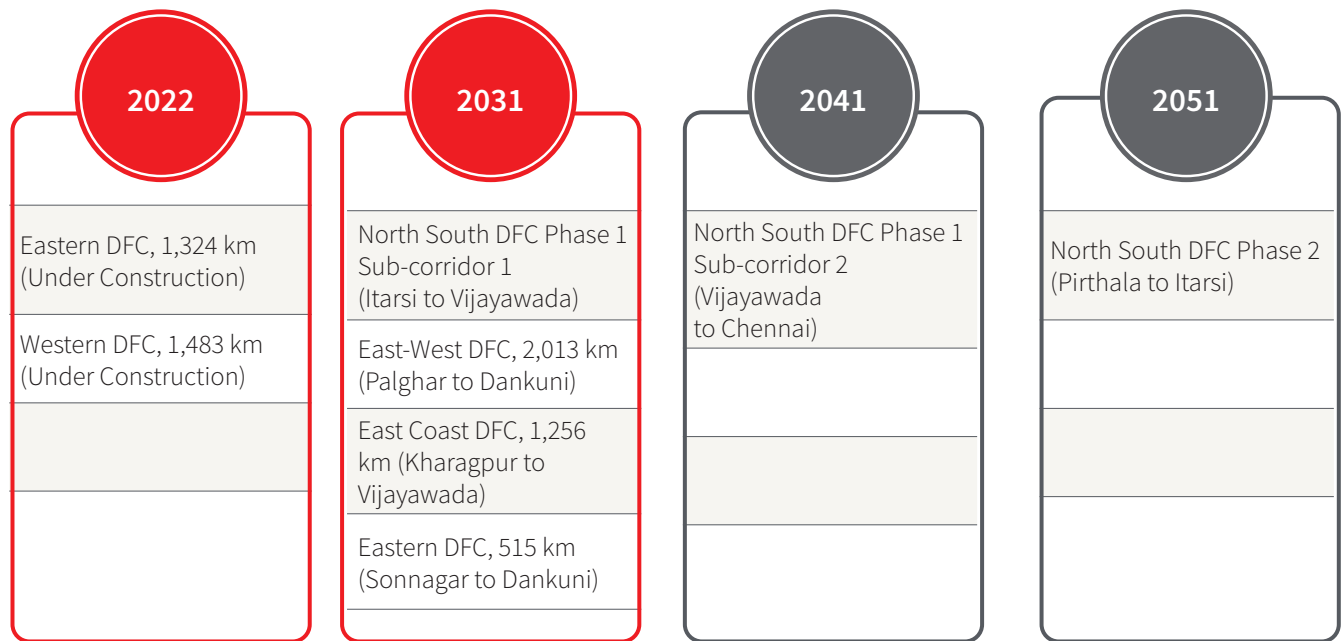
Source: National Rail Plan 2030, Ministry of Railways, India

- The projected rail share shows the focus of Indian Railways in increasing the rail share of containers and BOG cargo.
- Through a focus on container cargo, Indian Railways can capture a majority of the EXIM cargo and select domestic cargo.
- BOG can capture other domestic cargo and therefore, a shift will be seen in EXIM as well as domestic cargo from road transport to rail transportation.

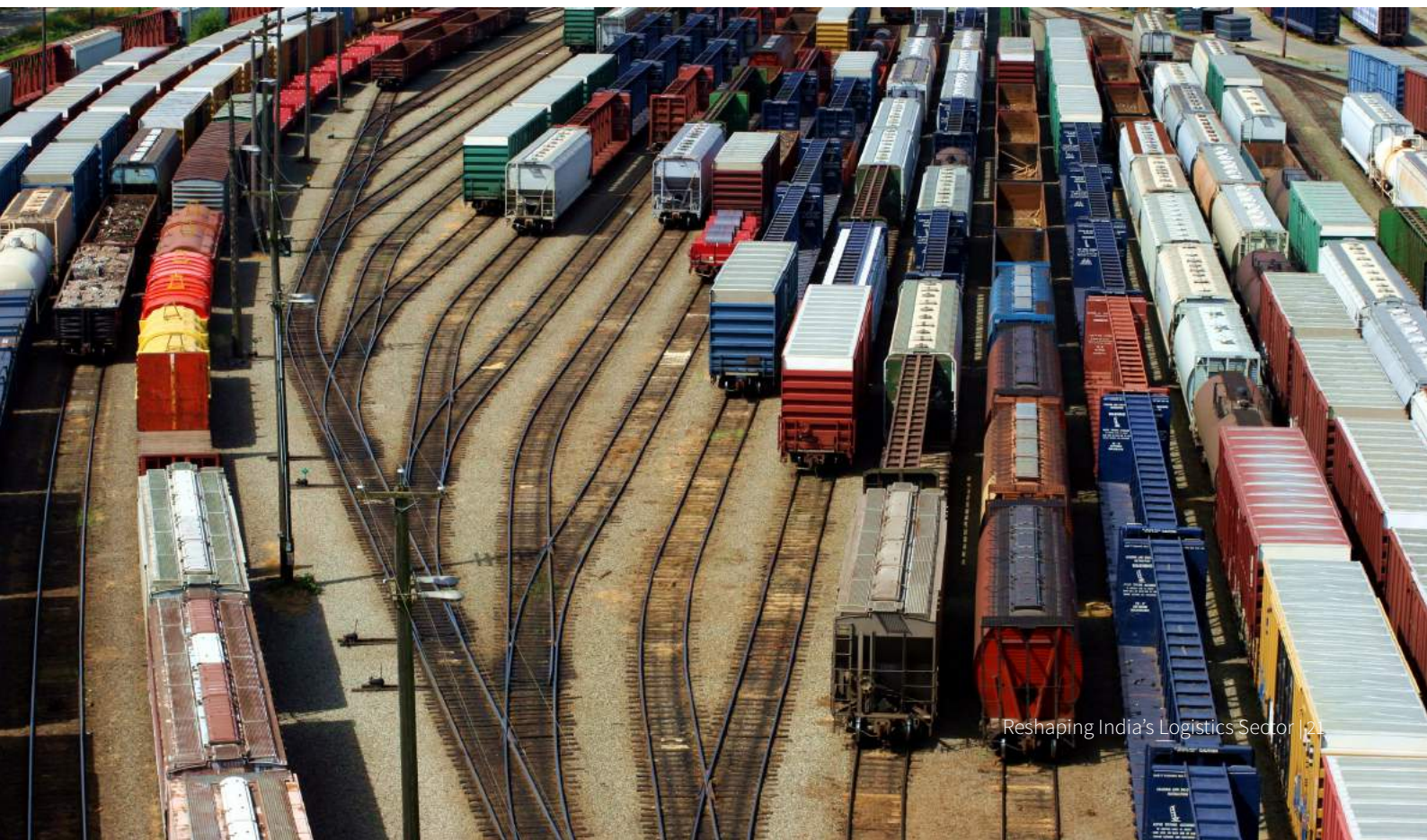
Proposed DFC Master Planning and Phasing (under National Rail Plan, 2030)

The Ministry of Railways, under the direction of the Indian Government, has taken up the dedicated freight corridor (DFC) project. The project involves the construction of six freight corridors traversing the entire country. The purpose of the project is to provide a safe and efficient freight transportation system.

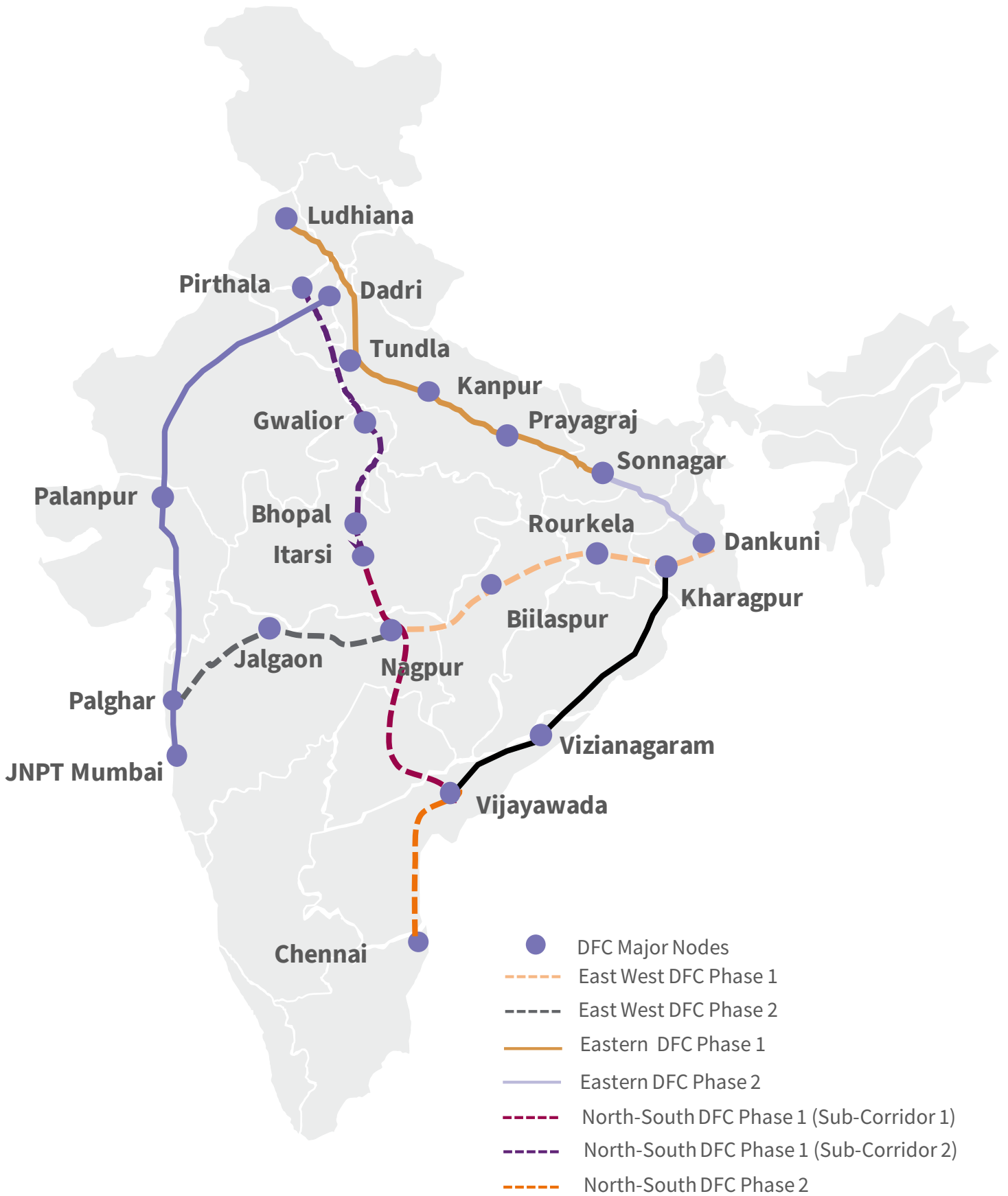
Once completed, at least 70% of the freight trains will be transferred on the DFCCIL network, which will help in the timely movement of cargo.



Source: National Rail Plan 2030, Ministry of Railways, India



Proposed Dedicated Freight Corridors (DFCs) in National Rail Plan, 2030



MMLP in MP

The MMLPs are supposed to be strategically located throughout India considering rail and road connectivity, as well as inland waterway connectivity to ports, decongesting the cities and reducing pollution in the cities. Considering these parameters, it has been realised that the potential locations of MMLPs are expanding beyond the Tier I cities and entering into the realm of Tier II cities. Madhya Pradesh, being centrally located in the country, provides tremendous opportunities to host MMLPs and implement the “hub-and-spoke” model of supply chain.



Case Study of Madhya Pradesh as a Potential Location for MMLP in India



Macro-Economic Advantages

- 6th most populated state in India is home to ~6% of India's overall population (CY 2019)
- Contributes 4.5% of India's GSDP (FY 19-20)
- 4th among Indian states in ease of doing business ranking (CY 2019)

- 6th among Indian landlocked states in export preparedness index (CY 2020)

Source: mospi.nic.in/GSVA-NSVA | rbi.org.in | NITI Aayog Export Preparedness Index, 2020 Report



Solid Production Base



Agricultural Production:

- 3rd rank in per capita food grain production (CY 2018)
- Largest producer of Soybean, Gram, Garlic and Pulses in India
- 2nd largest producer of Wheat, Green Peas and Onion in India
- Largest producer of oilseeds among the states

Source: IBEF | mpindustry.gov.in | <http://www.mpvdp.in/>



Textiles

- Ranks 6th in terms of cotton-producing state in the country (FY 2019-20)

Source: IBEF | mpindustry.gov.in | <http://www.mpvdp.in/> | Madhya Pradesh Textile Mills Association (Annual Report 2017-18)



Automobile & Engineering

- The state is home to 200+ auto component manufacturers
- Asia's largest auto testing track – NATRIX, is located in Pithampur, Indore

Source: IBEF | mpindustry.gov.in | <http://www.mpvdp.in/>



Defence

- The state has historical ordinance manufacturing sites in Katni, Jabalpur and Itarsi



Pharmaceutical

- More than 350 pharmaceutical units are located across Madhya Pradesh, out of which 160 are formulation manufacturers
- Drug formulations and biologicals is the largest export item from the state, accounting for 27% of the total export in FY21

Source: IBEF | mpindustry.gov.in | <http://www.mpvdp.in/> | Invest Madhya Pradesh Report: Pharmaceuticals Building a Healthier State

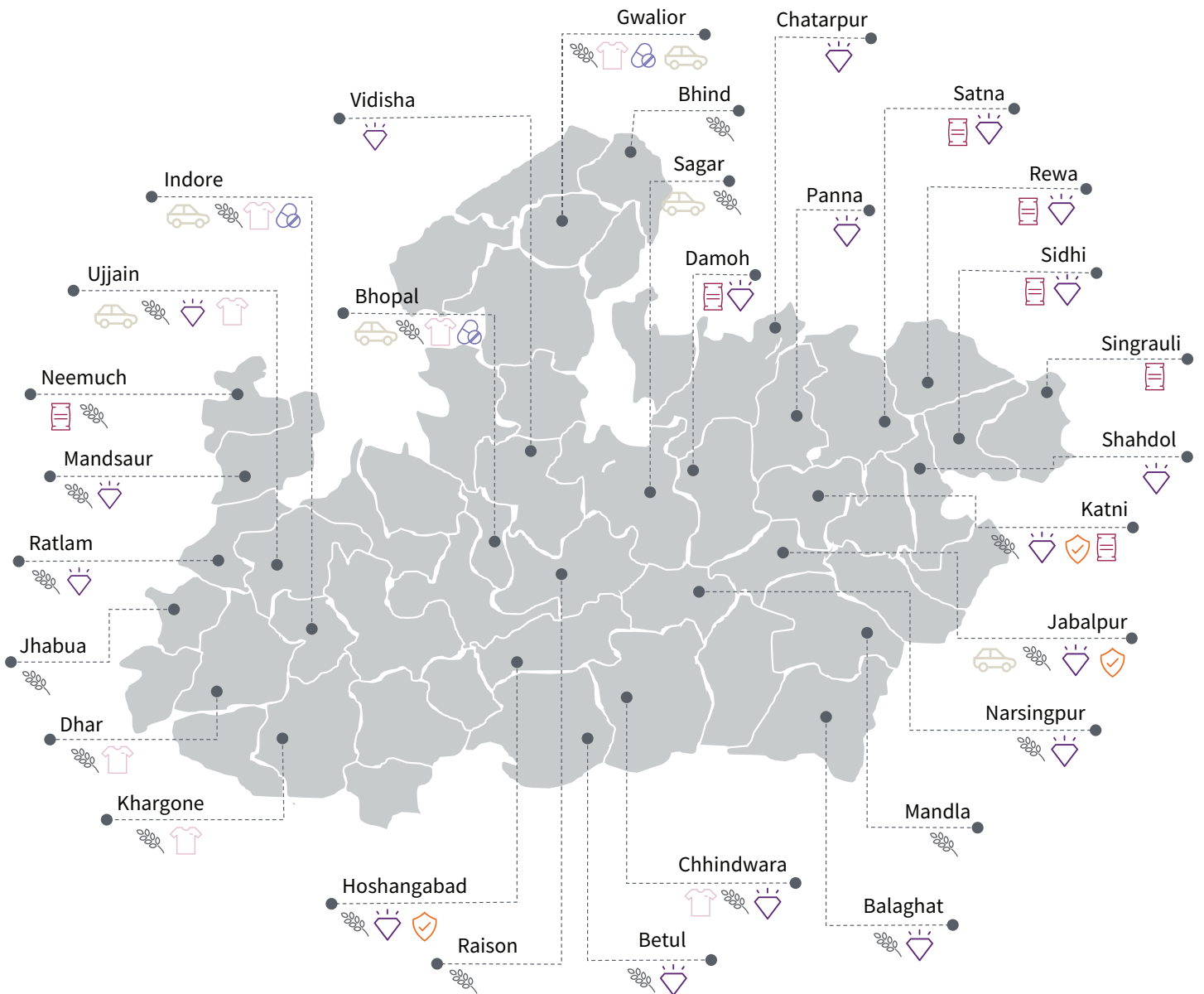



Mining & Mineral


- 9th rank in per capita value of total minerals (CY 2018)
- 8% of the total coal reserves of India and 4th largest producer of coal in India (FY 2018-19)
- The state is the 3rd largest producer of cement in the country and contributes up to 13% of national demand (FY 2018-19)
- Madhya Pradesh is the sole diamond-producing state in the country


Source: IBEF | mpindustry.gov.in | <http://www.mpvdp.in/> | www.mineralresources.mp.gov.in | Interstate Socio-Economic Indicators, 2018, Directorate of Economics & Statistics, MP


Districts with Potential as MMLP Destination





 Agribusiness & Food Processing

 Mineral Based

 Textiles

 Automobile and Engineering

 Cement

 Pharmaceuticals

 Defence



Infrastructure Backbone of Madhya Pradesh

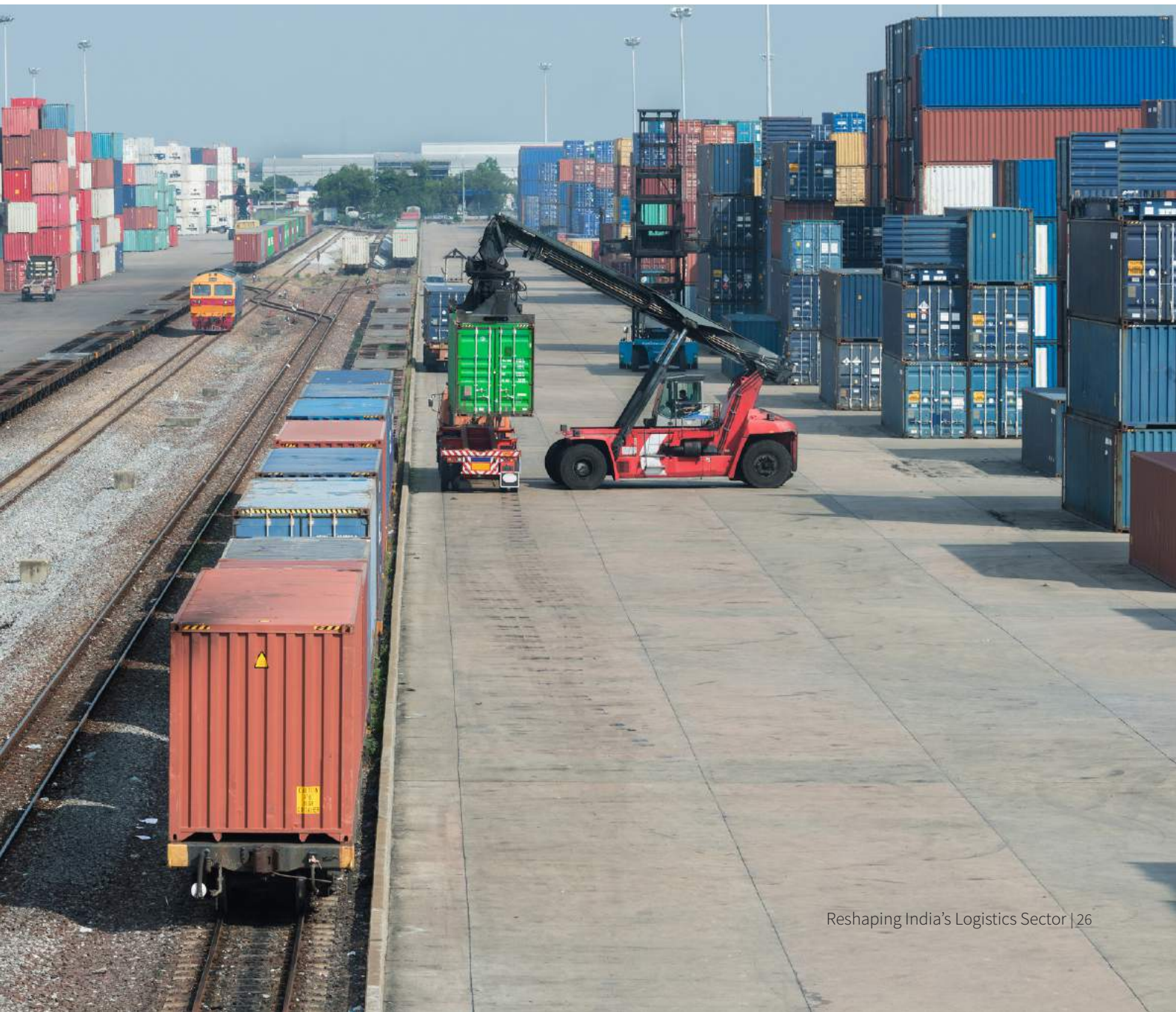
Industrial Infrastructure

- The Government of Madhya Pradesh (GoMP) has a **huge Industrial land bank**. GoMP has around 40,000 hectares of land reserved for the industrial purpose (as of 2019)
- The state is home to five operational SEZs, six notified SEZs and ten formally approved SEZs
- Investor-friendly state policy initiative to implement “AtmaNirbhar” Madhya Pradesh

Source: <https://pib.gov.in/>

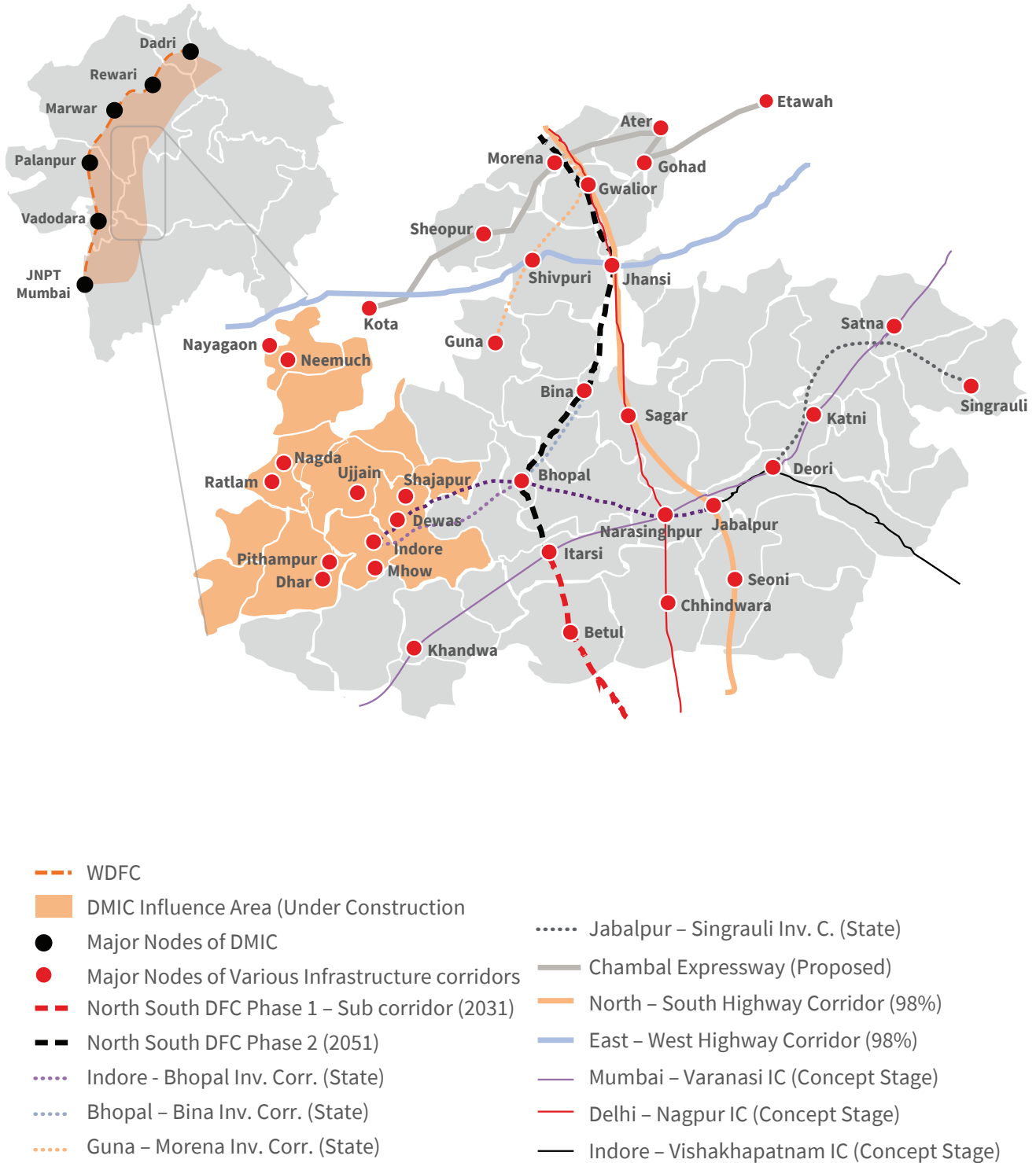
Logistics Infrastructure

- State's Logistics Performance Index jumped five places from 14th rank in 2018 to 9th rank in 2019
- Highest number of railways divisions (7 divisions) in the country
- Strong connectivity with other parts of the country through rail (4,443 route km) and road (3,714 km NH + 8,728 km SH)
- The state has six **operational ICDs / MMLPs**
- Around 130 million MT cargo (excluding minerals and liquid cargo) by FY 2030-31 to be handled within the state for attracting Private MMLP players



Future Infrastructure Road Map

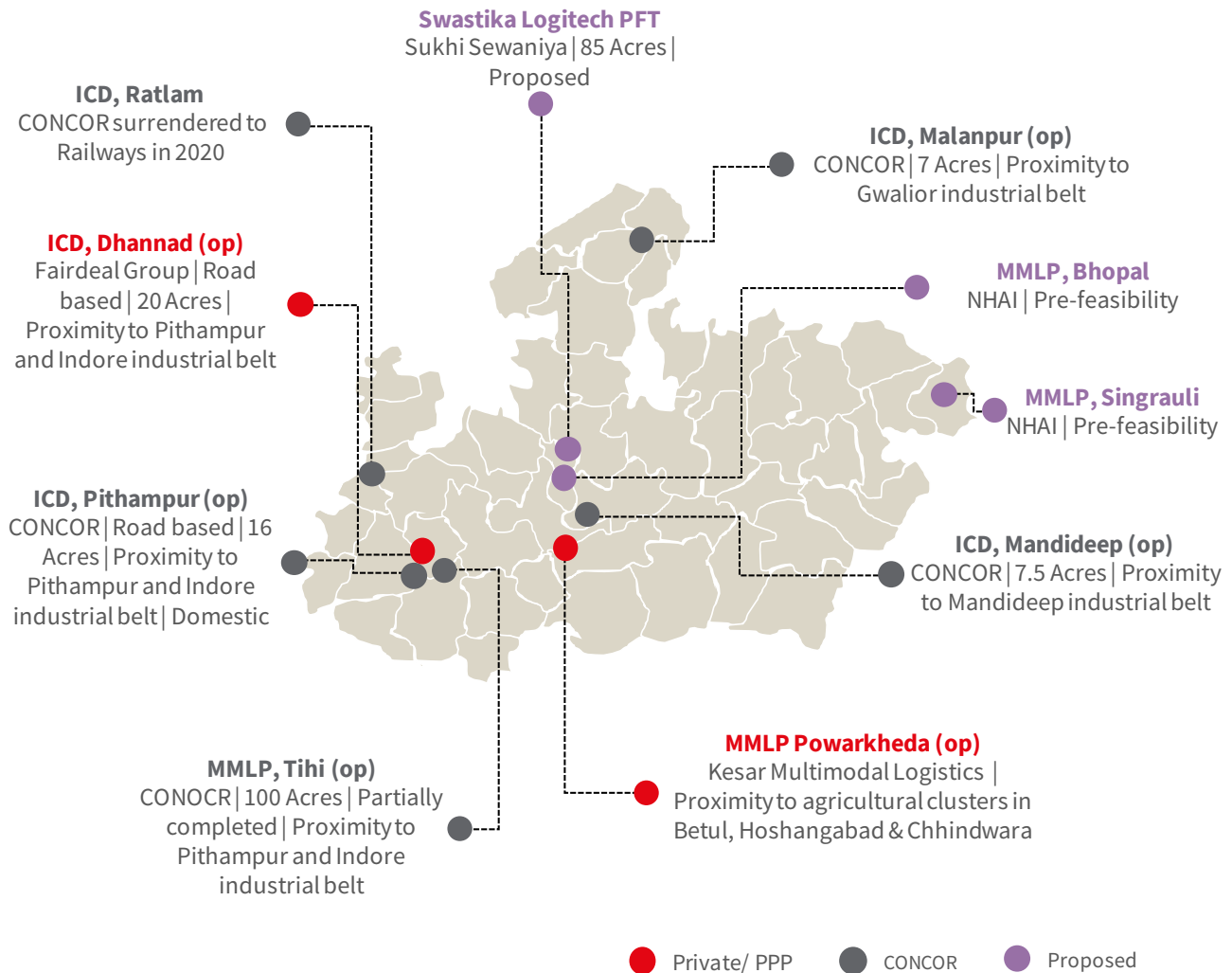
Future logistics infrastructure: State may get benefitted through various central and state level infrastructure projects such as industrial corridors, freight corridors, highway corridors and investment corridors.



Note: The map is indicative and has been used for locational reference. The map and locations not as per scale

Key Rail-Linked Facilities in Madhya Pradesh

- The state has six operational Inland Container Depots / MMLPs
- The size of ICDs in the state ranges from 7 to 15 acres, and for MMLPs, the size ranges from 80 to 100 acres
- The ICDs / MMLPs of the state are majorly developed and operated by CONCOR with a limited entry of private players
- Most of the ICDs have a strong connectivity advantage to rail (rail siding as part of ICD) as well as roads (National Highway connectivity)

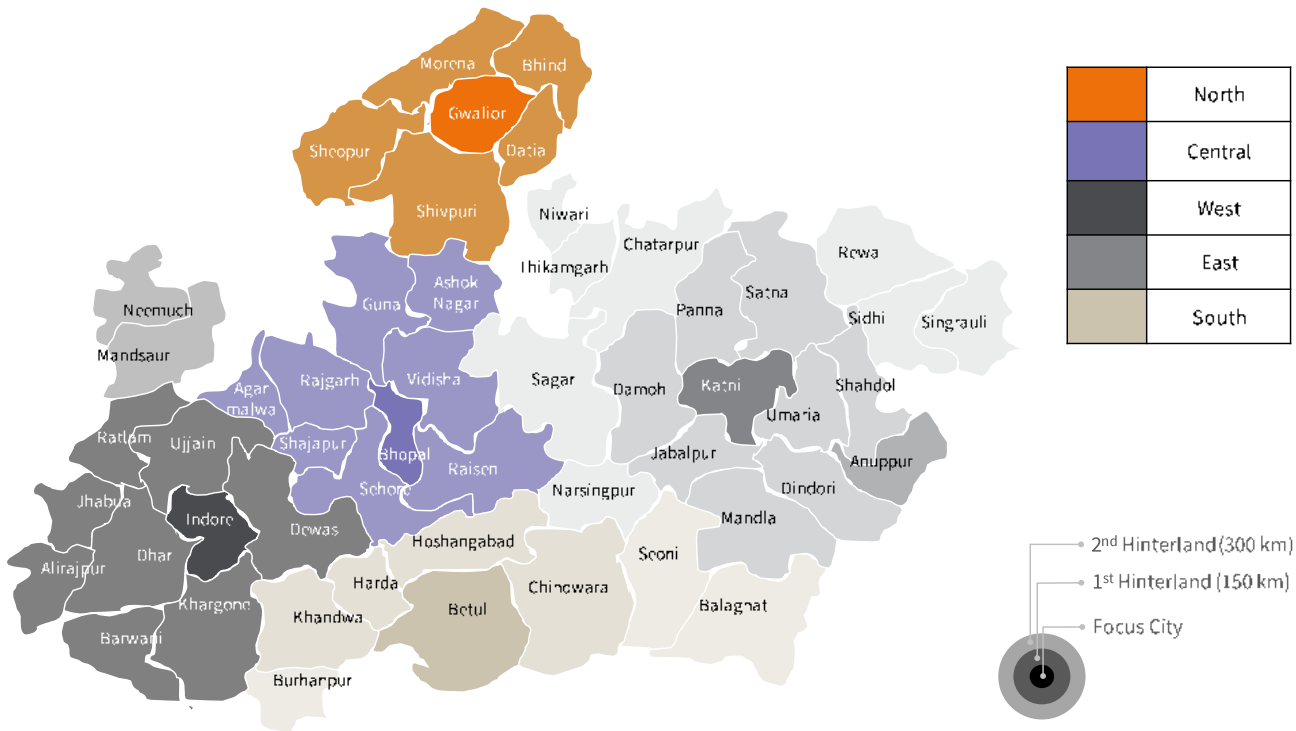


Potential Locations for MMLP in MP

As the supply chain gets more regional, the need for multi-modal logistics parks at strategic locations becomes more important than ever. Being centrally located, Madhya Pradesh has a high potential to have logistics hubs to rationalise the cost of logistics in India and improve its competitiveness.

Fourteen districts of Madhya Pradesh state are performing well in terms of consumption, agricultural and industrial, including manufacturing and mining. These districts can be clustered considering the proximity of districts and the serviceable hinterland. This results in five clusters with five focus districts serving its hinterland within 150 km and 300 km.

Potential Clusters with focus Cities in MP for Establishing MMLP



Industrial

Agriculture

Consumption

Cluster	Industrial	Agriculture	Consumption
North Cluster	~2,500 ha of developed Industrial land	10% of state's Crops GVA	~12% of state's population ~14% of state's urban population
Central Cluster	~3,400 ha of developed Industrial land	31% of the state's soybean production & 24% of the state's gram production	~14% of state's population ~18% of state's urban population
West Cluster	~7,400 ha of developed Industrial land	44% of the state's soybean production, 26% of the state's wheat production	~23% of state's population ~28% of state's urban population
East Cluster	~2,300 ha of developed Industrial land Presence of dolomite, coal, limestone, diamond reserves	38% of the state's rice production & 10% of the state's wheat production	~16% of state's population ~14% of state's urban population
South Cluster	~1,600 ha of developed Industrial land	13% of state's Crops GVA 43% of the state's corn production	~8% of state's population ~7% of state's urban population

Better Performing in Industrial Production Scenario

(Clusters having more than 2000 ha of developed land, i.e. more than 10% state's developed industrial land)

Better Performing in Agricultural Scenario

(Clusters having Crop GVA more than 30,000 INR cr in FY 2019-20)

Better Performing in Consumption Scenario

(Cluster population of more than 1 cr + Share of urban population)

Conclusion

- To achieve National Rail Plan, Rail Linked Logistics Infrastructure is essential
- The Plan projected an additional **~5000 MMT cargo volume to be handled by 2041** by rail linked logistics facility to meeting Rail Plan objective
- **Organised Logistics Park Developers** to play a key role in bringing modern concept, efficient material handling and professionalism in the sector
- **Time-bound delivery of matching rail infrastructure** by the government is essential to achieve time efficiency and cost optimisation

Key Perception of Developers indicates the following success drivers



~ 5 - 6 million-tonne cargo per annum over 100 acres of land



Availability of return cargo to maximise capacity utilisation



Government support in the consolidation of cargo of the hinterland



Site position to achieve siding connection with minimal siding development cost

Major Success Drivers:

- Willingness of end-users to avail **cargo consolidation** for achieving desired cargo volume
- Appropriate mechanism for **minimisation of Seasonality Factor**
- **Co-existence of domestic and EXIM Cargo** for facilities
- **Nearby Consumption / Production pattern** (for industrial and non-industrial consumers/ producers) drives the cargo volume
- **Securing Reverse Cargo** is essential for the value optimisation of any MMLP facility
- Site location must have direct access from **siding connectivity and road network**
- **Affordable Land acquisition cost** for minimising initial capex
- Developers and operators expertise for **managing diversified logistics infrastructure facility**
- Multi-Modal Logistics Facility has immense potential to **bringing logistics cost optimisation, achieving time efficiency and economic drivers in the vicinity**

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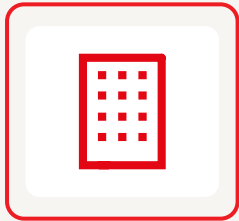


*SC&LS = Supply Chain & Logistics Solutions; PAGI = Port, Airport & Global Infrastructure (includes specialization on Port & Airport Real Estate, Cold Storage, Multimodal Logistics Parks, FTWZ etc.); IIS = Industrial Investment Services, BUA = Built-up Area. Figures as of Dec, 2020.
PDS = Project Development Services

Port, Airport & Global Infrastructure (PAGI)

Integrated Logistics – Palletised Cold Storage, MMLP, FTWZ, Port & Airport Logistics RE, SEZ

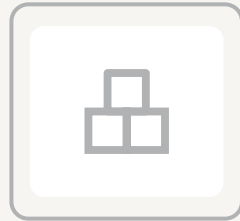
Facilities we cater:



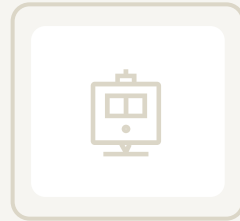
SEZ



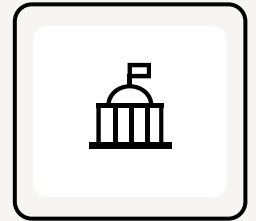
Industrial Zone



MMLP



PFT



CFS/ICD/
Dry Port



FTWZ



Warehouse



Cold Storage



Inland waterways
Terminals (IWT)

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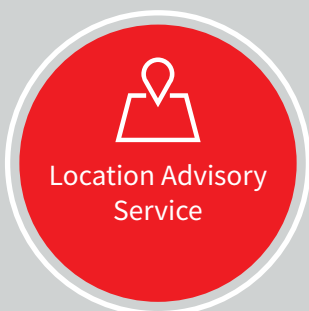


Transactions
Advisory



Campaign
Management

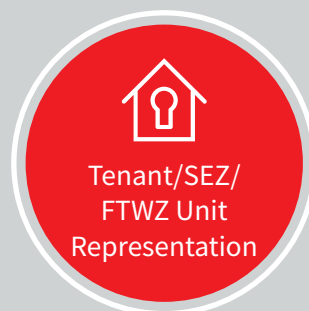
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