

## Alstom & Indian Railways mark five years of signing largest FDI in railway sector

**In 2015, Alstom bagged the order to supply 800 double-section electric locomotives of 12,000 HP to improve freight movement**

**22 December 2020** – This year, Alstom completes 5 years since it won the contract worth €3.5 billion from Indian Railways to supply 800 fully electric super powered double-section locomotives of 12,000 HP capable of hauling ~6000 tonnes at a top speed of 120 kmph. Planned to be deployed for operations on major freight routes, including the Dedicated Freight Corridors (DFCs), these e-Locos are transforming the heavy freight transportation landscape of India. Over these 5 years, major progress has been made on the largest Foreign Direct Investment (FDI) project in the Indian Railway sector.

Certified by the Ministry of Railways and Commissioner of Railway Safety / RDSO earlier this year, the first WAG 12B e-Loco was inducted for commercial services in May 2020. So far, Alstom has successfully manufactured and delivered **50** such e-Locos to the Indian Railways. These e-Locos have covered **close to 2 million kilometres** on the railway network till date.

“Alstom is proud to partner in India’s growth story. Today, as we look back at an eventful five-year journey, it gives me immense pride to state that we have made progress across a spectrum of spheres – technological, infrastructural and socioeconomic – alike”, says **Alain Spohr, Managing Director, Alstom India & South Asia**.

Basis the contract, which includes an associated maintenance of the e-Locos for over a period of 13 years, a joint venture was formed between the Indian Railways, Ministry of Railways (26% equity) and Alstom (74% equity) to set up one of India’s largest integrated greenfield manufacturing facilities at Madhepura, Bihar. Spread across 250 acres, with a production capacity of 120 locomotives per annum, this industrial site is built to international standards of safety and quality. Alstom will deliver 75 units in FY 20/21 & 100 units annually starting next fiscal.

Flagging off the first e-Loco from the Madhepura facility on April 10, 2018, **Hon’ble Prime Minister Shri Narendra Modi** had said, “I am thrilled to flag off the first-ever 12000 HP engine. There are very few countries across the world that use locomotives of this scale and power for freight transport. These engines will upscale the speed of freight transport in India to two times faster”.<sup>1</sup>

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<sup>1</sup> from media archives

Highlighting India's Green Railways dream, **Shri Piyush Goyal, Minister of Railways, Commerce & Industry, Consumer Affairs and Food & Public Distribution, Government of India** had said, "Our PM has approved a program for 100% electrification of Indian Railways. We'll be the largest railways in the world to be 100% electrified with 120,000 track kms across India. By 2030, we hope to be the world's first 100% green railway with net-zero emission."<sup>2</sup>

With these powerful e-Locos being manufactured within the country, **India has become the 6th country in the world to join the club of countries producing high horsepower locomotives indigenously.**

The project also includes setting up of two ultramodern maintenance depots in Saharanpur, Uttar Pradesh and Nagpur, Maharashtra. These depots are equipped with latest technologies and features to anticipate breakdowns and take proactive measures, thereby playing a substantial role in maintaining India's most advanced freight locomotives at significantly lower costs. The depot in Saharanpur is currently operational and comes with a 'Training Centre' equipped with a loco simulator and smart classrooms for skill development of railway employees and loco pilots. Till date, more than 500 loco pilots from Indian Railways have been trained and going forward, an additional 500 will be trained annually. The Nagpur depot will be functional soon.

"The relationship between India and France, dating back to many decades, is imbued with a shared vision in across many fields. This joint venture, the largest FDI project for Indian Railways, has only strengthened our spirit to employ world-class technology for a safer, faster and more carbon-efficient service. As we continue to strengthen the Indo-French partnership, we hope to see our collaborations bring real-time impacts on the lives of the people", said **Emmanuel Lenain, Ambassador of France to India.**

"Globally, Alstom is associated with almost every prominent Railway organization and Indian Railways, is one of the largest Railway entities in the world. The joint venture combines innovation with responsibility and together we are committed to deliver safe, reliable and efficient solutions. India is at the cusp of a logistics revolution and we are excited to be part of this journey", added **Alain Spohr.**

### **Technical Superiority & Localization**

Locomotives manufactured at Madhepura are of 12,000-horsepower with a twin Bo-Bo design, engineered to run at a speed that is twice as faster than regular locomotives and are built to carry 6000 tonnes of goods in one go. Equipped with Insulated Gate Bipolar Transistors (IGBT) based propulsion technology, the WAG 12B uses regenerative braking, reducing energy consumption. Moreover, with this e-LoCo, Alstom is introducing freight trains that emit lesser heat and traction noise. With 1676mm of Broad Gauge, the e-locos are designed to take smooth turns even at the sharpest of curves.

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<sup>2</sup> from media archives

The e-Locos designed at Alstom's Engineering Centre in Bengaluru, use an eight-axle design that would enhance performance of a locomotive. The Prima T8 technology makes operation comfortable and flexible in extreme temperatures, ranging from -50 °C to 50 °C. With this, Alstom introduces novel features into Indian freight trains, such as climate control systems, air conditioners, food preparation and storage facilities and toilets. The WAG 12B e-locomotives are also equipped with spacious cabins for pilots to work comfortably. Localization has been made a reality with over **85% of indigenization**.

### **Socio-economic effect**

Alstom's joint venture with the Indian Railways has created over 10,000 direct and indirect jobs in various Indian states. To support the local communities, Alstom is actively investing into the upliftment of the community across seven villages in and around Madhepura, covering education, healthcare, women empowerment and skilling. More than 20,000 lives have been touched through various initiatives in the region.

## **About Alstom**

Leading the way to greener and smarter mobility worldwide, Alstom develops and markets integrated systems that provide the sustainable foundations for the future of transportation. Alstom offers a complete range of equipment and services, from high-speed trains, metros, trams and e-buses to integrated systems, customised services, infrastructure, signalling and digital mobility solutions. Alstom recorded sales of €8.2 billion and booked orders of €9.9 billion in the 2019/20 fiscal year. Headquartered in France, Alstom is present in over 60 countries and employs 38,900 people.

### **Alstom in India**

Alstom has established a strong presence in India. It offers a complete range of equipment and services, from high-speed trains, metros, trams and e-buses to integrated systems, infrastructure, signalling and digital mobility solutions. With more than 5700 full time employees, and in line with Government's 'Make-in-India' initiative, Alstom has been investing heavily in the country to deliver world class rolling stock, research & development and components to not only serve the domestic market, but also rest of the world. We have four industrial sites in the states of Bihar (Madhepura), Andhra Pradesh (SriCity), Tamil Nadu (Coimbatore) and West Bengal (Kolkata). India also houses in Karnataka (Bengaluru), the largest Engineering centre for Alstom, outside of France. Additionally, Alstom has a localized sourcing and supply chain, to the extent that most projects are over 75% percent built from indigenous materials.

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