The Pride of India's Aviation boom – Mumbai International Airport

Mumbai, recognised as a leading industrialised state, has been poised in the national growth narrative. Mumbai has taken center stage with its indomitable spirit of enterprise by being strategically located and is the pride of rapid and inclusive development in the last two decades. All dedicated to enabling a new aspiration for the people of India, born out of this development.

One of the World's busiest single runway airports and second largest in India:

- Mumbai, the financial capital of the country, is one of the richest, youngest, and most populous cities in the world and is expected to be the world's largest metropolis by 2050.
- Chhatrapati Shivaji Maharaj International Airport (CSMIA) has a rich history of over 90 years and has been a gateway to India for the world.
- The Mumbai International Airport is spread over 1900 acres in the heart of the city. Among others, responsiveness to consumers and sustainability remains core to its ethos, which also reflects in its highest ranking of Airport Service Quality by ACI for 4 consecutive years.
- First to introduce Air Cargo Community System (AMAX)
- CSMIA also has India's largest air cargo terminal with an air cargo capacity of 1 million tonnes per annum.

Serving Travellers and Non-Travellers: A curated lifestyle destination

- Airport Capacity – 55 million pax per year
- CSMIA records a footfall of over 150 million consumers annually, which is more than the population of many developed nations such as Germany. This reflects the potential size and scale of the Mumbai International Airport operations. Currently, Mumbai International Airport has more than 300 leading global brands under retail & F&B, and best-in-class lounges to elevate the consumer experience.
- Terminal 2, with over 400,000 square feet of retail, F&B and Duty-free space, is the shopping destination par excellence in the city of Mumbai.

Strengthened Air Connectivity from Mumbai to the World:

1. All parts of Asia Pacific
2. Middle East
3. Africa
4. Europe
5. North America

O&M Excellence

1. Mumbai International Airport is one of the most efficient airports in India, backed by tech-enabled O&M infrastructure including Joint Control Centre (JCC) operating with the advanced **Surface Awareness Guidance Airport ("SAGA') software** which ensures optimum utilization of resources, smooth take-off, landing, real-time monitoring and ultimately a collaborative decision-making

process amongst all stakeholders. Mumbai International Airport is the only airport in India which is using advanced SAGA software.

2. The airport also has **India's 2nd tallest ATC Tower** and world-class fire-fighting facilities and rescue stairs for rapid evacuation.

Futuristic Technology:

1. Mumbai International Airport is focused on transforming the consumer experience into consumer delight through state-of-the-art technologies to ensure a positive, all-in-one travel experience. This includes a **Super app for end-to-end solutions for passengers** through the 3 C's tech platform – customization, convenience, and control.

2. Being a 'passenger-first' airport, CSMIA envisions to be a 'Gateway to Goodness', and timely introduces various innovations such as **India's first Integrated Security Check Point with modern ATRS machines** for domestic and international passengers.

3. **Common Use Self-Service** (CUSS) kiosk for passengers to check-in and generate baggage tag themselves, **Self-Baggage Drop counters** (SBD), **E-gates** that allow passengers to scan their boarding pass and more to enhance passenger experience.

4. The airport has built a strong customer focused service system which includes **Complaint Handling, Customer Relationship Management, Airline Platform integration** and more. With the Government's plan of Digital India, CSMIA is a step towards adopting new technology and digitizing the travel experience of passengers, for their enjoyment.

5. The **'Digi Yatra' program**, introduced by the Ministry of Civil Aviation, has equipped airports with a **Biometric Boarding System** to enhance the digital experience for passengers. This system streamlines processes, using facial recognition and improved biometrics to simplify check-in, security, and boarding procedures. Passengers opting for Digi Yatra register at the airport or through the Digi Yatra portal and receive a unique DY ID, linked to their PNR number, for seamless future air travel across India. Digi Yatra standardizes processes, **enabling paperless and contactless travel** and allowing passengers to digitally book in-flight services and destination-based offerings through the app.

6. CSMIA has also introduced a groundbreaking initiative, **Taxiway Z, the first in the Asian region** to offer a **flexible-use apron**, allowing the taxiway and parking stand to be used interchangeably. This innovation aimed at significantly improving on-time performance and reducing carbon emissions, enhancing airside efficiency. A strategic move that benefits both passengers and airlines.

7. CSMIA becomes the **first airport in Asia to introduce a DARK (Disabled Aircraft Recovery Kit) facility with High Pressure lifting bags.** This advanced facility can efficiently recover large aircraft, including the Boeing 777-300ER, up to **390 Metric Tons**. DARK is durable, requires minimal manpower, and offers a more efficient recovery process compared to conventional methods. CSMIA's DARK capability enables rapid responses to runway excursions and aircraft incidents, minimizing operational disruptions. CSMIA's Aircraft Rescue and Fire Fighting (ARFF) officers completed a rigorous five-day training program, covering legal aspects, ground stabilization, lifting techniques, multi-sling use, and de-bogging procedures. This training equips them to act effectively in challenging situations, bolstering CSMIA's team of skilled professionals.

Environment and Sustainability:

1. Sustainability is an intrinsic concept at the Mumbai International Airport which is progressing with a journey of sustainable operations. The Terminal 2 building has been recertified with a Platinum rating by IGBC in 2021. The Mumbai International Airport plans to procure 100% energy from green sources.

2. Under clean transportation, only electric motor vehicles are allowed in the baggage operations area and inside Terminals. Further, the airport has deployed a 100% single-use plastic-free philosophy and zero water discharge through a sustainable water management system.

3. One-of-its-kind Vertical Axis Wind Turbine (VAWT) & Solar PV Hybrid (Solar Mill)

4. CSMIA was also the first Airport in the Asia Pacific to have published its sustainability report aligned with GRI guidelines since 2014.

5. As a testament to CSMIA's tireless efforts towards sustainable and green initiatives - particularly in assessing the reduction in specific energy consumption, innovation in identifying and implementing energy-saving projects, green supply chain, waste management, GHG Emission and climate change initiatives have paved the way for visible change. CSMIA has been at the forefront to pioneer the shift towards a sustainable aviation infrastructure.

6. CSMIA has taken significant steps in promoting sustainable aviation practices, such as introducing its first batch of 45 Electric Vehicles (EVs) in January 2023, as part of its commitment to reducing its carbon footprint and achieving Operational Net Zero by 2029. This initiative follows the airport's recognition as the 'Best Sustainable Airport of the Year' by ASSOCHAM, underlining CSMIA's dedication to environmental sustainability. The airport plans to replace its entire fleet of combustion-powered vehicles with electric ones, with an additional 60 EVs under consideration for deployment.

Services:

Truly embodying the spirit of serenity and hospitality, CSMIA offers bouquet of services for passengers to indulge in, which include world-class lounges, luxury concierge services, global cuisines, top retail, and F&B outlets and much more. Some of the many services one can indulge at the airport are –

- **Pranaam services** – These services focus on redefining airport hospitality for travellers with genuine care and a seamless travel experience. Travellers can choose from the many facilities available in the packages curated as per one's requirements for a quick and hassle-free pre-boarding experience. Service such as personalized meet and assist services, dedicated porter for check-in baggage, assistance with the hand baggage, Immigration guidance process, amongst others are available for passengers travelling through CSMIA.

- **Airport Lounge** - One can unwind, refresh or can attend virtual meetings in a calm and soothing environment at the premium lounges available at CSMIA. From the main Airport Lounge to the unique Aviserv in-transit lounge offering sleeping pods, CSMIA understands the needs of the passengers and continues to maintain the magnificent infrastructure offerings. The aesthetically

pleasing lounges offer a myriad of services such as resting pods, business centres, live kitchens, well-stacked bars, spa services, private shower facilities, to name a few.

- **The Art Beat of New India** – A 3.2 km of traditional and modern art celebrating the rich heritage and culture of India.

Providing Additional Passenger Amenities and Supporting State-of-the art terminal Infrastructure which includes:

o E-gates, Self-Baggage Drop Counters,

o Increased Passenger Seating area with additional capacity

o Escalators, Elevators,

o Appealing aesthetics aligned with city's culture and heritage.

o Refurbishment of existing infrastructure (including flooring, ceiling, toilets)

o City-side check-in facilities,

o Kerb-side facilities for passengers and visitors arriving early at the airport.

o Improvement in approach road and construction of new roads

Seamless Ground Transportation:

- **New Dedicated OLA, Uber and Taxi Pick up and Drop off Zones** for a convenient arrival and departure experience. Further a completely new Landside way finding signages have been installed along with Gantry entrance Improvised Terminal Signages for better arrival experience.

- **Introduction of Dedicated Drop- Off lanes for decongestion at kerb-side** and smooth traffic management and Terminal 1- Entry points have been increased part of capacity enhancement.

- **Introduced free Inter-Terminal Shuttle Services** for passengers to commute between the terminals.

***