

MEMORANDUM OF UNDERSTANDING

Between

Centre For Transportation Research & Management

And

Datavantage Advisory LLP

1. Introduction

This Memorandum of Understanding ("MOU") is between Centre for Transportation Research & Management (CTRAM) and Datavantage Advisory LLP (DVA).

WHEREAS, the CTRAM is an autonomous body of transport professionals established as a registered Society. CTRAM– is engaged in promoting transportation research & management, upgrade professional & managerial skills, develop & evolve policies for achieving optimal inter-modal mix and provide a forum for cross sectorial & cross functional dialogue between policy makers, professionals and academics on issues pertaining to transportation and logistics and focus on issues facing the transport sector in general and rail sub-sector in particular and suggest solutions contributing to the economic development of the nation.

WHEREAS, DVA provides advisory services to meet the strategic and operations needs of organizations under its overarching theme of value creation and development comprising (i) Decarbonization leveraging strategies & policies based on new innovative technologies, (ii) Value chains and trade leveraging inherent competitive strengths to capture a higher share of value addition and (iii) Economic development adopting robust development strategies, infrastructure creation, ensuring inclusivity and value creation. DVA's methodology & approach for engagements integrates data-driven insights and robust analytics to help our clients break through challenges and achieve transformational outcomes. DVA's focus areas include:

- Smart Infrastructure & Financing Including Multimodal Logistics, Transport Policy, Logistics Parks.
- Sustainable Economic Development Strategies
- Climate-Resilient Economies
- Use of Digitalization and Advanced Technological Solutions in Transport and Logistics
- Trade facilitation through global and Regional Value Chain Integration
- Investment Climate and Ease of Doing Business

WHEREAS, CTRAM and DVA (hereinafter referred to as the "Participants", and individually, each a "Participant"), have had discussions and agreed to collaborate and cooperate in matters of common interest, and to render their respective activities more effective and beneficial.

THEREFORE, the Participants enter into this MOU to describe their mutual intention to collaborate and cooperate on the common objectives described below.

2. Overall Objectives

The basic objective is co-creation of knowledge and work on application based and outcome oriented solutions and in this direction Participants desire to collaborate in the following non-exhaustive areas: (1) increasing rail transport share and multimodal transportation integration; (2) addressing sustainability considerations in the logistics and transport across sectors ; and (3) promotion of digitalization and smart logistics, which are fully aligned with CTRAM's industry knowledge and expertise as well as DVA's relevant sectoral focus areas which are multimodal logistics, transport policy, urban logistics, decarbonization and sustainability of transport and infrastructure. These and any other areas to be agreed between the Participants are subject to their respective internal objectives, functions, policies, and procedures.

This MOU provides a framework within which the Participants may develop and undertake collaborative activities and is not intended to interfere with the Participants other commercial activities.

3. Activities and Cross-Cutting Areas of Collaboration

The Participants plan to carry out the following activities, within the areas of collaboration as further elaborated in the Annex:

- a) Share knowledge, ideas, and lessons learned.
- b) Collaborate in sharing of relevant data and information related to the broad objectives being pursued under this MOU.
- c) Explore opportunities to promote skill development by conducting knowledge transfer sessions, workshops and related engagements.
- d) Explore avenues to collaborate with third parties already engaged with either of the Participants to seek expertise in specific sector such as digitalization, sustainability, etc.
- e) Jointly engage in a dialogue with stakeholders and others interested in activities being pursued under this MOU.
- f) Periodically evaluate the effectiveness of working in collaboration with each other, with reference to their respective organizational mandates and priorities.

To advance the implementation of this MOU, the Participants intend to jointly develop a nonbinding action plan ("Action Plan") based on the areas outlined in Article 2 above. The Action Plan may contain the following information: (a) scope of activities and an estimated timeline for their completion; and (b) financial and non-financial implications of identified activities, subject to the respective internal policies, procedures, and approvals of each Participant. Any engagements that the Participants may decide to pursue jointly under the Action Plan will be subject to separate and legally binding agreements that would be discussed and executed separately from this MOU. In accordance with this MOU, it is understood that the list of planned activities provided herein is non-exhaustive and may be subject to further additions or modifications as mutually agreed upon by the Participants.

4. Intellectual Property

The Participants acknowledge that nothing in this MOU is intended to grant a Participant the right to use intellectual property owned or controlled by the other Participant. The Participants intend to jointly decide in writing on the ownership and use of any intellectual property deriving from activities under this MOU on a case-by-case basis.

The Participants also acknowledge that they may not use the name, trademark, or logo of the other Participant, or any variation thereof, without the prior written approval of the concerned Participant.

5. Publicity and Confidentiality

Any disclosure of the terms of this MOU will be made subject to the Participants' respective confidentiality and / or disclosure related policies. Disclosure of any information shared or exchanged between the Participants under this MOU that is designated as "CONFIDENTIAL" shall require prior written consent of the other Participant, unless such disclosure is made consequent to the directions of the Courts of Law.

6. Disclaimers

- a) Nothing in this MOU is intended to be construed as creating a joint venture, an agency relationship, or a legal partnership between the Participants.
- b) Nothing in this MOU is intended to constitute an agreement or commitment by any Participant to enter into or provide support for any specific activity or project.
- c) Nothing in this MOU is intended to constitute any commitment with regards to the financing of any specific activity or project.
- d) Each Participant is responsible for its respective costs and expenses that may be incurred in connection with the activities described in this MOU, unless otherwise agreed separately
- e) Nothing in this MOU restricts a Participant from entering similar arrangements with third parties covering the same or similar subject matter areas or activities.
- f) Nothing herein is intended to prevent the Participants from entering into separate and legally binding agreements related to the areas of collaboration described in this MOU, or otherwise, provided, however, that any such separate and legally binding agreements are discussed and executed separately from this MOU and be subject to the specific terms and conditions set forth therein.

7. Privileges and Immunities

Nothing in this MOU is intended to be a waiver of the privileges and immunities of any of the Participants or their officers and employees, as applicable, which privileges and immunities are hereby specifically reserved.

8. Disagreements

The Participants acknowledge their intent to resolve any disagreements arising out of this MOU amicably through consultations.

9. Term and Termination

- a) The Participants intend to cooperate as set out in this MOU for an initial period of three years from the date of its execution, unless terminated as provided in paragraph (b) below.
- b) The Participants shall, if they wish to no longer collaborate as set out in this MOU, to end their collaboration under this MOU by: (1) mutual written declaration of the Participants; or (2) a unilateral statement in writing by any Participant to the other Participant 60 calendar days in advance of the intended end of their engagement.

10. Notices, Communications, and Amendments

The Participants intend to issue all notices, communication, and amendments related to this MOU in writing.

11. Official Representatives and Addresses

Unless notified otherwise, each Participant designates below its representative with overall responsibility for all activities and communication in connection with this MOU.

For the CTRAM:

Centre for Transportation Research and Management, 101 & 107, NCRPU Complex, Shivaji Bridge, Behind Shankar Market, New Delhi 110001

Attention: Amit Kumar Singh, Executive Director & Secretary

For DVA:

Datavantage Advisory LLP; Ground floor, 135 Rajdanga Gold Park, Kolkata 700107

Attention: Mr. Atul Sanganerla, Partner

Signed in New Delhi on <PLEASE FILL IN>, in duplicate, all texts being equally authentic.

12. Miscellaneous

This MOU is intended to set out a summary of the understanding between the Participants. Nothing expressed or implied herein (whether by operation of law or otherwise) is intended to legally commit or oblige any Participant to perform or observe any of the provisions herein, and this MOU is not intended to create any binding and enforceable obligations nor any rights to the Participants.

For Datavantage Advisory LLP 	For Centre for Transportation Research & Management:
Name: Atul Sanganerla Designation: Partner Date: 9 May 2025	Name: Amit Kumar Singh Designation: Executive Director & Secretary Date:

ANNEX

AREAS FOR COLLABORATION

The Participants have identified several key areas for collaboration aimed at advancing sustainable and efficient transport and logistics systems including other relevant areas of research interest in the field of transport, logistics, sustainability, automation, digitalisation, cross border and regional transport and logistics. These include exploring opportunities to optimize logistics across various sectors, emphasizing sustainability considerations and minimizing environmental impact. Promoting the integration of smart technologies and digital solutions in logistics operations to enhance efficiency and foster innovation will also be a priority. The goal is to expand the collective impact of the partnership by sharing best practices across different transport modes, building capacity, and encouraging knowledge exchange.

1. **Multimodal Transportation and Logistics Optimization:** Develop strategies to promote integrated transport systems that enhance efficiency, reduce costs, and support sustainability. Key focus areas include shifting from road to rail, expanding waterways, and addressing infrastructure gaps to enable seamless multimodal connectivity for vital industries and supply chains.
2. **Digital Transformation and Smart Logistics Objective:** Encourage adoption of innovative technologies—such as cloud computing, IoT, and GPS tracking—to streamline supply chains across various scales. Collaborations will support innovation, data sharing, and capacity building.
3. **Environmentally Friendly Transport Modes Objective:** Promote eco-friendly transport options, cleaner fuels, and energy-efficient vehicles, coupled with automation solutions like GPS tolling. The aim is to reduce emissions, boost green logistics, and foster sustainable urban and regional development.
4. **Smart Infrastructure and Asset Management:** Optimizing maintenance and utilization of transport assets through IoT and data analytics.
5. **Last-Mile Delivery Innovations:** Exploring drone delivery, autonomous vehicles, and micro-hubs to improve urban logistics.
6. **Supply Chain Resilience:** Assessing and enhancing resilience to disruptions such as climate change, geopolitical shifts, and pandemics.
7. **Data-Driven Decision-Making:** Leveraging big data and AI for predictive analytics, demand forecasting, and capacity planning in logistics networks.
8. Additional Research Areas and knowledge collaboration relevant as per evolving needs of CTRAM and DVA

This broad framework aims to facilitate collaborative efforts in transforming transport and logistics into more sustainable, innovative, and efficient systems, adaptable to changing sector needs and environmental priorities.