

# 2<sup>nd</sup> Edition of the Conference on Safe City & Intelligent Mobility India 2024 By Bharat Exhibitions

#### **ABOUT THE CONFERENCE**

The main theme of the Conference was "INNOVATIONS, SUSTAINABILITY, SURVEILLANCE & DEVELOPMENT FOR SAFE CITIES".

Focusing on various aspects of a smart city including urban development, Surveillance, power, energy, transport, technology, smart building, smart grid, smart health, network & communication technology, etc. It is going to bring together global thought leaders to explore the intersection of technology (Smart Mobility, Internet of Things, M2M, Cloud, Artificial intelligence, Renewable energy, Big data, etc.), innovation, OSS/BSS, smart cities, skills, regional collaboration and education. The conference included plenary sessions, meetings, demos, presentations, projects and solutions. It facilitated opportunities for one-to-one meetings, group discussions and networking and highlighted new areas & upcoming technologies with stakeholders who are developing smart cities.

## **Conference Agenda**

0900 – 1000 hrs	Registration and Visit in the Exhibition Hall
0945 – 1100 hrs	Session 1: Opening Ceremony
Inaugural Session	Intelligent Traffic Management Systems for making Cities Safer, Smarter and Greener  Clean Mobility Technology, Data Analytics, IoT & AI in Smart Mobility Vehicle to Grid Connectivity Solutions Safe City Solutions and Urban Security
Welcome Address	Mr. Shashi Dharan, Managing Director, Bharat Exhibitions
Special Guest of Honour	Shri A. Robert J. Ravi, Chairman & Managing Director, Bharat Sanchar Nigam Limited
Guest of Honour	<b>Shri B. Shanker Jaiswal, IPS</b> , Joint Commissioner of Police (Technology, Cyber & Licensing), Delhi Police
Special Address	<b>Shri Manoj Tandon,</b> Director (Project, Operations & Maintenance), RailTel Corporation of India Ltd.
Keynote Address Industry Address Industry Address	Mr. Vijay Kumar, Chief Financial Officer (Global) Norden Communication Mr. Sarang Deshpande, Principal Solution Architect, Videonetics Mr. Maqsood Ahemad, Dy. General Manager & Business Unit Head – Smart Transportation, NEC Corporation India Pvt. Ltd.
Special Address	Release of the Deloitte Report Mr. Vivek Mittal, Executive Director, Deloitte India
1100 – 1115 hrs	Refreshments & Networking Break and Visit in the Exhibition Hall
1115 – 1330 hrs	Session 2: Technical Presentations 1 Smart Mobility: Towards a More Sustainable & Efficient Future Cities
Session Chair	Dr. Sumit D. Chowdhury, Founder, Chairman & MD, Gaia Smart Cities (Introductory Remarks)  Speakers: Mr. Parikshit Tiwari, Associate Director (Sales), Norden Communication Mr. Ravi Kumar CK, AVP – Business Development, Videonetics Mr. Aman Preet Singh, Senior Manager & Smart City Business Unit, NEC Corporation India Pvt. Ltd. Mr. Anand Bhaskar, CEO & Co-Founder, Digital Blanket Dr. Chinmay Hegde, Managing Director, Astrikos.AI Mr. Bikas Jha, Vice President & Head (Public Sector Sales), AWIROS Mr. Gurinder Singh, Technical Head – India & SAARC, Netskope  Theme: Zero Trust Data Protection Strategies Mr. Amit Mehta, DGM - Government Vertical, Alcatel-Lucent Enterprise Mr. Anand Navani, Country Head - India & SAARC, Intellicene  Theme: Safe Cities Reimagined: Leveraging Two-Way Incident Management with Symphia Control and NowForce Mobility Mr. Avi Dahiya, Founder and CEO, TWYN
1345 – 1415 hrs	Networking Lunch and Visit in the Exhibition Hall

1415 – 1530 hrs	Session 3: Technical Presentations 2
Session Theme	Challenges and Opportunities of Safe City and Leveraging IoT Sensors and Al for Traffic & Public Transport Management
Session Chair & Lead Speaker	Dr. Shiv Kumar, Director General, ITS India Forum (Introductory Remarks)  Speakers: Mr. Saurabh Agarwal, CEO, TechBridge Mr. Arul Prathan Singh, Director, Madras Security Printers Mr. Rahul Sawardekar, Head Business – Traffic & Enforcement, Ador Powertron Mr. Om Krishan Singh, Scientist D/Joint Director, MeitY
1530 – 1630 hrs	Session 4: Panel Discussion on
Session Theme	Policy and Governance for Smart Mobility              Ramping up institutional capability to absorb new technology and move away from legacy approach             Reforms in laws and need for new policies and guidelines             Challenges & Opportunities of Smart Mobility Ecosystem             Intelligent traffic management system for Seamless and sustainable Urban Connectivity
Moderator	Mr. Saket Mehta, Director, Deloitte India (Introductory Remarks)  Panelists: Prof. Manoranjan Parida, Director, CSIR - Central Road Research Institute Mr. Dinesh Chand Sharma, Director – Standards & Public Policy, SESEI Mr. Prashant Oberoi, Director, India & SAARC, Norden Communication Dr. Chinmay Hegde, Managing Director, Astrikos.AI Mr. A.S. Pandey, AGM (IT) & CISO, Dedicated Freight Corridor Corporation of India Ltd. Mr. Vishvatosh Pandey, Regional Technical Lead (North & East), Alcatel-Lucent Enterprise
1615 hrs onwards	Concluding Remarks followed Networking Tea/Coffee

# SESEI Expert participated in the Panel Discussion on "Policy and Governance for Smart Mobility".

Details of the session, proceedings and key take aways are as under:



## Session 4: Panel Discussion on Policy and Governance for Smart Mobility

- Ramping up institutional capability to absorb new technology and move away from legacy approach
- Reforms in laws and need for new policies and guidelines
- Challenges & Opportunities of Smart Mobility Ecosystem
- Intelligent traffic management system for Seamless and sustainable Urban Connectivity

Session Moderator: Mr. Saket Mehta, Director, Deloitte India

#### Panelists:

Prof. Manoranjan Parida, Director, CSIR - Central Road Research Institute

Mr. Dinesh Chand Sharma, Director - Standards & Public Policy, SESEI

Mr. Prashant Oberoi, Director, India & SAARC, Norden Communication

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Mr. Vishvatosh Pandey, Regional Technical Lead (North & East), Alcatel-Lucent Enterprise



#### **Questions posed to SESEI Expert and Response**

#### **Policy & Regulatory**

# Q1. What are the main regulatory and policy barriers hindering the adoption of smart mobility technologies?

**Response:** Smart mobility/ITS, is profoundly reshaping the way we travel. Through the integration of advanced technologies and data-driven solutions, smart mobility promises more efficient, sustainable, and convenient mobility for individuals and societies.

However, Integrating new/emerging technologies such as AI, BC, IoT, Big Data etc. in transport industry faces several challenges including regulatory and policy related issues in its implementation and widespread adoption. Here are some key challenges:

- Conflicting Objectives and Policies: Smart mobility involves multiple sectors (transport, ICT, urban planning), but regulations/policies are often fragmented, leading to inconsistencies and confusion among stakeholders.
- Lack of National Strategy/Policy: In some countries including India, there is no overarching national strategy/policy that aligns various smart mobility initiatives, resulting in a lack of coordination and shared goals.
- **Slow Policy Adaptation:** Regulations often lag behind technological advancements, creating uncertainty for businesses and investors in the smart mobility sector.
- Lack of globally harmonized and Interoperability Standards: The absence of common standards for smart mobility technologies can hinder their integration and scalability. For instance, differing standards for vehicle-to-everything (V2X) communication can complicate the development of a unified system.

# Q2. How can we develop a cohesive strategy and a policy framework for smart mobility that integrates various modes of transport, and technologies?

**Response:** Developing a cohesive strategy and policy framework for smart mobility that integrates various modes of transport and technologies requires a multifaceted approach. Here are key steps to consider:

- Develop an overarching strategy for Smart Mobility with the view to coordinate effectively all initiatives on the various types of Smart Mobility applications.
- Create base conditions for Smart Mobility, e.g. by further investments in digital infrastructure.
- Define targeted sets of policy actions for each Smart Mobility application, stimulating and facilitating actions from all stakeholders. Policies include a consistent legal framework, large scale pilots, and a good balance between public, public-private and private financing.
- Ensure that policies are proactive, flexible and adaptive, such that they can be quickly adapted when new technological concepts become available or user preferences are different than anticipated.
- Improve the knowledge base on Smart Mobility applications on issues like technical requirements, expectations and concerns related to these applications, and the impacts these applications can have on the transport sector and society.
- Organise cooperation between all relevant stakeholders (including end-users), by promoting and/or prolonging and/or extending cooperation and consultation bodies (like EU <u>Cooperative</u>, <u>connected and automated mobility</u> (<u>CCAM</u>) Platform, <u>C-ITS Platform</u>, <u>C-Roads Platform</u> etc.)
- Learn from Global Best Practices: Study and adapt best practices from other regions or countries that have successfully implemented smart mobility strategies (example- EU <u>Sustainable & smart mobility strategy</u>, <u>European Strategy on C-ITS</u> etc.)
- Foster International Collaboration: Engage in international partnerships to share knowledge, technology, and resources.

# Q3. What standards should be established for data interoperability among smart mobility systems?

**Response:** Globally harmonized data interoperability standard plays an important role in implementation and widespread adoption of smart mobility. Establishing common protocols is necessary for seamless communication, integration, and functionality across various platforms and technologies. Here are some key standards that should be considered:



• Standardized Data Models: Establish common 5. How can sharing bet data models for representing information across different smart mobility systems. This includes formats for traffic data, vehicle information, public transport schedules, etc. Promote the use of open data formats like JSON, XML, and CSV to ensure that data can be easily shared and interpreted across different systems.

- V2X Communication Standards: Develop and implement standardized protocols for V2X communication, including V2I, V2V, and V2P. Examples include DSRC (Dedicated Short Range Communications) and C-V2X (Cellular Vehicle-to-Everything).
- IoT Communication Standards: Adopt IoT communication protocols like MQTT (Message Queuing Telemetry Transport) and CoAP (Constrained Application Protocol) for smart devices and sensors in the mobility ecosystem.
- APIs and Interoperability Frameworks: Develop comprehensive frameworks that define how different systems should interact, share data, and maintain compatibility. This could involve adopting frameworks like the European ITS Framework Architecture (FRAME).
- Data Privacy and Security Standards: Implement standards for data protection that ensure user privacy and secure data transmission. This includes adhering to regulations like **GDPR** in **Europe** and developing similar frameworks in other regions.

In Europe the European Telecommunications Standards Institute (ETSI) and the European Committee for Standardisation (CEN) have already developed common standards to support the interoperability of cooperative Intelligent Transport System (C-ITS) in the European Community.

- CEN/TC 278 is responsible for standards in the field of ITS and to exchange knowledge, information, best practices and experiences in ITS.
- ETSI TC ITS is responsible for standardization to support the development and implementation of Intelligent Transport Systems (ITS) service provision across the network, for transport networks, vehicles and transport users, including interface aspects, multiple modes of transport and interoperability between systems.

#### Institutional

Q4. What role should the central and state governments play in regulating and enforcing smart mobility policies?

**Response:** The central and state governments have distinct yet complementary roles in regulating and enforcing smart mobility policies. Effective collaboration between these two levels of government is essential to ensure the successful implementation and integration of smart mobility technologies across regions.

- **Development of National Smart Mobility Framework** setting clear objectives, guidelines, and timelines for adoption across the country.
  - State governments should adapt the national smart mobility framework to local contexts, considering specific regional needs, challenges, and priorities.
  - Both central and state governments should work together to ensure that state-level policies align with national objectives, while allowing for regional flexibility.
- Intergovernmental Data Systems: Establish robust data-sharing systems between central and state governments to facilitate the seamless integration of smart mobility systems across regions.
- **National Funding Programs**: The central government should establish funding programs such as **FAME INDIA** to support the development and deployment of smart mobility infrastructure, including public transport systems, EV charging networks, and traffic management systems.
- The central government should provide financial support to state government to set up innovation hubs and collaborative research with a focus on practical applications within the state to address specific local challenges.
- Foster adoption of globally Harmonized and Sustainability Standards: development and adoption of globally harmonized and highly sustainability standards for all smart mobility projects to minimize environmental impact and promote green/digital technologies.
- Promote Public-Private Partnerships (PPPs): The central government should promote and facilitate PPPs to leverage private sector expertise and investment in smart mobility projects (example <u>ERTICO - ITS Europe</u>).

# Q5. What mechanisms can be established to improve coordination among different governmental agencies and stakeholders involved in smart mobility?

#### Response:

- **Establish a dedicated platform** at both central and state levels that bring together representatives from various governmental agencies (e.g., transport, urban planning, ICT, environment) to oversee and coordinate smart mobility initiatives. This platform can help align goals, prevent overlap, and ensure that all stakeholders are on the same page.
- Organize regular training programs: to bring together staff from different agencies to learn about smart mobility technologies, policies, and best practices. This can help build a shared understanding and foster collaboration.

- **Joint Funding Programs**: Develop funding programs that require collaboration between multiple agencies. For instance, a smart city initiative might require joint funding from transport, ICT, and urban planning departments.
- National Smart Mobility Data Platform: Create a centralized data platform where
  different agencies can share and access mobility-related data. This platform should
  support standardized data formats and ensure data privacy and security (example
  European strategy for data).
- Harmonized Regulatory Frameworks: Work towards harmonizing regulations across different agencies and levels of government. This includes aligning standards for data interoperability, safety, and environmental impact.
- Increase participation of representatives from state government in National Standard formulation

#### General

# Q6. What lessons can be learned from international best practices in smart mobility that can be applied to the Indian context?

**Response:** Learning from international and EU best practices in smart mobility can provide valuable insights for India, helping to tailor solutions that address the country's unique challenges while leveraging proven strategies.

European Union has launched various projects to promote smart mobility and to address key challenges which are hindering faster deployment and implementation of smart mobility technologies:

• eCall: eCall is a European initiative intended to bring rapid assistance to motorists involved in a collision anywhere in the Europe Union (EU). Its aim to advance Europeans' protection and safety, and reduce fatalities caused by road accidents, as well as related injuries and property loss. Following a car crash, the technology automatically notifies emergency services. This allows them to arrive on the scene and provide medical assistance, faster. eCall also ensures serious accidents don't go unnoticed.

### **Key EU Projects:**

- <u>FENIX Network</u>: FENIX is a Connecting Europe Facility project aiming to support the development, validation and deployment of the digital information systems along the EU transport Core Network.
- <u>5G-LOGINNOV</u>: 5G-LOGINNOV's vision is to optimise freight and traffic operations at ports and logistics hubs by using new innovative concepts, applications and devices

supported by 5G technologies, Internet of Things (IoT), data analytics, next generation traffic management, CCAM and the 5G logistics corridor.

- <u>5GMETA</u>: The 5GMETA open platform aims to leverage car-captured data to stimulate, facilitate and feed innovative products and services.
- <u>SINFONICA</u>: SINFONICA aims to facilitate the shift toward innovative, smart mobility concepts in an inclusive and equitable way, through the adoption of an approach that always puts users and their needs at the centre. To fulfill this ambition, the SINFONICA project will develop functional, efficient, and innovative strategies, methods, and tools to engage users, suppliers and other stakeholders of Cooperative, Connected and Automated Mobility (CCAM), to collect, understand and structure their needs, wishes and concerns related to CCAM in a manageable and exploitable way.
- <u>TM2.0 Innovation platform</u>: The TM2.0 Innovation platform focuses on new solutions for advanced interactive traffic management.
  - IN2CCAM: IN2CCAM advances and accelerates CCAM technologies and services for seamless traffic management across Europe. This project aims to make roads safer, more sustainable, and more inclusive.

#### **EU – India Partnership on Smart and Sustainable Urbanization**

- In 2017, India and Europe adopted a Joint Declaration on a Partnership for Smart and Sustainable Urbanization. This thematic partnership supports smart and sustainable cities, promotes investments in sustainable urbanization, climate action and disaster risk reduction in cities. The EU-India Partnership on Smart and Sustainable Urbanization includes initiatives to strengthen cooperation in **sustainable urban mobility.** 

#### **India-EU Connectivity Partnership**

- Transport connectivity: Engage in dialogue on smart and sustainable mobility in line with the EU Smart and Sustainable Mobility Strategy, and green recovery objectives. Build on the portfolio of EIB urban mobility investments in India (Bangalore, Lucknow, Pune, Bhopal and Kanpur), as well as other new projects.

#### **India-EU Strategic Partnership: A Roadmap to 2025**

- Continue to support smart cities in India, such as under the EU-Agence Française de Development Smart City project, focusing on sustainable mobility, public open spaces, social and organizational innovation and urban e-governance.
- Enhance cooperation on sustainable mobility, including on the deployment of electric vehicle charging infrastructure.

## **Conclusion/Key takeaways**

- Need for overarching national strategy/policy that aligns various smart mobility initiatives, resulting in a lack of coordination and shared goals.
- Ensure adoption of globally harmonized and Interoperability Standards: The absence of common standards for smart mobility technologies can hinder their integration and scalability. For instance, differing standards for vehicle-to-everything (V2X) communication can complicate the development of a unified system.
- Globally harmonized data interoperability standard plays an important role in implementation and widespread adoption of smart mobility. Establishing common protocols is necessary for seamless communication, integration, and functionality across various platforms and technologies.
- Learning from international and EU best practices in smart mobility can provide valuable insights for India, helping to tailor solutions that address the country's unique challenges while leveraging proven strategies.











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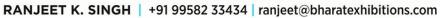
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