

INDRA SUPPORTS DIGITIZED MULTIMODAL MOBILITY WITH INTEGRATION OF TRAFFIC AND PUBLIC TRANSPORT TO ACHIEVE CLIMATE GOALS

- **That is clear from its latest Transportation Trends Report "Towards a New Mobility", which highlights the need for a cultural shift in the industry to share data and make the transition to Mobility as a Service centered on the citizen**
- **Using a platform of cloud platforms, official bodies, operators and users can now have a real-time global view of mobility to maximize capacity, adjust supply to meet demand and keep traffic moving with less pollution**
- **According to Indra, European Next Generation funds represent a unique opportunity to promote public-private collaboration and finance these long-term transformative initiatives that represent progress towards safer, smarter, more connected and more sustainable transportation**

Madrid, May 10, 2022. The Covid pandemic has brought with it a period of digital acceleration in the transportation sector, which is transforming the foundations of the sector and providing new challenges and solutions. People are now talking of the birth of a new, more connected, more intelligent, more efficient, safer and more sustainable mobility that the growth of 5G will accelerate.

In this new digitized mobility, a global view that integrates data and the management of traffic and public transport is essential to ensure the economic sustainability of the whole system and to achieve the climate goals set by the United Nations. That is reported in Transportation Trends Report (ITT Report) "Towards a New Mobility" (<https://www.indracompany.com/en/ittreport2022>), from Indra a leading global technology engineering company for the aerospace, defence and mobility sectors, which is being presented at the international transport trade fair IT-Trans, taking place in Karlsruhe, Germany, on May 10-12.

This profound transformation requires a cultural shift in the industry to share data and make the transition to Mobility as a Service (MaaS) centered on the individual. The technology to enable this shift of model already exists: a platform of cloud platforms capable of integrating all transport, traffic, logistics and infrastructure data, making most of the technologies like big data and artificial intelligence, predictive modeling, automation and virtualization to offer a global view of mobility in real time.

As detailed in the ITT Report, such a platform, like Indra's In-Mova Space platform, makes it possible to respond to the emergence of new mobility services, avoiding the fragmentation that could come from the proliferation of platforms, and enables integration with Intelligent Transportation Systems (ITS) that help monitor and manage road traffic, rail traffic management systems (TMS), bus management systems (OSS) and station control centers, helping to smooth out periods of peak demand.

By doing so, it gives transport authorities and operators a key tool for managing mobility and communicating in real time with users, with global information for decision-making, incident management, and congestion and traffic jam forecasting. Its web interface offers many advantages, such as remote management of control centers and *smart maintenance* (which makes it possible to predict maintenance operations and replan traffic).

"Our mission as technical experts in infrastructure and transportation systems is to provide solutions to promote through innovation and the projects we implement with our customers, a new mobility system for travelers and goods that addresses the sustainability challenges facing our society. European Next Generation funds are a unique opportunity to promote public-private collaboration and finance truly transformative initiatives in the long term," says Berta Barrero, Managing director at Indra of Mobility.

Mobility as a Service

A platform of platforms alongside a user support solution that offers integrated information on the user's cell phone, plus new technology to monitor access to contactless and cashless transportation, using EMV, NFC, QR or biometrics, open the door to an interoperable and multimodal Mobility as a Service (MaaS) solution.

According to Indra, this integrated cloud management would allow city councils and authorities to connect to the services of infrastructure managers under licensing and payment for infrastructure used – a true revolution in the way of viewing mobility management.

It also requires a multimodal back-office system that integrates all business parameters, anti-fraud systems, revenue sharing for trips among the operators involved and the application of discounts and use incentives. The incorporation of blockchain can facilitate the exchange of information between operators and ensure data integrity. Cybersecurity is also vital for every part of this connected ecosystem.

As explained in Indra's report, all these solutions allow us to move towards more resilient public transport, optimizing its capacity to flatten peaks of demand, and generating new monetization channels with additional services that improve the user experience.

Reducing CO₂ emissions

Travelers are looking for barrier-free, multimodal door-to-door travel with real-time information on their cell phones about the best options for their trip, including expected occupancy. The complete digitization of the travel experience and improvements to the user experience would greatly increase the use of public transport, contributing to lower congestion and CO₂ emissions.

Promoting cleaner, less polluting traffic and avoiding congestion to improve air quality are also key to the new model advocated by Indra. The report highlights the trend to adopt Low Emission Zones (LEZ) and dynamic pricing (managed lanes) on high occupancy roads (based on traffic, vehicle occupants and emissions, detected by different sensors), which is already being seen for access to many cities in Europe and the United States.

Finally, given the explosion of e-commerce which has increased the transport of goods by road and the demand for last-mile transport, Indra proposes taking advantage of the integrated platform to make delivery slots more efficient, incorporating last-mile drones and promoting the competitiveness of rail for port-to-city transport.

Indra is a leading global technology engineering company for the aerospace, defence and mobility sectors. It has undertaken more than 2,500 projects in over 100 cities and more than 50 countries. It is its clients' principal technology partner for digitization and key operations worldwide. Its team of experts and its in-depth knowledge of those businesses and the latest technology, and its leadership in major European innovation programs and projects to design the next generation of technological solutions, give it a differential offering and enable Indra to lead unique, highly innovative projects that will transform the future of these sectors on a global scale in the coming years.

About Indra

Indra (www.indracompany.com) is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers worldwide. It is a world-leader in providing proprietary solutions in specific segments of the Transport and Defence markets, and a leader in Digital Transformation and Information Technologies in Spain and Latin America through its subsidiary Minsait. Its business model is based on a comprehensive range of proprietary products, with a high-value, end-to-end focus and with a high innovation component. At the close of the 2021 financial year, Indra had revenue of €3.39 billion, over 52,000 employees, a local presence in 46 countries and business operations in over 140 countries.