

# Smart and Digital Transport in Azerbaijan

Data-driven, integrated, and sustainable  
mobility ecosystem

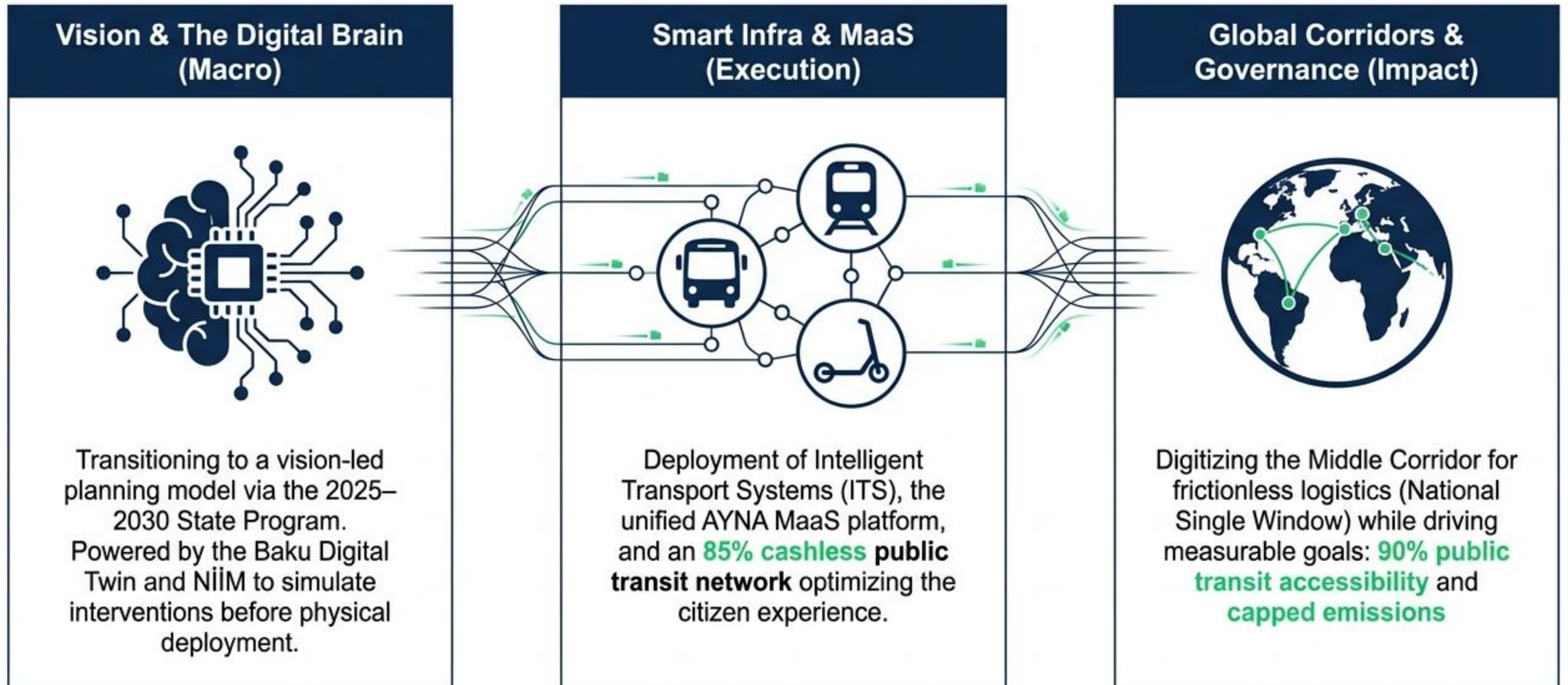


Ministry of Digital  
Development and Transport  
of the Republic of Azerbaijan

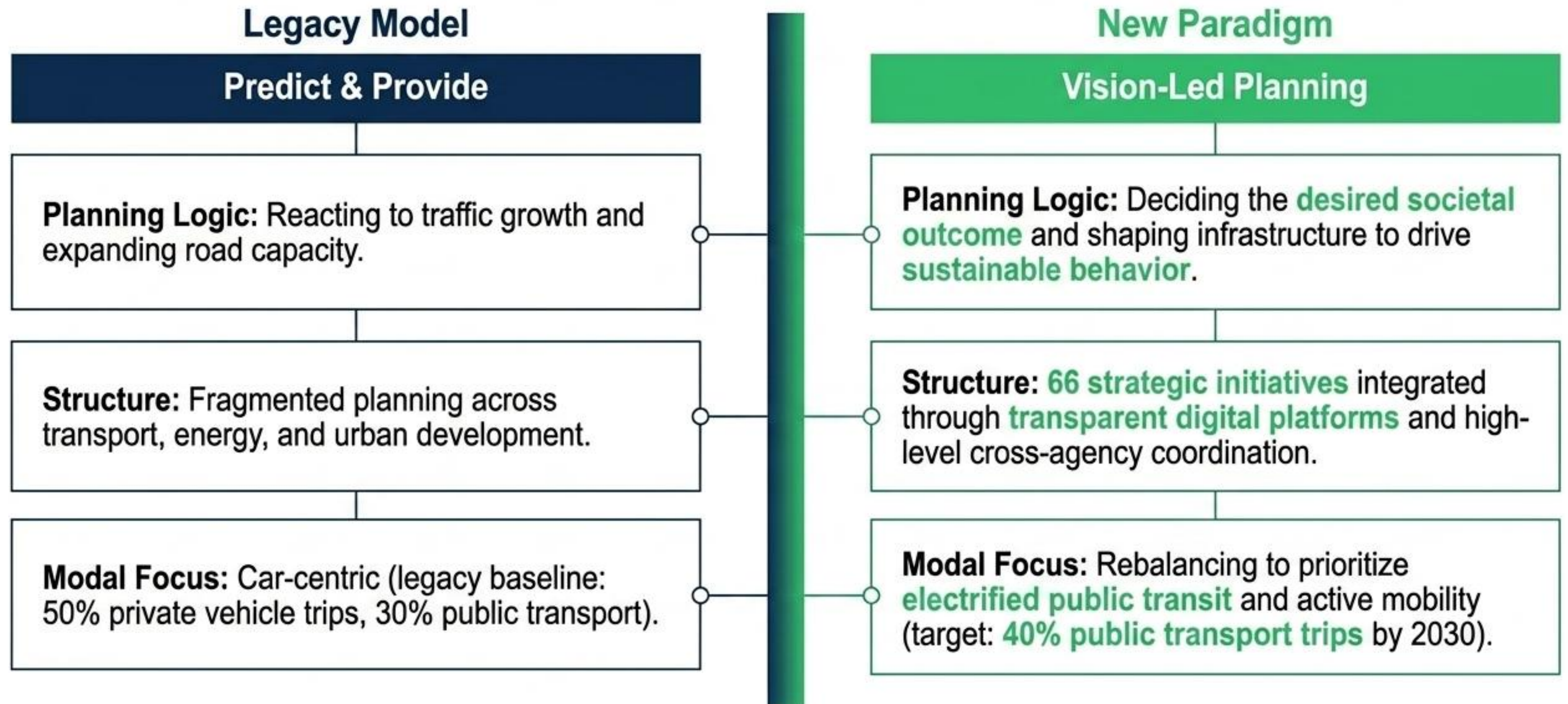
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Manila, May 2026

# Azerbaijan is executing a holistic mobility transformation driven by digitalization, sustainability, and proactive planning



# The 2025–2030 State Program officially shifts Azerbaijan from reactive traffic management to a proactive, vision-led urban model



# 5 Pillars of Digital Transformation



## Digital Twin

Simulation and Analytics

Brain



## AYNA MaaS

Integrated Mobility

System



## Cashless Society

Digital Payments

Circulation



## Intelligent Systems

Smart Management

Control




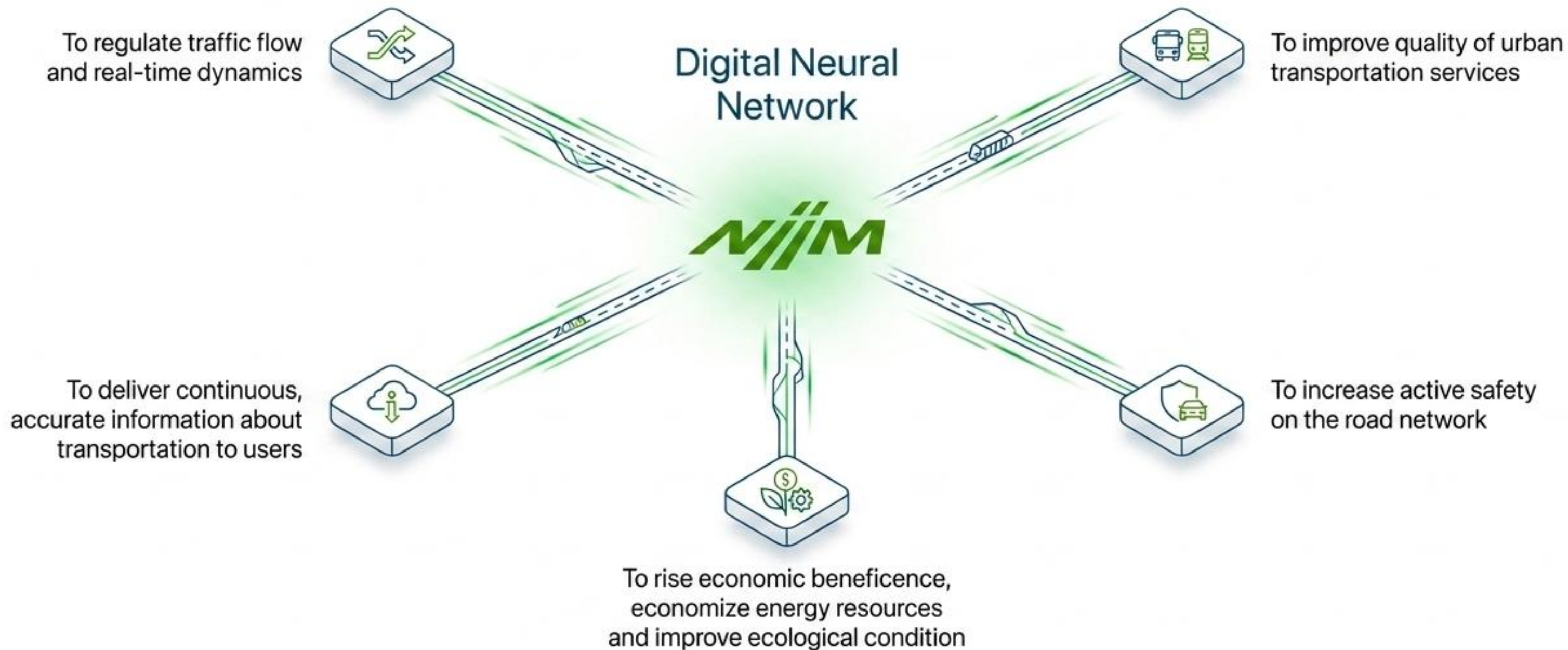
## DLP & Middle Corridor

Global Logistics

Connection

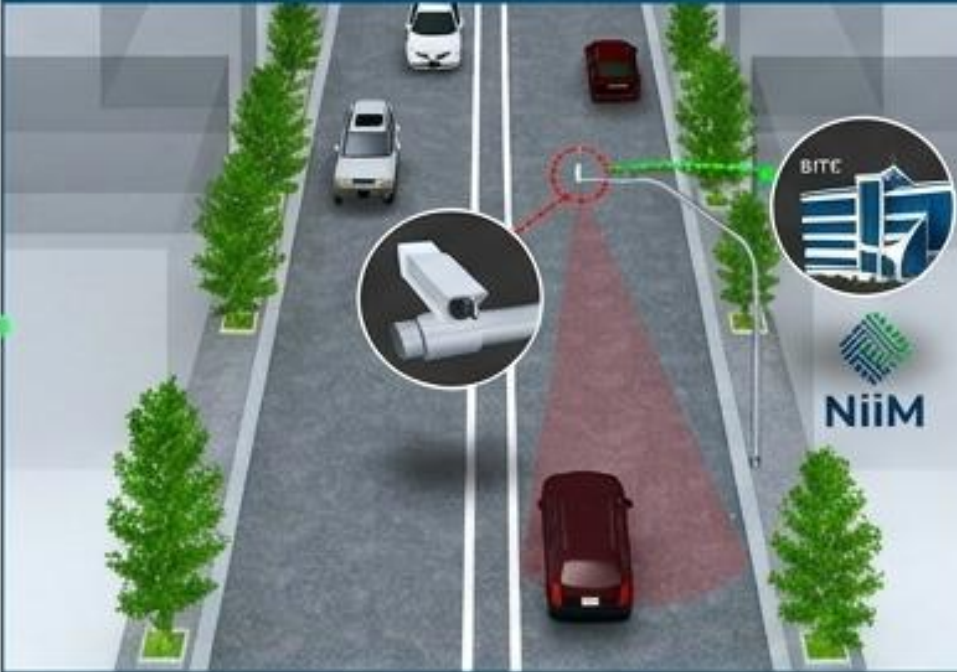
# The Intelligent Transport Management Center (NiIM) operates as the strategic nervous system for national traffic regulation and safety

 FOUNDATION:  
October 26, 2007, under  
Presidential Order 2469



# NiiM deploys a highly integrated, multi-layered hardware and software ecosystem to monitor and manage urban flow

### VAKS



**Video Vehicle Detection System:** Automated detection of vehicle volumes and flow rates.

The diagram shows a top-down view of a street with several cars. A red car is highlighted with a red dashed circle and a red arrow pointing to a camera icon. The Niim and BITC logos are visible in the bottom right corner.

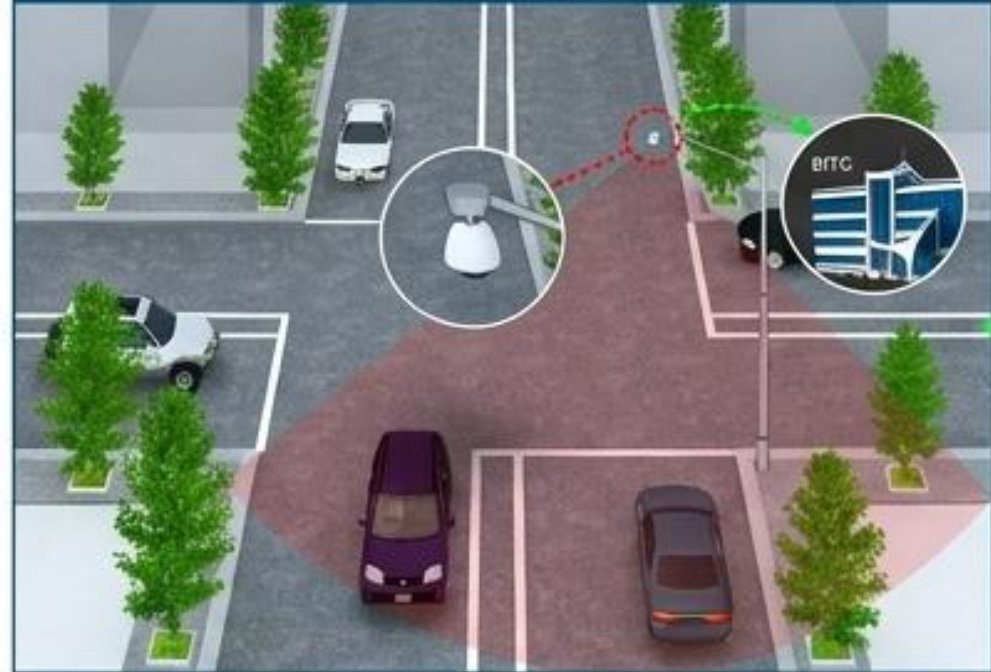
### ITS



**Traffic Information Dissemination:** Real-time routing and alert communication to drivers.

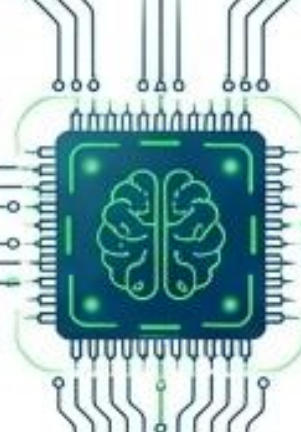
The diagram shows a top-down view of a street with several cars. A digital sign on the right side of the road displays a green arrow and a red 'X' indicating traffic conditions. A camera icon and a driver wearing sunglasses are also shown.

### MKS



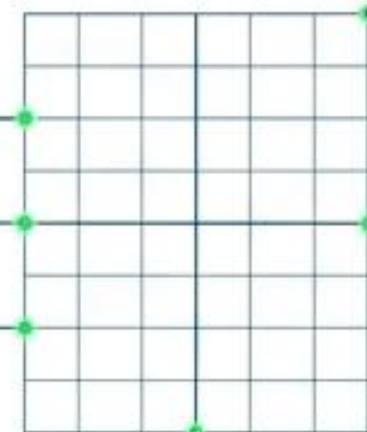
**Video-Monitoring Cameras System:** Continuous surveillance for incident management and safety.

The diagram shows a top-down view of a street with several cars. A red car is highlighted with a red dashed circle and a red arrow pointing to a camera icon. The Niim and BITC logos are visible in the bottom right corner.



### Monitoring Room Operations

- 73** equipment units
- 6** UPS backup systems ensuring zero-downtime resilience.



# Advanced ITS field deployments enforce real-time dynamic traffic management and continuous passenger communication

## Flow & Enforcement (NiIS System)



Implementation of advanced algorithms for dynamic traffic signal management.

**110 km of dedicated bus lanes**  
(enforced across 21 corridors)  
**17,000–20,000 regulated digital parking spots** (with free stays <15 minutes to eliminate curbside violations)

## Passenger Visibility



Expanding the transparent data layer directly to the commuter.

Deployment of **407 LTP electronic information boards** across the network to provide live, reliable transit data to the public.

# Baku's Digital Twin: Macro Level Data



# Real-Time Scenario and Simulation



Processes over 250 million data points.

**Static sources:** population, urban infrastructure, and demand surveys.

**Dynamic inputs:** traffic cameras, metro, bus, and ride-hailing platforms.

Replicates real-life conditions of a typical working day.

Fully updated to reflect latest infrastructure, traffic patterns, and mobility behaviors.

**Analysis:** Mathematical simulation of over 150 potential infrastructure projects.

**Prioritization:** Identification of the 9 most critical road infrastructure projects and proper allocation of resources.

**Evaluation:** Detailed evaluation of potential impacts on key performance indicators, including emissions reduction, congestion management, accessibility improvements, and energy efficiency.

# The “AYNA MaaS” platform unifies fragmented transport modes into a single, seamless digital mobility ecosystem



# Precise Planning and Real-Time Tracking



## 1. Planning

Ability to organize travel 7 days in advance ("Date-time" function).



## 2. Selection

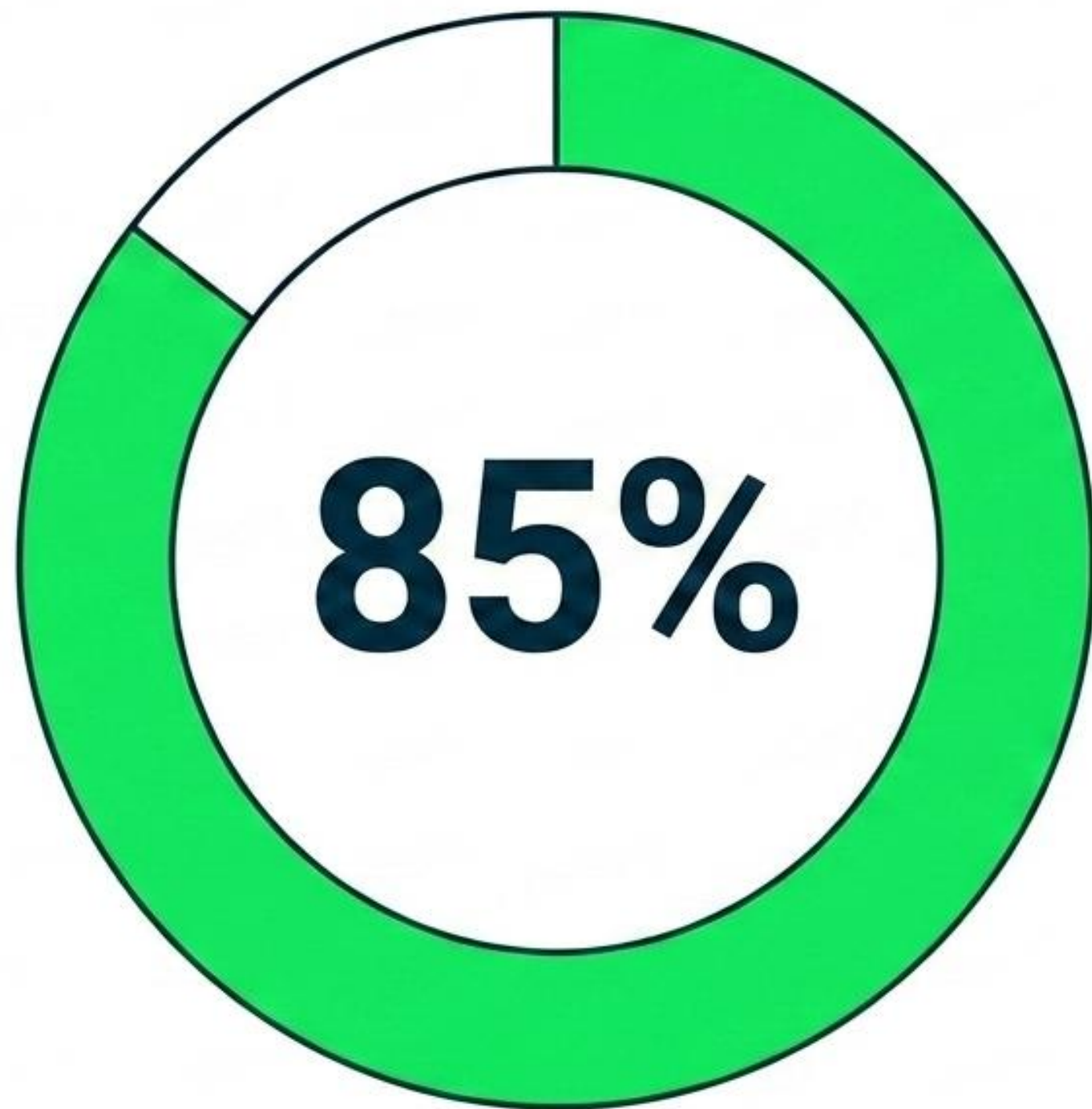
Route criteria for "Fastest", "Least walking", and "Lowest CO<sub>2</sub> emissions".



## 3. Live Tracking (GPS)

Transparent display of "Real" arrival time based on GPS, not a "Predicted" schedule.

# Digital Payment Revolution



**High Adoption:** 85% of trips are paid via BakuKart and contactless bank cards.

**Expansion:** Over 1800 buses are included in the system daily.

**NFC Revolution:** NFC (smartphone/watch) payments at Metro stations (over 7 million user experiences in just a 2-month trial period).

# Reorganizing Streets: Digital Parking

25,992

## Spaces

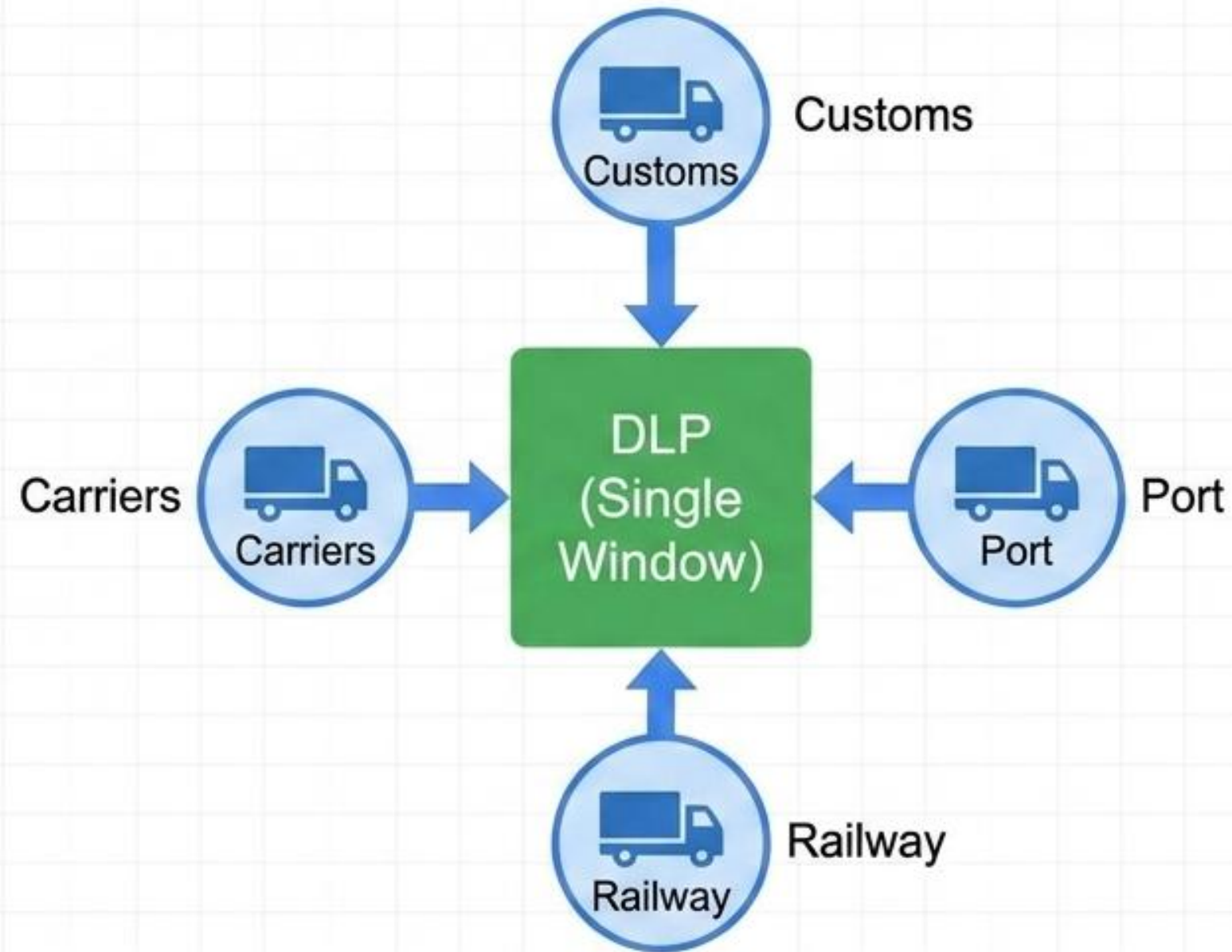
Fully digitized and regulated parking spaces across 932 locations citywide.



## Full Digital Control

Cashless payment (app/SMS). First 15 minutes free to encourage short stays and reduce unnecessary occupation.

# National Single Window: Digital Logistics Platform (DLP)



- **Paperless Management:** Full digitalization of import, export, and transit operations.
- **System Integration:** Unifying customs, railways, and seaports.
- **Transparency and Speed:** Eliminating delays.

# Digital Backbone of the Middle Corridor



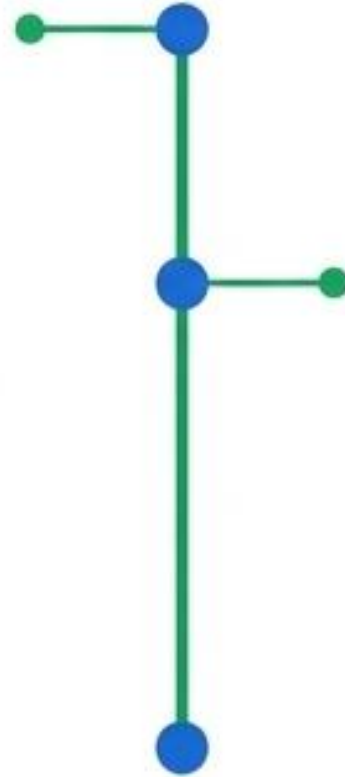
- **e-CMR**: Paperless international road transport documentation.
- **e-Permit**: Piloting of digital permits.
- **eCIM/SMGS & e-TIR**: Harmonization of different legal regimes into a single digital document.

# The ADY Smart platform brings real-time visibility and commercial predictability to railway freight logistics



## Real-Time Cargo Tracking

End-to-end visibility for cargo owners from registration to final delivery, supporting the handling of **18.5 million tonnes of total freight in 2024.**



## Commercial Predictability

Online tariff calculators and single-window service packages enabling dynamic pricing and reliable costing.

This digital predictability fueled a **34% year-on-year increase** in block trains handled along the Middle Corridor in the first 11 months of 2025.

# Real Results and Targets of Digitalization (2030)

30-40%



Reduce individual car usage, increase public and micromobility to 60%.

90%



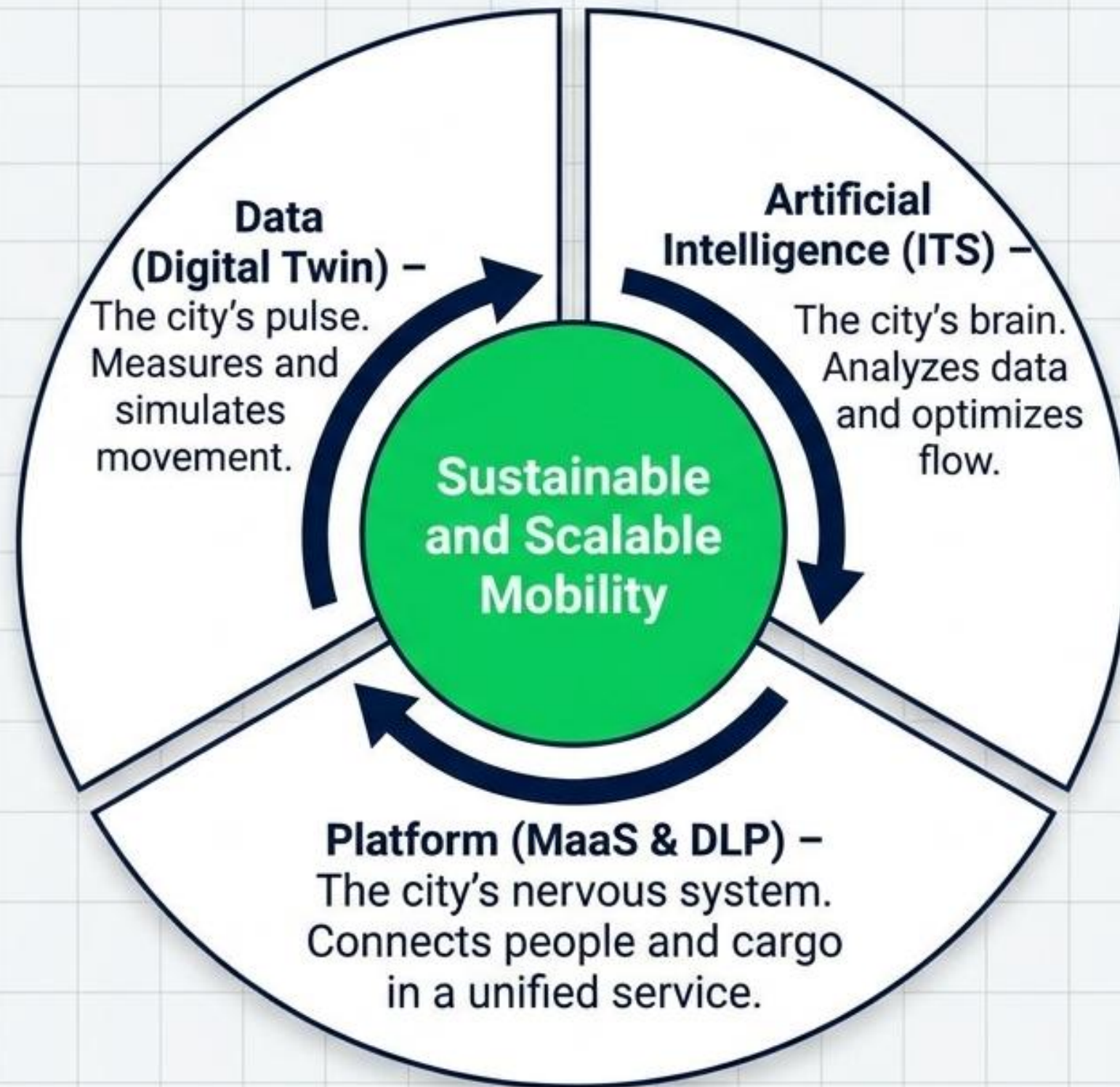
Ensure 90% of Baku residents have access to public transport within a 500m radius.

600 kg



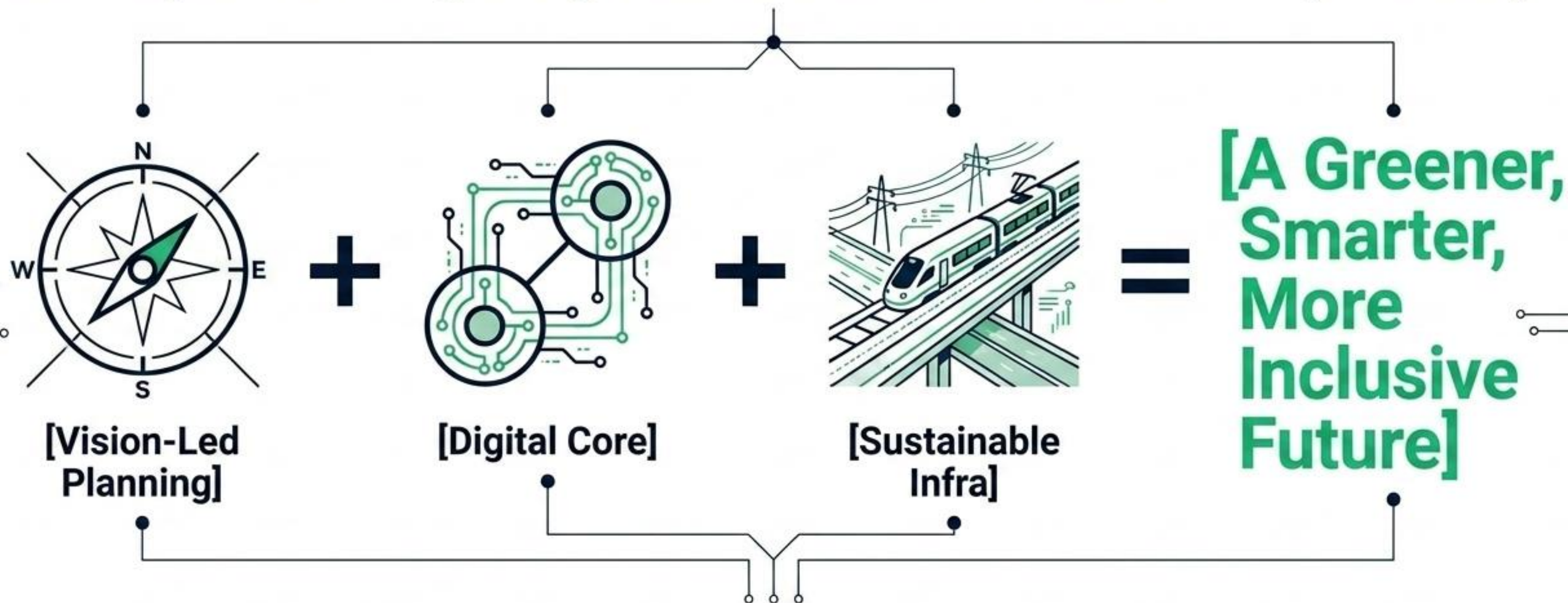
Limit annual per capita transport emissions to 600 kg CO<sub>2</sub>.

# “Smart City” Matrix: The Intersection Point



ACTION

**By fusing digital intelligence with sustainable infrastructure, Azerbaijan is setting the global standard for 21st-century mobility**



**Not just consuming global solutions, but actively contributing to international innovation in transport resilience and supply chain integration.**

# Thank you!



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