INTELLIGENT MOBILITY KEYNOTE

SMOOTH TRAFFIC IS TO A NATION WHAT BLOOD CIRCULATION IS TO A HUMAN BODY

Rethinking Intelligent Traffic Management for Viksit Bharat 2047

JITENDRA KAUSHIK



Nearly 3 Decades of Watching Traffic







30 YEARS

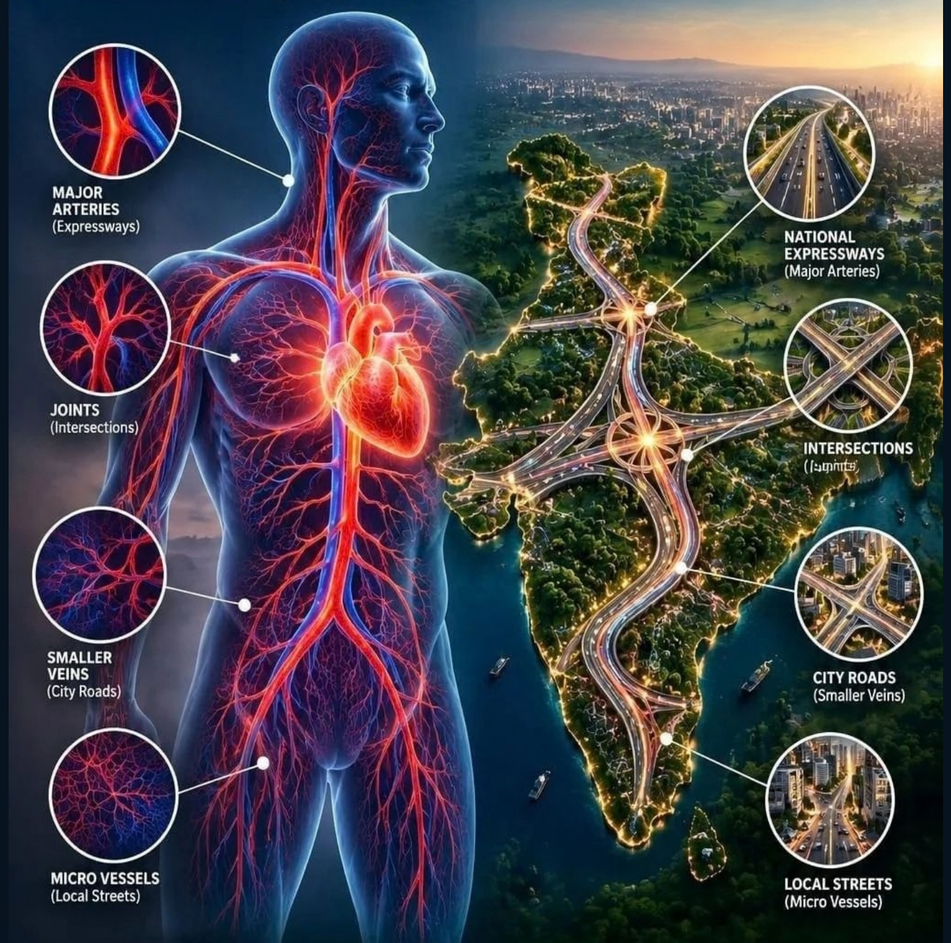
TRAFFIC SIGNALS

TRAFFIC MANAGEMENT

OBSERVE → UNDERSTAND → IMPROVE

Smooth Traffic is to a Nation
What Blood Circulation is to a Human Body.

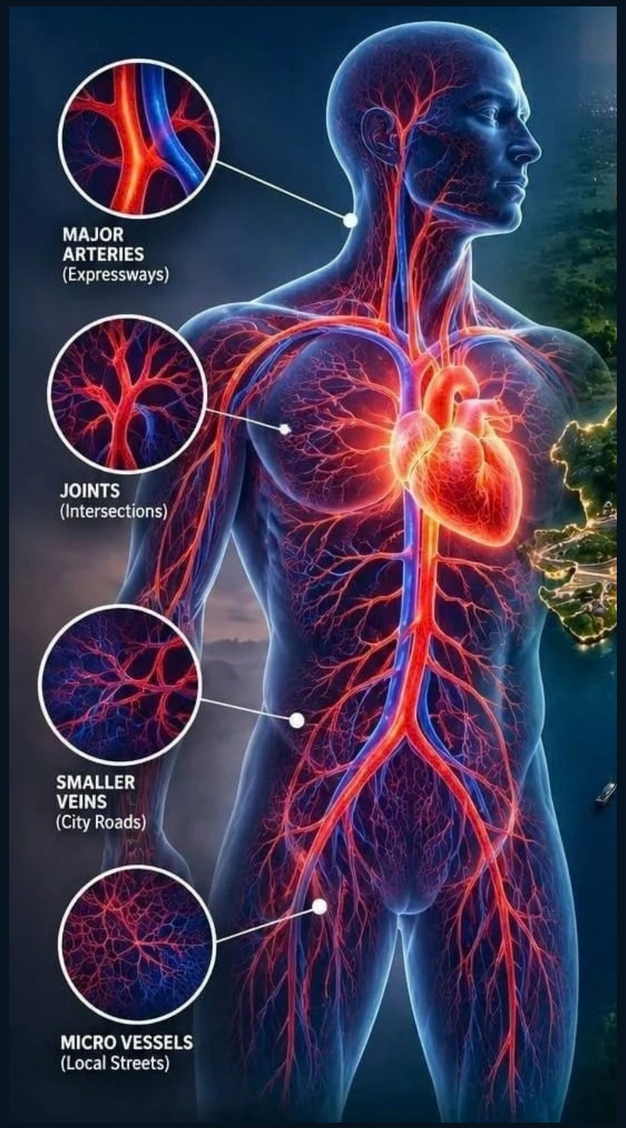
Onnyx — Keeping the Nation Moving.

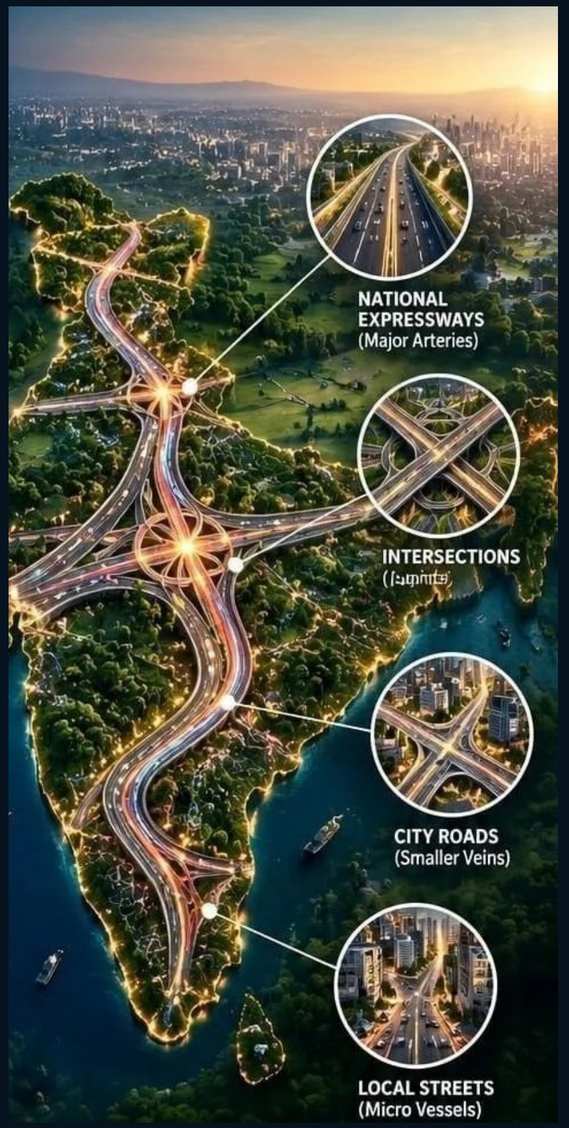


- Smoother Flow at Junctions
- Safer and More Reliable Travel
- Higher Network Efficiency
- Healthier, Stronger Communities

ONNYX

KEEP THE NATION MOVING


MAJOR
ARTERIES
(Expressways)
JOINTS
(Intersections)
SMALLER
VEINS
(City Roads)
MICRO VESSELS
(Local Streets)


NATIONAL
EXPRESSWAYS
(Major Arteries)
INTERSECTIONS
CITY ROADS
(Smaller Veins)
LOCAL STREETS
(Micro Vessels)

The Network Is Only Useful When the Flow Is Healthy

HUMAN BODY	TRANSPORT NETWORK
MAJOR ARTERIES	EXPRESSWAYS & NATIONAL HIGHWAYS
BLOOD VESSELS	STATE HIGHWAYS & MAJOR CITY ROADS
CAPILLARIES	LOCAL ROADS & STREETS
BLOOD FLOW	MOVEMENT OF PEOPLE & GOODS

The network is only useful when the flow is healthy.


“Solving Joint Pain”

Are We Making Intelligent Use of the Infrastructure We Already Have?

MORE INFRASTRUCTURE

↓

MORE CAPACITY

↓

BUT... IS THE FLOW INTELLIGENT?

The future requires not only MORE infrastructure — but MORE INTELLIGENT infrastructure.



From Fixed Signals to Intelligent Signals

PAST

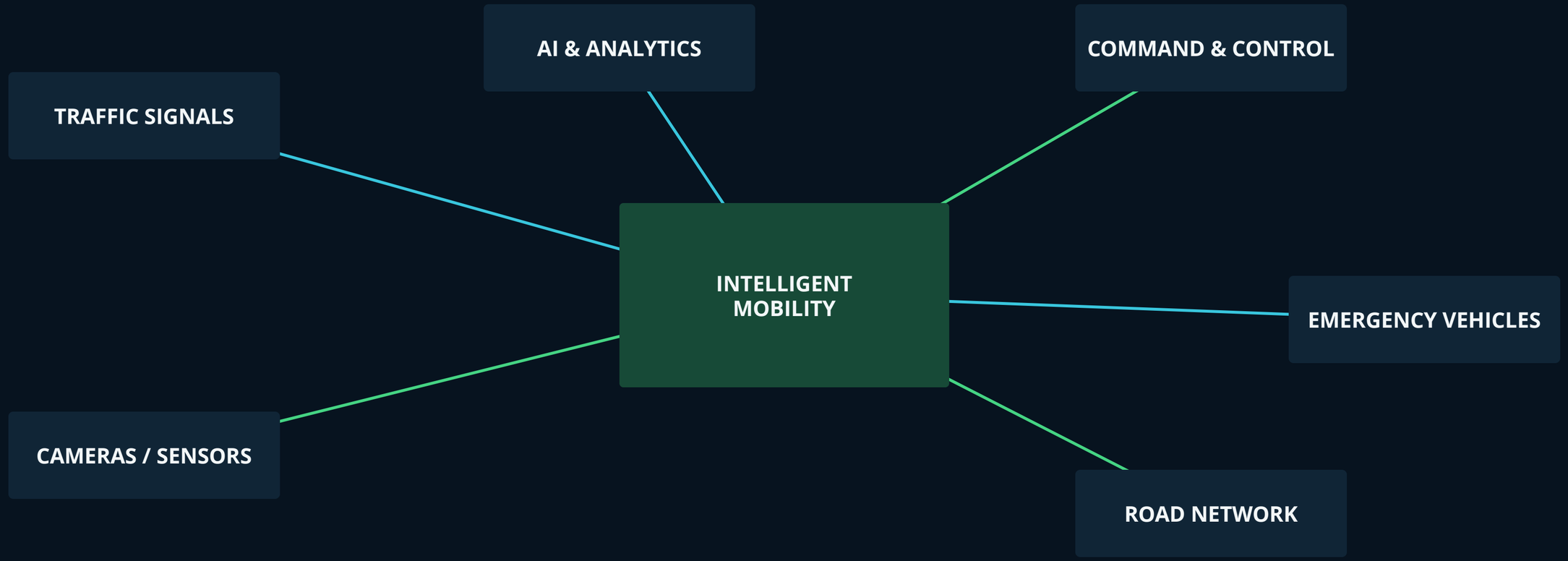
TRAFFIC SIGNAL
FIXED TIMINGS

TODAY

CAMERAS + SENSORS
REAL-TIME DATA + AI
ADAPTIVE MANAGEMENT

Why should a traffic signal only change colours when it can understand traffic?

From Intelligent Intersections to an Intelligent Network



Not isolated intersections. A connected, responsive network.



The Human Body Knows When Something Changes

NORMAL SITUATION

Normal heartbeat
Normal breathing
Normal resource distribution

SUDDEN THREAT

FIGHT OR FLIGHT

Increased heart rate
Changed breathing
Reprioritised resources

The body recognises: “This is no longer a normal situation.”



“A truly intelligent system must know when the situation is no longer normal.”

INTELLIGENT MOBILITY FOR VIKSIT BHARAT 2047

JITENDRA KAUSHIK

JAI HIND

What Does “Intelligent” Really Mean?

SENSE

Understand what is happening.

DECIDE

Determine what the situation requires.

RESPOND

Change the system’s behaviour accordingly.

True intelligence is not just optimisation. It is the ability to respond when circumstances change.

An Ambulance Is Not ‘Just Another Vehicle.’

NORMAL TRAFFIC LOGIC

Normal priority
Normal signal operation

EMERGENCY SITUATION

Temporary change in network priority

Every second has a different value during an emergency.



CONCLUDING THOUGHT

The good news is that the waiting time for an Ambulance Priority System is over. We do not have to wait for 2047.

—

We can begin today. We can begin now.
We can start reducing avoidable fatalities by giving an ambulance the priority it needs when a life is at risk.

JAI HIND