India Chapter

Webinar Series

# Enforcement Innovations for Road Safety

Modulation

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INSTITUTE OF ROAD TRAFFIC EDUCATION

**Topic-1: Adoption of Smart Technologies for Successful Enforcement**

**Topic-2: Highway Police Patrol System for Safety on NH & SH Network**

**Topic-3: Enforcement Laws & Policies aiming for Road Safety**

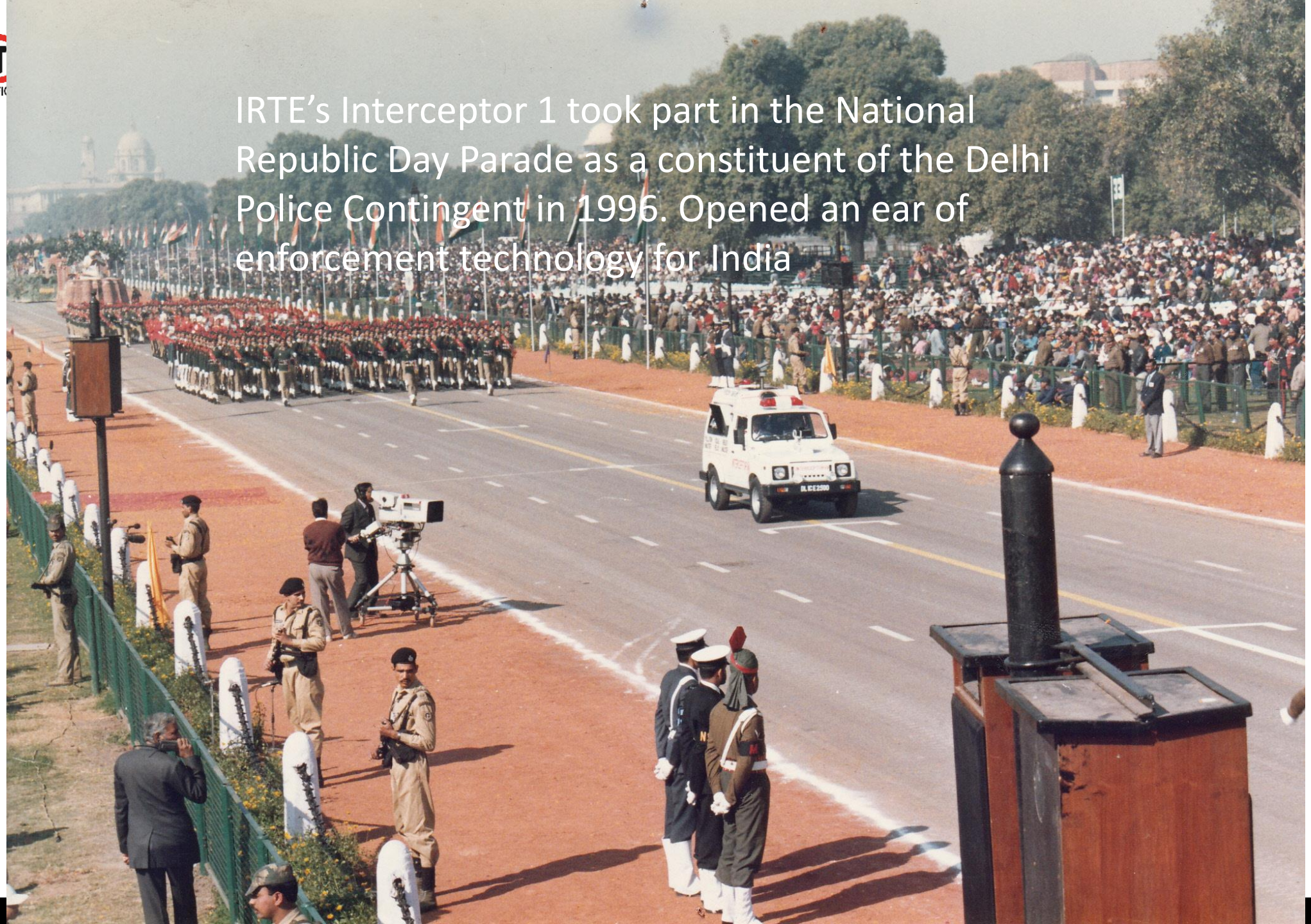
**Topic-4: Traffic Enforcement through Public-Private-Partnership (PPP)**


1994

# Interceptors are an Innovation & Registered Trade Mark of IRTE

Interceptor is a visioned creation of Dr. Rohit Baluja . Interceptors are now operating in 25 States and UT’s across India

It is not merely a Hardware, but a comprehensive methodology integrating traffic engineering, traffic enforcement ,data management through visual and software systems on a mobile platform



IRTE's Interceptor 1 took part in the National Republic Day Parade as a constituent of the Delhi Police Contingent in 1996. Opened an ear of enforcement technology for India

# Participation of IRTE's 3 Interceptors in the India's National Republic Day Parade 2001


INTERCEPTOR
2


INTERCEPT


IRTE
INSTITUTE OF ROAD TRAFFIC EDUCATION
LAUNCHING OF
INTERCEPTORS 6,7 & 8
NEW DELHI - 4TH JANUARY 1999
MARUTI SUZUKI
MARUTI SUZUKI
YOGESH CHANDRA
SHEELA DIXIT
ROHIT BALLIA


I R T E
LAUNCHING OF
INTERCEPTORS
NEW DELHI 26, FEBRUARY, 1997
R.C. BHARGAVA
UJJWAL MISHRA I


INAUGURATED BY
HONOURABLE CHIEF MINISTER
IN THE PRESENCE OF
AND

# Traffic Enforcement Laboratory

- Traffic Enforcement laboratory at IRTE's College of Traffic Management has over 50,000 Hours of footage of traffic movement, violations, and issues regarding road environment

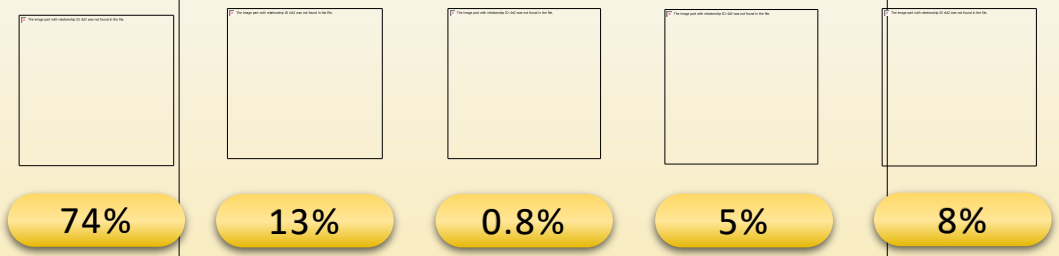

SRI LAKSHMI WATERS

# Registered Vehicles in India

**250** Million

Registered Vehicles in India

## Categories of Registered Vehicles




Public Transport= **0.8%** Buses

 *Source: Road Accidents in India 2017, Ministry of Road Transport and Highways, Government of India.*

# Smart Cities Mission

**Core Infrastructure Elements**

- Adequate water supply
- Assured electricity supply
- Sanitation & solid waste management
- Efficient urban mobility and public transport
- Affordable housing, especially for the poor
- Robust IT connectivity and digitalization
- Good governance
- Sustainable environment
- Safety and security of citizens
- Health and education

**Proposed 100 Smart Cities under Smart Cities Mission**


*"The main objective is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions".*

# Status of BRTS projects in India

| S. No. | CITY | STATUS | S. No. | CITY | STATUS |
|---|---|---|---|---|---|
| 1 | Pune & Pimpri- Chinchwad | Operational | 12 | Amritsar | Operational |
| 2 | Ahmedabad | Operational | 13 | Bhopal | Operational |
| 3 | Delhi | Scrapped | 14 | Hubli-Dharwad | Operational |
| 4 | Jaipur | Operational | 15 | Kolkata | Under Construction |
| 5 | Vijaywada | Operational | 16 | Mumbai | Under Construction |
| 6 | Rajkot | Operational | 17 | Jodhpur | Under Construction |
| 7 | Surat | Operational | 18 | Chennai | Planning Phase |
| 8 | Indore | Operational | 19 | Coimbatore | Planning Phase |
| 9 | Bhubaneshwar | Operational | 20 | Hyderabad | Planning Phase |
| 10 | Raipur & Naya Raipur | Operational | 21 | Madurai | Planning Phase |
| 11 | Vishakhapatnam | Operational | 22 | Tiruchirapalli | Planning Phase |

# WHERE WE WENT WRONG

**Crores went down the BRT drain, but the result could have been different had authorities taken cue from success stories elsewhere. Here's how it could have been done**

## DEDICATED RIGHT OF WAY

**IDEAL** | Dedicated BRT lanes ensure buses bypass traffic jam; can be enforced through use of delineators, coloured pavement or camera enforcement

**REALITY** | BRT had a dedicated bus lane, but is now open to all vehicles

## BUS BAY ALIGNMENT

**IDEAL** | Median-aligned bus bays as they minimise risk of delays caused by turning movements and parked vehicles

**REALITY** | Only thing that Delhi BRT got right, as bus bay is in the centre

## OFF-BOARD FARE COLLECTION

**IDEAL** | Off-board fare collection reduces boarding time and prevents revenue leakage

**REALITY** | Delhi is yet to automate its fare collection in the bus system

## INTERSECTION TREATMENT

**IDEAL** | Forbidding turns across bus lanes and simplifying signal cycles reduce delays. Give traffic signal priority to BRT vehicle to increase speed

**REALITY** | Traffic signals were longer for certain directions, but had no impact. Jams went on till 2km beyond the intersection

## PLATFORM-LEVEL BOARDING

**IDEAL** | Bus floor and station platform should be at same height

**REALITY** | Levels are same, but passengers had no connection to sidewalks, running across traffic to get to the bus stop

## LESSONS LEARNT

Before embarking upon the ambitious plan, government could have considered the following points:

**Choosing the right corridor:** Dependent on demand for a bus service at the location

**Start early:** Put BRT in place when you plan a new road

**If road is narrow:** Ban use of cars

- Have a single lane, but with double lane at bus stops, for passing over
- Last-mile connectivity makes BRT more robust
- Provide continuous, unhindered walking spaces
- Include expanded footpaths, safe pedestrian crossings, protected cycle tracks, properly scaled carriage-ways, conveniently placed bus stops, designated on-street parking

**A large network of bus-stops brings flexibility to system**

**Failure in understanding the Science of Traffic Engineering**


KABIR RESTAURANT A.C. HALL
BR
EDITED WITH EDIUS

# Road Traffic Violations by Motorized Traffic On One Single Day in NCT Delhi :2007

Stop line marked after the Primary Signal. Once reached the stop line, the vehicle no more has the view of the primary signal.

**146**
million
total daily

**138**
million
moving
violations

**34**
million
due to faulty
road & traffic
engg

*Source: IRTE Study on Road Traffic Violations 2007*

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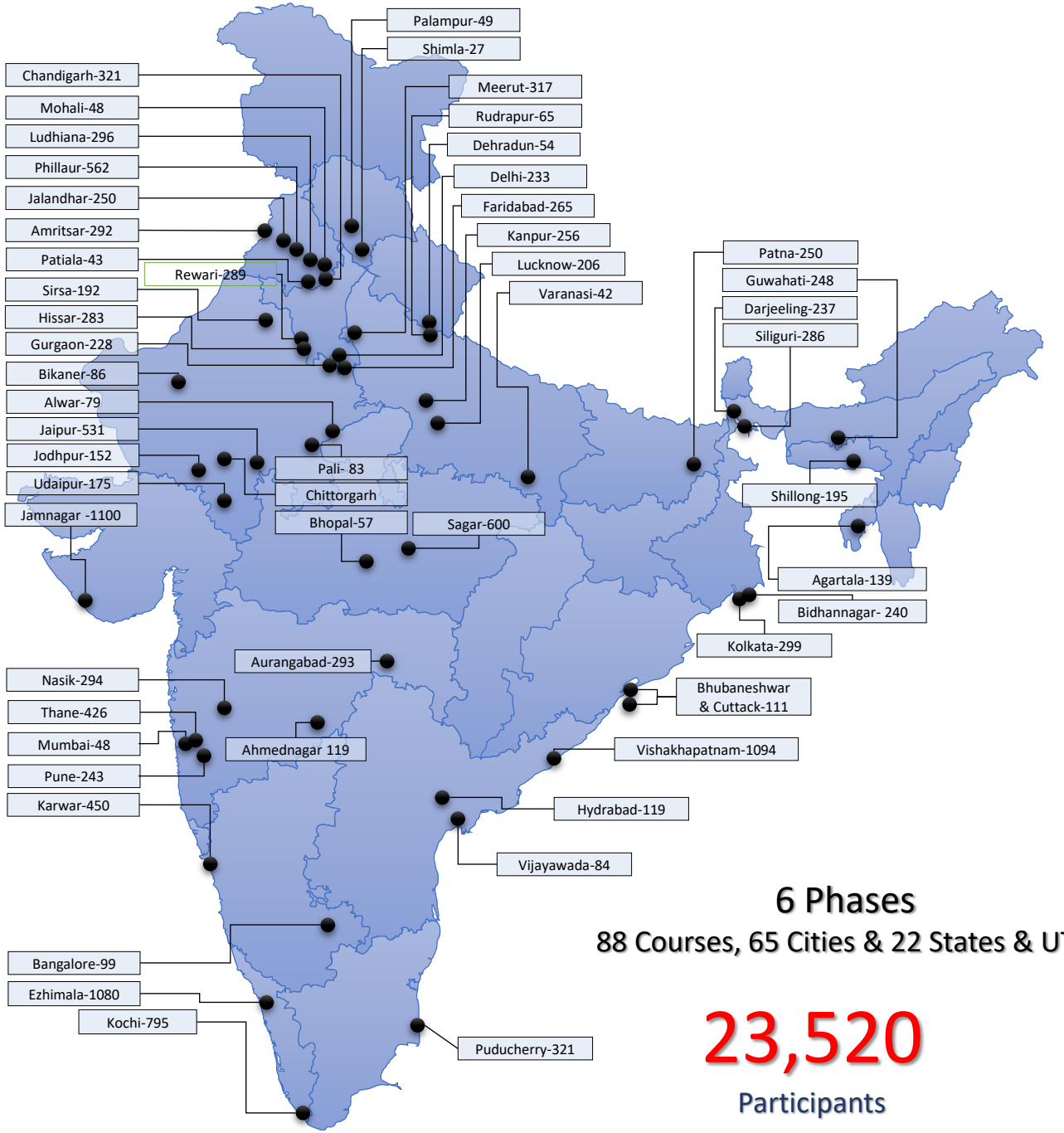
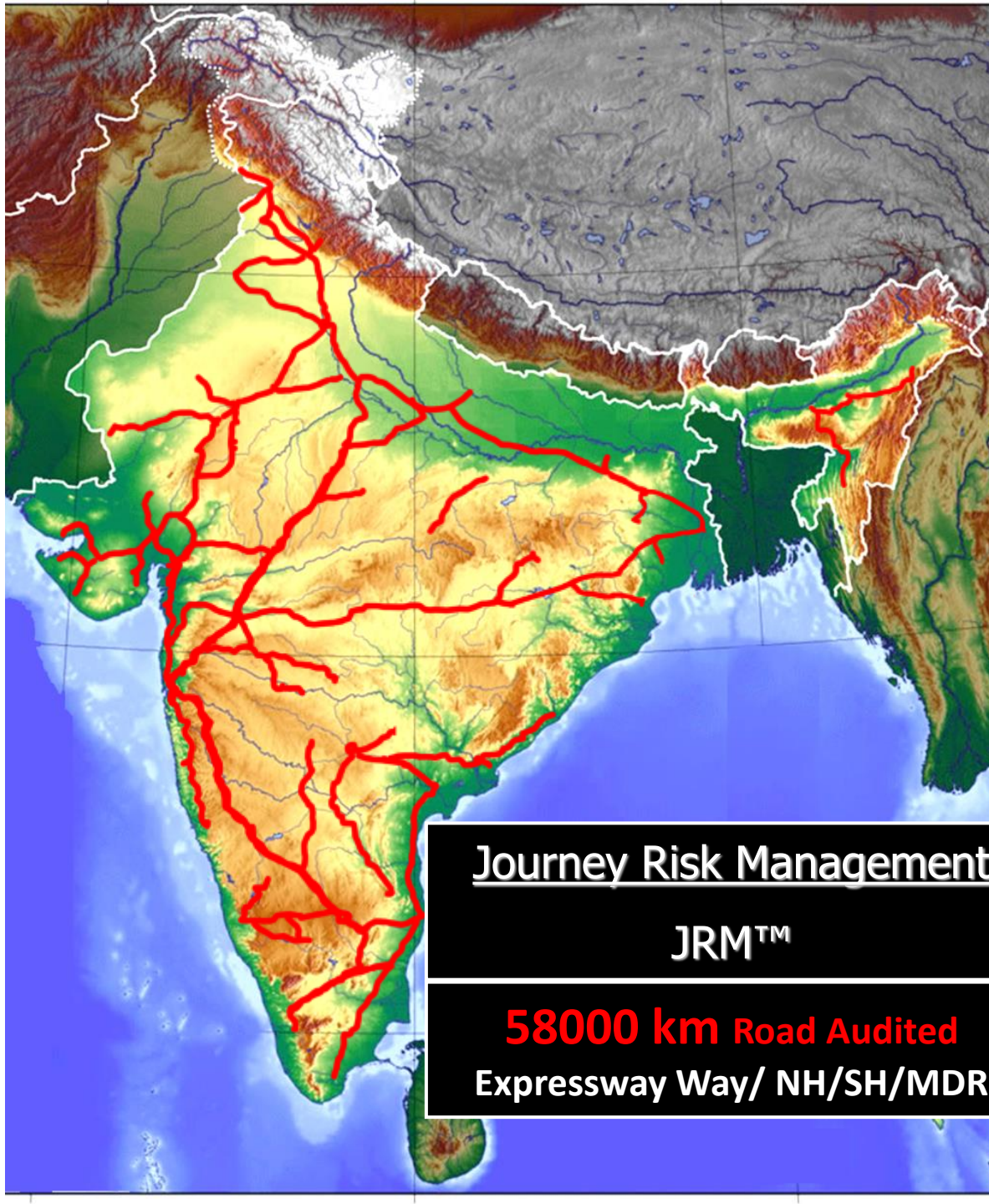


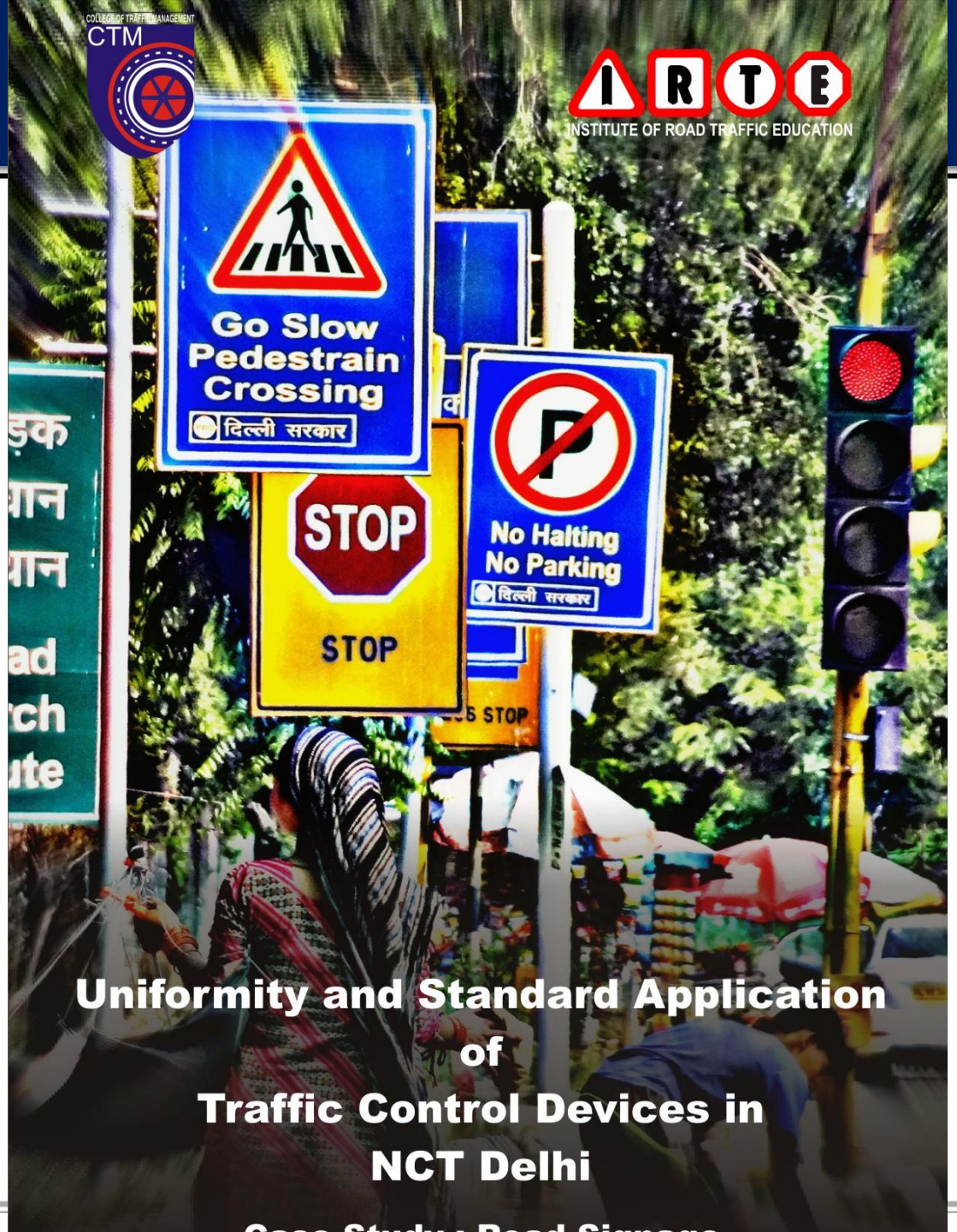

6 Phases

88 Courses, 65 Cities & 22 States & UT's

23,520

Participants






- **75% (1098)**

  are Not Meeting

  IRC Codes of

  Practice

सत्यमेव जयते

# SUPREME COURT COMMITTEE ON ROAD SAFETY

Chairman : Justice K.S. RADHARISHNAN
Members : S. Sundar
Dr. Nishi Mittal

Secretary : S.D. Banga
Tel. No. : +91-11-23060597
Email : roadsafetysc@gmail.com

**No.10/2019/CoRS**

**Dated : 19th June, 2019**

To

**The Additional Chief Secretary (Transport),**
**Government of Chhattisgarh**
**Raipur**
**Email : ps.home.cg@gov.in**

Sub: **Enforcement of traffic laws in the State**

Sir,

The Committee has been informed by the Institute of Road Traffic Education (IRTE) that over the last years, they have conducted workshops in road safety for traffic police in the cities of Raipur and Bhilai. The deliberations included the standard installation of traffic control devices, type of road traffic violations and identification of black-spots.

2. In order to conduct these workshops, a primary study in the above mentioned

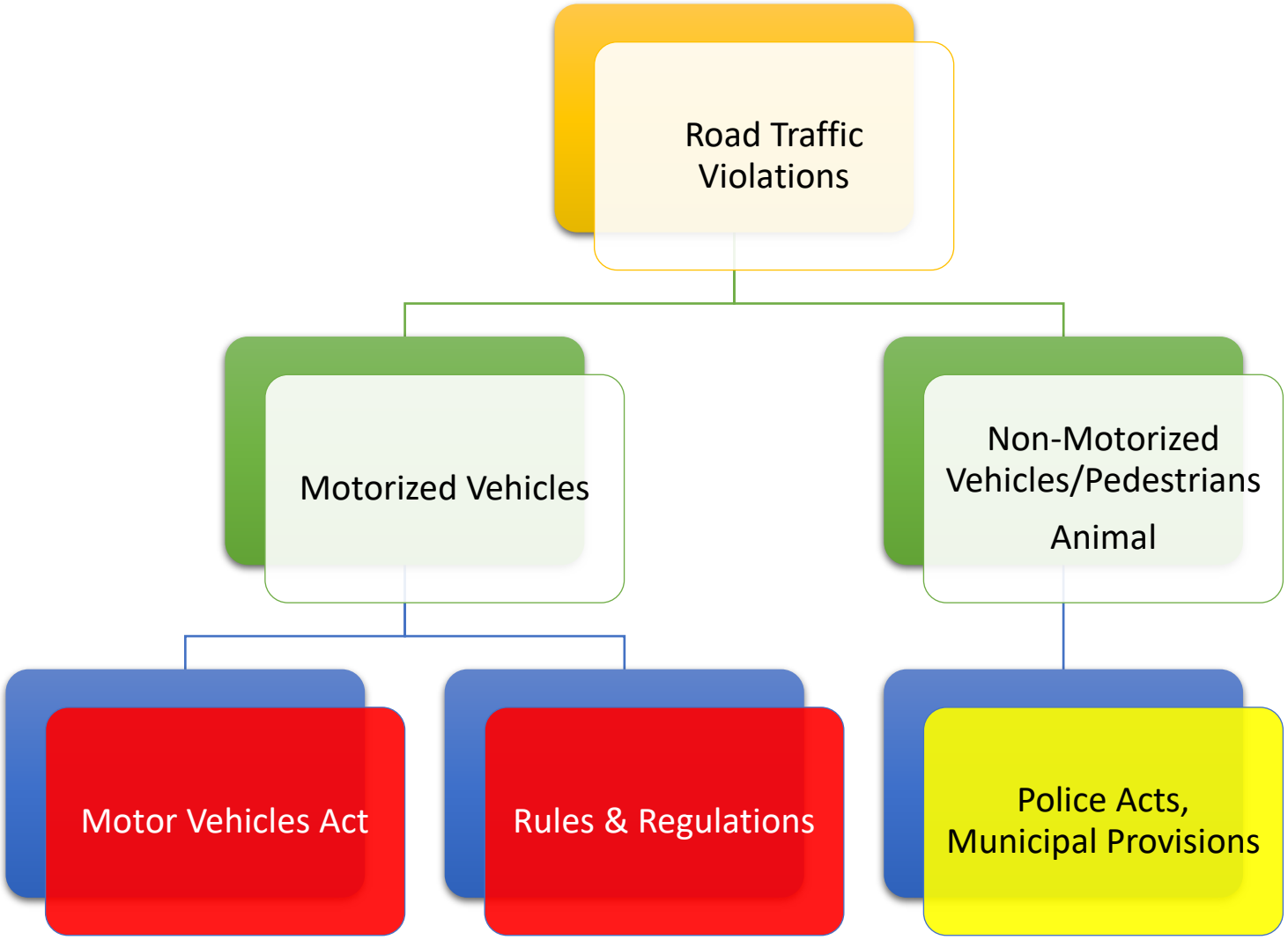
# Enforcement of traffic laws & regulations

- **AIM :**
- Moderate road user behaviour by:
  Preventive, Persuasive and Punitive measures
- In order to:
- Effect the safe, disciplined and efficient movement of traffic

- ----------

- Behaviour modification by making them fearful of consequences
- Education & Awareness,

# Road Traffic Violation: Digression form desired behaviour




बेटी बचाओ
बेटी पढ़ाओ
Pihu
Manya
Public
Carrier
Horn
Please
Use
Dipper
at
Night
DL 1L S 3711


SUNPAC


आम आदमी पार्टी
DL2W-5303
Keep Distance
पीरागढ़ी
TATA
DL1M
0243
Stop
HORN

# Road Traffic Violations


NH 44
Dhanderi Katan

# Violation – Speeding on service road

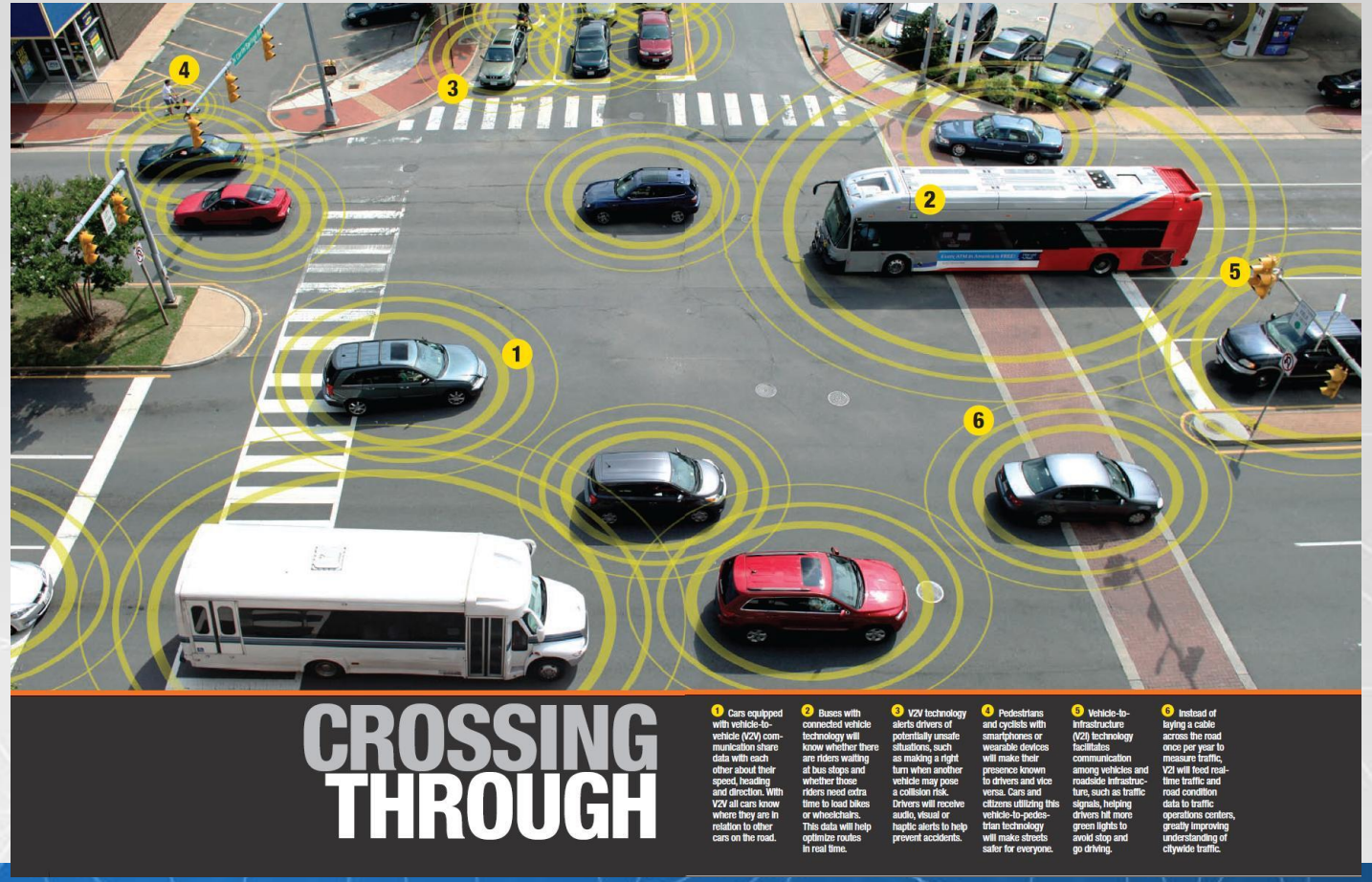

KFC
Drive Thru


Violation - Mobile


जयपुर

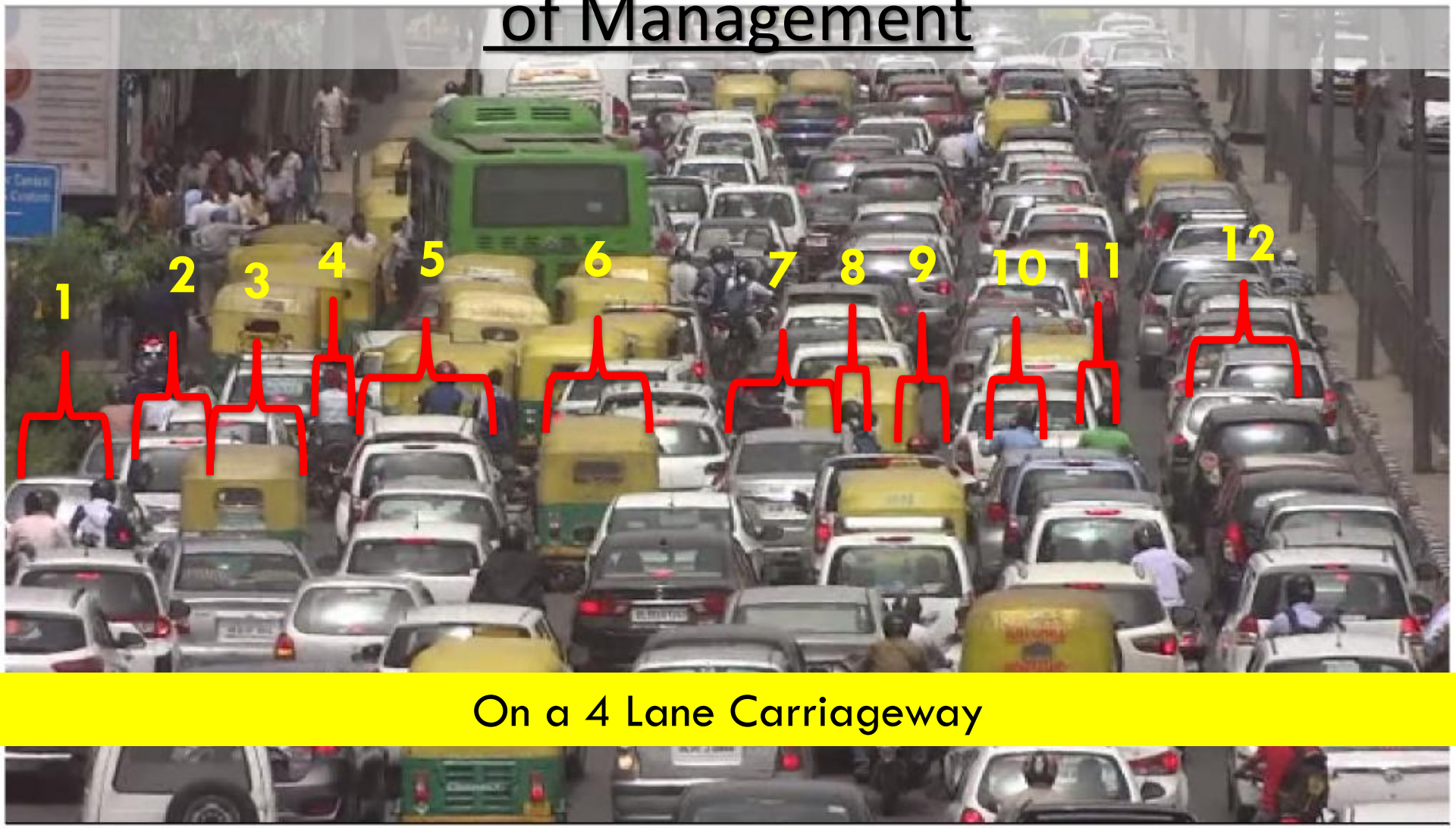
# Construction Zone Management

# For successful implementation of technology: Necessary network infrastructure is in place.

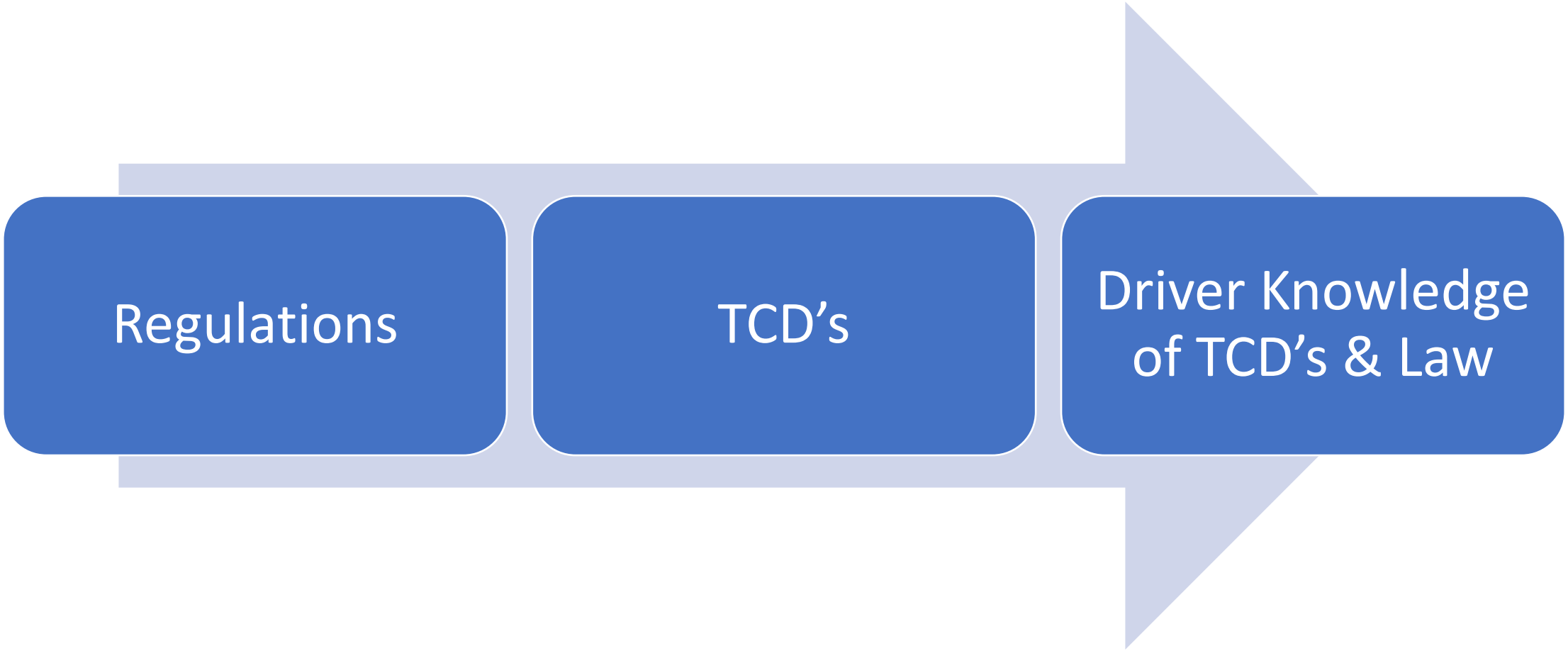



74%

# Lane Driving :Basic Definition of Management




On a 4 Lane Carriageway


Regulations
TCD’s
Driver Knowledge of TCD’s & Law


24 Hours No Entry
For HGVs & MGVs
दिल्ली सरकार
Pedestrian
Crossing


STOP


TRAFFIC
POLICE
G.S.NAGAR
Ramagya


TRAFFIC POLICE
S.S.NAGAR
Ramagya
PLASTIC ALUM
Activa

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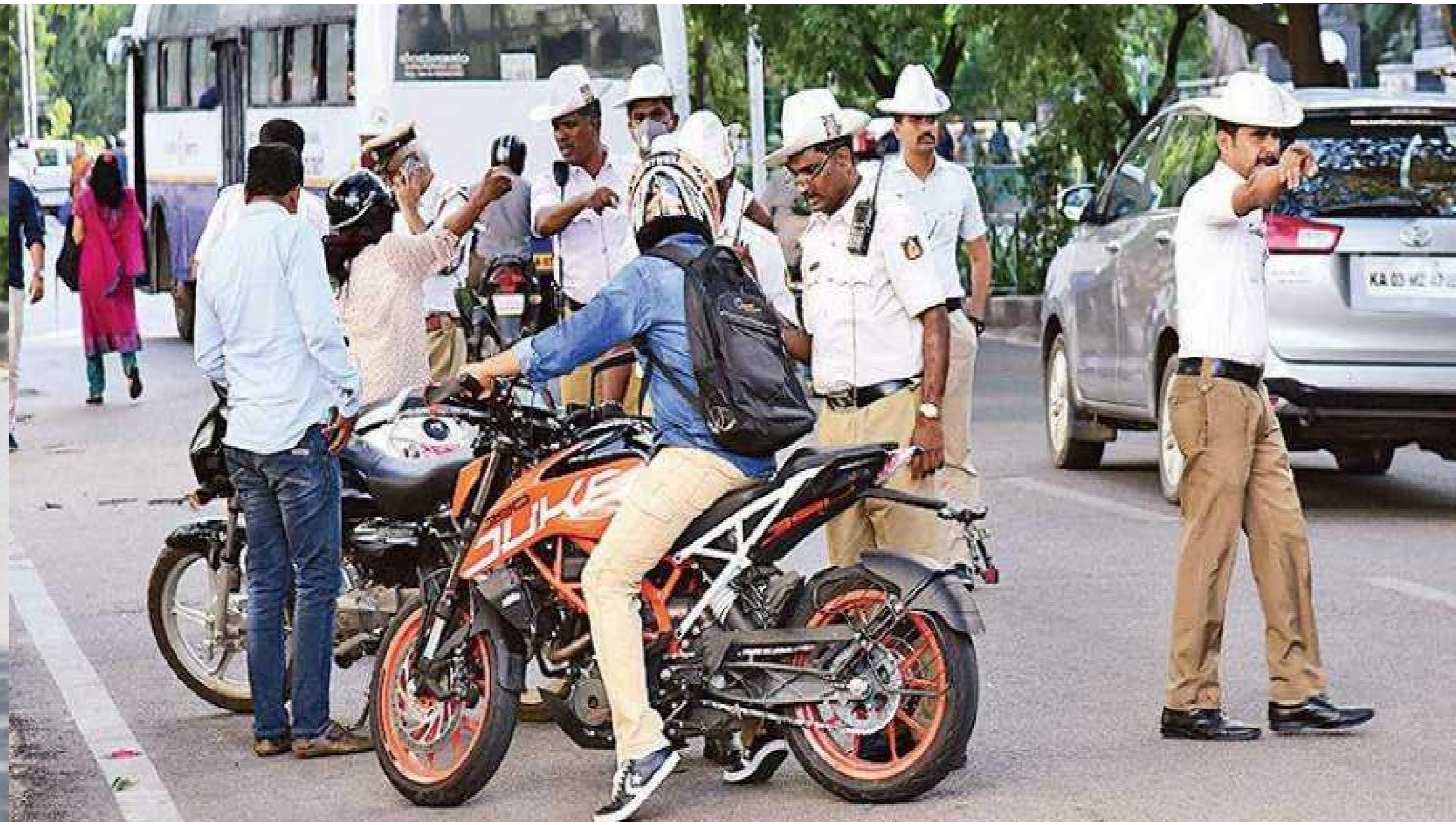
| City | Average Marks in Pre Test (%age) | Average Marks in Post Test (%age) |
|---|---|---|
| | | |
| **Total** | **26** | **74** |



Are these Traffic Personnel Aware of Driving Regulations,
Basics of Traffic Control Devices ?

What is the knowledge of Road Engineers responsible for installation of Traffic Control Devices ?

Is Traffic Engineering a Science Practiced by the Road Authorities in India ?


COLLEGE OF TRAFFIC MANAGEMENT
CTM
Feeder System
Transport Corridor
Cycle Tracks
E-Bus stops
Intra City Bus Service
Cycle Sharing System
E-Rickshaws
Intelligent Transport Management Solutions
Smart Interpreted Bus Terminus
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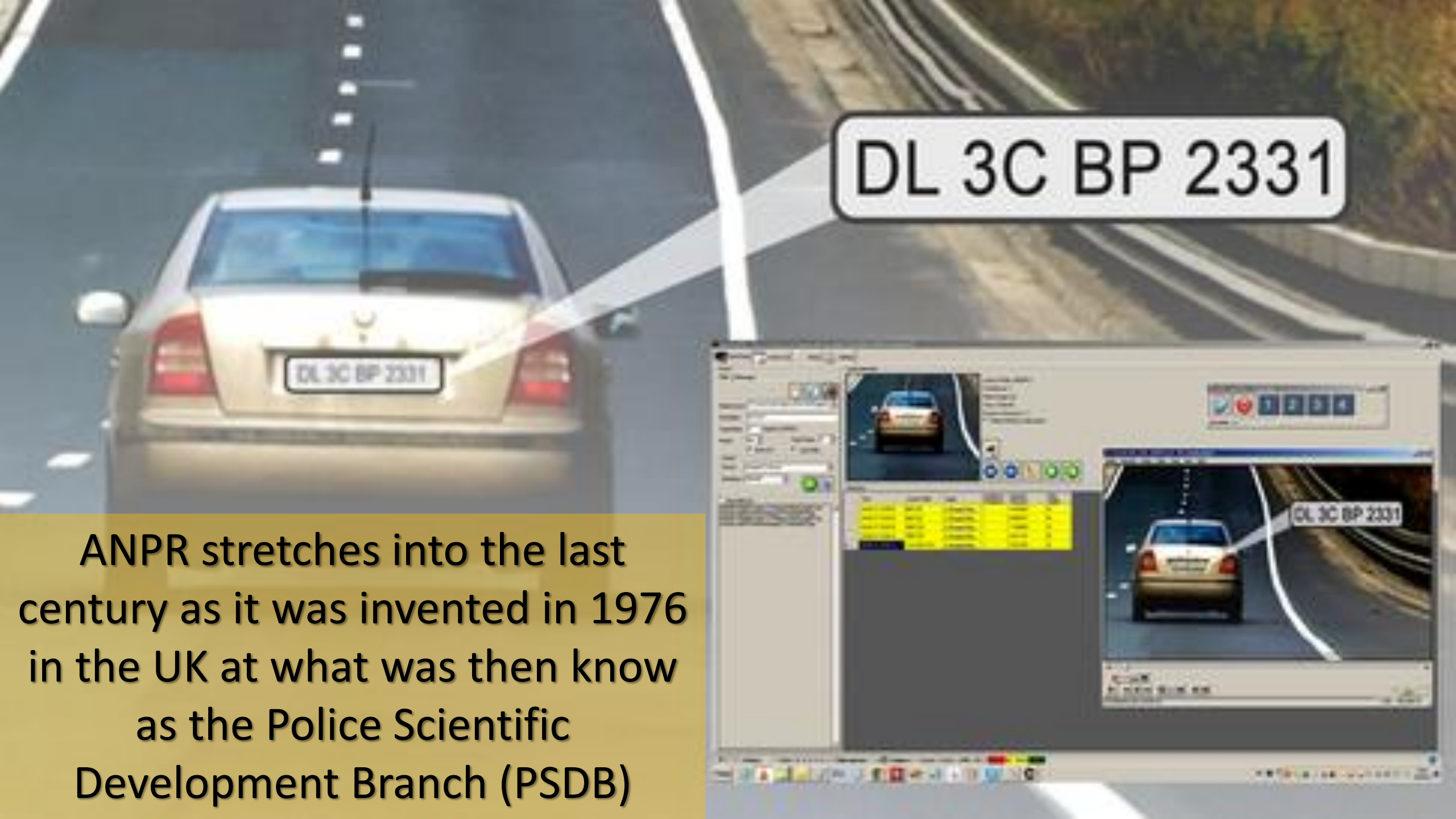


ANPR stretches into the last century as it was invented in 1976 in the UK at what was then know as the Police Scientific Development Branch (PSDB)

Technology is the answer for tomorrow:

Not to Replace the Real intelligence

but as an

Enabler and Catalyst

# Enforcement of Traffic Violations

Traffic Control Devices & Road Geometrics should meet the needs of Motor Vehicles Driving Regulations

( Important to Build Capacity of Roadway Engineers in Traffic Engineering)

Traffic Police must be trained and examined to ensure they have adequate knowledge of Driving Regulations, TCD's and Important Provisions of the Motor Vehicles Act & Rules

Motor Licensing Officers, RTO's need training to ensure that each license awarded is deserving based upon the knowledge of the applicant