



## *Intelligent Transport System*

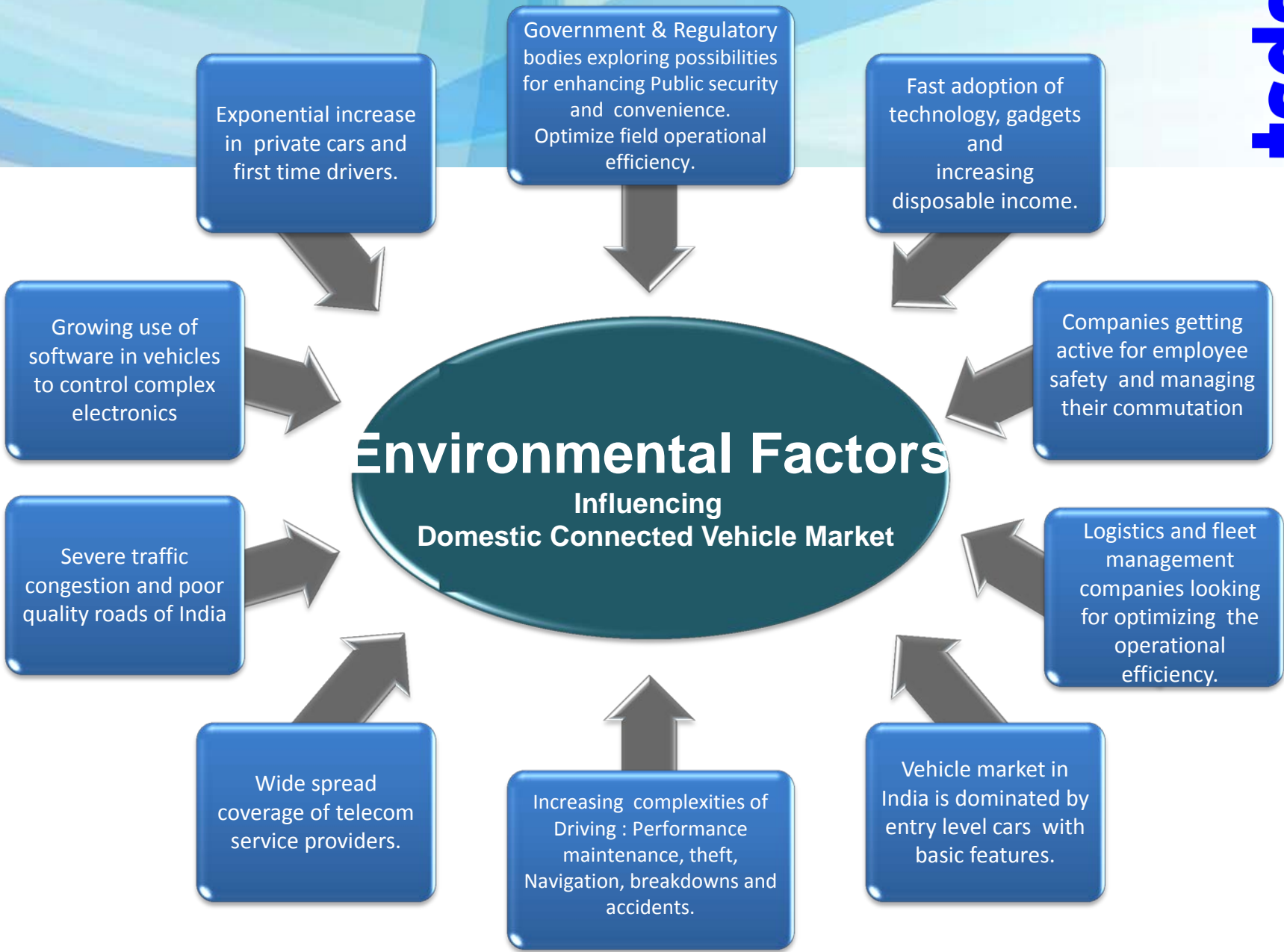
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# Challenges Worth Solving

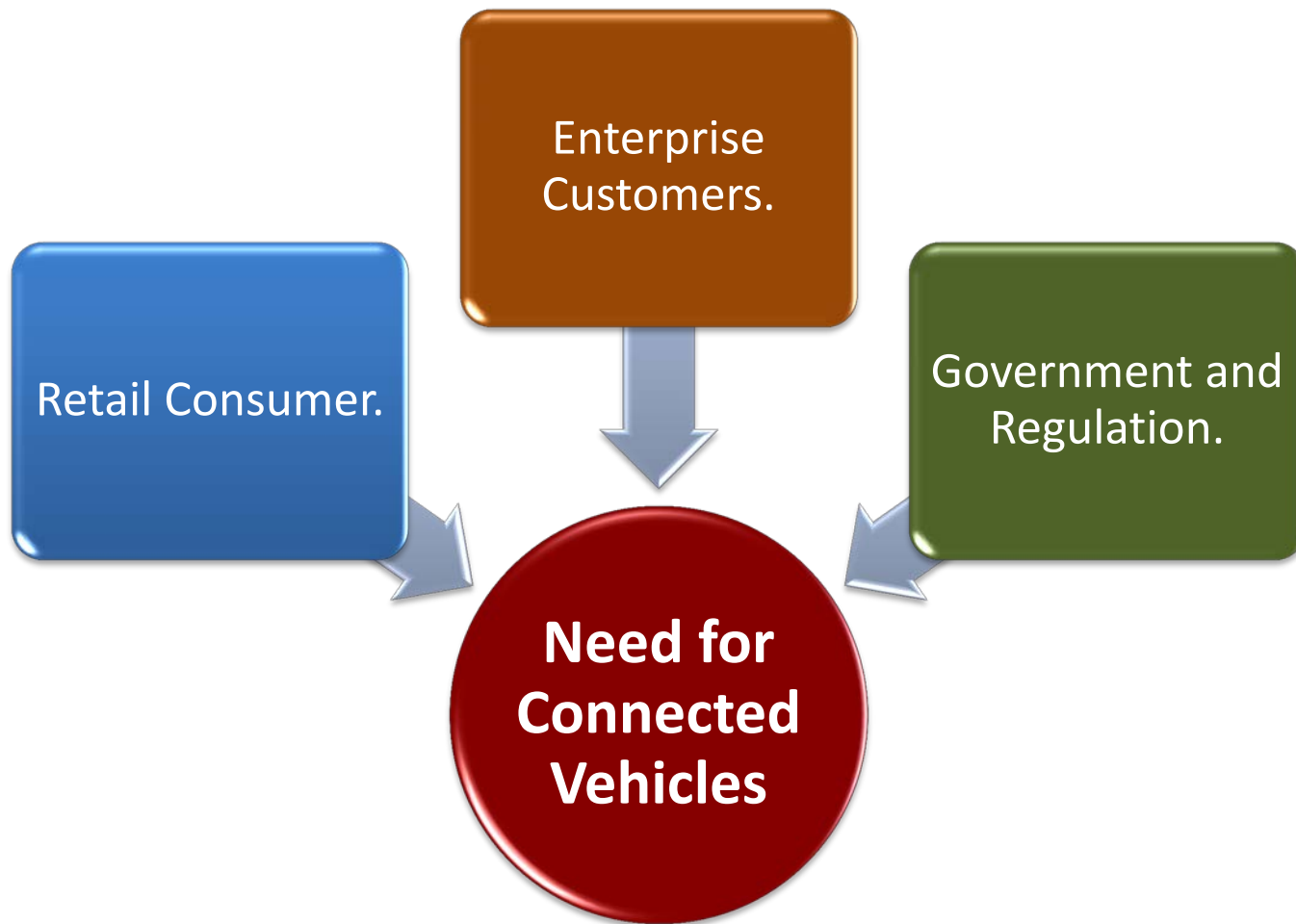
- Making earth a better place to live.
- Huge vehicle fleet (~200 million).
- 4.2 million kilometer road infrastructure.
- High rate of fatalities on roads (~1.4 Lakhs/ year).
- Overloading of commercial vehicles.
- Traffic violations.
- Automobiles biggest contributor to Air Pollution.
- Reduce crime; make travel safe, secure and convenient.
- Preference for personal transportation than public transportation.
- Traffic congestion in cities, highways.
- Lack of emergency care.
- Lack of public awareness.
- ITS Initiatives from Multiple agencies. Synchronized efforts required with national policy and roadmap.

# Road transport

- ***Transport Sector contributes to about 6% of GDP whereas road transportation has share more than 75%.***
- ***Roads carry almost 90% of the country's passenger traffic and 65% of its freight.***
- ***Total Road Length 4.32 million Km.***



# Domestic Market : Demand Drivers



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## Consumers

- Locate car on real time.
- Provide personal safety services in the event of an accident or breakdown.
- Monitor driving pattern.
- Manage maintenance schedule and running.
- Eliminate unscheduled repairs by identifying potential failures before they occur.
- Make toll payments transparent to the driver, and minimise the amounts paid while optimising the route of travel.
- Need for navigation assistance.
- Identify the best possible parking locations and make payments automatically.
- Control vehicle's electronics remotely.
- Reduce possibility of theft.

## Enterprise

- Improved visibility on operations.
- Improved control.
- Reduction in operating cost.
- Reduction in communication cost.
- Better schedule adherence.
- Safety and security for vehicle drivers.
- Increased operational flexibility.
- Increased customer satisfaction.
- Track Work Force and improve efficiency.
- CAB management and tracking.
- School Bus tracking.
- Increase brand loyalty for CAR commercial vehicles manufactures.

## Government

- State police Departments looking for solutions to increase Public safety effectiveness by tracking PCR vans. (Punjab & new Delhi).
- Using Location tracking for increasing efficiency of public Road safety services Like fire brigade services, Ambulance Services Etc . (Hyderabad & New Delhi).
- Women commutation safety initiatives like "Pink Auto" In Ranchi.
- Insurance Companies in talks with IRDA to implement Pay as you drive insurance.
- Road transport department looking for automating local transportation. (BSRTC).
- Municipal corporation looking out for ways to increase efficiency of waste disposal management and water supply.
- Addressing Issue of vehicle theft.

# Broad overviews of ITS

ITS enables elements within the transport system such as commuters, vehicles, roads, traffic lights, message signs to become intelligent, embedding them with microchips and sensors, empowering them to communicate with each other.

- People:

Commuters & planners via smart phone or computers.

- Environment:

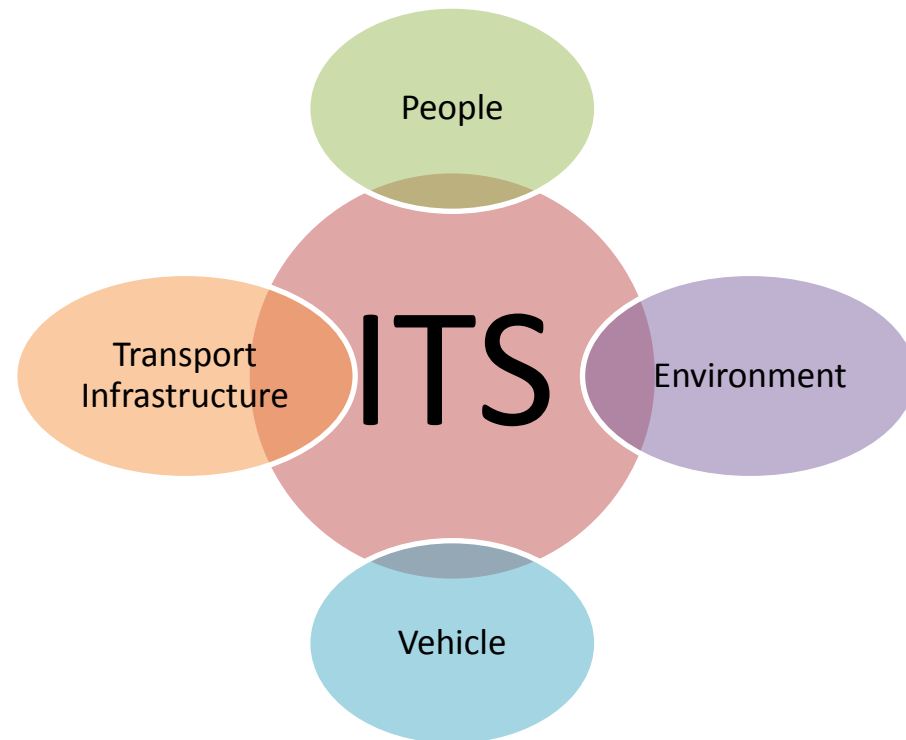
Forces of nature, Incidents (Accidents, traffic jams, road conditions etc.)

- Vehicles:

Personal & public vehicles through after-market device or embedded modules.

- Transport infrastructure:

Petrol pumps, bus stands, traffic signals, digital signage, cameras & streetlights.



Thank you!

