SMART MOBILTY
FOR
SUSTAINABLE CITIES

Dr. Vimal Gahlot
Department of Public Works, Govt. of Rajasthan
Director , Adv. CMG Center for Research and Sustainable Development

HIGHLIGHTS..!

- ✓ Ice Breaking
- ✓ Smart Cities Mission
- ✓ Sustainable Smart Mobility
- ✓ Key Elements of Smart Mobility
- ✓ Challenges/Opportunities for Smart Mobility
- ✓ Global Update
- ✓ My City First
- ✓ Take Away

Urban Age

Cities are engines of growth for the economy of every nation, including India. Nearly **31% of India's current population** lives in urban areas and contributes 63% of India's GDP (Census 2011).

With increasing urbanization, urban areas are **expected to house 40% of India's population** and contribute 75% of India's GDP by 2030.

Smart City Mission

Smart Cities Mission, the 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.
The focus is on sustainable and inclusive development and the idea is to look at compact areas, create a replicable model which will act like a light house to other aspiring cities.

Smart Mobility for Sustainable Cities

- ✓ Which is capable of being maintained at a steady level without exhausting natural resources or causing ecological damage, Meeting the needs of the present without compromising the ability of future generations to meet their own needs [1]
- ✓ Smart Mobility is a tool to achieve sustainable city development.
- ✓ Smart Mobility Allows seamless, efficient and flexible travel across various modes in the City.

[1] **Source :   United Nations. 1987. Report of the World Commission on Environment and Development**

Vision : Smart Mobility

✓Segregating vehicular & pedestrian movement

✓Envisaged Modal Split of 10:90 between private and public transport

✓Effective & convenient MASS RAPID TRANSIT

✓Planning Transit Oriented Development where people walk to work

✓Integration of Different Modes – linking city within & outside

✓Aiming Zero Fatal Accident City

Goals of Smart Mobility

✓Traffic & Transport Efficiency

✓Customized mobility

✓Eco mobility

✓Safety

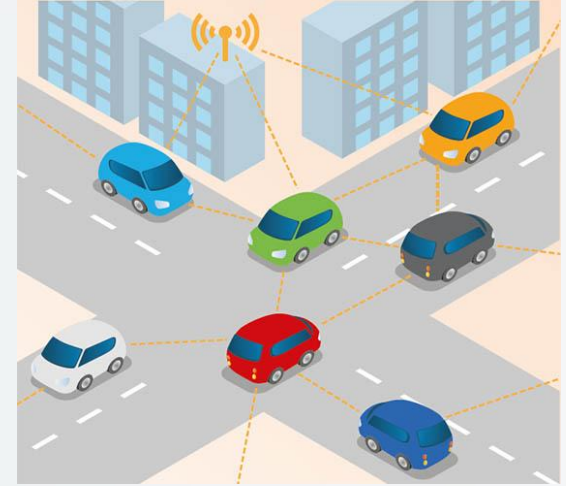**Source :   www.intertraffic.com**

S M A R T

Specific   Measurable   Attainable   Relevant   Time Based

…Traffic & Transport Efficiency

✓Dynamic Traffic Management
✓Real time traffic information
✓Multimodal Transport
✓Park & Ride
✓In-car information systems
✓Autonomous & Cooperative Driving
✓Talking Traffic: communicating vehicles, in-car traffic
   management, and collective traffic services
✓Intelligent parking systems
✓Congestion Management
✓Event & Incident Management
✓Monitoring and enforcement

…Customized mobility

- ✓ Social media and mobility
- ✓ Personal mobility services
- ✓ Smart solutions for public transport
- ✓ Multimodal travel services
- ✓ In-car information systems versus roadside systems
- ✓ Integrated ticketing & smart payment systems
- ✓ Smart Travelling, Smart Working
- ✓ Car sharing and ride sharing
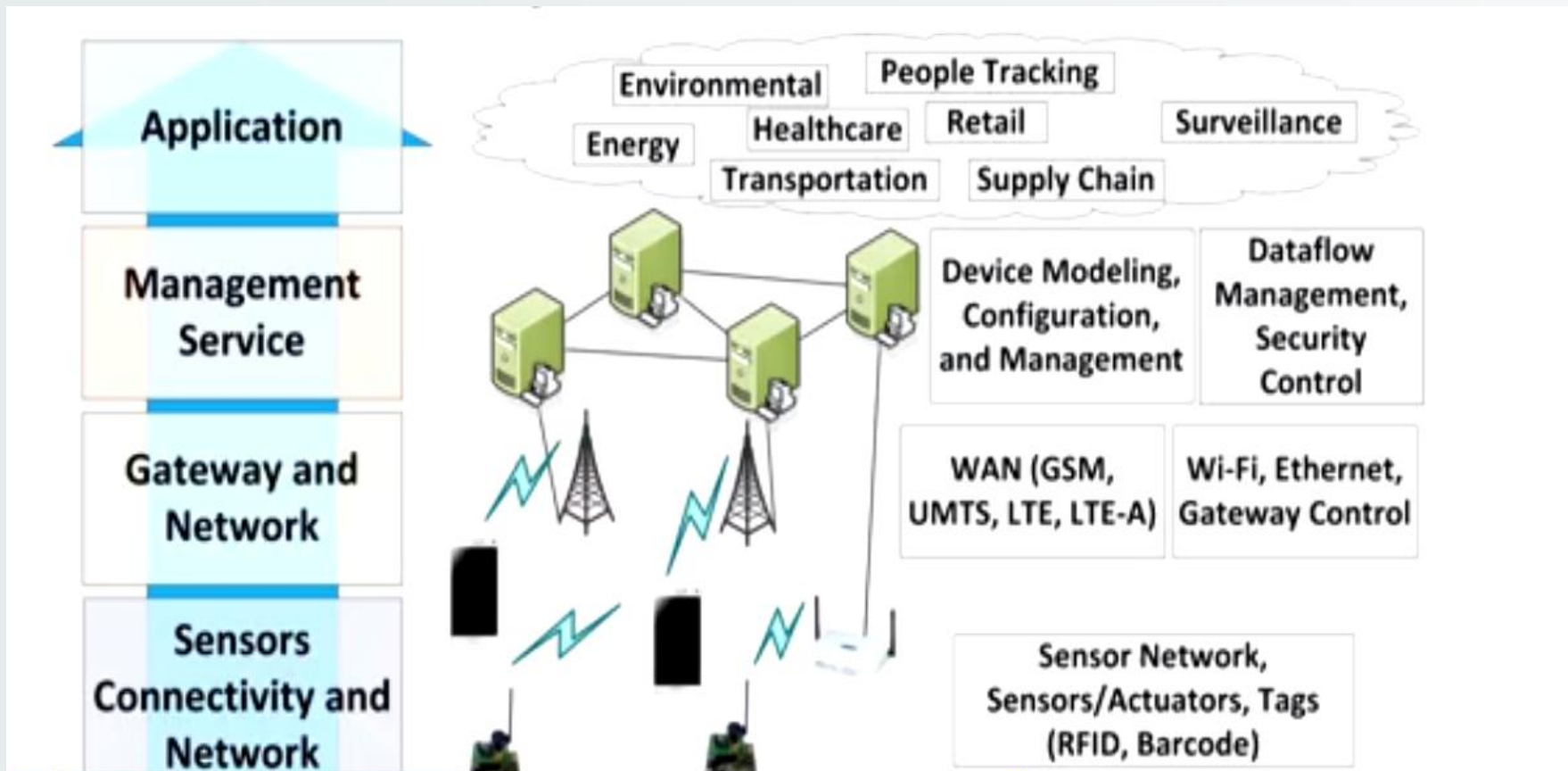- ✓ Pay as you ride
- ✓ Pricing and toll systems

…Eco Mobility

- ✓ Social media and mobility
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Eco concept

Key Element of Smart Mobility

Challenges/Opportunities for Smart Mobility

✓Follow a national ITS Standard for different Smart Mobility and their components

✓Setting up a national ITS clearing house that documents all ITS projects with details on implementation, lesson learned/best practices, and cost-benefit details.

✓Setting up fully functional Traffic Management Centers for coordinating the urban Regional Smart mobility activities

✓Developing and implementing automated traffic data collection methodologies,

✓Developing a national Smart Mobility data Archive

✓Developing models and algorithm suitable for Smart Mobility implementations

✓Fostering more interaction between academia, industries and Govt. agencies to evolve new Smart mobility solutions.

Big Drivers

Global update on Smart Mobility

✓Use of IoT
✓Emergence of new business model models
  such as Mobility-as-a-Service (MaaS)
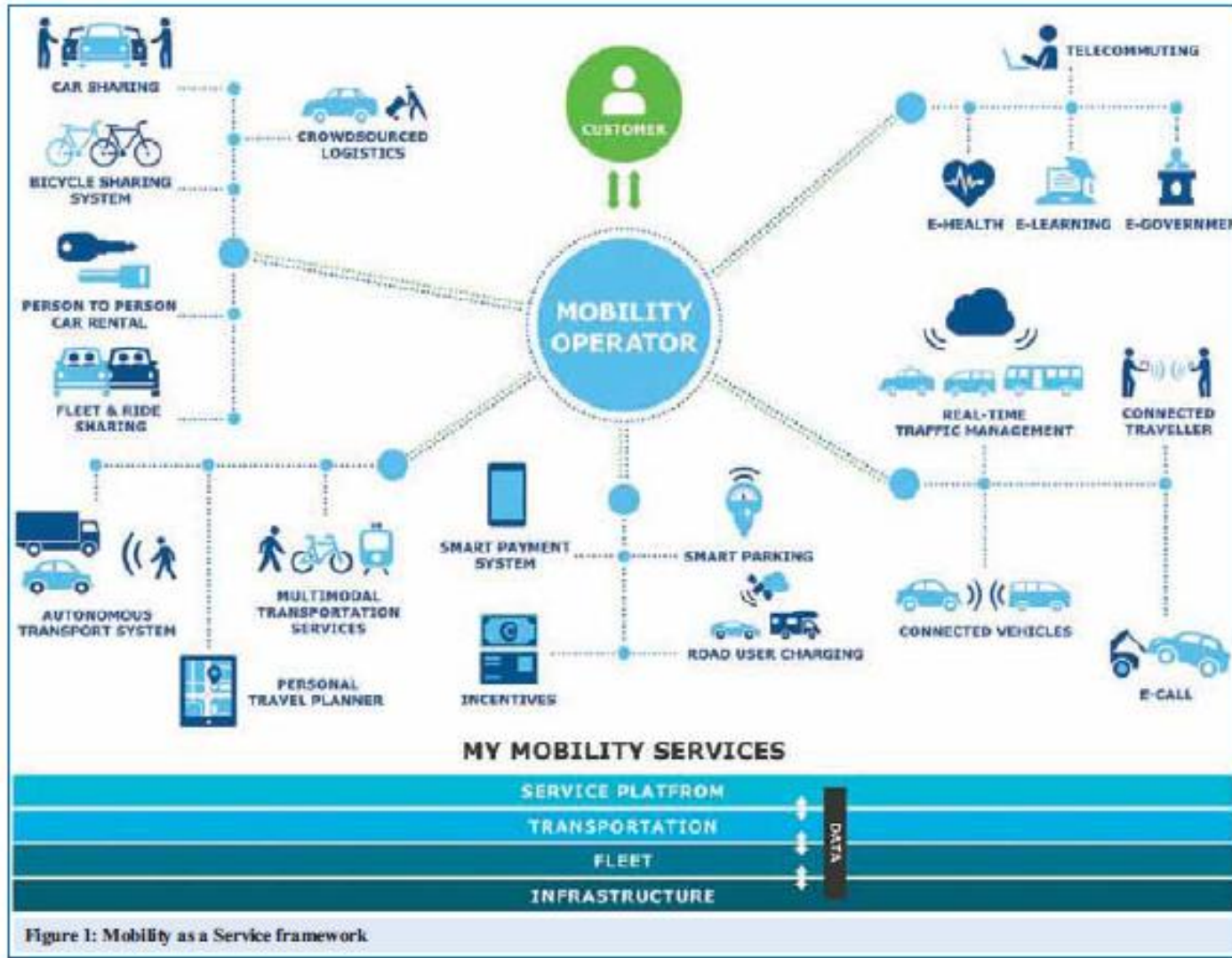✓Use of BIG DATA analytics
✓Cloud Computing

MaaS EcoSystem

Figure 1: Mobility as a Service framework

Transport for London TfL

✓2007 TfL began sharing web widgets to user for developing API

✓In 2014 TfL created a unified API, which presents all the data for each form of transport (buses, tubes, trains, cycles – even river boats!) in the same format.

✓This enables developers to write simpler code and access the same types of data across all forms of transport quickly, making development faster and easier.

✓Around 8,200 open data users are currently registered for TfL's Unified API, from app developers to academic institutions

✓Almost 500 apps are now being directly powered by our open data, giving more choice and convenience for customers.

✓open data approach saves passengers up to £58 million per annum in time against a £1 million annual investment in making the feeds reliably available. Usage has since doubled with 42% of Londoners now using   apps powered by our data.

My City First

✓ Introduction of Apps for Multi Modal Travel in Metro Cities

✓ Apps based Taxi/ Share Taxi Services

✓ Mobility Solutions for Corporate/Companies etc.

✓ Free Ride Sharing Apps

TRAVEL SMART

These apps combine transport modes including walking, cycling, buses, cabs, metro rail and autorickshaws to give you the best option of reaching your destination within a city
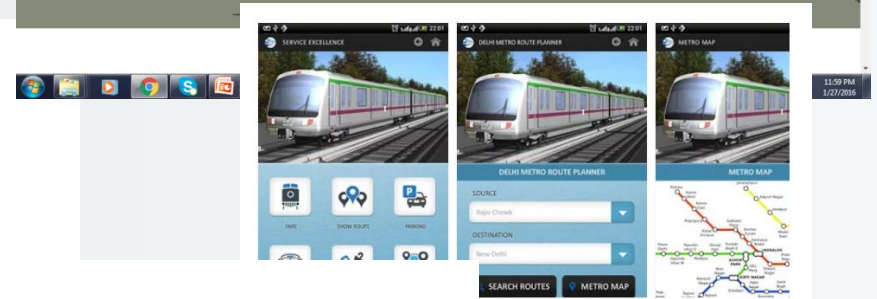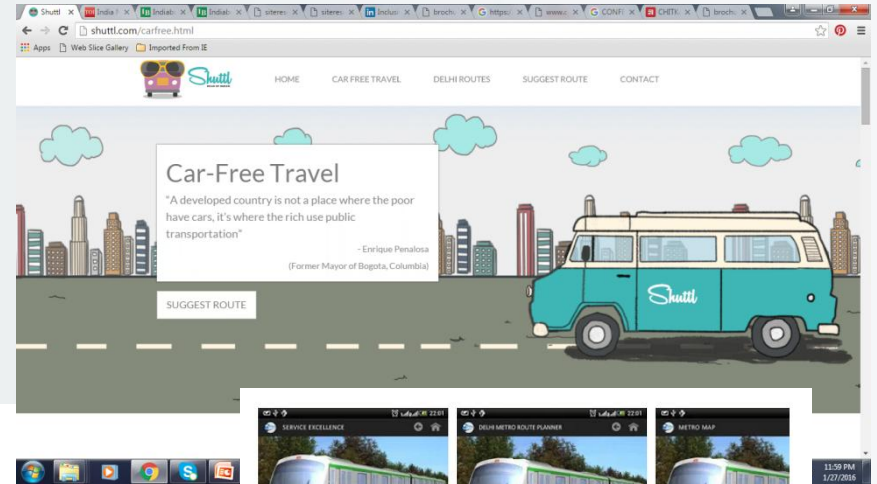
Go Bengaluru	Trafi	ZopHop
● Launched by Xerox, it gives consumers the option to choose between quicker, cheaper or greener ways to reach a destination	● Lets you track the best routes and browse bus timelines online and offline	● Provides bus ticketing option for travellers in Mumbai
● 5,000 users	● 100,000 users in Bengaluru, Mumbai and Pune; more than 1 million downloads in 9 countries	● 100,000 users

mode and the greenest one. It has around 5,000 users so far. ... Lithuania based ... Trafi

countries, its app has seen more than 1 million downloads. "We are looking at anything

Source: TOI, Aug16

Smart Mobility Solution Providers

Features

- Secured SSO log in
- Available on Mobile & Desktop
- Create Challenges for employee engagement
- Hosted solution, Data Protection
- Women Only Carpool
- Smart ride matching engine & Preferences
- Get rewarded for completing challenges
- Cash or wallet payment

Cut significant costs on parking

Decrease significant costs on Fuel

Reduce CO_2 emissions

Provides responsible, greener way of transport

Reduce significant costs on Employee Transport

Reduce commute stress and increase productivity

Take away...!

✓Smart Mobility is a tool to achieve sustainable city development.
✓Smart Mobility help in reducing carbon footprint by optimizing resources and infrastructure.
✓Smart Mobility leads to more time for important things in life by spending less time in traffic
✓Flexibility to use the best-fitting transport mode
✓Safer transport system
✓Lower cost for the individual and the society
✓Better utilization of transport assets and resources
✓Lower consumption of resources such as land and fuels

Thank you !

Go Smart!

vgahlot@rediffmail.com

+91-9414604007