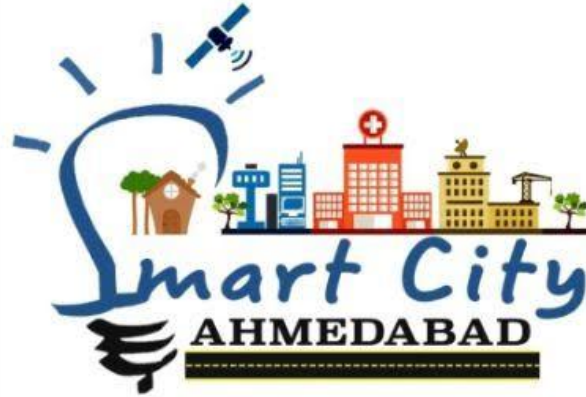


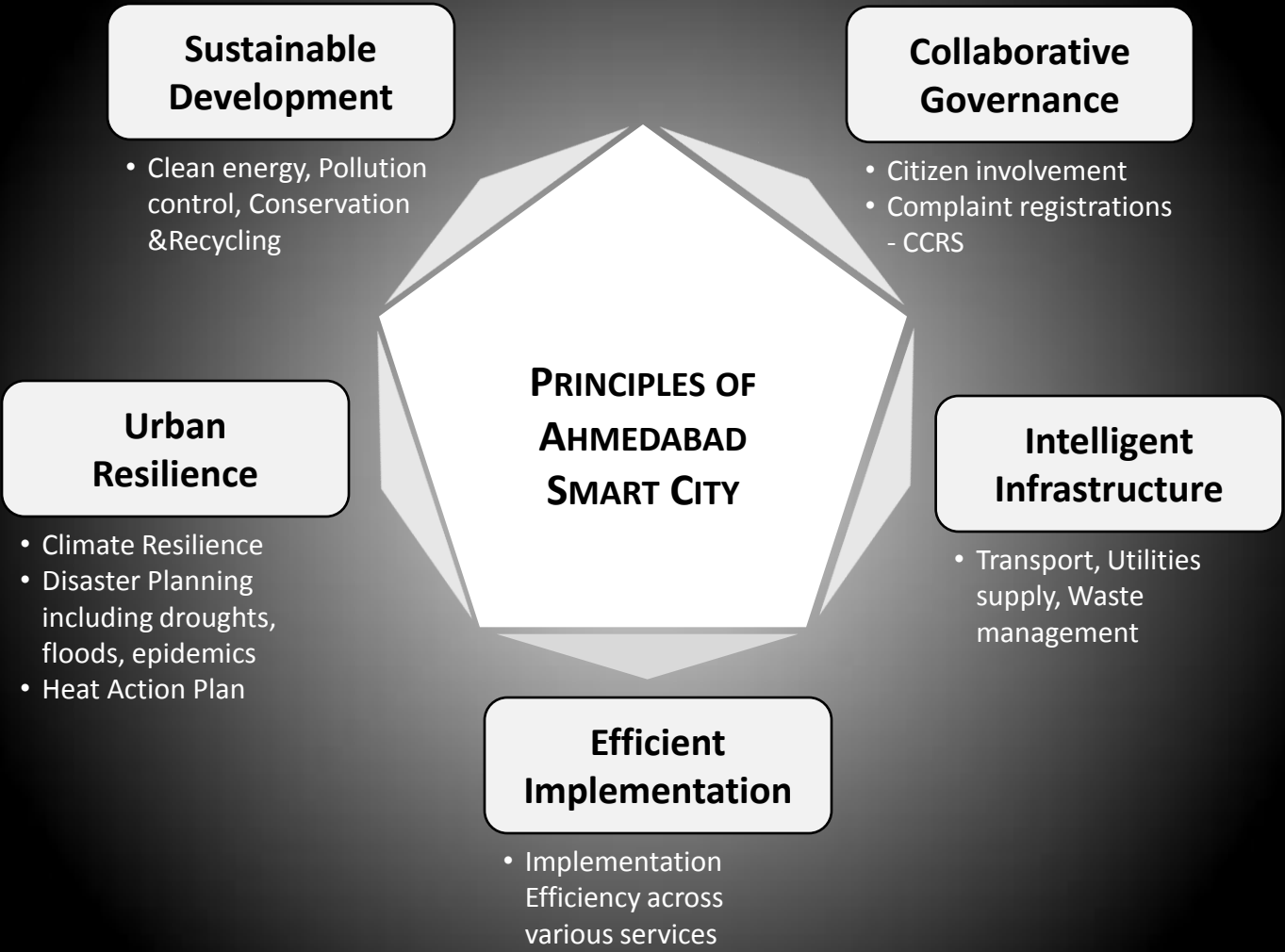
**Smart City**  
MISSION TRANSFORM-NATION



MY HEART AHMEDABAD, MY SMART AHMEDABAD



# Principles of Smart City - Ahmedabad






## VISION

Providing **Efficient, Affordable, Equitable and Customized Governance** for the Citizens of Ahmedabad

## MISSION / GOALS

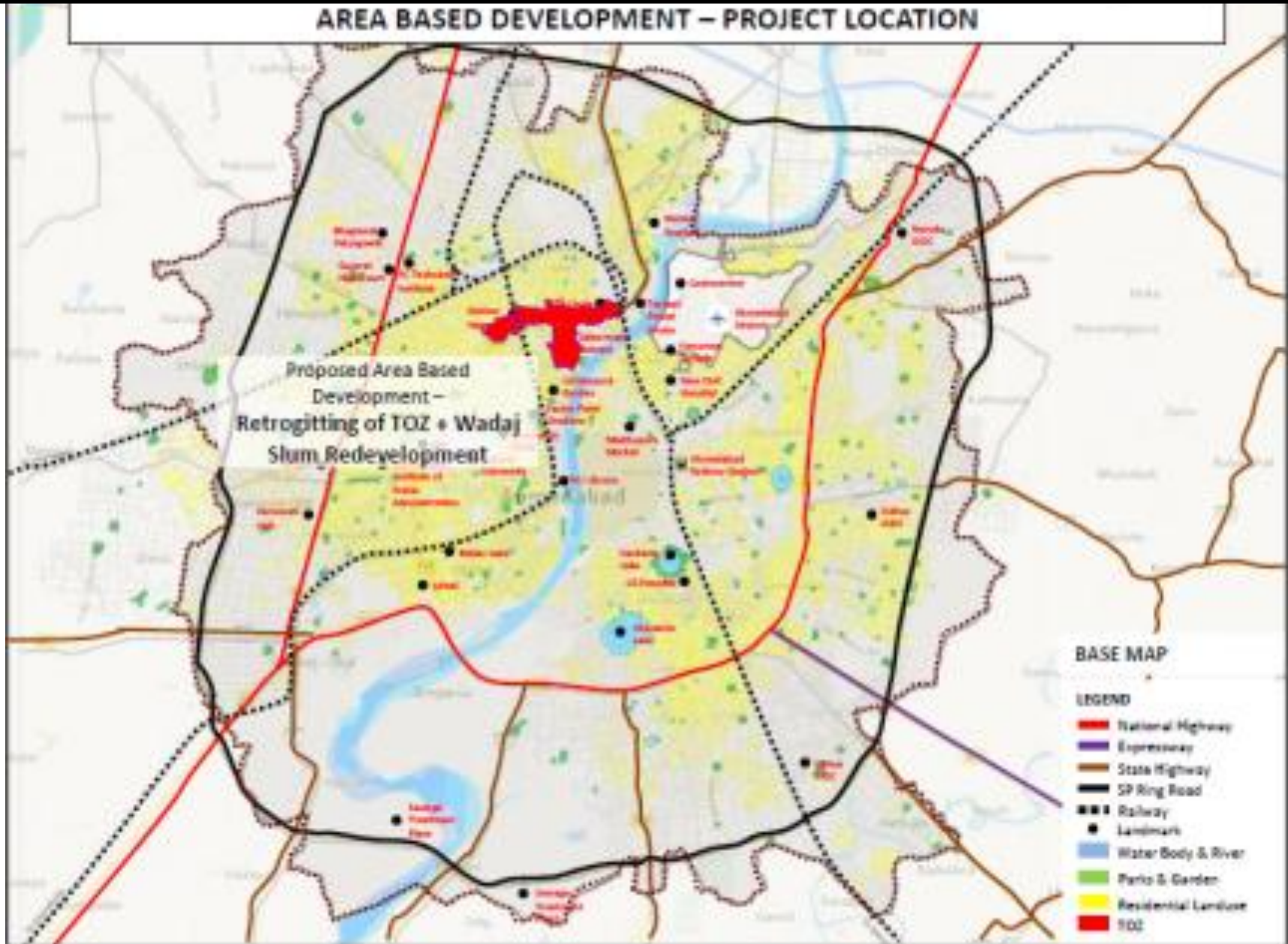
- **Targeted solutions** for **different sections, areas and population** segments
  - **Addressing requirements** and problems for **different segments differently**
  - Employing **smart and innovative measures** to address **common pan-city problems**
  - Tackling foreseeable issues by employing **proactive measures**
- 

# AREA BASED SOLUTION



# Area Based Development

## AREA BASED DEVELOPMENT – PROJECT LOCATION





# Area Based Development



## AFFORDABLE HOUSING

8,000  
Houses

Area  
75 acres

Max FSI - 3

## OTHER INFRA COMPONENTS

Road

Wastewater Treatment Plant

Water

Parks and Green Spaces

Sewerage

Community Spaces

## TRANSIT ORIENTED ZONE - RETROFITTING

Max FSI - 4

Area - 515 Acres

## MAJOR INFRA COMPONENTS

Intermodal Hub

Utility Networks

Pedestrian Facilities

Green Spaces

# Common Smart Features Planned

**Energy Efficient Street Lighting**  
Solar Panels, Ambient lighting  
Sensors, LEDs

**Pedestrian Friendly Development**  
Plazas, Wide-Footpaths,  
Vehicle free zones

**Smart Water**  
Assured Water supply

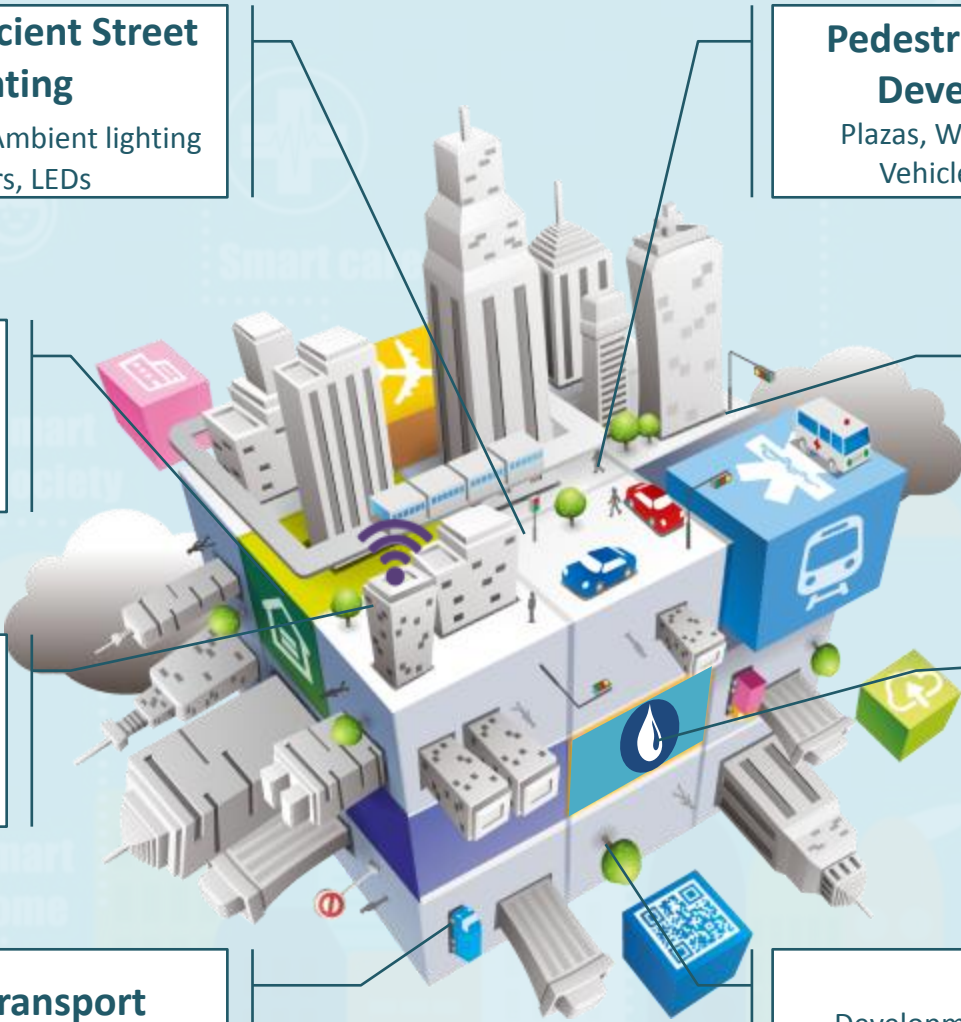
**Intelligent Traffic Management**  
ATCS

**Robust IT Connectivity**  
OFC backbone network to  
augment capacity

**Waste Water Recycling**  
Dual Piping, Treatment plant

**Public Transport Oriented Zone**  
BRTS, Metro, AMTS

Development of **Green Spaces**





# Transit Oriented Zone – Expansion of Public Realm & Densification of TOZ



- Commercial (Offices)
- Terrace (Outdoor dining, etc.)
- Public Plaza
- Cycle Lane
- Carriage Way
- BRTS Station
- Bike Share
- Planter Zone
- OnStreet Parking
- Pedestrian Zone
- Public Plaza (Outdoor dining, etc)
- Terrace Garden

\*Indicative Visuals

# PAN CITY SOLUTION



# Pan City Initiative 1 – Integrated Transit Platform (with Common Card Payment System)

## INTEGRATED TRANSIT PLATFORM

City Goal – Access to Public Transport within 400 m of each household

### COMPONENTS



**Integration of Multi-Modal Transport Solutions (BRTS, AMTS, Metro, Taxis, Autos) to empower commuters**

Vehicle location systems on BRTS / Metro / GSRTC / AMTS

Journey Planner & Booking on App

CCTV Access to Traffic, Parking lots on App

Public Information System at Stations

Real Time Tracking of Vehicles on App

Real Time Parking Availability

## COMMON CARD PAYMENT SYSTEM

**Seamless Mobility Card for utilization at various public places**

- Applications Envisaged
  - Transportation Systems
  - Parking System
  - Recreational Areas
  - Municipal Bills
  - Utility Payments
  - Retail & Others
- To be implemented on PPP basis; RFP floated



# Pan City Initiative 2 - Command Control Centre & OFC Network



- Integration of Existing AMC Control room under single platform
  - BRTS
  - AMTS
  - E-Governance
  - Monsoon Control Room
  - Traffic
  - Fire Control Room
  - Pollution

## SURVEILLANCE

CCTV SURVEILLANCE AT ALL MAJOR PUBLIC PLACES



## SMART TRAFFIC

AREA TRAFFIC CONTROL SYSTEM

Intelligent traffic signal control

Monitors Traffic Density

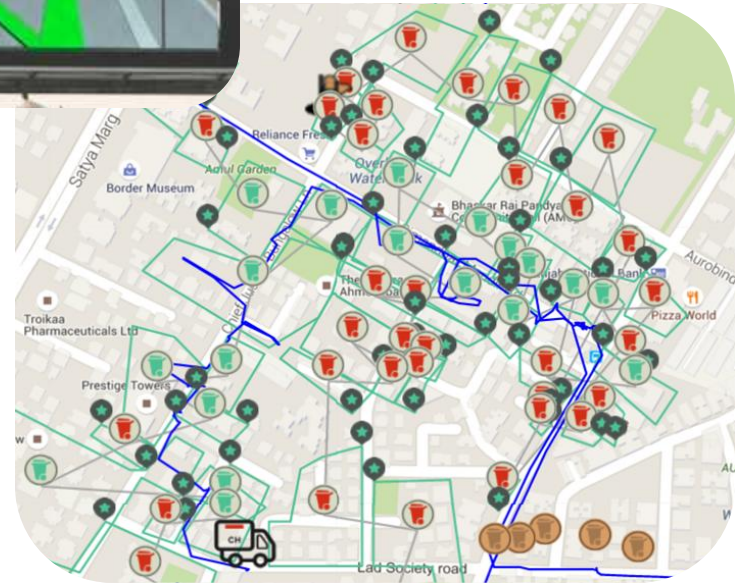
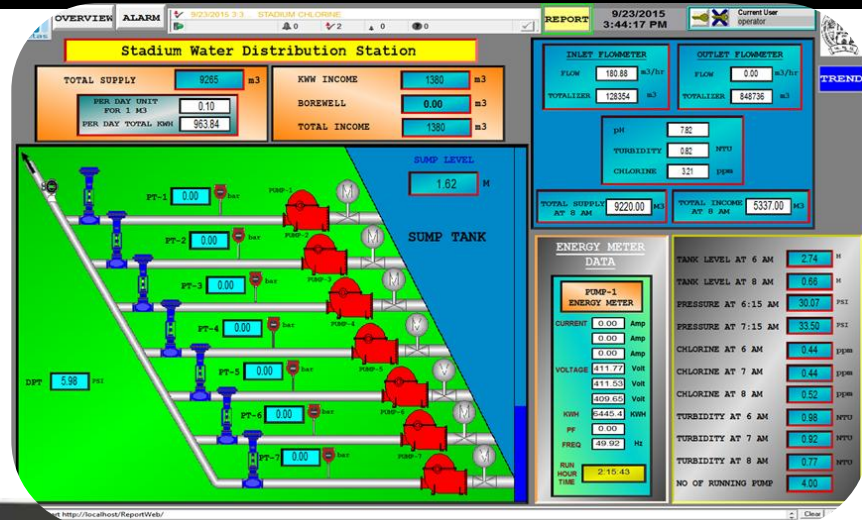
Controls Traffic Signal Timings

180 Traffic Junctions | 1 Pilot

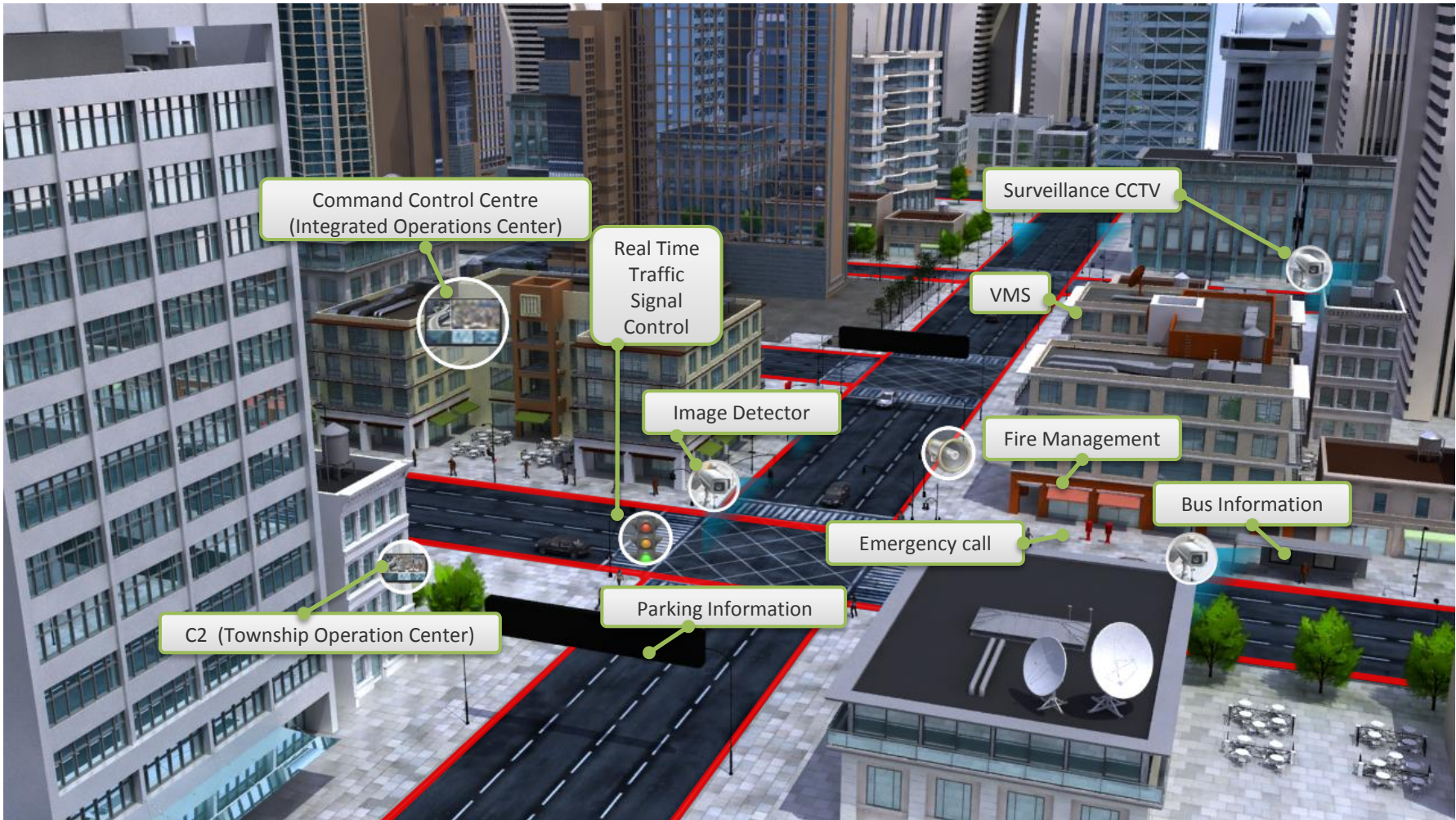
## OTHER APPLICATIONS

- Integration with Other Elements
  - E-Townhall Meetings
  - Pollution Monitoring Sensors
  - Convergence of Emergency Services – on lines of 911
  - Water accountability at Community Level – Integration with SCADA

# One Control room for all



# Command Control Centre & OFC Network



## PARTNER SENSORS

### VEHICLES



Vehicles

### BUILDINGS



Residential



Industrial



Commercial



Water



Parking



Street Lighting



Waste



Environment



People



Street Furniture

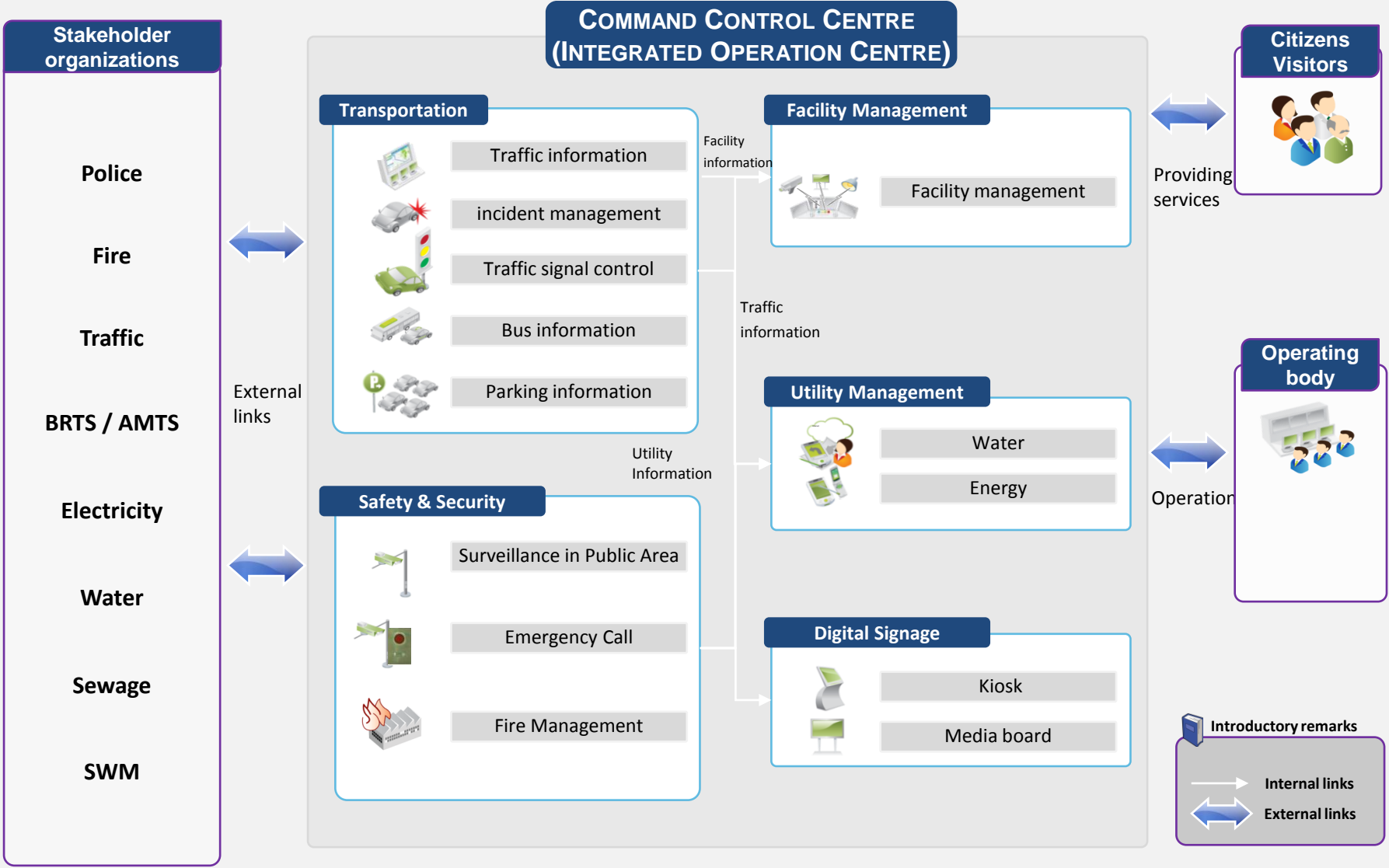


Safety and Security



Traffic

# Command Control Centre & OFC Network



# PROPOSAL OVERVIEW





## AREA-BASED INITIATIVE

### **WADAJ SLUM REDEVELOPMENT & TOZ RETROFITTING (~590 ACRES)**

**IN-SITU SLUM REDEVELOPMENT | RETROFITTING UTILITY NETWORKS  
SMART COMPONENTS | TRANSIT ORIENTED DEVELOPMENT | PLANNED DENSIFICATION**



## PAN CITY INITIATIVES

### **INTEGRATED TRANSIT PLATFORM**

**INTEGRATED TRANSIT MANAGEMENT SYSTEM | COMMON CARD PAYMENT SYSTEM  
&**

### **COMMAND CONTROL CENTRE & OFC NETWORK**

**INTEGRATION OF EXISTING CONTROL ROOMS | SURVEILLANCE | SMART TRAFFIC MANAGEMENT**



# Benefits for all Citizens

## Command Control Centre + OFC

## Transit Oriented Zone

## Slum Redevelopment

**Affordable housing & Slum rehabilitation**



**Water, Sewerage & Drainage Services**



**Better Traffic & Parking Management**



**Ready Access to Public Transport - BRTS & AMTS**



**Efficient Healthcare**



**Better Education Facilities – Smart Learning**



**Safety & Surveillance – CCTV Coverage, Safe Roads, Control Center**



Core Infrastructure Delivery & City-wide Civic Services



Inclusive services targeting all citizen segments



**Connected Civic Centers – Points of Service Delivery**



**Civic Services across online & mobile platforms**



**Common Payment Platform across transport services**



**Walkable Spaces & Widened Public spaces**



**Faster Approvals for Businesses**



**Faster Building Plan Approvals**



**Green Energy**

# Financial Summary – Smart City Proposal

## TOTAL PROJECT COSTS

### Pan City Initiative

**INR 619 Cr**

CAPEX – *INR 539 Cr*  
OPEX (5 yrs) – *INR 43 Cr*

### Area-based Development

**INR 1,821 Cr**

CAPEX – *INR 1751 Cr*  
OPEX (5 yrs) – *INR 71 Cr*

**A&OE**  
**INR 52 Cr**

## Pan City Project

Integrated transit Platform  
*89 Cr*

Common Card Payment System  
*INR 105 Cr*

Command Control Center  
*53 Cr*

OFC  
*150 Cr*

Surveillance / ATCS / Integration  
*INR 142 Cr*

## Area Based Project

Affordable Housing  
*INR 836 Cr*

Utility Network  
(TOZ + Slum)  
*INR 529 Cr*

Treatment Plant at Wadaj  
*INR 115 Cr*

Smart Components  
*INR 146 Cr*

Intermodal Hub  
*INR 125 Cr*

## Opex (5 yrs) + A&OE

OPEX + A&OE  
*INR 202 Cr*

Total Capital Costs  
**INR 2,290 Cr**  
Total Operating Costs (5 yrs)  
**INR 151 Cr**  
Total A&OE  
**INR 52 Cr**

**Total AMC investment**  
**~700 Cr in Five Years**

## FUNDING OPTIONS

### Smart City Funds

**INR 1,415 Cr**

Centre Govt.  
*INR 488 Cr*  
State Govt. /AMC  
*INR 488 Cr*  
AMC / SPV Funds  
*INR 439 Cr*

### PPP

**INR 961 Cr**

*Affordable Housing*  
*Intermodal Hub*

### Amrut

**INR 115 Cr**

*Treatment Plant at Wadaj*

### Swachh Bharat

**INR 1 Cr**

*Segregation at Source*

# Way Ahead for Ahmedabad Smart City

Registration of the company (SPV)

- Identification of
  - Directors, including independent directors
  - Full time CEO
  - CFO and Company Secretary
  - Key officers responsible for planning and implementation
- Delegation of powers to the Company
- Along with the finalization of Smart City Plan
  - Revenue model for the company
  - Fund raising plan
- A model Article of Association has been provided in the tool kit to help the SPVs in drafting their AOA.

THANK YOU



# Various Treatment Plants for Ahmedabad

- Vadaj Jal Vihar 60MLD Sewage Treatment Plant under Amrut Scheme
- Hansol 50 MLD Tertiary Treatment Plant
- Vinzol 35 MLD Tertiary Treatment Plant
- Behrampura-Danilimda 30 MLD Effluent Treatment Plant

