

Ranchi-Smart City

A Future City in making



झारखण्ड सरकार

Jharkhand
Government



Ranchi Municipal
Corporation



Smart
Ranchi

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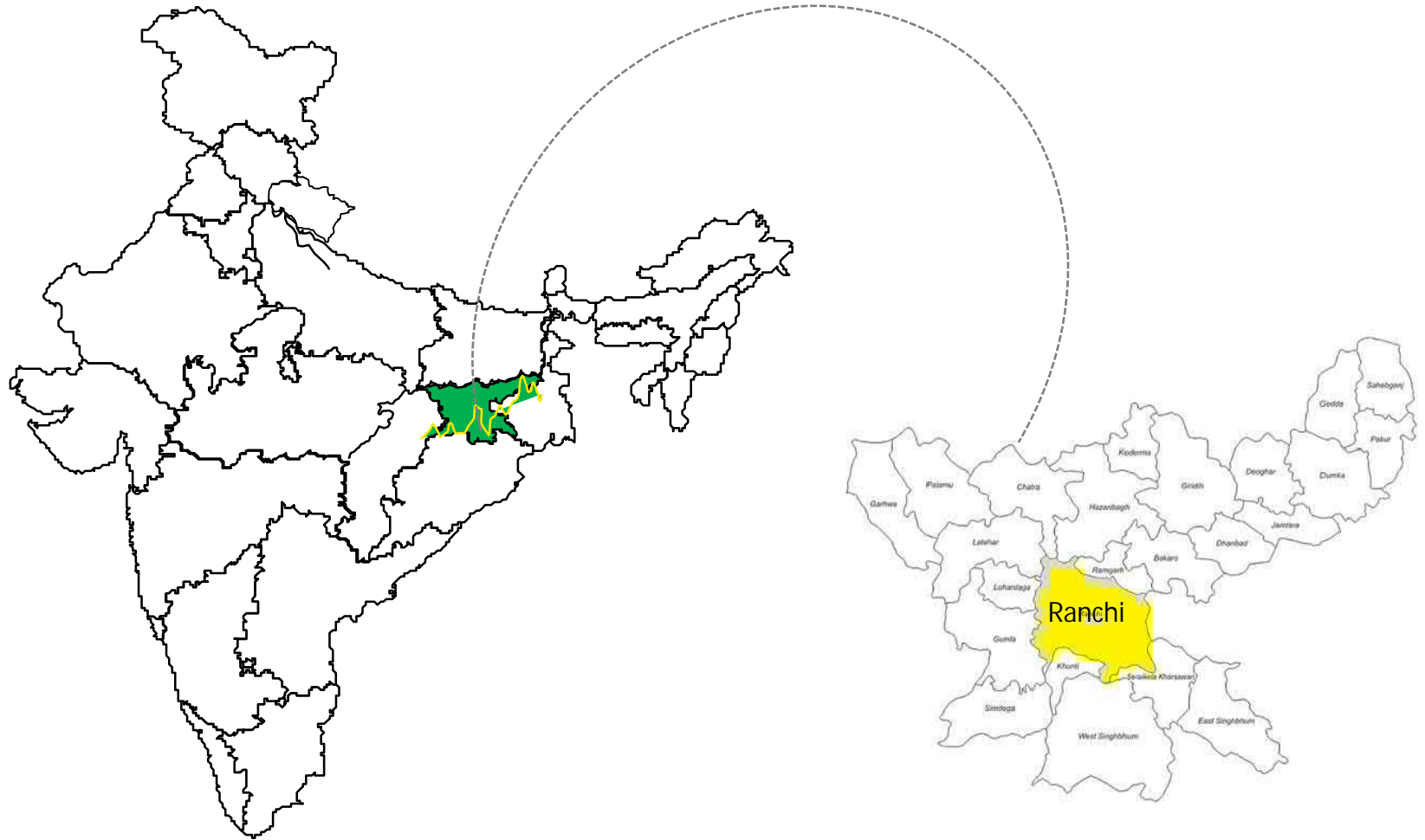
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Context

- The GoJ is planning to organize a Global Investors Summit in Feb'2017 to attract investment across multiple sectors in Jharkhand
- Multiple roadshows would be organized across various domestic & international locations to create awareness about the planned summit
- The focus areas of roadshows will be Smart City, Food & Feed Processing, Industrial Equipment & Manufacturing, Automobile & Auto Components, Pharmaceutical, Higher Education/ Technical Education, Healthcare, Infrastructure, Power and Information Technology
- Ranchi is among the 98 cities of the country which have qualified for the "Smart City" project announced by the Govt. of India
- Smart City is expected to offer opportunities in the areas of infrastructure/ real estate, health, education, housing and hospitality among others
- The smart city will have facilities including quality water and electricity supply, solid waste management system, scientific sewerage and drainage systems, IT connectivity, digitization, e-governance and public participation among others

Ranchi- The Capital of Jharkhand



Stable & dynamic leadership of the state ensures a plethora of opportunities for investors across various sectors

Demographics

- Population : 10,73,427
- Population Growth: 26.72%
- Density: 6100 persons per Sq. km.'s
- Literacy Rate: 87.32%
- Work Participation Rate: 49.5%
- Gender Ratio: 950 females per 1000 male

Infrastructure

- Roads: 683.73 Km.'s
- Rail: 14.5 Km.'s
- Air: Domestic Airport providing connectivity with all metros
- Water Supply Coverage: 50%
- Hospitals (Pub & Pvt): 83
- Colleges - Institutions & Deemed Universities: 76

Economy

- Industrial Units: 540
- Work Force Engagement:
 - Trade:22%
 - Manufacturing:19%
 - Public Admin:22%
- Per Capita Income: 37,000 INR

Governance

- Administration: Ranchi Municipal Corporation (RMC)
- Water Supply, Sewerage & Drainage: RMC and Department of Water Supply & Sewerage
- Urban Planning: Ranchi Regional Development Authority

Opportunities

- Stable & dynamic government committed towards speedy growth of the state
- Urban infrastructure strengthening is the focus of the current ruling dispensation
- Well connected with all the major cities in India through rail, road and air
- Adequate supply of human resources at a competitive rate
- Higher student migration for pursuing education in other states

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Vision and Goals for Smart City

Vision

“Ranchi to be a hub for education – for both formal and non-formal sectors, by reinforcing its good educational institutes in preparation for welcoming knowledge based industries”

Goals

Goal 1:

- To become knowledge hub/ city for the State of Jharkhand and other North-Eastern States in the next 5-10 years
- Enhanced visibility
 - ▶ Attraction of the best think tanks to the knowledge city
 - ▶ Brand image as the education and research capital will be enhanced
- Development of human capital
 - ▶ Students and researchers get better platform to hone their skills
 - ▶ Development of intellectual property
- Augmentation of social infrastructure

Goal 2:

- Reduce travel time and incidents of traffic violations
- Use of IT as a tool to make Ranchi a safe city for pedestrians and commuters

The proposed smart city will be equipped with all the features required to make it citizen friendly & sustainable



Robust IT connectivity & digitization



Solar generated electricity



Duct cabling



Waste water recycling



Smart metering



Rain water harvesting



Energy efficient street lighting



Safety & Security for citizens



Walkability & cycling



Solid waste management



No-vehicle zones



Intelligent traffic management



Sanitation



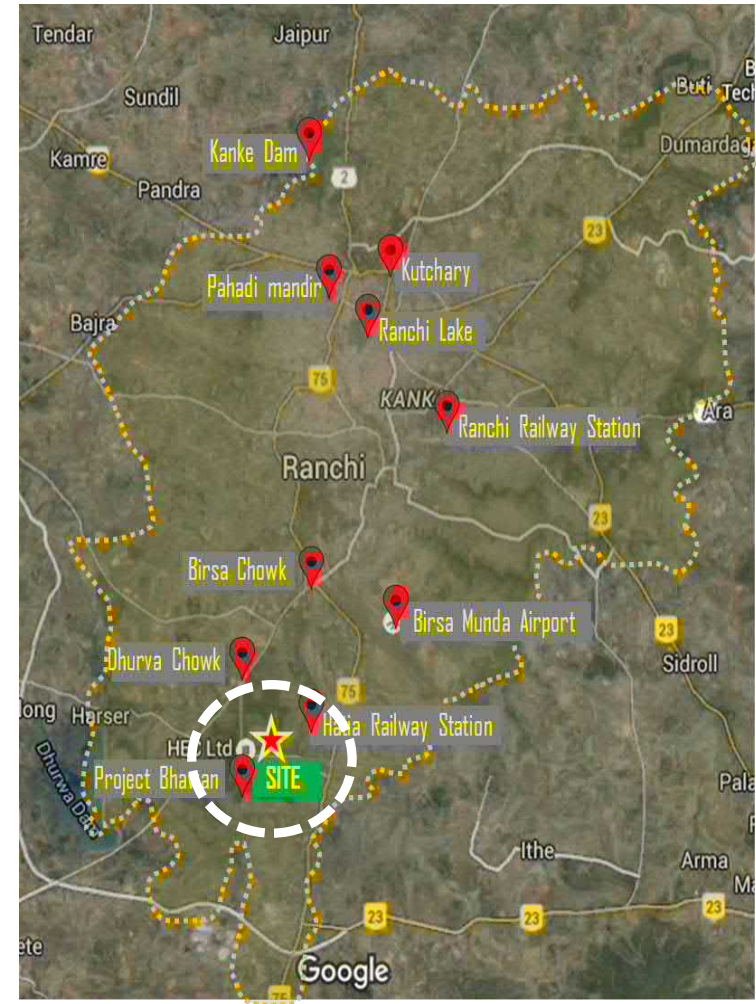
Pedestrian pathways



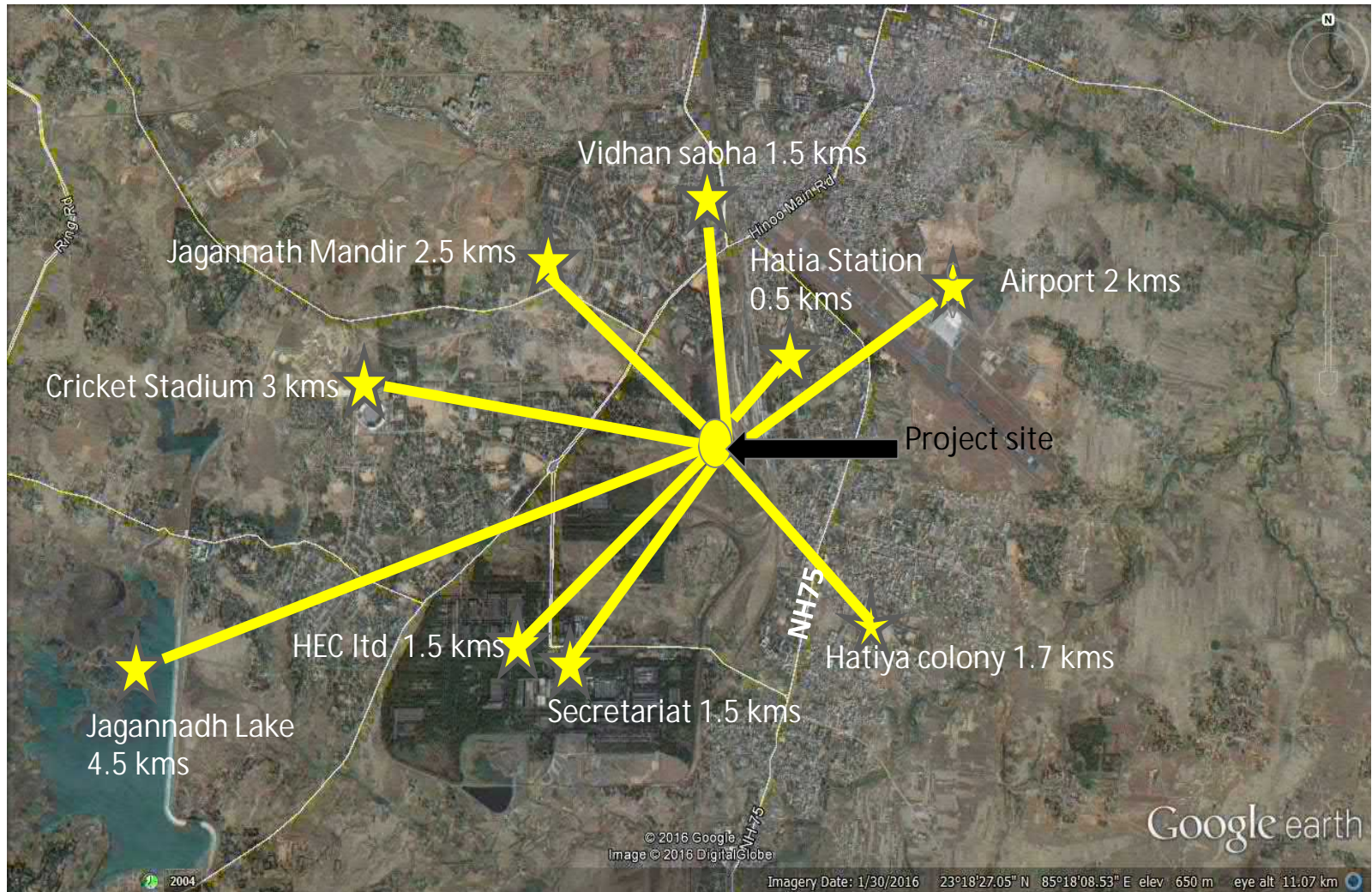
River front, parks and open spaces

The proposed smart city will be a greenfield project & will serve as a pilot for future ready cities

- 441 acres Encumbrance free contiguous land parcel
 - ✓ Land available at less than market price
 - ✓ Transit Oriented Development (TOD) plan
 - ✓ FSI up to 4 and 35% ground coverage along the main corridor ensures compact development
 - ✓ The site is in close proximity from city centre (~5 km), Hatia railway Station (~0.5 km) and Birsa Munda Airport (~2 km) and proposed capital complex & existing administrative headquarter of the State
 - ✓ Monorail corridor & transit Oriented hub are proposed to be developed adjacent to the site



The proposed site is well connected with rail, road & air; the site is in close vicinity with administrative & recreational venues of Ranchi



The site is meticulously planned to accommodate essentials of a smart city



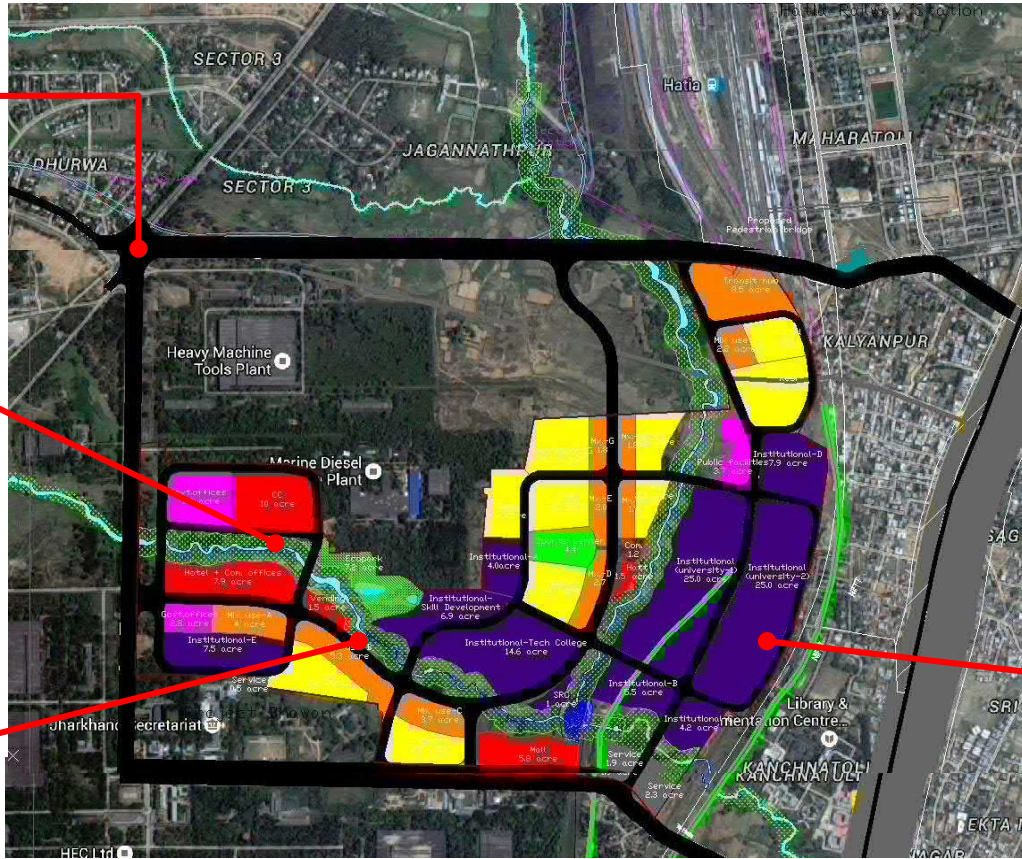
Monorail alignment close to site



Riverfront development



Cycle tracks and pedestrian zone on all roads

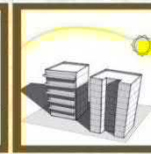


Smart Building

Water Harvesting



Orientation Optimization



Renewable Energy



High Efficient ACMV



Photo & Motion Sensor



Regenerative Lift



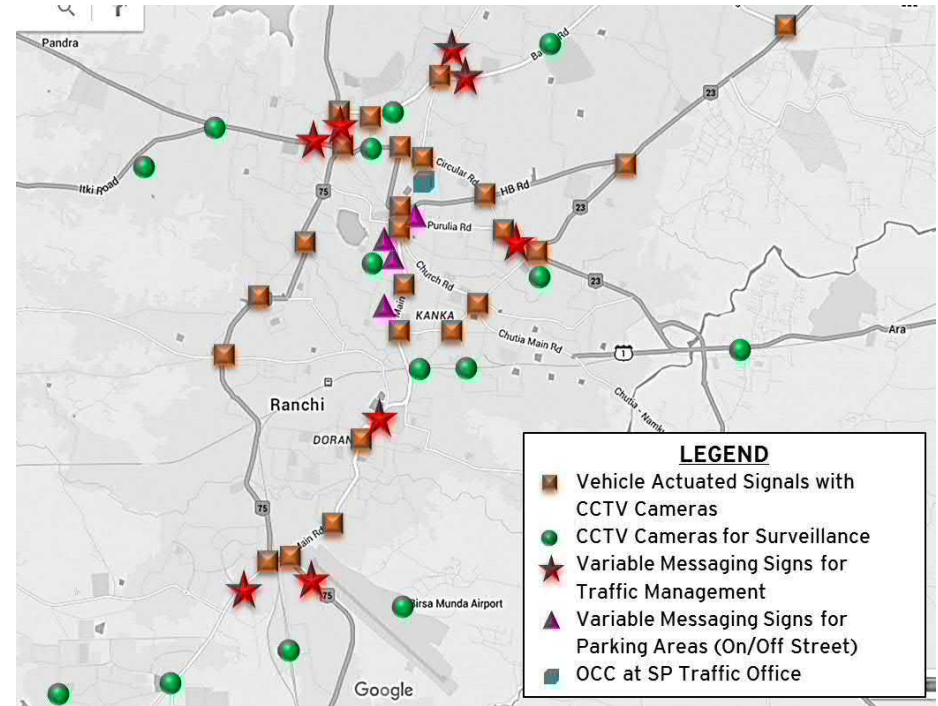
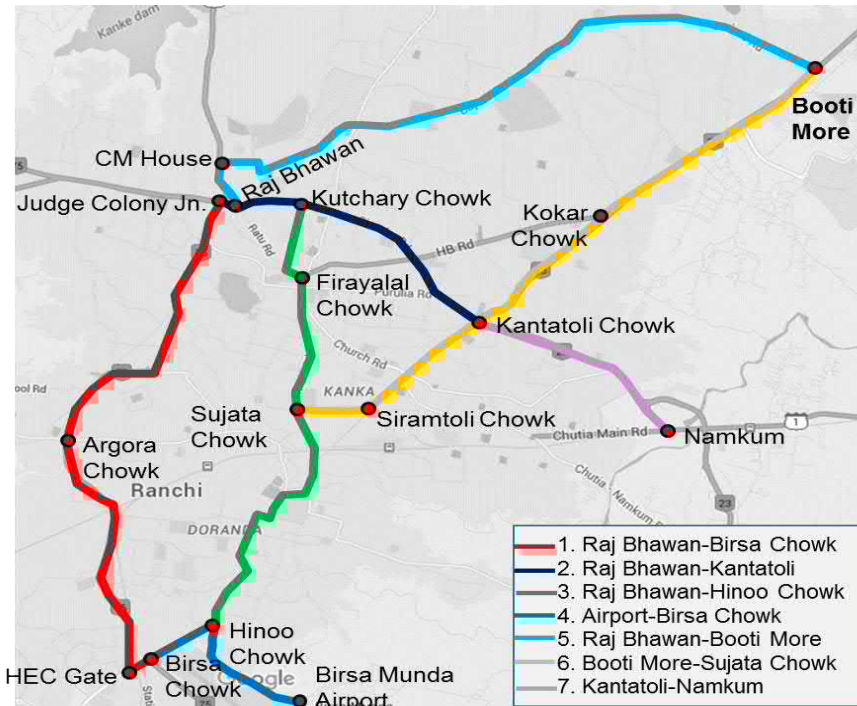
Smart Classrooms



Digital Library

Mixed land use	Residential	Govt. offices	Knowledge institutions	Commercials	Green space

The smart city will have state of the art transport management system for effective traffic management



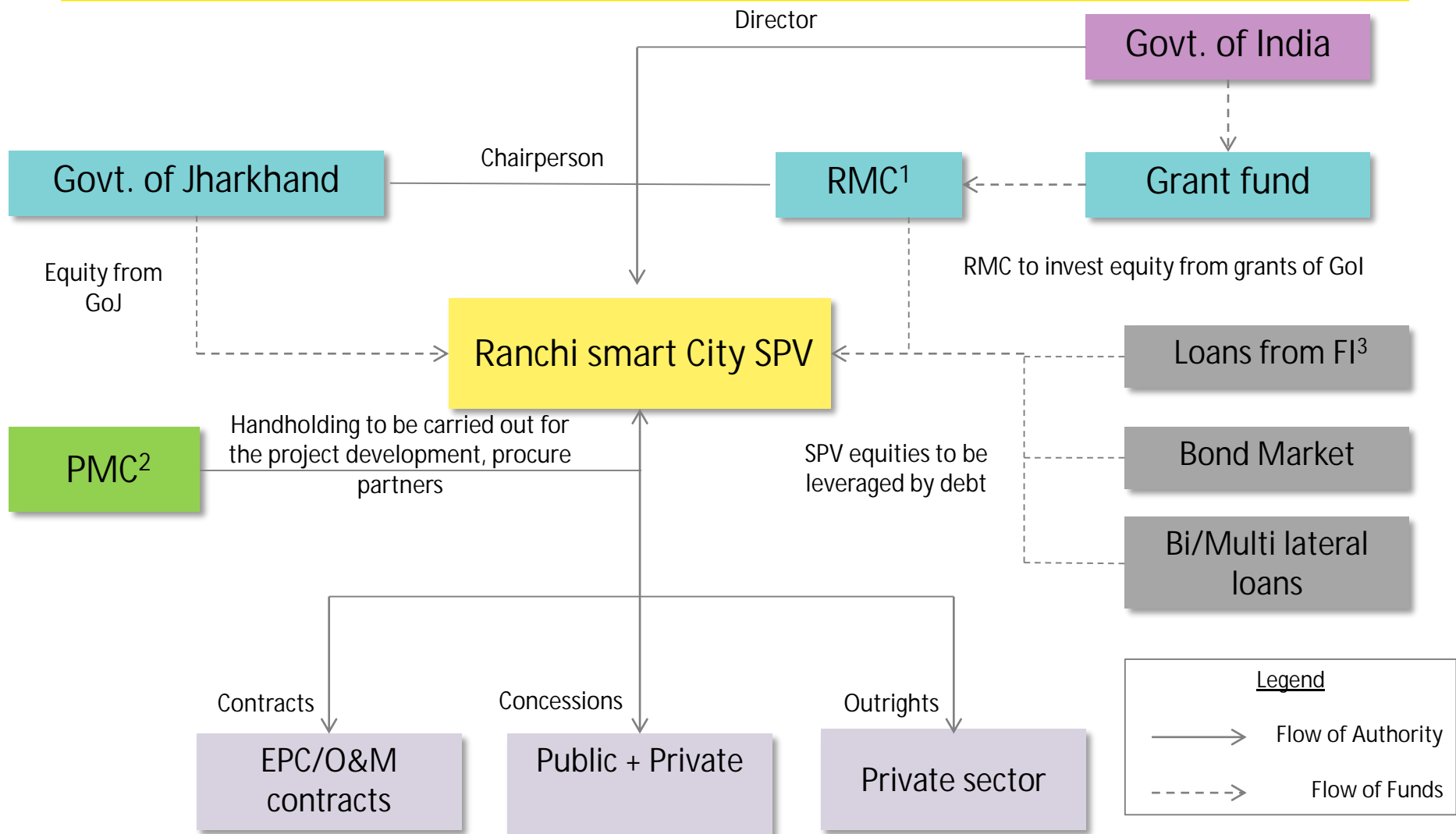
- ▶ Public Transport Management System
- ▶ Parking Management System
- ▶ Corridor Management System (Traffic)
- ▶ IPT Integration
- ▶ Fare Management System (Common mobility Card)
- ▶ Central Control & Command Centre

Intelligent Transport Management System would ensure traffic discipline & reporting incase of accidents/ traffic violations



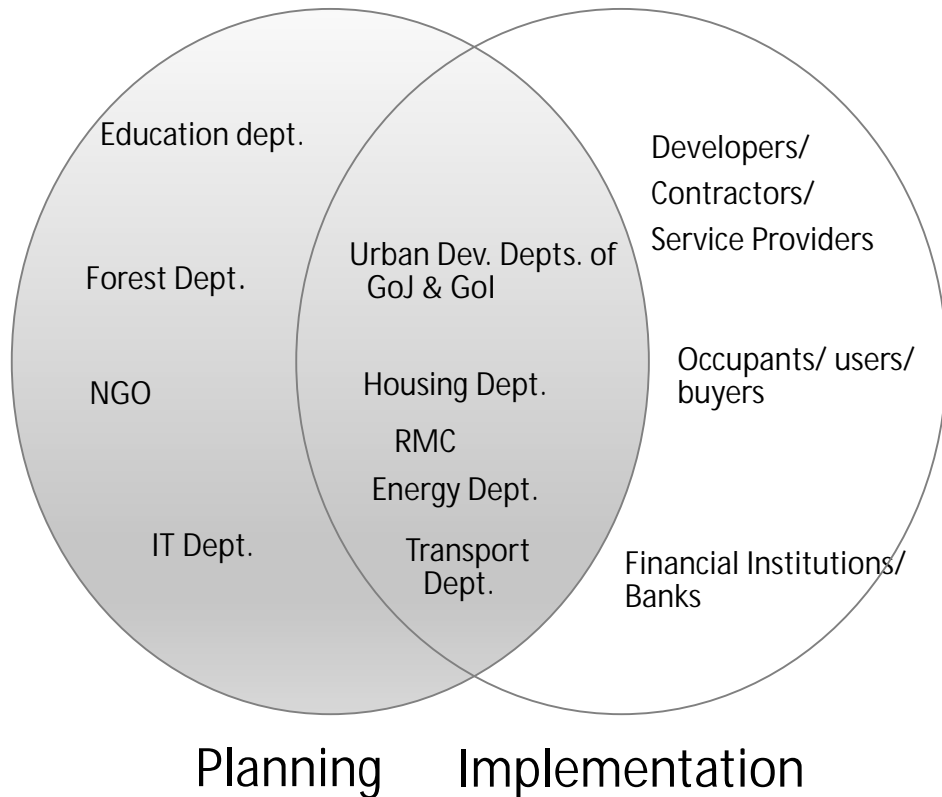
- ▶ Traffic control and management centre
- ▶ Disaster recovery centre
- ▶ Incident detection system
- ▶ Adaptive signal control of at-grade intersections
- ▶ CCTV-camera system
- ▶ Traffic information system with variable message signs
- ▶ Speed and red light violation cameras

A special purpose vehicle (SPV) has been constituted to facilitate the development of smart city in Ranchi



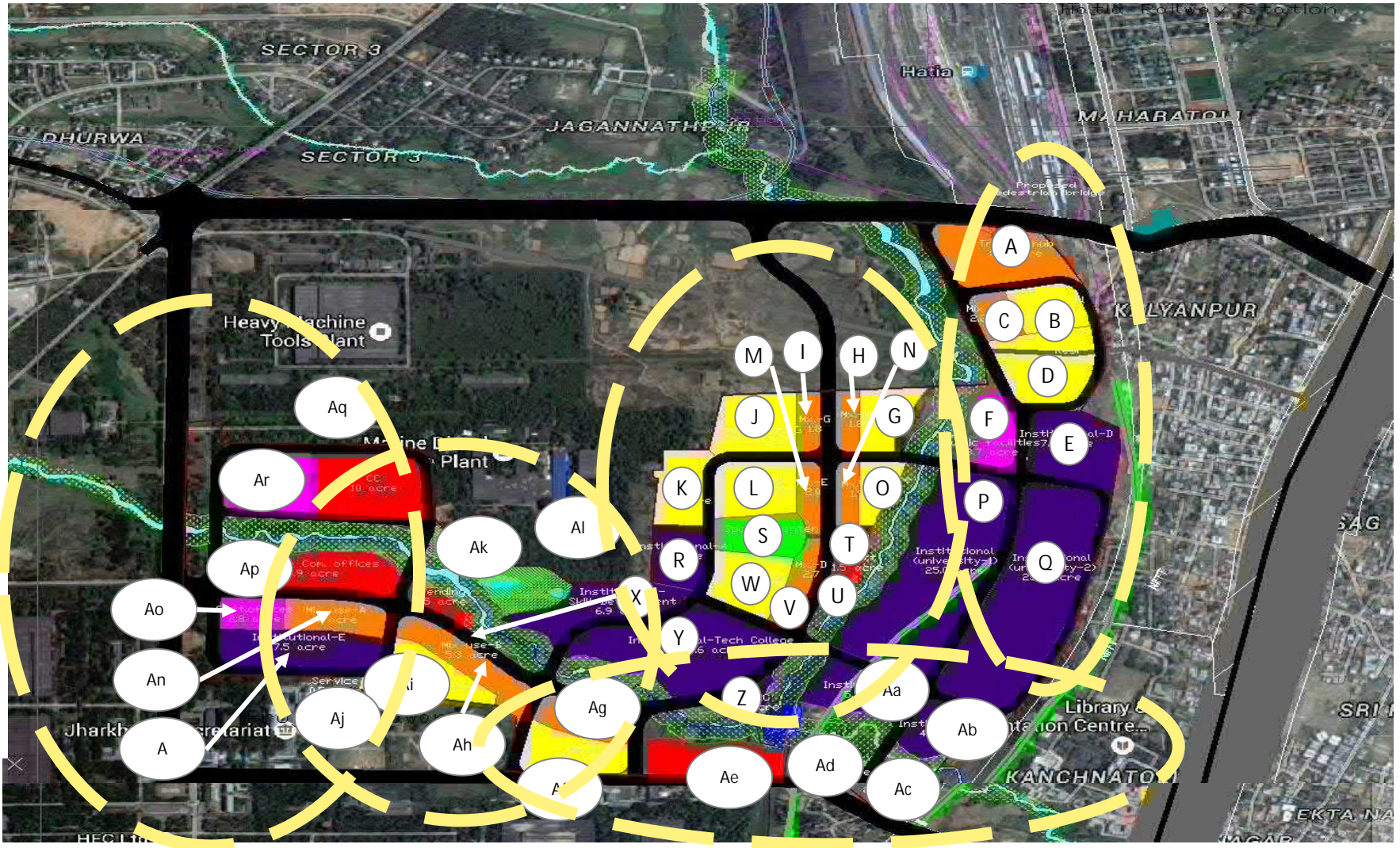
Various stakeholders are expected to display distinctive role during the planning, implementation and maintenance of the smart city

Stakeholders mapping



Department	Role
Ranchi Municipal Corp	SPV partner
Urban Development GoJ & Gol	Administrative approver and SPV partner
Housing	Residential plotting
Energy	Necessary approvals w.r.t. power, renewable energy.
Transport	Transport hub
IT department	ICT services
NGOs	For stakeholder meetings, social impact assessment project hearing
Forest	Environment impact assessment
Education	Statutory approvals for setting up institutions
Developers/ Contractor/ Service Providers	Contracting/ developing
Financial Institutions/ Banks	Lending

There are 45 land blocks available for development within the limits of smart city in Ranchi



Development mix of available land blocks in the proposed smart city (1/5)



Land pocket	Size / Area	Component	Mode
A	8.5 acres	Bus terminal, railway station, budget hotels, taxi stand, police services, retail complex	EPC/O&M or PPP
B	4.1 acres	Hostel with modern facilities	EPC/O&M or PPP
C	2 acres	Commercial retails with residential	PPP or Outright sale
D	8.1 acres	Residential	Outright sale
E,P,Q	7.9+25+25 = 57.9 acres	Institutions	PPP or Para statal (MoU)
F	3.7 acres	Public Facilities	PPP

Development mix of available land blocks in the proposed smart city (2/5)



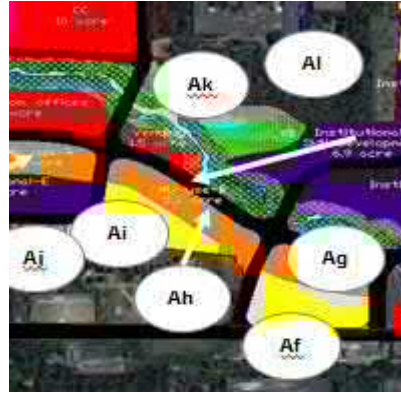
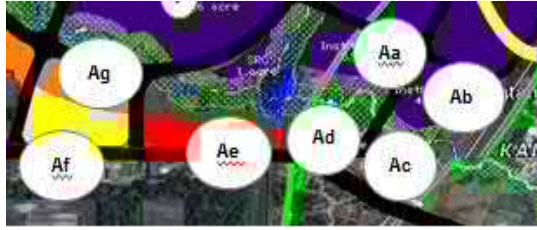
Land pocket	Size / Area	Component	Mode
G, K, L, O	$3.9+4.6+5.8+2.7=17$ acres	Residential	Our right sale
H, I, M, N	$1.8+1.8+2+1.9=7.5$ acres	Mix use	PPP or Outright sale
J	6.3 acres	EWS/LIG affordable housing	Outright sale or PPP
R, X, Y	$4+6.9+14.6=25.5$ acres	Institutions	PPP or Parastatal
S	4.4 acres	Sports Complex	PPP or Outright sale
T	1.2 acres	Commercial complex	PPP

Development mix of available land blocks in the proposed smart city (3/5)



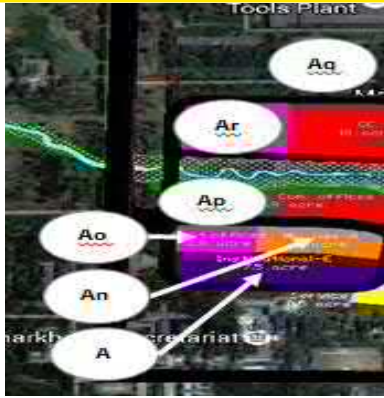
Land pocket	Size / Area	Component	Mode
U	1.5 acres	Public market	PPP or EPC/O&M
V	2.7 acres	Mix use	PPP or Outright sale
W	5.4 acres	Hostel	PPP or EPC/O&M
Z	1 acre	Services (Recreational)	PPP or EPC/O&M

Development mix of available land blocks in the proposed smart city (4/5)



Land pocket	Size / Area	Component	Mode
Aa,Ab	$5.5+4.2=9.7$ acres	Institutions	PPP or Outright sale
Ac,Ad,Aj	$2.3+1.9+0.5=4.7$ acres	Services	EPC
Ae,Ag,Ah	$5.8+3.7+5.3=14.8$ acres	Mix use	PPP or Outright sale
Af,Ai	$5.4+5.9=11.3$ acres	Residential	Outright sale
Ak	7.2 acres	Eco Park	EPC or PPP
Al	1.5 acres	Vending	

Development mix of available land blocks in the proposed smart city (5/5)



Land pocket	Size / Area	Component	Mode
Am	7.5 acres	Institutions	PPP or Parastatal
Ae,Ag,Ah	4 acres	Public (Government offices)	EPC mode
Ao	2.8 acres	Public	EPC mode
Ap	7.9 acres	Hotel convention center	PPP
Aq	10 acres	Commercial complex	PPP
Ar	7.2 acres	Public	EPC

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Investors are encouraged to invest across multiple sectors within the smart city in Ranchi

Shelf of opportunities

Physical Infrastructure

- Public Transport
- 24X7 Water Supply
- Zero emission like SWM, STPs
- Connectivity Infra
- Commercial hubs
- Convention Center and Hotels

Social Infrastructure

- Housing Development
- Educational Infra
- Health care infra
- Entertainment and recreational
- Cultural, Sports fitness centers
- Parks and river front development

Economic Infrastructure

- Skill Development centers
- Incubation centers
- Transit hub
- Commercial centers
- Banking centers

Institutional Infrastructure

- Min Government Max governance
- Ease of doing business
- E-Governance & M-Governance
- Safety Security
- Citizen engagement
- Disaster management

The current Govt. is committed to support investors through various policies dedicated towards development of the state

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