Ranchi Smart City Proposal

SCP overview and Next Steps









SCP Overview

- City Overview SWOT
- City Vision & Goals
- Overview of citizen engagement process
- Area Based Development proposal
- Pan city proposal
- Next steps

City SWOT

Strengths

- ✓ Research and knowledge based city character –
 Presence of nearly 15 R&D Centres / PSUs, 21
 MSEs
- ✓ Availability of quality sports infrastructure 17
 Stadiums, Sports university
- ✓ Availability of prominent schools/ pre-college facilities
- ✓ Presence of abundant natural spots
- ✓ Variety of flora, fauna, variety of horticulture and floriculture

Weakness

- ✓ Inadequate higher / technical education facilities
- ✓ Poor urban planning, road infrastructure, public transport system
- ✓ Lack of specialised medical facilities
- ✓ Low disaster management preparedness
- ✓ Poor road and rail connectivity
- √ Absence of sewerage system

Opportunity

Opportunity to develop:

- ✓ Knowledge hub/ Higher education facilities / Education hub
- ✓ Eco-tourism centre
- ✓ Sports hub
- ✓ Mineral related business hub
- ✓ Tribal tourism development culture centre / Herbal medicine hub
- ✓ Food processing hub

Threat

- ✓ Naxalism
- ✓ Erratic monsoon
- ✓ Depleting green cover / indigenous plantation
- ✓ Depleting water table
- ✓ Thundering / lightning fatalities
- ✓ Ranchi has high migration rate

Key takeaways from city SWOT

- Historically Ranchi is home to Government Organizations, PSUs and R&D centres that drives city's economy. These organizations depend on other cities to meet their manpower requirement
- Contrarily, Ranchi despite being rich in human capital, grapple with a scenario to retain its people in the city, as young population often move out from the city to pursue higher technical education.
- Through knowledge focussed Area based development, Ranchi intends to bridge the missing link between the young population migrating from the city and rich human capital requirement of economic drivers of the city

City Vision and Goals

"Ranchi to be a hub for education – for both Formal and Non-formal sector, by reinforcing its good educational institutes in preparation for welcoming knowledge based industries."

Goal 1: To become knowledge hub/city for the State of Jharkhand and other North-Eastern States of the country in 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

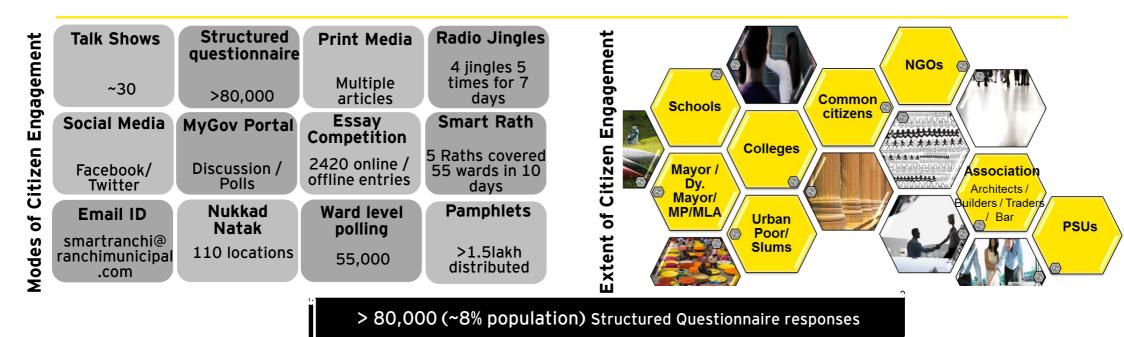
Goal 2: Reduce travel time and incidents of traffic violations

▶ Use of IT as a tool to make Ranchi a safe city for pedestrians and commuters

Goal 3: Ranchi to be one of the cleanest and greenest city

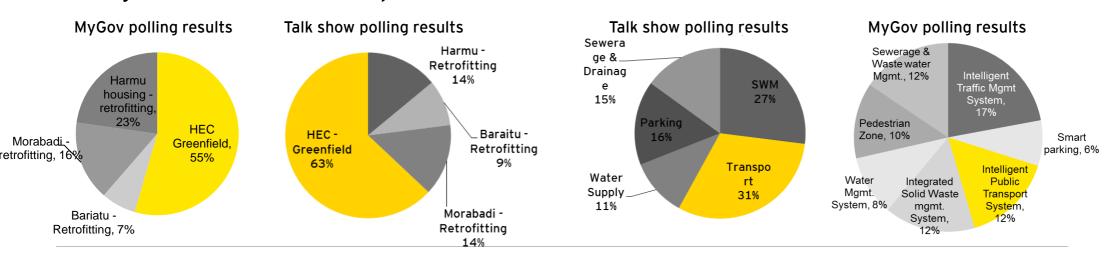
Prompt and time bound collection and transportation of waste and its disposal

Overview of citizen engagement process

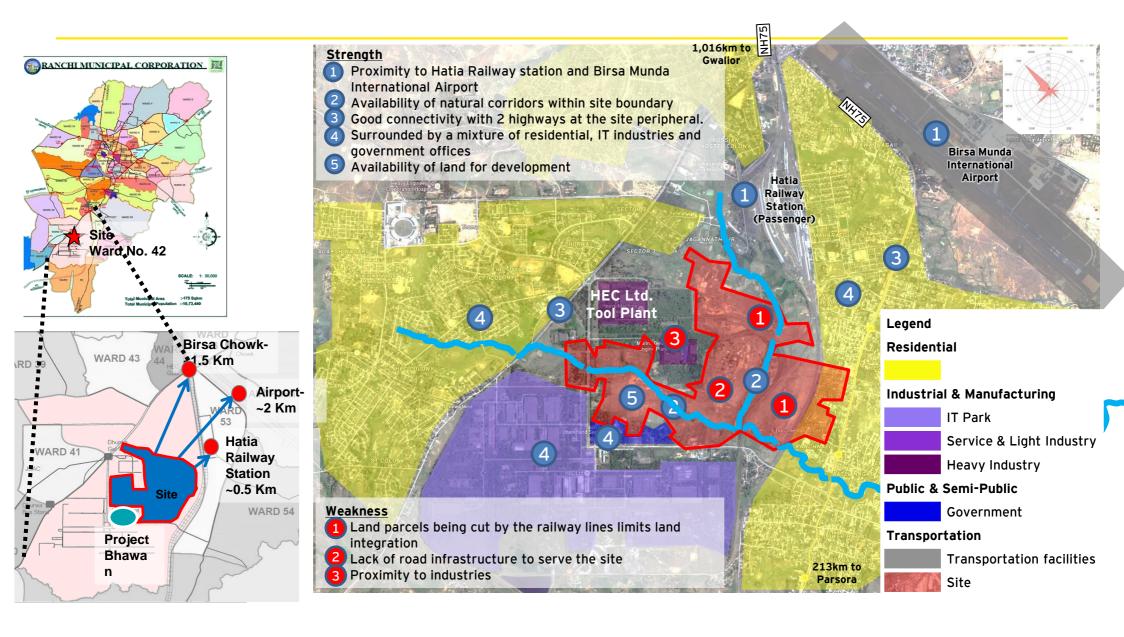


Polling results - Area Based Development

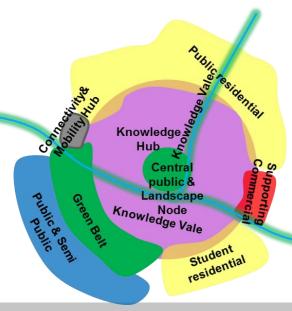
Polling results - Pan city proposal



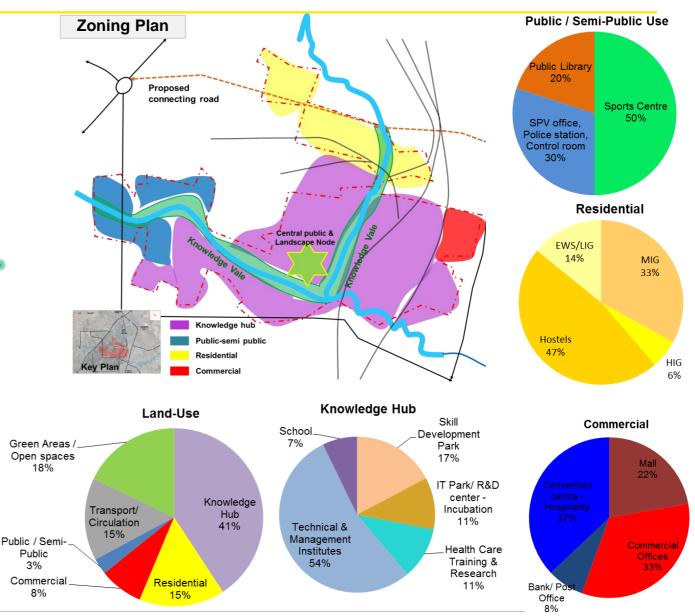
Area Based Proposal



Area Based Proposal Proposed Development



- 1. Concept idea is to have a **knowledge hub at the center** of our development.
- 2. Bringing in a "Nature Walk concept" where the "Knowledge Vale" is a linear landscaped ecological belt connecting various parts of the site.
- 3. All public spaces & nodes are planned along this Vale.
- 4. The green belt at the edge of the Knowledge Hub forms a buffer between the Public-Semi-public engaging sector.
- 5. The residential Zones further envelops this Central Hub from the other sides along with necessary supporting commercial & social infrastructure.
- 6. Core idea is to create a **lively walking environment** for the users so that their pedestrian from one point of the site to other is smooth.



Area based Proposal Smart Components

Knowledge Hub

Core function of the development consisting of skill development centre, training institutes, workshops, R&D wings along with open public spaces

Education, Research wings & Training institutes

- ✓ Smart classrooms & workshops
- ✓ Digital public library
- √ 100% network coverage in campus
- ✓ Interactive common rooms

Common Service Tunnel for all Utilities- Supply & Distribution

Services accommodated:

- 1. Power lines & Network cables
- 2. Water supply ,sanitation, waste, waste disposal

Water Supply Distribution Network Water Pressure Optimizer Real-time hydraulic modelling Water Quality Sensor Water SCADA Outage Mgmt Mapping & Modelling of distribution assets

Smart Traffic Management

Integrated Traffic Control

- ✓ Centralised traffic monitoring
- Maintenance of equipment & back-end systems
- √ Intelligent parking systems

Public Commute service

✓ Integrated multi-modal public transport

Integrated Logistics

✓ Bicycle sharing, RFID tagging

Decision support

- ✓ Improved problem solving & decision making
- ✓ Smart IPT stands & App

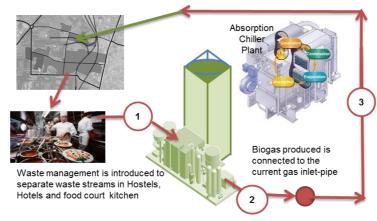
IT Connectivity

- Underground fibre optic cabling for internet and telecommunication.
- LAN connectivity capabilities to all buildings.
- ➤ Wifi hotspots at all important public nodes, buildings.

Safety & Security

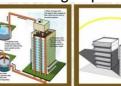
- Pan development Video Monitoring.
- > Helpline & SOS numbers.
- Crime alert Apps.

Sustainable Waste & Water management



Smart Building

Water Orientation Harvesting Optimization







Renewable

High Efficient ACMV

Photo & Motion Sensor

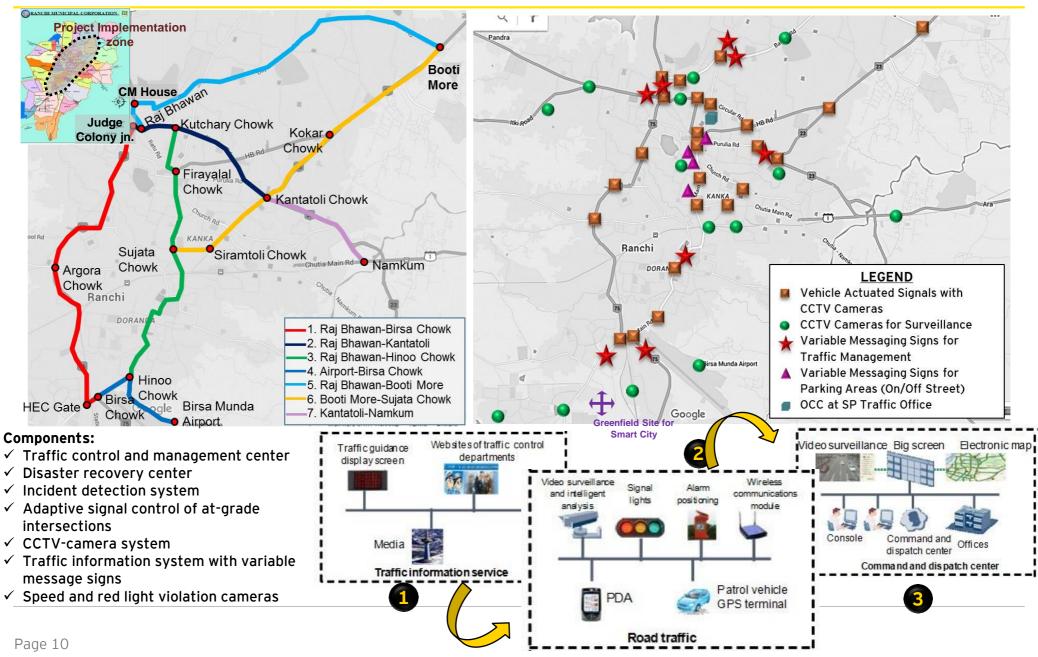
Regenerative Lift







Pan City proposal Intelligent Transport System



Pan City proposal Solid Waste Management

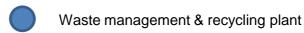
Smart Solid Waste Management –ICT Tools (in the already existing SWM System)

- 1. All vehicles(e-Rickshaw) to be GPS tracked
- 2. RFID to be provided in all vehicles
- IVRS based complaint tracking photo tagging option
- 4. Vehicle management system (O&M system)
- 5. Digital weigh bridge
- 6. Biometric (thumb impression and face recognition) attendance system
- 7. Control and Command Centre





Pneumatic waste collection system plan



← ► Common service tunnel for pneumatic pipes

Waste collection point

Next steps based on MoUD Comments City Level criteria

- Showcase initiatives taken in the city (ongoing and proposed projects) to improve basic services in the city to address the issues related to basic services, public transport etc
- ► Elaborate the existing ecosystem existing in the system that supports proposed knowledge hub
- ► Provide qualitative and quantitative outcomes for the proposed goals and strategies to achieve the vision
- ► Highlight ongoing and upcoming projects proposed in the city to increase the employment opportunities in the city
- ►Increase citizen outreach through online platforms such as MyGov platform, Facebook

Next steps based on MoUD Comments Area Based Development

- ► Showcase Proposed Site's connectivity with the city Existing and proposed
- Site's linkage with other economic, institutional and commercial centres of the city
- ► Elaborate economic and social benefits of the proposed development -Knowledge hub
- ► Existing education infrastructure premier institutes, catchment regions for students etc needs to be elaborated
- Provide list of premier institutes national and international; targeted for the knowledge hub/city

Next steps based on MoUD Comments Pan City Proposal

- Details of the Non-IT initiatives taken in the city to improve the mobility should be further detailed, to establish the 'inclusivity' of the proposed solutions
- Initiatives taken to inform and encourage people to adopt the proposed solution should be elaborated

Thank You! Please share your opinion on: www.mygov.in Email -smartranchi@ranchimunicipal.com