



SMART PUNE

CREATION OF A VISION COMMUNITY

How Pune leveraged citizen engagement at scale to create a Vision Community?



PUNE

AN INTRODUCTION

We aimed to create a Vision Community to engage citizens in setting direction for a Smart Pune. Is it really possible for a Municipal Corporation to be humbled by its citizens? We were not sure. But we were in for a pleasant surprise...

A metropolitan city, which has reputation of being the 'cultural capital' and being 'the Oxford of the East', is faced with a constant challenge of preserving its legacy. That too, if it is as diverse as Pune, the task can become quiet challenging. Counted among the top 100 of the most populated cities in the world, Pune is an automobile and IT hub as well. Its pleasant weather and culturally tolerant citizens make it an ideal place for anyone to settle here for life. Two rivers, a dam, prominent worship centers for all religions, the

Ganpati festival, palkhis, cultural fairs, various national research centers, expat hubs, renowned bazaars for traditional clothes, and glistening buildings of IT and software companies is what defines the identity of Pune. Pune is also known for Savitribai Phule, the first lady teacher in India, Lokmanya Tilak, freedom fighter and father of the Ganesh Festival, Yerawada Jail, IUCCA, and it's various military establishments. In spite of being so diverse, Pune has preserved its cultural essence in its historic architecture, its numerous cultural events, and the tradition that is followed so diligently by all the citizens.

Recently, Pune has been ranked 145th among 440 cities around the world in terms of quality of living by the 'Mercer 2015 Quality of Living survey',



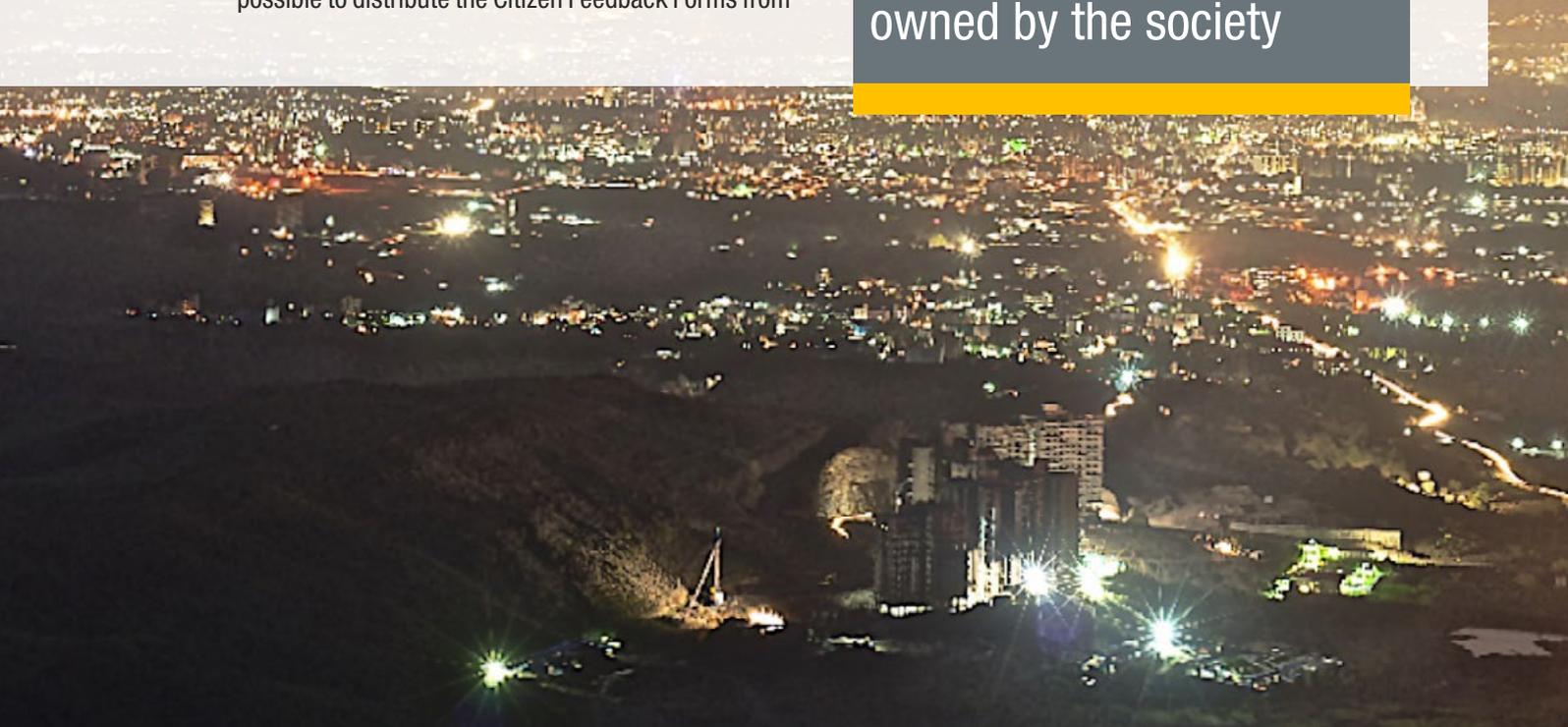
second only to Hyderabad (138th) in India. It was also listed as one among the 9 emerging cities around the world that are evolving as business centres.

Being the Municipal Corporation of such a great city, we have the responsibility to keep its legacy alive by not only ensuring that Pune hit the Smart City list, but also making it “The Ideal Smart City” in India. We set out with the objective of sensitizing our citizens about this initiative, considering it a monumental task, and got a pleasant surprise from our citizens instead.

Their enthusiasm and support, their level of involvement and initiation is inspiring. The Smart City Project Team went door to door to cover as many households as possible to distribute the Citizen Feedback Forms from

the citizens and collect their feedbacks. Around 300 – 400 Ganesh Mandals have shown initiative to set up drop boxes for the devotees to submit their feedbacks. Around 15,000 school students from different schools in the city have taken out a rally to spread the word about the Smart Pune Mission. Such a response was unexpected and unprecedented!

It feels as if the Smart Pune initiative was orchestrated by us but owned by the society

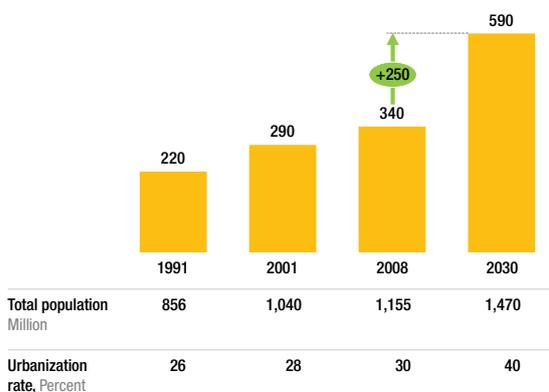


CONTEXT OF THE EFFORT



India will witness urbanization at a speed quite unlike anything it has seen before. As estimated by the McKinsey Global Institute, around 590 million people will live in cities by 2030, up from 340 million in 2008. Compared to this exponential growth, it took 40 years for India’s urban population to rise by 230 million between 1971 and 2008. In the next two to three decades, urbanization will be the most important growth engine, with cities driving more than 70 percent of new job creation and 70 percent of Indian GDP by 2030.

Indian cities are likely to house 40 percent of the Indian population by 2030



While urban development will be the most important growth engine for India, it will also put unprecedented pressure on resources and environment. With most cities planned many decades ago, unanticipated population explosion and rapid migration have seriously jeopardized their livability index. Most cities suffer from unending traffic jams, water shortages

and challenges around waste disposal. As shown in figure below, the performance of Indian cities needs significant improvement across multiple parameters related to the “quality of life” (Source: McKinsey Global Institute).

Given this backdrop, the Smart Cities Mission initiated by the Government of India is particularly significant. Conceived as an innovative way to drive infrastructural, economic, environmental and social growth, the Smart Cities Mission aims to do so by enabling local development and harnessing technology to improve the quality of life of citizens.

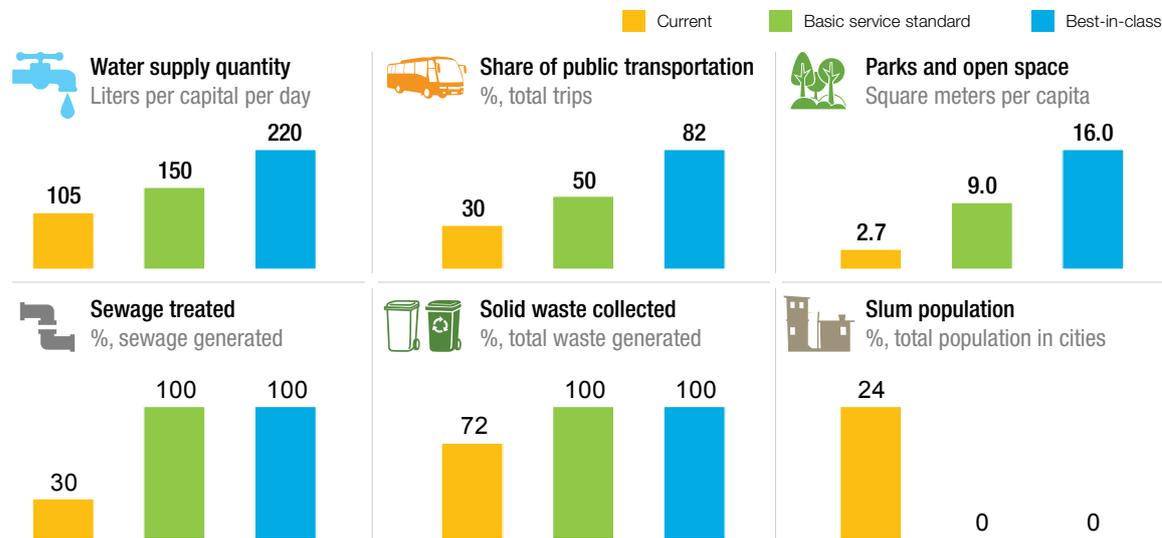
The defining quality of a ‘smart city’ is one that puts people first.

With citizens as the main stakeholders and beneficiaries of the Smart Cities Mission, Pune city officials made an effort to involve ‘Punekars’ (Pune citizens) on an unprecedented scale.

This case study describes the citizen engagement effort in detail. It is divided into the following sections:

- Summary of the citizen engagement effort so far
- Preparation and planning before launching citizen engagement
- Emerging answers from the citizen engagement process
- Way forward for engagement of citizens

The current performance of India’s cities is poor across key indicators of quality of life



Source: United Nations; press search; City development plans; The Energy and Resources Institute; Planning commission; Census 2001; Central Pollution Control Board; McKinsey Global Institute analysis



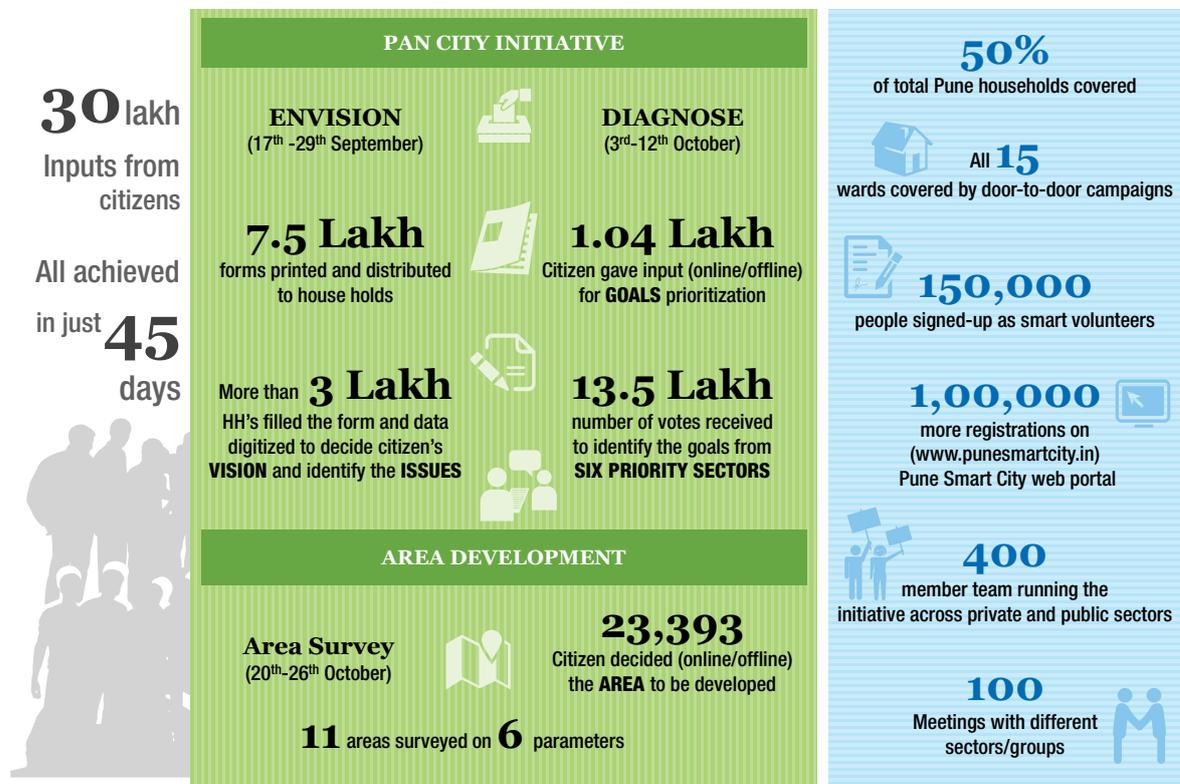


SUMMARY OF THE CITIZEN ENGAGEMENT EFFORT SO FAR

Before going into the citizen engagement process in detail, figure below describes the summary of the effort. The scale and the diversity of the effort have been unprecedented in reaching out to Pune-kars. In the first phase of the effort (the “visioning” phase), 50 percent of Pune households were covered through a very extensive offline and online campaign. All 17 wards were covered through a door-to-door campaign to educate the citizens about the Smart City Initiative and taking their vision about Smart Pune. Additionally, significant pull was created through media and online presence, where citizens went

to the website to give their suggestions. All this was made possible through a 400 member team consisting of Pune Municipal Corporation (PMC) officials and multiple partners working 24x7. With the initial education of citizens and Subsequently, we worked on Phase II of citizen engagement, with inputs solicited from citizens on specific goals deduced from Phase I. By the time the citizen engagement process is completed, the scale of citizen engagement will have increased significantly, making the Pune citizen engagement effort perhaps the largest civic engagement effort in any city in the recent past.

Summary of the Citizen Engagement effort so far



Distinctive 5S approach towards citizen engagement

The ‘USP’ of Pune citizen engagement model was the holistic 5S approach

- Speed:** Ensuring the entire process from design to engagement to data analysis to solution development to syndication with citizens is completed in a 100 day timeline
- Scale:** Reach out to majority of citizens across all areas, across all socio-economic segments and demographics
- Structure:** Proprietary 9-phase approach to citizen engagement Pan-city and Local-area development
- Solutioning:** Focuses not only on identifying problems that need to be addressed, but also use crowd-sourcing and narrow-cast approach to develop real and implementable solutions
- Social audit:** Syndication with and acceptance of citizens part of core design



Distinctive “5S” approach to citizen engagement

1 Speed 	2 Scale 	3 Structure 	4 Solutioning 	5 Social audit 
<ul style="list-style-type: none"> ▪ Blitzkrieg approach to reach out to 1 million citizens in in 100 days ▪ 2 citizens engagement exercises run in parallel 	<ul style="list-style-type: none"> ▪ Campaign designed for mass engagement ▪ Maximum coverage across all 15 wards in Pune ▪ Equal representation from all socioeconomic classes 	<ul style="list-style-type: none"> ▪ Proprietary 9-phase structured approach to citizen engagement <ul style="list-style-type: none"> – 5 phase approach to pan city engagement – 4 phase approach to local area development 	<ul style="list-style-type: none"> ▪ End goal to develop inclusive solutions – not just identify problems and issues of citizens ▪ Crossed-sourcing of ideas and solutions key component of exercise 	<ul style="list-style-type: none"> ▪ Unique component of syndication and acceptance by citizens ▪ Incorporating citizen suggestions and objections by mini-lab/townhalls ▪ Citizen pledge to show support

Preparation and planning before launching citizen engagement

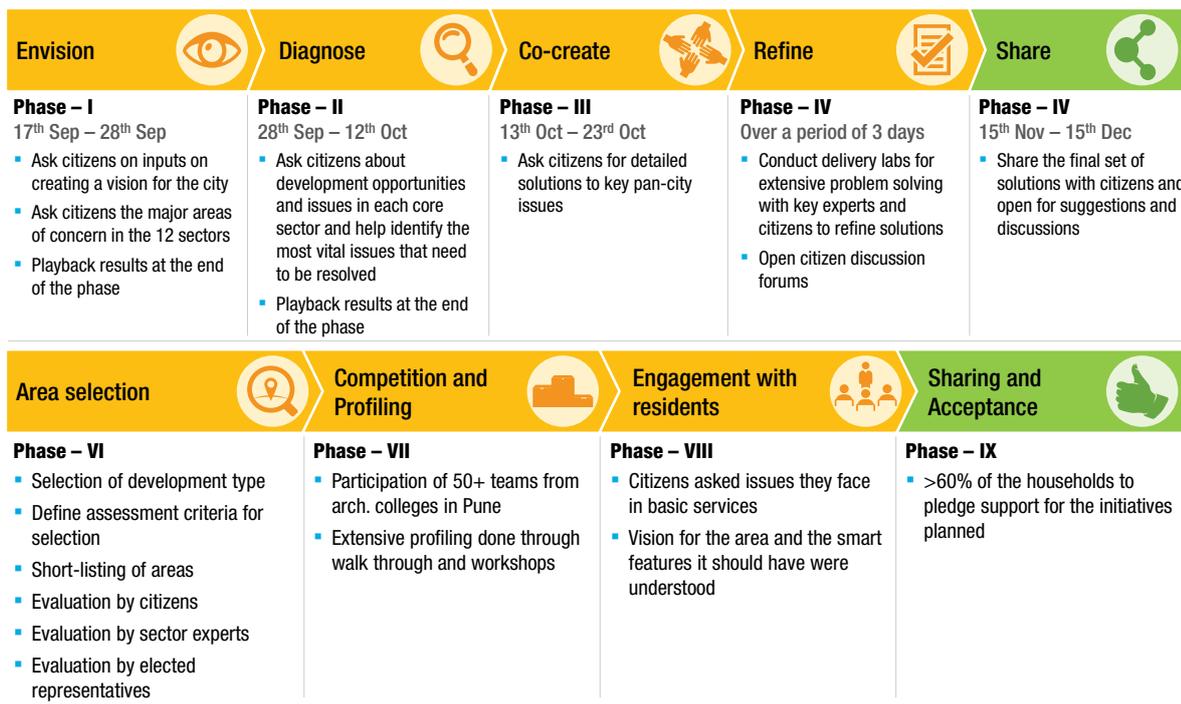
Any citizen engagement of this scale requires significant preparation and planning. The Smart City Pune team, which consisted of multi-stakeholders, such as Government Officials, Corporates, NGOs and Social Foundations, Consulting Firms, students from Schools and Colleges and local Media, drove a four-pronged effort before launching the citizen engagement Initiative, which consisted of

- Defining the stages of citizen engagement and objectives for each stage
- Defining different modes of citizen engagement
- Creating a partner eco-system to drive an effort of this scale
- Creating a ‘war room’ to monitor and track the entire effort

Defining the stages of citizen engagement and objectives for each stage

In line with the Smart Cities Mission guidelines, The Pune Smart City team structured the entire citizen engagement effort into nine phases as outlined below. The first five phases were for the entire city while the last four were run for the area identified for the local area development initiative. The citizen engagement process was run tightly, with a strict deadline for each phase that was publicly announced. The output for each phase was shared back with the citizens with the help of local Media within two to three days, making it a closed-loop process.

‘Pune citizen engagement model’ used a structured 9-phase approach is being used to maximize involvement of citizens



• **Phase-II: Diagnose, 28th September to 12th October**

The goal of this phase was to **DIAGNOSE** the problems of Pune City across each of the core sectors with the help of citizens, and use this diagnosis to create specific goals to work towards making Pune a Smart City.

Data collected from the Envision phase was analyzed on demographic parameters such as area, gender, income level, profession, etc., and six key issues were identified. The Citizens were asked to prioritize specific goals in each sector of concern. For example, for water, which came as the second biggest issue, 10 specific goals were identified:

Diagnose phase – 10 specific goals identified for water

ILLUSTRATIVE EXAMPLES

<p>01</p>  <p>Equitable water distribution</p>	<p>02</p>  <p>Reduction in water leakage/wastage</p>	<p>03</p>  <p>Availability of water 24x7</p>	<p>04</p>  <p>Zero discharge of untreated water</p>	<p>05</p>  <p>Clean river/water bodies</p>
<p>06</p>  <p>Increased water recycling/reuse</p>	<p>07</p>  <p>Metered water supply</p>	<p>08</p>  <p>Control on unauthorized connections</p>	<p>09</p>  <p>Increase in per unit rates of water</p>	<p>10</p>  <p>Penalty for water misuse</p>

Diagnose phase – The six priority sectors and specific goals

<p>30%</p>  <p>Transport and mobility</p> <ul style="list-style-type: none"> Improvement in traffic discipline ✓ Focus on accident reduction ✓ Better parking facilities ✓ Reduction in traffic congestion ✓ Better public transport facilities ✓ Encroachment free pathways ✓ Better road network and connectivity ✓ Promotion of bicycle and walking zones ✓ Small distance public transport (e.g., Auto) ✓ 	<p>25%</p>  <p>Water and sewage</p> <ul style="list-style-type: none"> Control on unauthorized connections ✓ Metered water supply ✓ Increased water recycle/reuse ✓ Clean river/water bodies ✓ Zero discharge of untreated water ✓ 24x7 water ✓ Reduction in water leakage/wastage ✓ Equitable water distribution ✓ Increase in Water Rates ✓ 	<p>22%</p>  <p>Solid waste management</p> <ul style="list-style-type: none"> Improved transport of Waste ✓ Citizens Participation in waste management ✓ On call service for garbage pickup ✓ Good garbage grievance addressal system ✓ Increase recycling/reuse ✓ Penalty for littering/spitting ✓ Dustbins at public places ✓ Regular & timely collection at door step ✓ No dumping of garbage at landfill ✓
<p>12%</p>  <p>Environment and sustainability</p> <ul style="list-style-type: none"> Penalty for Polluters ✓ Promotion of Green buildings ✓ Recycling of waste ✓ Clean roads and streets ✓ More green cover in city ✓ Zero discharge into river ✓ Reduce Air Pollution ✓ Reduced noise pollution ✓ Environmental education to children ✓ 	<p>3%</p>  <p>Safety and security</p> <ul style="list-style-type: none"> Improve disaster management response ✓ Effective means to counter terrorism ✓ Greater road safety measures ✓ Protection of facilities and organizations ✓ Evacuation plans for emergencies ✓ Faster & integrated emergency response ✓ Safety for Women, Child & Sr. Citizen ✓ Better surveillance to reduce crime ✓ Improved lighting at public places ✓ 	<p>2%</p>  <p>Energy</p> <ul style="list-style-type: none"> Innovative ideas for conservation ✓ Promotion of Energy Efficiency ✓ LED street lightning ✓ Promotion of energy efficient equipment ✓ Increased use of renewable energy ✓ Reliable power quality and services ✓ Less power cuts and outages ✓ Less wastage of electricity ✓ Establishment of Smart Grid ✓



Citizens then voted to identify the most critical goals for the city.

• **Phase – III: Co-Create, 13th October to 23rd October**

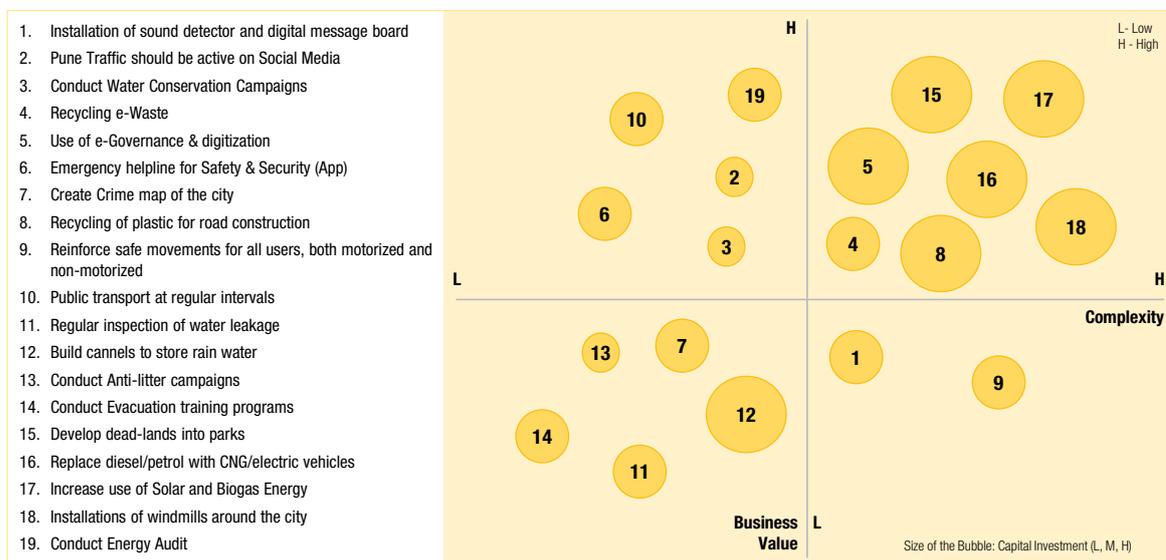
In this phase, the PMC and citizens **CO-CREATED** the solutions to realize the goals identified. The major issue areas and definite goals within were thrown open to the public and solutions invited through a discussion forum. Citizens were encouraged to come up with smart and intelligent solutions in their areas of concern. Summarizing the survey, the top concerns and issues were categorized and sent out to experts for generating and refining solutions.

Co-Create phase – Summary of output



Top 3 solutions in Solid Waste Management

<p>1 Vinay Vaswani (No. of responses – 6)</p> <p>“Recycling e-Waste”</p> <ul style="list-style-type: none"> As we can see, the partial ban on plastic bags is not working with vegetable vendors and others flouting the ban at will, only a complete ban on the usage of plastic bags will help Designate 1 day of month for collection of e-waste or keep fixed locations in city for citizens to drop their e-waste Awareness of waste segregation and colour coding Have competitions among housing societies and declare small awards for cleanest societies/localities and even awards for ward officers whose wards are the cleanest” 	<p>2 Arup K. Gangopadhyay (No. of responses – 5)</p> <p>“Use e-governance & digitization”</p> <ul style="list-style-type: none"> First is garbage management and sanitation. This takes care of environment, health and slum problems automatically. Second, regular/uniform water and electricity supply. This will enhance e-education, e-policing, e-governance, e-traffic and crime management along with IT connectivity/digitization, safety and security. This also complements environment automatically. Finally, traffic and transport should be fully managed electronically as we already have the necessary infra like CCTV cameras almost ready” 	<p>3 Devdas Jadhav (No. of responses – 4)</p> <p>“Conduct Anti-litter campaigns”</p> <ul style="list-style-type: none"> PMC should run a number of anti-litter campaigns to encourage people to use toilets”
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A comprehensive citizen engagement process was run for local area selection, with **2.81 lakh inputs** for the area selection based on the criteria shared by the PMC. Citizen selection process, along with the discussions with the urban planners and elected representatives formed the basis for very objective local area selection.

- **Phase 1 – Area evaluation and selection:**

In this phase, 6 steps were followed to shortlist, evaluate and select area for local area development:

1. **Selection of development type:** Between the option of Greenfield, Redevelopment and Retrofit - Greenfield as unfeasible no continuous area of 500 acres is available in PMC limits (as required by smart city mission), similarly no continuous area of 50 acres was available for redevelopment. Retrofit was selected because of feasible and ease of replicability across Pune.
2. **Define assessment criteria for selection:** Based on discussion with city engineers, sector experts and architects, a 10 point assessment criteria was created to profile areas
3. **Short-listing of areas:** 11 continuous 500 acre areas were shortlisted based on ward data analysis and focus group discussions with urban planners
4. **Evaluation by citizen engagement:** 23,393 citizens were engaged over 6 days and

provided **2.81 lakh inputs** which formed the basis for regional assessment, Aundh-Baner-Balewadi (ABB) was the choice

5. **Evaluation by sector experts:** Expert panel evaluated each of the shortlisted areas, ABB was the choice – scoring highest points

6. **Evaluation by elected representatives:** Municipal Commissioner of Pune engaged with 40 elected representatives across all political parties over 3 days and common consensus was achieved for ABB

- **Phase 2 – Area-based competitions and profiling:** 50+ teams from architecture colleges across Pune participated in the ABB local area development competition and did extensive profiling of the area through walkthroughs and workshops

- **Phase 3 – Engagement with residents of ABB:** Extensive citizen engagement was done for 10,194 citizens with **2.14 lakh inputs** (60% of total ABB households) and citizens were asked the issues in basic services they face and further their vision of the area and the smart features that it should have

- **Phase 4 – Sharing and acceptance:** Final proposal is being shared with the citizens before and citizens are pledging acceptance of the solutions and the Smart City proposal, goal is to reach >60% of households of ABB



DEFINING DIFFERENT MODES OF CITIZEN ENGAGEMENT



Different modes of citizen engagement are as important as the entire process, since the right methods of engagement will ensure maximum citizen participation. Team Pune identified five main methods of citizen engagement, with various interventions in each method:

A. Face-to-face

1. Door-to-door visits by PMC employees and volunteers to get forms filled
2. Camps in schools, colleges, companies and organizations
3. Mass form distribution in societies/townships
4. Form filling booths in government offices across the city
5. Paper forms and smart phones distribution in Ganesh Mandals during Ganesh Chaturthi

B. Digital and online

1. Pune smart city web portal—punesmartcity.in
2. Gamification – reward system for participation through website
3. Public computer terminals to access portal at e-seva kendras and ward offices across the city
4. Computer labs in schools and colleges opened to citizens
5. Twitter handles and Facebook page
6. Android app for smart phones

C. Open houses and events

1. Essay, logo and mascot design competition in English and Marathi newspapers
2. Area development competition for architecture colleges students
3. Digital ‘Hackathon’ conducted across 60 engineering colleges
4. ‘Smart family’ and ‘Smart citizen’ initiatives

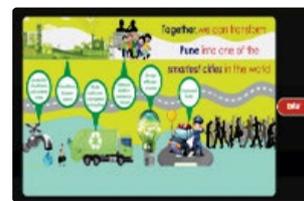
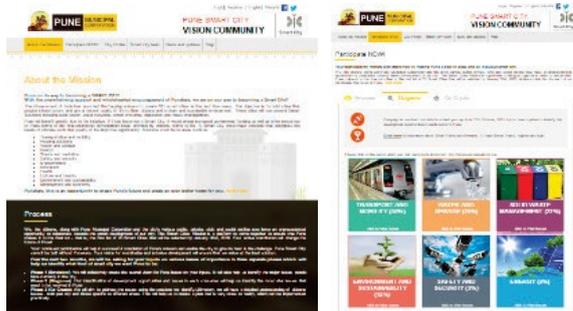
D. Competitions for crowdsourcing of ideas and creativity

1. Essay, logo and mascot design competition in English and Marathi newspapers
2. Area development competition for architecture colleges students
3. Digital ‘Hackathon’ conducted across 60 engineering colleges
4. ‘Smart family’ and ‘Smart citizen’ initiatives

E. Publicity and advertising

1. Hoardings and banners
2. Soundbites on radio channels
3. Interviews, panel discussions, press meets on TV and radio
4. ‘Gallery walk’ setup in the War Room to make citizens aware of Smart City initiative

www.punesmartcity.in



Mobile app



Twitter handle



Facebook page



Publicity at partner websites



Extent of coverage of citizen engagement in different media and channels



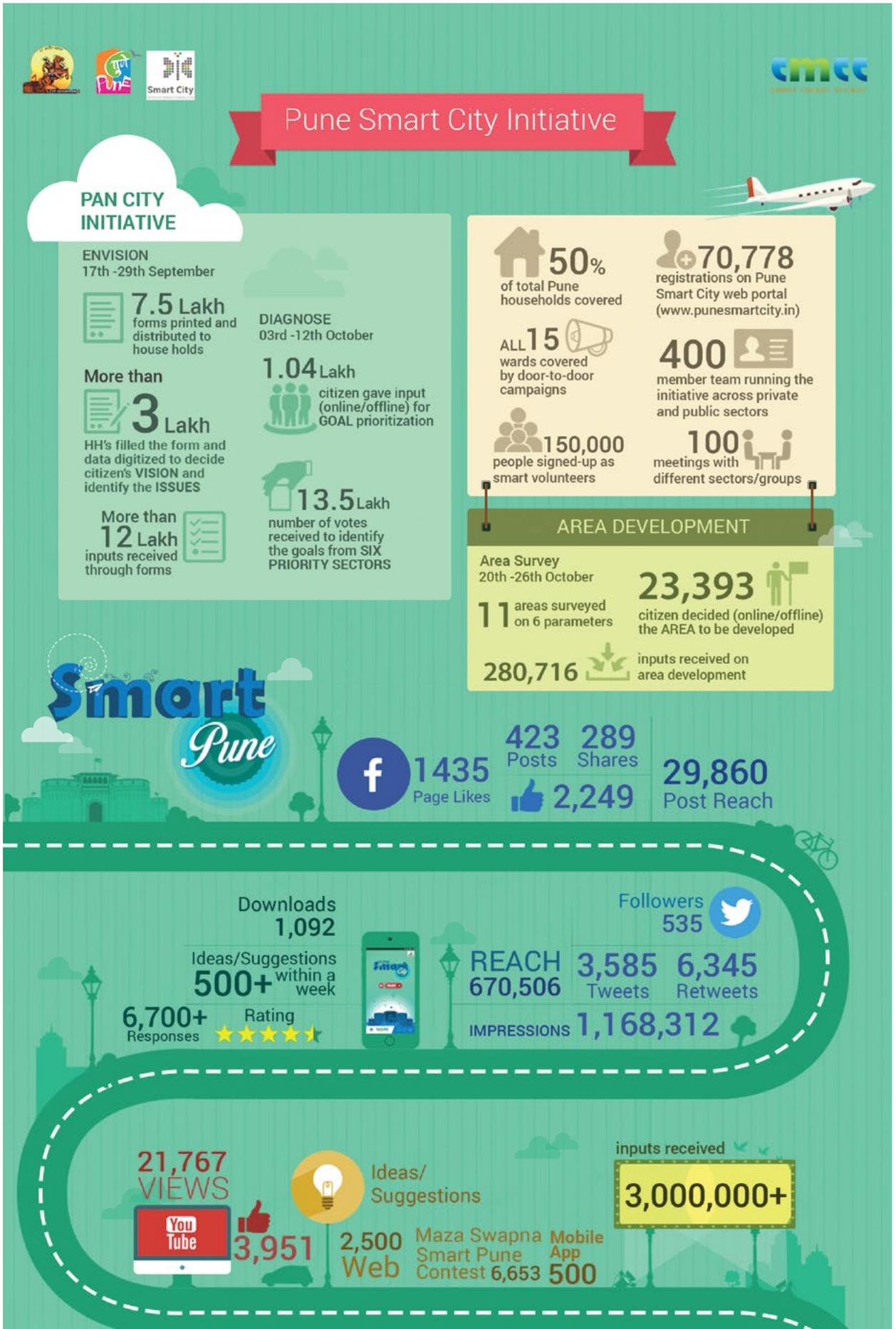
Offline

- Face-to-face:** 7.5 lakh forms distributed to households across all 15 wards, out of which, 307,991 households filled the form
 - 1.5 lakh citizens signed-up as smart volunteers
- Discussions:** 100+ meetings with different groups from the Pune stakeholder grid
- Newspapers:** 10 leading newspapers in the city covered the campaign through 20 articles over a period of 45 days
- Radio-channels:** 40 messages broadcasted across 5 radio channels

Online

- Portal:** 70,778 registrations on Pune Smart City portal within 1 month
- Facebook:** 29,860 digital audience along with 1,435 likes, 423 posts made and 289 shares of the broadcasted messages
- Twitter:** 1,168,312 impressions and reach of 670,506 through 3,585 tweets and 6,345 retweets in 2 months
- Mobile app:** 6,700+ responses with 1,092 downloads and ~500 ideas received from citizens
- Youtube:** Broadcasts received 21,767 views and 3,951 likes







Creating a partner eco-system to drive the effort of this scale

The scale of engagement envisioned by the Pune Municipal Corporation required support from various quarters. A deliberate strategy was to create an eco-system of partners who could help the PMC in this massive citizen engagement effort. The eco-system created for this effort is detailed.



CREATING A WAR ROOM (SMART ROOM) TO TRACK THE ENTIRE EFFORT



Emerging answers from the citizen engagement process

Envision Phase Output

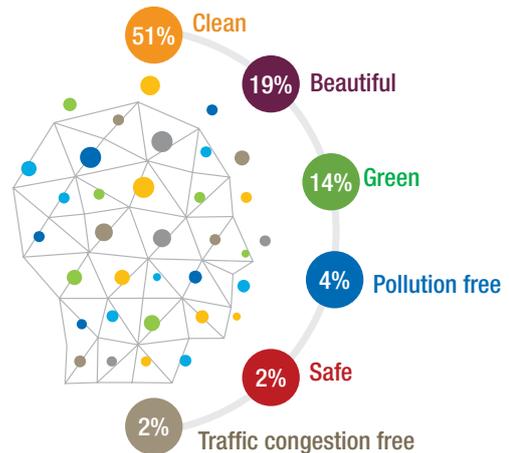
Based on the inputs of citizens, a word cloud or 'wordle' was created to identify what citizens would like to see in the city of Pune.

The top six vision ideas along with their percentage were identified

Citizens' top dream for the Pune of the future



Top six vision ideas along with their percentage

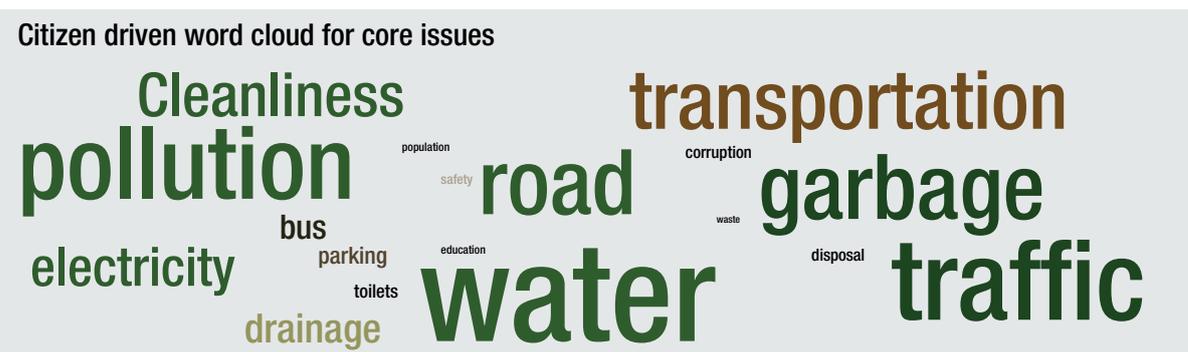


The team also granularly mapped out the top responses for each area, which were very handy in the local area development effort.

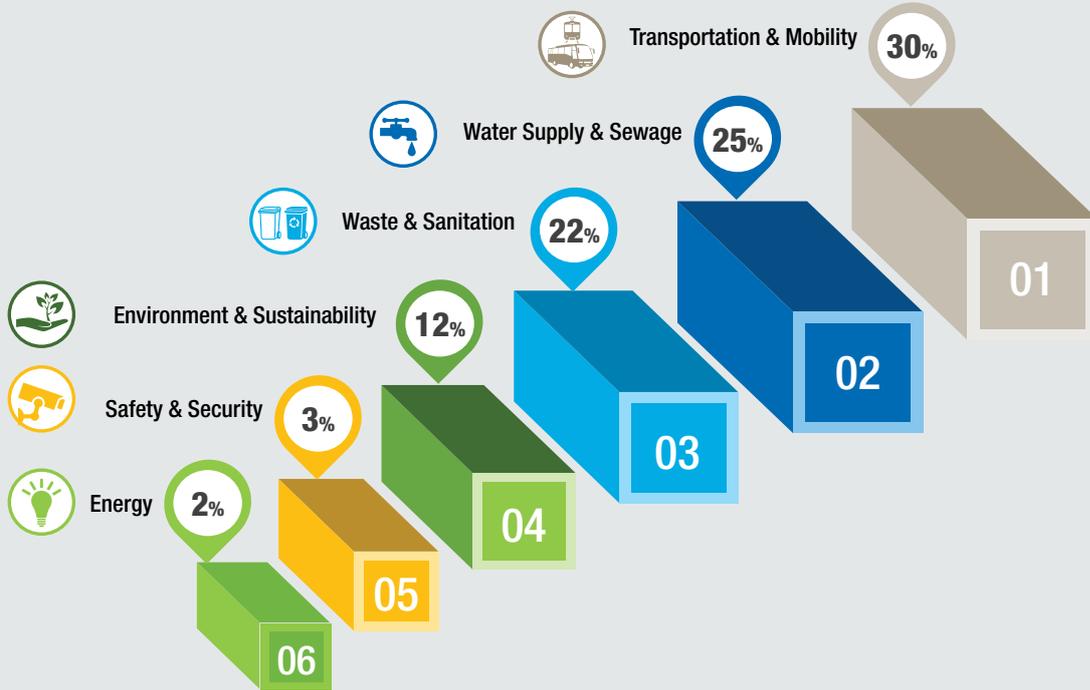
Example of area-wise response

1	CLEAN	2	BEAUTIFUL	3	GREEN	4	POLLUTION	5	SAFE
	<ul style="list-style-type: none"> 411037 411006 411038 	<ul style="list-style-type: none"> 411037 411038 411028 	<ul style="list-style-type: none"> 411006 411028 411014 	<ul style="list-style-type: none"> 411037 411006 411038 	<ul style="list-style-type: none"> 411038 411028 411006 				
Pin Code	Area name								
411006	▪ Yerwada S.O. and Yerwada T.S.S.O.								
411014	▪ 9 DRD B.O. Dukirkline S.O. Vadgaon Sheri S.O. and Viman Nagar S.O.								
411028	▪ Hadapsar S.O. Sasanenagar S.O. and Gondhale Nagar S.O.								
411037	▪ Bibvewadi S.O. Salisbury Park S.O. T.V. Nagar S.O. and Market Yard S.O. (Pune)								
411038	▪ Kothrud S.O. Bhusari Colony S.O. and Ex. Serviceman Colony S.O.								

Additionally, a citizen-driven word cloud was created for top issues

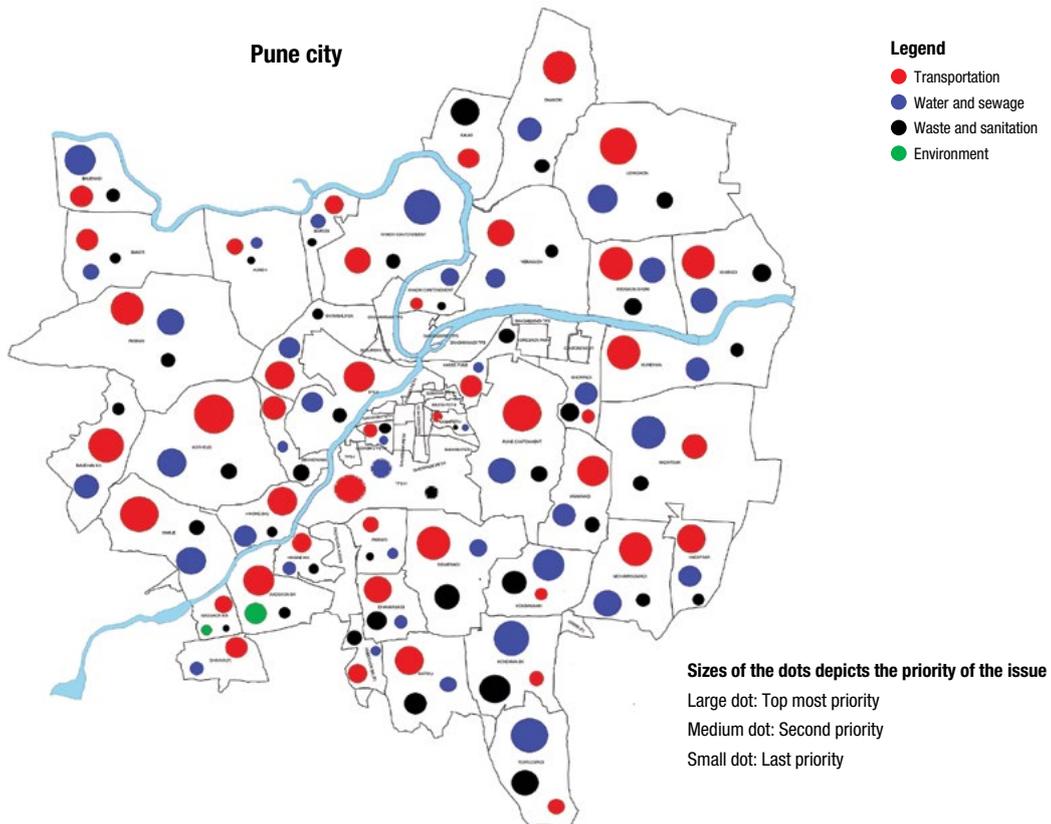


Issues aligned to Smart City features: Top six sector preferences



As in the case of vision, area-wise top issues were identified, which helped us prioritize their redressal in the proposal.

Summary of area-wise issues identified



Note: Obtained from citizen engagement exercise with ~50% Pune households



Diagnosis Phase Output

In the diagnosis phase, the city received overwhelming response on specific goals within the prioritized sectors.

Top 5 goals within the prioritised sectors



Local Area Development

Pune reached another milestone in co-creating a smart city when the entire city came together to collectively select one area to develop as the model smart area to be replicated across Pune. The entire campaign was exhaustive with the following necessary elements:

Six questions asked to citizens to give their priorities

1	Area most important for identity of Pune?		4	Youth's recreational hub in Pune?	
2	Area you would like to live in?		5	Area which will benefit a larger cross section of society?	
3	Area would like to invest in as an entrepreneur?		6	Recreational hub of Pune?	

Points based ranking of the eleven areas surveyed

Maximum points awarded to "Aundh, Baner & Balewadi" area

Area	Points	Rank
Aundh, Baner and Balewadi	63	1
Core city area	61	2
College area (FC road to Karve road)	42	3
Kharadi	38	4
Sinhagad road area (Dandekar Pul)	34	5
Karvenagar	33	6
Hadapsar – Market area	33	7
River bank (Lakadi Pul to Nava Pul)	31	8
Dhankawadi – Ambegaon	31	9
Sahakarnagar	18	10
Yerawada	11	11

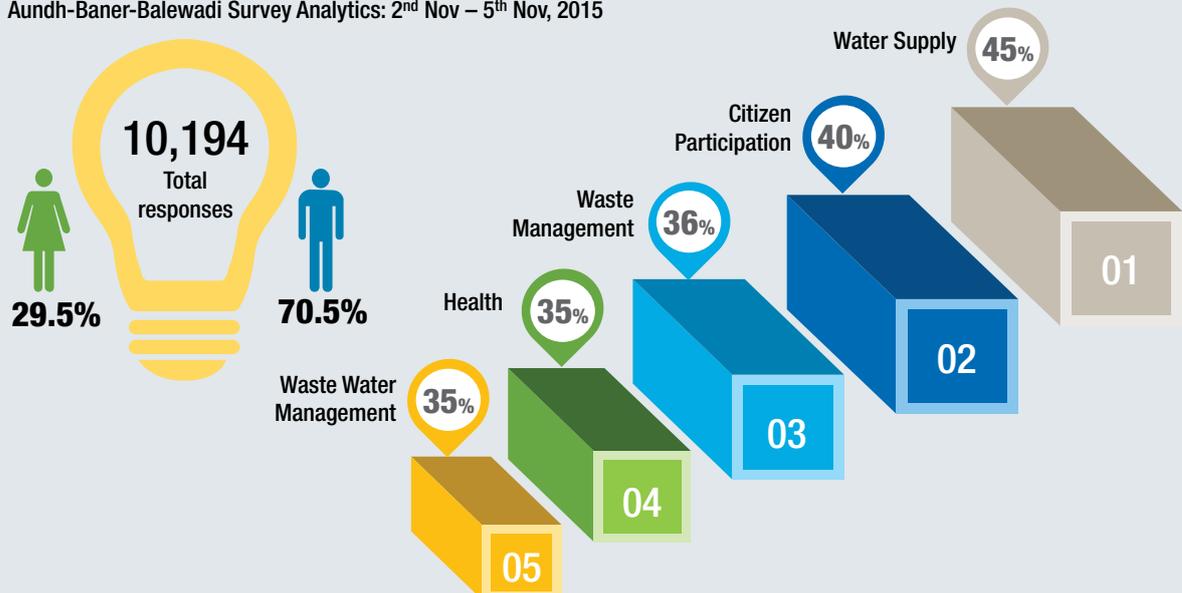
Citizens marked "Aundh, Baner and Balewadi" at a top priority in three out of six questions!

Methodology

- For each question, points were assigned from 1 to 11 for all the 11 available area options where 11 was assigned to the area with the maximum votes for that question and 1 was assigned to the area with the minimum votes
- Across all questions, for each area, summation of votes was done to arrive at a cumulative point value for the area
- Individual areas were ranked on the basis of the assigned points

Top five smart city features that are missing and should be developed

Aundh-Baner-Balewadi Survey Analytics: 2nd Nov – 5th Nov, 2015



Closing and the way forward for Pune

Pune's Citizen engagement success story has been covered in Urbana India, IEEE forum, Ministry of IT by CDAC, Idea camp organized by Bloomberg under Ministry of Urban Development, Government of India, 50 brochures distributed and presented in Barcelona Smart City Expo and the World Smart City Forum, Brussels.

Pune is poised to propel its way into becoming a truly 'smart city', following a process driven by its citizens. To ensure successful implementation of the proposed solutions for Smart City Pune Initiative, not just the PMC but also the citizens will monitor and track the entire effort. Till date, we have the full commitment by 7 lakh households from Pune to follow up on the

progress for the next ten years. Various local media houses also, have committed to report and publish the progress on regular basis in newspapers, radio shows and TV.

Through this effort, we have created a strong Vision Community in Pune where every citizen experiences opportunities to voice his/her opinion and help implement solutions to the issues of the community.

Pune, as one of the world's most liveable, economically vibrant, inclusive and environmentally sustainable city is now in sight.

This kind of ownership by citizens makes this effort a true success story



7.5 Lakh forms are being distributed and ward teams reached door-to-door to get forms filled; e-Seva Kendra's and ward offices supported citizens to access the online portal

	<p>All 17 wards have been covered and form distribution and collection is in progress</p>		<p>e-Seva Kendra's staff been trained to assist citizens to log-on and post opinion</p>
	<p>7.5 lakh Phase-I forms have been printed and being distributed</p>		<p>E-Seva Kendra's are acting as hubs for citizens to access online portals</p>
	<p>Teams in each ward are going door-to-door to get forms filled</p>		<p>Ward offices will be used to digitize data</p>

Water example: 16 subject experts and 14 companies were engaged to find solutions

<p>Reservoir building</p> 	<p>Smart metering</p> 	<p>Infra and technology</p> 
<p>Sewage Treatment</p>  	 	  
<p>24x7 Water Solutions</p>   		 



