



2nd Smart Cities India 2016 Expo

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Pragati Maidan, New Delhi

*Smarter
Solutions for
a Better
Tomorrow*

Organiser



www.smartcitiesindia.com

Exhibitions India Group

SMART CITIES INDIA 2016 EXPO

Smarter Solutions for a Better Tomorrow



Prime Ministers vision to recast India's urban landscape:

- India's government has announced the "*Smart Cities Mission*"
- INR 48,000 crore (US\$ 7.75 billion) to be spent over the next five years to build 100 smart cities in India
- The Atal Mission for Rejuvenation and Urban Transformation (AMRUT) to spend INR 50,000 crore (US\$ 8 billion) over the next five years for 500 cities and towns with a population of one lakh (0.1 million) and above
- Smart city to be selected through a "City Challenge Competition" intended to link financing with the ability of the cities to perform to achieve the mission objectives
- Each selected city to receive assistance of INR 100 crore (US\$ 16.12 million) per year for five years
- National Heritage Development and Augmentation Yojana (HRIDAY) to promote development of heritage sites. INR 500 crore (US\$ 80.64 million) to be provided to 12 cities selected in the first phase
- Twelve smart cities to come up at ports. Kandla and Paradip frontrunners to be first smart port cities
- Important cities located in hilly areas, and major tourist spots, to be transformed into smart cities
- Co-opting the railways to build smart cities in India
- Indian military to develop six smart armed forces enclaves in the country
- Two smart city projects initiated: the Dholera Special Investment Region (SIR), and Gujarat International Financial Tec (GIFT) City
- India is urbanizing rapidly and about 377 million people live in 7,935 towns/cities (2011 census) across the country, which constitutes about 31 percent of the total population
- The number of towns/cities has increased from 5,161 in 2001 to 7,935 in 2011

Objectives of the Smart Cities Mission:

To adopt smart solutions for efficient use of available assets, resources and infrastructure, to enhance the quality of urban life, and provide a clean and sustainable environment

- Focus will be on the following core infrastructure services:
 - Adequate and clean water supply
 - Sanitation and solid waste management
 - Efficient urban mobility and public transportation
 - Affordable housing for the poor
 - Power supply
 - Robust IT connectivity
 - E-governance and citizen participation
 - Safety and security of citizens
 - Health and education
 - Sustainable urban environment, etc.



SMART WATER AND WASTE MANAGEMENT

Water

- Annual per capita water availability is expected to decline to 1,140 cubic meters by 2050, from 1,545 cubic meters in 2011. Need to adopt sustainable water management practices
- Water related diseases are a primary cause of deaths in India, with around 38 million Indians affected by waterborne diseases annually
- Rainfall water, if harvested, is usable for drinking or irrigation
- Integrated Ganga Conservation Mission called "Namami Gange" to restore the river: INR 2,100 crores (US\$ 339 million) allocated for FY 2015-16



Products on display:

Water

- Analytical instruments
- Bathroom fittings and accessories
- Filtration systems
- Pipes and fittings
- Pumps and motors
- Water chemicals
- Water harvesting
- Water purification products and systems
- Water pollution monitoring systems, etc.

Waste & solid waste

- Waste disposal and sewage treatment plants are missing in most Indian cities
- Around 60 million tonnes of municipal solid waste (MSW) is generated in urban India annually. With rapid urbanization and changing lifestyle and food habits, the amount of municipal solid waste will increase significantly
- E-Waste (obsolete, discarded, broken and surplus electrical and electronic devices) is of immediate and long term concern as the industry is unregulated and recycling can lead to major environmental degradation posing a major threat to human health

Waste & Solid waste

- Battery recycling
- Bio-medical waste management
- E-waste recycling machinery
- Hazardous waste management
- Machinery and equipment
- Recycling systems and technologies
- Waste storage containers
- Waste transport vehicles
- Waste treatment and recycling
- Waste-to-energy equipment, etc.

Sanitation

- *Swachh Bharat Abhiyan* or the "*Clean India Mission*" is India's biggest cleanliness campaign that aims to accomplish the vision of "*Clean India*" by 2 October 2019 to coincide with Mahatma Gandhi's 150th birth anniversary at an expected cost of INR 62,000 crore (US\$ 10 billion)
- Roughly half the Indian population (around 594 million people) defecate in the open. The government has plans for an indoor toilet in every Indian home
- More than 38 billion litres of sewage is generated in urban India annually. Most of the untreated sewage is discharged into rivers, ponds or lakes, which is the main source of municipal water

Sanitation

- Bathroom cleaners
- Effluent treatment plants
- Lavatories
- Odor eliminators
- Sanitizers and disinfectants
- Sewage & sludge treatment, etc.





CLEAN ENERGY

- About 400 million people in India lack access to electricity: the government has promised electricity for every household by 2019
- The Indian power sector is expected to attract investment of US\$ 250 billion by 2019 across diverse areas of the energy sector
- India has an installed capacity of 267 Gigawatt (GW) as of March 2015, dominated by fossil fuels: the additional electricity demand creates a large opportunity for renewable energy sources
- India's target to install 100 GW solar power capacity by 2022 could make it one of the largest solar power markets in the world, creating 10 lakhs (1 million) jobs
- India to spend US\$ 21.6 billion over the next 10 years on smart grid infrastructure
- 14 smart grid pilot projects to be implemented by state-owned distribution utilities in India
- Investment of around INR 25,300 crore (US\$ 4 billion) to roll out a new metering system and upgrade distribution networks in the country
- Indian LED industry set to touch INR 21,600 cr (US\$ 3.48 billion) by 2020

Products on display:

- Batteries / Invertors / UPS
- Combined heat and power (CHP)
- Energy saving devices
- Energy storage
- Led lights
- Rooftop solar systems
- Smart grid
- Smart meters
- Solar heaters
- Street lighting
- Thermostats
- Voltage regulators, etc.

SMART TRANSPORTATION

- The electric and hybrid vehicle industry in India is virtually non-existent. A shift to electric mobility is essential to counter depletion of fossil fuels, increase in fuel costs, and impact of transportation on the environment
- Government to spend INR 1,400 crore (US\$ 226 million) over the next two years on incentives and subsidies for makers and buyers of electric vehicles as part of an effort to have at least six million electric vehicles on Indian roads by 2020
- Plans to convert 101 river stretches to transport goods and passengers through cheaper and environment-friendly National Waterways. 1,000 new barges will provide direct employment to 20,000 people
- Delhi to be the first city in India to install intelligent traffic lighting systems
- The use of bio-fuels being encouraged with an ethanol-blending program to curb India's oil imports
- Road accidents in developing countries have declined even as vehicle sales have risen; while Indian fatalities have soared by 50 percent in the last decade
- India needs stringent norms to curb vehicular pollution

Products on display:

- | | |
|-------------------------------------|---------------------------------------|
| • Advance driver assistance systems | • Electric vehicles |
| • Advance safety control systems | • Emission monitoring systems |
| • Air pollution control devices | • Hybrid Vehicles |
| • Autonomous vehicle | • Hydrogen fuel cells |
| • Barges | • Intelligent traffic lighting system |
| • Battery manufacturing | • LPG / LNG |
| • Battery technology | • Metros |
| • Biofuels | • Navigation devices |
| • Bus surveillance | • Urban transport systems |
| • Charging stations | • Vehicle tracking system, etc. |
| • City traffic surveillance | |





SMART IT & COMMUNICATIONS

- India's share of the global IT industry at 7 percent is largely owing to exports
- Government of India targets Internet of things (IoT) industry at US\$ 15 billion by 2020
- Indian business process management (BPM) market is expected to reach US\$ 50 billion by 2020
- Digital India mission to transform India into a digitally empowered society and knowledge economy by 2018
- 4G services likely to have 15 million subscribers by December 2015
- Sensors market in India is one of the fastest growing in Asia-Pacific, and expected to grow at a CAGR of over 20 percent between 2015-20
- India, the fourth largest base for young businesses in the world, with 3,000 tech start-ups, is estimated to be 11,500 by 2020 (Nasscom and Zinnov Management Consulting Pvt Ltd.)
- Some Indian cities have announced citywide wireless networks with time limits of free usage by consumers
- India is the world's second-largest tele-communications market with over 990+ million subscribers

Products on display:

- | | |
|---------------------------------------|--|
| • E-Governance | • Mobile apps |
| • Big data | • Mobile devices |
| • Cloud computing | • Mobile marketing |
| • Data security and management | • M-payment |
| • Firewalls and protection | • Sensors |
| • Geographic Information System (GIS) | • Smart Cards |
| • Internet of Things (IoT) | • Smart devices (Routers / Modems, etc.) |
| • Location-based services | • Telcos |
| | • Wireless technologies / products, etc. |

SMART BUILDINGS

- Plan to build 60 million homes - 40 million in rural areas, and 20 million in urban areas – under the "Housing for All" by 2022. INR 22,407 crore (US\$ 3.61 billion) allocated for FY 2015-16
- More than 3,124 green building projects, with a footprint of over 2.75 billion sq. ft. registered with the Indian Green Building Council (IGBC), of which 617 green building projects are certified and functional
- Automation technologies to play a key role in the efficient operations of buildings. The industry estimates the Indian building automation and control systems market to grow three fold in revenue terms by 2019
- Smart monitoring, cross-device compatibility, voice commands, wireless connectivity, lighting enabled by motion sensors are a few features of smart homes

Products on display:

- | | |
|--|---------------------------------------|
| • Smart heating | Autowalks |
| • Smart cooling | • Smart appliances |
| • Combined heat and power | • Smart living solutions |
| • Water heating systems | • Building efficiency systems |
| • Building automation systems and products | • Green building devices |
| • Smart home devices | • Smart city project developers, etc. |
| • Elevators / Escalators / | |





- Classroom latest



- Ambulance





SMART SECURITY AND SAFETY SMART URBAN PLANNING

- The Indian electronic security market to reach US\$ 2.31 billion by 2018
- It is estimated that India will invest INR 550 billion (US\$ 8.8 billion) in the private security industry by 2016
- India's homeland security market is expected to be worth US\$ 16 billion by 2018
- India's fire and safety equipment market is expected to reach US\$ 4.3 billion by the end of 2017

Products on display:

- | | |
|-------------------------------------|------------------------------------|
| • Access control | • Personnel safety equipment |
| • Barriers / Turnstiles / Bollards | • Screening and scanning equipment |
| • Biometrics | • Security systems |
| • Burglar / fire alarm systems | • Tracking systems |
| • CCTV / Video surveillance devices | • Under vehicle inspection, etc. |
| • Detection control devices | |

- Plans to build pedestrian skywalks, walkways, cycle tracks, etc. in Indian cities
- The government has launched Saansad Adarsh Gram Yojana (SAGY) to develop 2,500 of the 6 lakh (0.6 million) villages across the nation
- Construction of high speed railways in India. The Mumbai-Ahmedabad high-speed rail corridor to connect the two cities
- Government plans to develop 200 low-cost airports in Tier-II and Tier-III towns across the country
- The amusement park industry estimated to reach INR 4,000 crore (US\$ 645million) by 2020

Products on display:

- | | |
|--------------------------------------|---|
| • Airport surveillance and equipment | • Nano rail |
| • Geospatial technologies | • Playground equipment |
| • High speed rail | • Sports and athletic equipment |
| • Infrastructure developers | • Theme parks / amusement park products, etc. |
| • Landscaping and park furnishings | |

DISASTER MANAGEMENT

- The Indian subcontinent is amongst the world's high disaster prone areas
- Almost 85 percent of India's area is vulnerable to one or multiple hazards
- Around 60 percent of the land is vulnerable to earthquake (high-risk seismic zones), 68 percent to drought, 8 percent to cyclones, and 12 percent to floods

Products on display:

- | | |
|------------------------------------|---|
| • Camp / Logistic equipment | • NBC (Nuclear, Biological, Chemical) detection equipment |
| • Emergency response equipment | • Night vision devices |
| • Explosive detection | • Radio communication systems |
| • Firefighting equipment | • Test and measurement instruments, etc. |
| • First-aid products | |
| • Medical and evacuation equipment | |





SMART MANUFACTURING

- "Make in India" is an initiative to encourage companies to manufacture in India, create jobs, make India self-reliant, and to attract foreign investment
- Government of India to launch "Zero Defect, Zero Effect" to manufacture high quality products without impacting the environment. This will focus on using clean technology
- Ministry of Micro Small and Medium Enterprises (MSME) to implement schemes to benefit local manufacturing across the country. India has close to 35 million MSMEs
- Government of India plan to launch food processing and textile parks in the coming years

Products on display:

- Advance machineries
- Industrial safety equipment
- New technologies
- Quality monitoring systems
- Remote monitoring devices
- Robotics, etc.

Other products on display:

- Composites
- Financial institutions
- Insurance companies
- Laboratory equipment
- R&D
- Turnkey solution providers, etc.

All lists of products on display are indicative and not exhaustive



2nd SMART CITIES INDIA 2016 EXPO INVITES

Exhibitors: Reserve your booth space today. Over 350 international and national participants are expected to showcase their products, technologies and services to over 30,000 conference attendees and professional visitors engaged in smart cities concepts worldwide

Sponsors: Display your name and logo prominently across the expo website and marketing collaterals

Speakers: Professionals are invited to submit abstracts (200 words), for the 2nd Smart Cities India 2016 conference at: conference@smartcitiesindia.com

Partners: Countries; regional and state governments; cities; SEZ's; townships and companies are invited to discuss pavilions, conference sessions, workshops, special displays, etc. with the organisers



VISITOR PROFILE

2nd Smart Cities India 2016 will attract buyers who actively source new and innovative products from India and around the world.

- Government representatives from ministries, regulatory bodies, municipalities, local authorities, etc.
- Embassies and trade offices
- CEOs, COOs, VPs, Country Managers and other senior management or decision makers of public and private organizations
- Engineers, architects, and consultants
- Suppliers and buyers of relevant technologies
- Companies and consultants involved in smart cities concepts
- Project management companies
- System integrators
- Builders and property developers
- Media and advertising companies
- Non-governmental organizations
- Banks and financial institutions
- End-users, etc.



SMART CITIES INDIA 2015 EXPO HIGHLIGHTS

240+speakers | 35 conference sessions | 205+ exhibition participants
1,500+ delegates | 15,000+ visitors | 40+ countries

SMART CITIES INDIA 2015 EXPO PARTNERS

Government of India:

- Ministry of Urban Development
- Ministry of Environment, Forests & Climate Change
- Ministry of New and Renewable Energy
- Ministry of Road Transport and Highways
- Department of Industrial Policy & Promotion (Ministry of Commerce & Industry)
- Department of Electronics & Information Technology (Ministry of Communications & Information Technology)
- Naya Raipur Development Authority (NRDA)
- National Institute of Urban Affairs (NIUA)
- National Institute for Smart Government (NISG)

Country Pavilions:

- Sweden
- Poland
- European Business & Technology Centre (EBTC)

Partner Country: Sweden

Future Cities Partner: Hewlett-Packard (HP)

Session Partner: BOSCH

Associate Partners:

- Wipro
- Ministry of Skill Development and Entrepreneurship
- National Skill Development Corporation (NSDC)

Digital India Partner: CISCO

Workshop Partners:

- Schneider Electric
- GreenEvo

Knowledge Partner:

PricewaterhouseCoopers (PwC)

Technology Partner: NASSCOM

Sustainability Partners:

- The Energy and Resource Institute (TERI)
- U.S. Green Building Council (USGBC)

Internet & Wifi Partner: Y Networks

Corporate Partner: Newgen Group

Certification Partners:

- Green Rating for Integrated Habitat Assessment (GRIHA)
- Green Building Certification Institute (GBCI)

Entrepreneurship Partner: The Indus Entrepreneurs - TiE Delhi NCR

Communication Partner: Proactive PR

Partners:

- Emergent Ventures International
- European Business and Technology Centre (EBTC)
- cKinetics





2nd SMART CITIES INDIA 2016 AWARDS

2nd Smart Cities India 2016 awards are an initiative by Exhibitions India Group to identify the efforts of the cities and businesses for their extraordinary work through which the quality of life of the citizens has been enhanced. The awards will honour the best practices and models in the smart cities concept.

The nominated projects should be inventive and have brought a significant impact on the lives of citizens.

Award categories:

SCI 2016 invites applications for the following:

- Smart project of the year
- Safe city of the year
- Smart green building award
- Smart architecture of the year
- Smart healthcare physical infrastructure award
- Smart educational infrastructure award
- Smart city park award
- Smart urban transportation city award



Who can participate?

- Central and state governments, cities, municipalities, urban infrastructure organisations, smart city project developers, technology providers, public and private enterprises, entrepreneurs, research centres, universities/ academia, etc.
- To register, please send an email to: **awards@smartcitiesindia.com**
- Shortlisted projects will be requested to make presentations to a jury at New Delhi. Finalists will be announced prior to the presentation of awards at the 2nd Smart Cities India 2016 expo at New Delhi on 11 May 2016. All costs associated with the applications, presentation to the jury, and travel / hotel costs etc., are to be borne by the applicant.



**RESERVE
A LOCATION TODAY**

Join us on



SHELL SCHEME (Minimum 9 sqm)

INR ₹11,000 / US\$ 295* (per sqm)

RAW SPACE (Minimum 18 sqm)**

INR ₹10,000 / US\$ 265* (per sqm)

*Service tax @ 12.36 % will be applicable.

** Power supply will be charged extra.

Organiser



Exhibitions India Group

ISO 9001:2008 • ISO 14001:2004 • OHSAS 18001:2007

Exhibitions India Group (EIG), founded in 1987, EIG's is a trade promotion organization, encouraging investments, joint ventures, and technology transfers, etc. The group acts as an interface between government, industry, media and academia.

EIG is amongst a select number of Indian organizations with membership to UFI (The Global Association of the Exhibition Industry) and IAEEE (International Association of Exhibition and Events). EIG is certified by Trace International, Inc. (USA) for transparency in international commercial transactions. EIG has ISO 9001:2008, ISO 14001:2004 and ISO OHSAS 18001:2007 certifications.

With 140+ employees, EIG is headquartered in New Delhi, and has regional offices in Ahmedabad, Bangalore, Chennai, Hyderabad and Mumbai. International markets are covered by satellite offices located in California (USA), Köln (Germany), Tokyo (Japan), Nairobi (Kenya) and Dubai (UAE).



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