



a project of the European Union managed by the Directorate General for Regional and Urban Policy (DG REGIO) of the European Commission and supported by the European Parliament in coordination with the EU Delegation to India

# Visit to India on Green and Smart City Development 18 – 23 January 2016

An event prepared for delegates of the European pilot cities/regions from Lazio, Copenhagen, Stuttgart and Andalucía Smart City Cluster in cooperation with their Indian counterparts in Mumbai, Navi Mumbai, Pune and Chandigarh





### PROGRAMME and PARTICIPANTS LIST

As of 15.01.2016

World Cities India is implemented by:



and:

Contact:

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#### Overview

World Cities is a project of the Directorate General for Regional and Urban Policy (**DG REGIO**) of the European Commission in the framework of the European Parliament's preparatory action to promote the exchange of experience and best practice between the European Union and non-EU countries on the theme of territorial development with particular reference to urban development, urban-rural partnership and urban cross-border cooperation. Cooperation with India focuses on smart and green city development.

The programme of the visit to India has been designed for European representatives of local and regional authorities accompanied by representatives of relevant business and R&D sectors. The event will consist of working visits in Chandigarh, Pune, Mumbai and Navi Mumbai.

European experts will deliver lectures based on their practical experiences on sustainable urban and regional development. They will also visit relevant projects in order to strengthen their cooperation within the World Cities project and develop an agenda for future collaboration.

#### Cities involved and programme design

The delegation will be leaded by the European Commission. Representatives from the European cities / regions of Stuttgart, Copenhagen and Lazio will debate with colleagues from Mumbai, Navi Mumbai, Pune and Chandigarh about their cooperation projects in the area of smart and green development as well as on innovation and the promotion of mutual economic exchange.

The programme will start with a three-day visit to **Chandigarh** for European delegates from the twinning cities / regions of Stuttgart, Copenhagen and Lazio. As a union territory, the city is ruled directly by the Union Government of India and is not part of either state. Chandigarh was the first planned city in India post-independence in 1947 and was known internationally for its architecture and urban design. Today, Chandigarh has a population approx. 960.787 inhabitants, creating a challenge for the city planned for a population of 500.000 inhabitants. The twinning city of Chandigarh within the World Cities programme is **Copenhagen** supported by the **CLEAN Cluster**. Therefore, delegates from Copenhagen will stay longer in Chandigarh to deepen cooperation. All delegates will stay at the **Hotel Taj Chandigarh** (see programme for details).

After meetings in Chandigarh, delegates from **Stuttgart** will travel to will travel to **Mumbai**, the capital city of the Indian state of Maharashtra. Mumbai is the most populous city in India and the eighth most populous city in the world, with an estimated city population of 18.4 million.

Delegates from **Lazio** will also visit their twinning city of **Navi Mumbai**, developed in 1972 as a new urban township of Mumbai. The population of Navi Mumbai has reached more than 1 million inhabitants. It is one of the world's largest planned new cities that was conceived as a satellite city to relief the strain on Mumbai.

Delegates from **Andalucía Smart City** will visit **Pune**, the seventh-largest metropolis in India and the second-largest in the state of Maharashtra. The city has launched an ambitious set of smart initiatives, driven by "less is more" philosophy.

In **Mumbai**, the programme will end with the closing **conference** of **World Cities** to take place in cooperation with the *Stuttgart-Meets-Mumbai* event. Delegates will stay at the Taj Hotel (Stuttgart, EU) or at the Hotel Sofitel BKC (Copenhagen, Lazio, Andalucía) – see below.

#### Contacts in India

- ✓ Mr Pablo Gándara, Project Coordinator, pgandara@world-cities.eu, +49 179 9052720
- ✓ Mr Neelabh Singh, Senior Expert India, nsingh@world-cities.eu, +91 8130836550
- ✓ Mr Panagiotis Karamanos, Senior Expert India, KaramanosP1@gmail.com, +91 9987985322
- ✓ Ms Ashwini Thakar, Manager- Programmes & Sp. Projects, Mumbai First, +91 9920041242

#### Participants list

N°	Name	Position	City	Institution
1	Mr Walter Deffaa	Director General	Brussels	European Commission, DG REGIO (only 21 -23 January)
2	Mr Ronald Hall	Principal Advisor	Brussels	European Commission, DG REGIO (only 21 -23 January)
3	Mr Detlef Kron	Director	Stuttgart	Department for Urban Planning, Stuttgart City Council
4	Mr Hans-Wolf Zirkwitz	Director	Stuttgart	Department for Environment Protection, Stuttgart City Council
5	Mr Hans D. Christ	Director	Stuttgart	Cultural Association of Württemberg
6	Ms Sheetal Marathe	Senior Researcher	Stuttgart	Institute for Energy and Resource Efficiency, University of Stuttgart
7	Mr Hartmut Klein	Director	Stuttgart	Sewage Treatment Company of Stuttgart SES
8	Ms Maria Rachele Nocera	Senior Researcher	Rome	Italian Energy Efficiency Agency ENEA
9	Mr Carlo Rossi	Director for Decentralised Cooperation	Rome	Regional Development Ministry, Region of Lazio
10	Mr Marco Montuori	Researcher	Rome	Institute for Complex Systems, National Research Center
11	Mr Morten Sørensen	Business Development Manager	Copenhagen	CLEAN Cluster
12	Mr Søren Hansen	Project Director	Copenhagen	Urban development & Transportation, Ramboll
13	Mr Riccardo Marini	Director	Copenhagen / Glasgow	GEHL Architects
14	Mr Sanjay Gupta	Director District Cooling	Mumbai	Danfoss India
15	Mr Daniel González	Director General	Malaga	Andalucía Smart City Cluster
16	Mr Diego Gil Barroso	Deputy Director General	Malaga	Andalucía Smart City Cluster
17	Ms Stefanie Klein	Regional Manager Europe	Bonn	GIZ International Services
18	Mr Panagiotis Karamanos	Senior Expert India	Delhi	World Cities Programme of EU Commission
19	Mr Neelabh Singh	Senior Expert India	Copenhagen	World Cities Programme of EU Commission
20	Mr Pablo Gándara	Project Coordinator	Bonn	World Cities Programme of EU Commission

#### Day 1 - Sunday 17 January 2016 - Travel day

All European representatives fly to Istanbul and from there to Delhi and Chandigarh

#### For Stuttgart delegates:

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14:45 – 18:45 Flight to Istanbul (TK 1704 – Turkish Airlines)
19:45 – 05:10 (+1) Flight to Delhi (TK716 – Turkish Airlines)
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#### For Rome delegates:

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14:30 – 18:10 Flight to Istanbul (TK 1866 – Turkish Airlines)
19:45 – 05:10 (+1) Flight to Delhi (TK716 – Turkish Airlines)
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#### For Copenhagen delegates:

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15:45 – 17:45 Flight to Paris (9W6844 – Air France)
19:00 – 08:15 Flight to Delhi (9W123 – Jet Airways)
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#### Day 2 - Monday 18 January 2016 - Travel and city tour

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10:40 - 11:50 Flight to Chandigarh (AI463)
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12:30 – 13:00 Transfer to the Hotel Taj Chandigarh

13:00 – 13:30 Check in

13:30 – 14:30 Lunch

16:00 – 19:00 City Tour

19:00 – 20:00 Dinner

Accommodation in Chandigarh

Hotel Taj Chandigarh

Block No. 9, Sector 17-A

Chandigarh - 160 017, India

Tel: (91-172) 6613000

http://www.tajhotels.com/business/taj-chandigarh/default.html

#### Day 3 - Tuesday 19 January 2016 - Field visits

09:00 - 13:00 Field visits (Part 1)

- ✓ **Sewage treatment.** Chandigarh city has a well-planned underground network of pipes for the disposal of sewerage generated in the city. The sewerage system of the city has been designed by taking into account the natural slope of the city, which is from north to south. Chandigarh is fully covered with sewerage facility. Out of 87 MGD water being supplied to the residents of the city, 57 MGD sewage effluent is being generated. It is on the way of becoming the only city in India with 100% sewage treatment in the near future. Presently, the capacity of Sewage Treatment Plants (STP) in the city is 52.90 MGD and another 5 MGD STP is under construction which is likely to be commissioned soon.
- ✓ Energy Efficiency. Chandigarh Solar City. A "solar city" is an urban area that aims to: a) reduce dependence on fossil fuels for its energy needs, and b) limit emission levels to sustainable levels even while maintaining the desired socio-economic development growth. The visit will include Solar Photo Voltaic Power Generation (Grid Connected) in roof tops and / or landfill site.

13:00 – 14:00 Lunch

14:00 – 18:00 Field visits (Part 2)

- ✓ **Urban Development:** Chandigarh has been practicing a number of programs and projects, to monitor air quality and assessment of the data to ascertain reasons for the degrees of pollution in the air. A few effective strategies implemented to control air pollution are:
  - 1. Greening Chandigarh Action Plan has been introduced by the greening task group in 2001; since then targets of plantation (average 2 lakh saplings/yr) by different departments has been set and more than 100% achieved every year.
  - 2. Five ambient air quality monitoring stations, covering almost the whole city
- ✓ Mobility and Smart City: The visit will include the Capital Complex (applying for UNESCO world heritage status) and many projects in that area. Chandigarh Administration has promoted the use of battery operated vehicles by providing subsidies. A multilevel parking at the centre of the city has been at the verge of completion to promote vehicular free zones and control over vehicular density on the roads. Chandigarh is strictly following the smoke free city concept and practicing on the spot challans for the offenders. A concept of Metro transport has been approved for the city to promote public transport and control the vehicular air emissions. The construction of new and connecting the available intersector bicycle tracks is proposed to promote emission free, and healthy environment.

19:00 Dinner

Accommodation in Chandigarh

Hotel Taj Chandigarh

Block No. 9, Sector 17-A

Chandigarh - 160 017, India

Tel: (91-172) 6613000

http://www.tajhotels.com/business/taj-chandigarh/default.html

#### Delegates from Andalucía Smart City Cluster (2)

Flight from Spain to India

14:25 - 00:35 (+1) Flight Madrid - Dubai (EK142)

03:55 - 08:25 Flight Dubai - Mumbai (EK504)

#### Day 4 - Wednesday 20 January 2016

#### 09:00 – 13:00 World Cities Workshop

09:00 - 09:10 Welcome by Administrator / Mayor / Deputy Mayor

09:10 - 09:20 Programme introduction (Gándara / Singh - World Cities)

#### 09:20 - 10:40 Session 1 - Urban Development & Mobility (incl. Smart City)

- 09:20 09:35 Introduction to Chandigarh's Urban Development Plan by Mr Kapil Setia, Chief architect, UT Chandigarh
- 09:35 09:50 Mobility Plan Mr Prince Dhawan, Director Intelligent Transportation, UT Chandigarh
- 09:50 10:20 Urban Development Plan insights from the European pilot cities (10' each)
  - ✓ Public space and public life City of Copenhagen (Riccardo Marini, Gehl Architects)
  - ✓ Urban Development City of Stuttgart (Dr Detlef Kron, Urban Development Department)
  - ✓ Smart City Insight from Italian Smart Cities initiatives (Dr Maria Rachele Nocera, ENEA)

10:20 – 10:40 Discussion

#### 10:40 - 12:00 Session 2 – Environmental issues (including Cleantech)

- 10:40 10:55 Sewage Treatment Plan Introduction by Mr B Purushartha, Commissioner, Chandigarh Municipal Corporation
- 10:55 11:10 Waste Management Plan Introduction by Mr B Purushartha, Commissioner, Chandigarh Municipal Corporation
- 11:10 11:40 Environmental issues insights and proposals from the EU pilot cities (10' each)
  - ✓ City of Copenhagen (Ramboll)
  - ✓ Sewage Treatment in Stuttgart (Mr Hartmut Klein, Sewage Treatment Company of Stuttgart)
  - ✓ City of Rome / Regione Lazio (Mr Carlo Rossi, Regione Lazio)
- 11:40 12:00 Discussion

#### 12:00 – 13:00 Session 3 – Energy efficiency, low-carbon development and adaptation

- 12:00 12:15 Chandigarh, a model solar city Introduction Mr Santosh Kumar, Director (Environment) & CCF, UT Chandigarh
- 12:15 12:45 Energy efficiency insights and proposals from the EU pilot cities (10' each)
  - ✓ City of Denmark (Danfoss)
  - ✓ City of Stuttgart (Ms Sheetal Marathe, Institute for Energy and Resource Efficiency)
  - ✓ City of Rome / Regione Lazio (Mr Marco Montuori, CNR)
- 12:45 13:00 Discussion

#### 13:00 – 13:30 Light working lunch

13:30 – 14:00 Transfer to the airport (only 4 Stuttgart delegates + Mr Gándara)

#### Stuttgart delegates (4) – Mr Christ stays in Chandigarh

- ✓ 15:35 18:00 Flight to Mumbai
- ✓ Accommodation in Mumbai (Hotel Taj Lands End (Bandstand, Bandra 400 050, Tel: +91 22 6668 1234, <a href="http://www.tajhotels.com/luxury/city-hotels/taj-lands-end-mumbai/overview.html">http://www.tajhotels.com/luxury/city-hotels/taj-lands-end-mumbai/overview.html</a>)

#### Delegates from Copenhagen (4)

- ✓ Further bilateral talks in Chandigarh
- ✓ Accommodation in Chandigarh (Hotel Taj Chandigarh)

#### Delegates from Lazio (3)

- ✓ Further bilateral talks in Chandigarh
- ✓ Accommodation in Chandigarh (Hotel Taj Chandigarh)

#### Delegates from Andalucía Smart City Cluster in Pune

- ✓ 08:25 Arrival in Mumbai (EK504)
- ✓ 09:30 12:30 Transfer by private car to Pune
- ✓ 12:30 13:30 Lunch and Check-in The Pride Hotel
- 14:00 14:30 Transfer to Persistent Systems, Erandwane Branch (http://www.persistent.com)
- ✓ 15:00 18:00 Smart City workshop with Karlsruhe Smart City Delegation
  - Smart-Mobility / Infrastructure
  - Smart-Energy
- Accommodation in Pune The Pride Hotel (05, University Road, Shivajinagar, Shivaji Nagar, 411005 Pune, Phone: +912025534567). <a href="http://www.pridehotel.com/pune-hotels/">http://www.pridehotel.com/pune-hotels/</a>

#### EU Commission delegates (2)

- ✓ 10:20 23:35 Flight Brussels Mumbai (Jet Airways)
- ✓ Transfer and accommodation in Mumbai
  - Hotel Taj Lands End (Bandstand, Bandra (West), Mumbai-400 050, Tel: +91 22 6668 1234 http://www.tajhotels.com/luxury/city-hotels/taj-lands-end-mumbai/overview.html

#### Day 5 - Thursday 21 January 2016

#### Bilateral programmes:

- ✓ EU Commission: Meetings and field visits in Mumbai (organized by Mumbai First)
  - 10:00 11:00 Mumbai Metropolitan Development Agency (MMRDA)
     Mr Sanjay Sethi Additional Metropolitan Commissioner I
     <a href="https://mmrda.maharashtra.gov.in/amc-i-profile">https://mmrda.maharashtra.gov.in/amc-i-profile</a>
  - 11:30 12:30 Smart City Council of India Mr Pratap Padode, Founder & Director (http://india.smartcitiescouncil.com/)
  - Afternoon: field visit to Smart City Projects in Mumbai
  - o Accommodation in Mumbai (Hotel Taj Lands End)
- ✓ Copenhagen in Chandigarh
  - O Urban Development Gehl Public Space Study
  - Waste treatment plant
  - o Signing bilateral MoUs
  - o Accommodation in Chandigarh (Hotel Taj Chandigarh)
- ✓ Lazio in Chandigarh
  - o Morning: Field visits on smart city development
  - o 15:35 18:00 Flight to Mumbai
  - Accommodation in Mumbai (Hotel Sofitel BKC, C-57, Bandra Kurla Complex Bandra East Mumbai 400051, Phone: +91 22 6117 5000, www.sofitel-mumbai-bkc.com)

- ✓ Andalucía Smart City Cluster in Pune
  - o Field visits on smart city examples
  - o Accommodation in Pune (The Pride Hotel, Pune)
- ✓ Stuttgart in Mumbai (organized by City of Stuttgart Mr Robert Hammel)
  - o Morning: Briefing at hotel
  - o Political meeting with General Consulate
  - o Meeting with Municipal Commissioner of Mumbai (topics including climate partnership)
  - Field Visit Modernizing Vocational Training in Water Management (Mumbai).
     Cooperation between University of Stuttgart and Fraunhofer Institute
  - o Accommodation in Mumbai (Hotel Taj Lands End)

19:00 – 20:30 For all delegates in Mumbai: Welcome dinner organized by the World Cities project

#### Day 6 – Friday 22 January 2016

#### Bilateral programmes:

- ✓ EU Commission & Delegates from Lazio: Meetings and field visits in Navi Mumbai (coordination by Mumbai First)
  - Working meetings in Navi Mumbai with City and Industrial Development Corporation of Maharashtra (CIDCO) including Navi Mumbai Airport Influence Notified Area (NAINA)
  - o Lunch
  - o Field visit to Smart City Projects in Navi Mumbai
  - o Accommodation in Mumbai (Hotel Taj Lands End or SOFITEL BKC respectively)
- ✓ Copenhagen in Chandigarh
  - Morning: Field visits (to be defined)
  - o 15:35 18:00 Flight to Mumbai
  - Accommodation in Mumbai (Hotel Sofitel BKC, C-57, Bandra Kurla Complex Bandra East Mumbai 400051, Phone: +91 22 6117 5000, <u>www.sofitel-mumbai-bkc.com</u>)
- ✓ Stuttgart in Mumbai
  - 0 09:00 12:00 Meetings with NGO's (All Indian Institute, Observer Research Foundation)
    - Coordination: Mr Robert Hammel
  - o 14:00 16:00 Meeting with MMRDA
    - Coordination by Mumbai First
  - o Accommodation in Mumbai
- ✓ Andalucía Smart City Cluster in Pune
  - o Field visits on smart city examples
  - Accommodation in Pune The Pride Hotel (05, University Road, Shivajinagar, Shivaji
     Nagar, 411005 Pune, Phone: +912025534567). <a href="http://www.pridehotel.com/pune-hotels/">http://www.pridehotel.com/pune-hotels/</a>

18:30 Participation at Wine Festival (Hotel Taj Lands End)

19:00 Welcoming remarks at the Wine Festival by Dr Walter Deffaa

Accommodation at Hotel Taj Lands End or Sofitel BKC

#### Day 8 - Saturday 23 January 2016

09:00 – 13:00 Voluntary participation in other activities within the Stuttgart meets Mumbai event.

Different possibilities (see <a href="http://www.mumbaimagic.com/">http://www.mumbaimagic.com/</a> for details)

- Morning tour of Southern Mumbai
- People of Mumbai
- Bandra Tour
- Food Walk through Matunga
- 14:00 14:30 Pre-briefing for panel discussions

Location: Taj Lands End, Bandstand, Bandra (West), Mumbai-400 050 Meeting at the hotel lobby. The panel moderators will explain to the panelist the discussion format.

## 14:30 – 18:15 WORLD CITIES - EU INDIA COOPERATION ON SUSTAINABLE URBAN & REGIONAL DEVELOPMENT

Final conference of the World Cities Programme takes place within the Stuttgart meets Mumbai event, between selected European and Indian cities. Representatives from the European cities of Stuttgart, Copenhagen, Lazio and Andalucía will debate with colleagues from Mumbai, Navi Mumbai, Pune and Chandigarh about their cooperation projects in the area of smart and green development as well as on innovation and promotion of mutual economic exchange.

Location: Taj Lands End, Bandstand, Bandra (West), Mumbai-400 050

Room: Salcette I & II

#### Programme

14:30 – 15:00 Registration, High Tea

15:00 – 15:10 Setting the scene: Dr Ronald Hall, Principal Advisor DG REGIO & Mr Narinder Nayar, CEO Mumbai First

15:10 – 15:15 Welcome address by Dr Martin Schairer, Deputy Mayor City of Stuttgart

15:15 – 15:20 Welcome address by Mr Andreas Lapp, Honorary Consul of the Republic of India for the States of Baden-Württemberg and Rhineland-Palatinate

- 15:20 15:35 Key note by Dr Walter Deffaa General Director DG REGIO, European Commission
- 15:35 15:45 Comments by Mr Shri Sanjay Bhatia, Managing Director of CIDCO (Navi Mumbai)
- 15:45 15:55 Comments by Mr. Rajendra Jagtap, Additional Commissioner, Pune Municipal Corporation
- 15:55 16:15 Brief introduction by the European twinning cities (5' each)
- 16:15 17:00 Panel Discussion 1 Green City: Best practices & pilot projects from twinning cities One representative from each pilot city from Europe and India will debate with colleagues about challenges and instruments related to green city development. Key words: Environmental technologies (sewage, sludge, waste treatment, etc.), water management, climate change mitigation and adaptation strategies, energy efficiency.

Moderation: Dr Ronald Hall, Principal Advisor DG REGIO

17:00 – 17:45 Panel Discussion 2: Smart City - Best practices & pilot projects from twinning cities One representative from each pilot city from Europe and India will debate with colleagues about challenges and instruments related to smart city development within the existing bilateral cooperation as well as in context of the Smart City Programme recently launched by the Indian Government.

Key words: Urban planning, mobility, traffic, ICT, public space

Moderation: Ms. Sulakshana Mahajan, Senior Urban Consultant, MTSU

- 17:45 18:15 Closing remarks by DG REGIO / World Cities Team
- 18:30 22:00 Participation at the Wine Festival

Accommodation at Hotel Taj Lands End (depending on availability)

#### Day 9 - Sunday 24 January 2016

#### Return flights to Europe

#### EU Commission delegates (2)

02:20 -07:50 Flight to Brussels (Jet Airways)

#### Delegates from Stuttgart and Lazio (5 + 2)

06:50 – 10:35 Flight to Istanbul 11:45 – 13:45 Flight to Stuttgart

#### Other delegates - see individual schedules