

INDIA-EU URBAN PARTNERSHIP: CO-CREATING RESILIENT CITIES FOR TOMORROW



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Foreword

Recent events have shown that our world is now more interconnected than ever, and that nature does not recognise borders. Today, we are at an inflection point, which calls upon all of us to reconsider our current practices and define a new normal. For this, we require greater international cooperation and solidarity, robust multilateral institutions, accurate and transparent information and above all, human empathy to collectively prepare our planet for the future.

The EU-India relationship is driven by the 2004 EU-India Strategic Partnership, which has grown to include a wide variety of areas. Our partnership is underpinned by a strong belief in our shared values of democracy, pluralism, individual freedoms and multilateralism. We share several priority areas such as addressing the challenges of climate change, the transition to a digital economy, connectivity between EU and Asia and the enhancement of our bilateral trade and economic ties.

Today, the EU and its Members States are leading the world in overcoming climate and environmental challenges, with a new growth strategy that transforms the EU into a modern, resource-efficient and competitive economy. The European Green Deal is the EU's roadmap for making its economy sustainable and achieving climate neutrality by 2050.

The planet will continue to urbanise and how we manage this will determine the future of our planet. The EU is guided by the New Urban Agenda that provides the principles, policies and standards required to achieve sustainable urban development, and to transform the way we construct, manage, operate and live in our cities.

India's current urbanisation is unprecedented. The EU and India have a long-standing bilateral commitment to this sector through the signing of the 'Joint Declaration of Partnership on Smart and Sustainable Urbanisation' and 'Joint Action Work Plan'. The EU continues to contribute to flagship Indian projects such as Swachh Bhaarat, the Smart Cities Mission, the Clean Ganga Mission and the International Solar Alliance. Further, the EU Delegation in India has developed a dynamic online platform that displays the urban projects being implemented by the EU and its Member States in India.

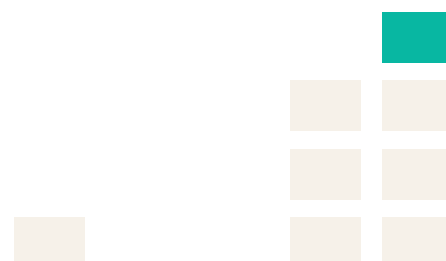
This brochure captures the essence of the very dynamic partnership on urbanisation between India and the EU, a partnership that benefits not only Europe and India but also the rest of the world by bringing innovative urban solutions that are citizen-centric, technology-enabled, and data-driven.

Together we can co-create resilient cities for tomorrow.



Ugo Astuto

Ambassador of the European Union to India



The European Union

Key Facts*

Population: 446 million

Population density: 108.8 persons/km²

Land area: 4 million km²

GDP: €13.9 trillion

GDP per capita: €31,100



The European flag features a circle of 12 gold stars on a blue background. They stand for the ideals of unity, solidarity and harmony among the peoples of Europe. The European flag symbolises both the European Union and, more broadly, the identity and unity of Europe.

- + The European Union (EU) is an economic and political union of 27 EU countries;
- + The EU has developed an internal single market through a standardised system of laws that apply in all Member States. EU policies aim to ensure the free movement of people, goods, services, and capital within the internal market;
- + The Member States delegate sovereignty to the EU institutions to represent the interests of the European Union as a whole. There are common policies for trade, agriculture, energy, environment, fisheries, competition, research, external relations and regional development;
- + The EU's main bodies are: the European Parliament, the Council of the European Union, the European Commission, and the European Court of Justice;
- + The guiding values of the EU include human dignity, freedom, democracy, equality, rule of law, and human rights;
- + The EU has delivered more than half a century of peace, stability and prosperity, helped raise living standards and launched a single European currency: the euro. More than 340 million EU citizens in 19 countries now use it as their currency and enjoy its benefits;
- + The EU is the largest trade bloc in the world, and the biggest exporter of manufactured goods and services and the biggest import market for over 100 countries;
- + The EU has a diverse and rich culture, with 24 official languages and over 60 indigenous regional or minority languages;
- + Collectively, the EU and its constituent countries are the world's leading donor of humanitarian aid;
- + In 2012, the EU was awarded the Nobel Peace Prize for advancing the causes of peace, reconciliation, democracy and human rights in Europe;
- + The motto of the EU is "united in diversity" which first came into use in 2000.

*Eurostat figures for EU27 (GDP and GDP per capita in current prices)

Key Dates

1950

On 9th May 1950, French Foreign Minister Robert Schuman gave a speech which publicly proposed the establishment of a European Coal and Steel Community (ECSC).

1951

The ECSC is founded by six countries (Belgium, the Federal Republic of Germany, France, Italy, Luxembourg and the Netherlands).

1957

The six countries set up the European Economic Community (EEC), for wider cooperation. One of its core objectives is to develop a common market offering free movement of goods, services, capital and people. Border checks and customs duties would be gradually removed.

1969

At the Hague Summit, the EEC's political leaders decide to move further ahead with European integration.

1973

Denmark, Ireland and the United Kingdom join the European Communities, bringing their membership to nine.

1981

Greece joins the European Communities, bringing their membership to 10.

1986

Spain and Portugal join the European Communities, bringing their membership to 12.

1991

The Maastricht European Council adopts a Treaty on European Union. It lays the basis for a common foreign and security policy, closer cooperation on justice and home affairs and the creation of an economic and monetary union, including a single currency. The inter-governmental cooperation in these fields added to the existing Community system creates the European Union (EU). The EEC is renamed the 'European Community' (EC).

1992

The Treaty on European Union is signed at Maastricht. It enters into force on 1 November 1993.

1993

The Single Market is created.

1995

Austria, Finland and Sweden join the EU, bringing its membership to 15.

1999

The currencies of 11 EU countries are replaced by the euro. The single currency is launched on the money markets. From this point onwards, the European Central Bank (ECB) has responsibility for the EU's monetary policy, which is defined and implemented in euro.

2002

People in the euro area countries begin using euro notes and coins.

2004

Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia join the European Union.

2007

Bulgaria and Romania join the EU.

2013

Croatia joins the European Union as its 28th member state.

2020

The United Kingdom withdraws from the European Union.

Elements for an EU Strategy on India

The European Union and India upgraded their long-standing relationship to a strategic partnership in 2004, acknowledging their common goals and principles. Nowadays, in a challenging international environment, the EU and India share the same values of democracy, human rights, fundamental freedoms and support the rules-based global order.

Pursuant to this, in November 2018, the European Commission and the High Representative of the Union for Foreign Affairs and Security Policy adopted a Joint Communication that sets out the EU's vision for a strategy to strengthen cooperation and the partnership with India. Through the strategy, the EU places an emphasis on reinforcing cooperation in foreign policy and developing security and defence cooperation with India, promoting effective multilateralism, and building on common values and objectives.

This Joint Communication replaces the last Commission Communication on India of 2004, recognising that India has emerged as the fastest-growing large economy and has acquired an important geopolitical role.

The Strategy aims to strengthen the EU-India Strategic Partnership by focusing on sustainable modernisation and on common responses to global and regional issues, and will provide the policy framework for the EU's deeper and broader engagement with India over the coming years.

EU-India: Partners in Progress

MODERNISATION

- + Investment in India's sustainable modernisation
- + New business opportunities
- + Enhanced connectivity and data protection
- + Sustainable urbanisation

ENVIRONMENT, ENERGY AND CLIMATE CHANGE

- + Implementation of the Paris Agreement
- + Clean energy transition, energy efficiency and renewable energy
- + Addressing major environmental challenges
- + India-EU Water Partnership
- + Joint Declaration on Resource Efficiency

TRADE & INVESTMENT

- + Balanced, ambitious and mutually beneficial agreements on trade and investment
- + Sound, transparent, non-discriminatory regulatory and business environment in India

INNOVATION

- + More people-to-people exchanges, utilising societal diversity
- + Cooperation on education and skills, mutual recognition of qualifications, mobility of talent
- + Innovation initiatives

Strengthening the Political Partnership

REINFORCING COOPERATION ON FOREIGN POLICY

- + Coordinating on the most relevant foreign policy issues
- + Working for stability and security in the overlapping neighbourhoods
- + Engaging India more on sustainable connectivity both at strategic and operational levels

DEVELOPING SECURITY AND DEFENCE COOPERATION

- + Fighting terrorism and radicalisation
- + Exchanging expertise on maritime and cyber security, non-proliferation / disarmament and hybrid threats
- + Military relations via personnel exchanges and trainings

PROMOTING EFFECTIVE MULTILATERALISM

- + Promoting the rules-based global order and trading system
- + Improving coordination in the United Nations, World Trade Organization and G20
- + Working on strong, sustainable, balanced and inclusive global growth

BUILDING ON COMMON VALUES AND OBJECTIVES

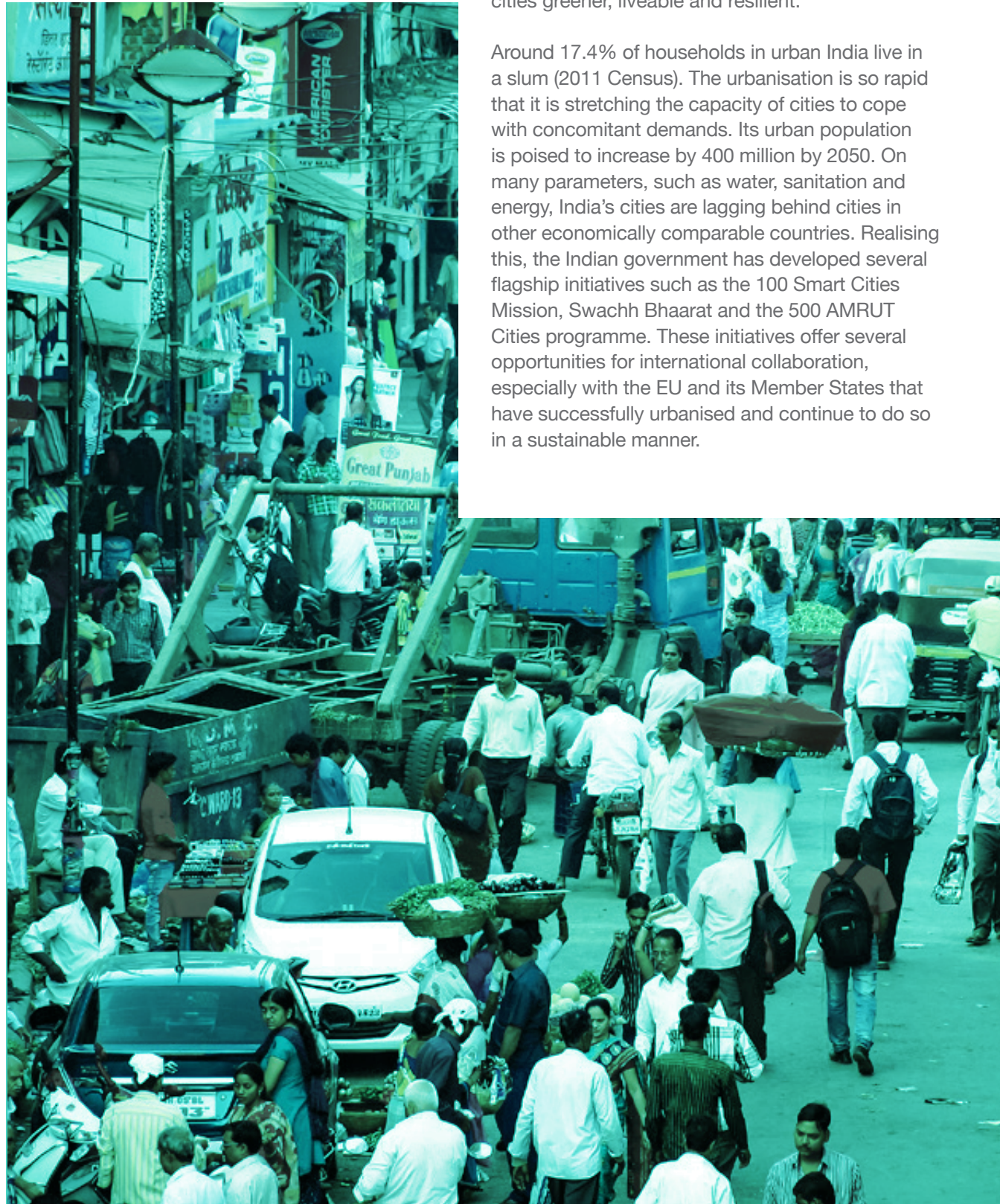
- + Promoting gender equality and women's empowerment, human rights and democracy, and the inclusion of young people
- + Coordinating on humanitarian and disaster relief operations
- + Delivering the UN Sustainable Development Goals and Agenda 2030

India's Urbanisation Demands

Introduction

With 1.3 billion people and the world's fifth largest economy, India's recent growth and development has been spectacular. India's market benefits from a large and young workforce. In addition, the country is undergoing a significant wave of urbanisation as some 10 million people move to towns and cities each year in search of jobs and opportunities. It is the largest rural-urban migration of this century. Immense investments will be needed to create jobs, housing, and infrastructure to meet soaring aspirations and make towns and cities greener, liveable and resilient.

Around 17.4% of households in urban India live in a slum (2011 Census). The urbanisation is so rapid that it is stretching the capacity of cities to cope with concomitant demands. Its urban population is poised to increase by 400 million by 2050. On many parameters, such as water, sanitation and energy, India's cities are lagging behind cities in other economically comparable countries. Realising this, the Indian government has developed several flagship initiatives such as the 100 Smart Cities Mission, Swachh Bharat and the 500 AMRUT Cities programme. These initiatives offer several opportunities for international collaboration, especially with the EU and its Member States that have successfully urbanised and continue to do so in a sustainable manner.



India's Flagship Urban Programmes

AMRUT

- » Ensuring every household has access to a tap with assured supply of water and a sewerage connection;
- » Increasing the amenity value of cities by developing greenery and well maintained open spaces (e.g. parks);
- » Reducing pollution by switching to public transport;
- » Constructing facilities for non-motorized transport (e.g. walking and cycling).

SMART CITIES MISSION

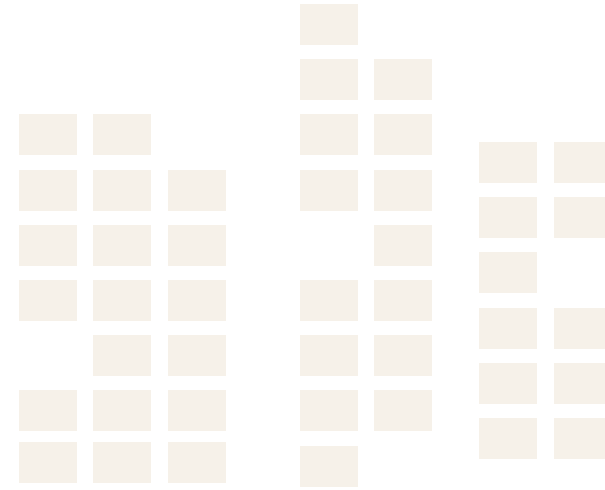
- » Providing core infrastructure for a decent quality of life for citizens, a clean and sustainable environment and application of 'smart' solutions;
- » Creating a replicable model which will act like a lighthouse for other aspiring cities;
- » Including core urban infrastructure services such as water, electricity, sanitation, solid waste management, urban mobility and public transport, affordable housing, IT connectivity and digitalisation, good e-governance, sustainable environment, safety and security of citizens, health and education;
- » Transforming existing areas into better planned human settlements;
- » Developing greenfield areas to accommodate rapid urbanisation.

SWACHH BHARAT

- » Eliminating open defecation;
- » Eradicating manual scavenging;
- » Implementing modern and scientific municipal solid waste management;
- » Effective behavioral change regarding healthy sanitation practices;
- » Generating awareness about sanitation and its linkage with public health;
- » Building capacity for ULBs;
- » Creating an enabling environment for private sector participation in Capex and Opex.

NITI Aayog, the Government of India's premier think tank, in its three-year plan (2017-2020) has proposed a set of complementary actions that shore up ongoing programmes. **These actions relate to three areas: urban housing, solid waste management and urban transportation.**

Over the longer term, India needs to introduce more fundamental changes to turn its cities into 21st century spaces. It needs to introduce spatial planning that simultaneously addresses the developmental needs of metropolitan, municipal and ward-level areas and genuinely devolves power to local urban bodies whilst financially empowering them.



The EU's Urban Agenda

Europe's level of urbanisation is expected to increase from about 75% in 2020 to 83.7% in 2050. To ensure the sustainable and resilient development of its cities, the Urban Agenda for the EU was launched in May 2016.

Founded on a multi-level governance and partnership approach, the Urban Agenda for the EU has provided valuable support and impetus to urban policy thinking and dialogue in Europe. It is an integrated and coordinated approach to deal with the urban dimension of EU and national policies and legislations. By focusing on concrete priority themes within dedicated Partnerships, the Urban Agenda seeks to improve the quality of life in urban areas.

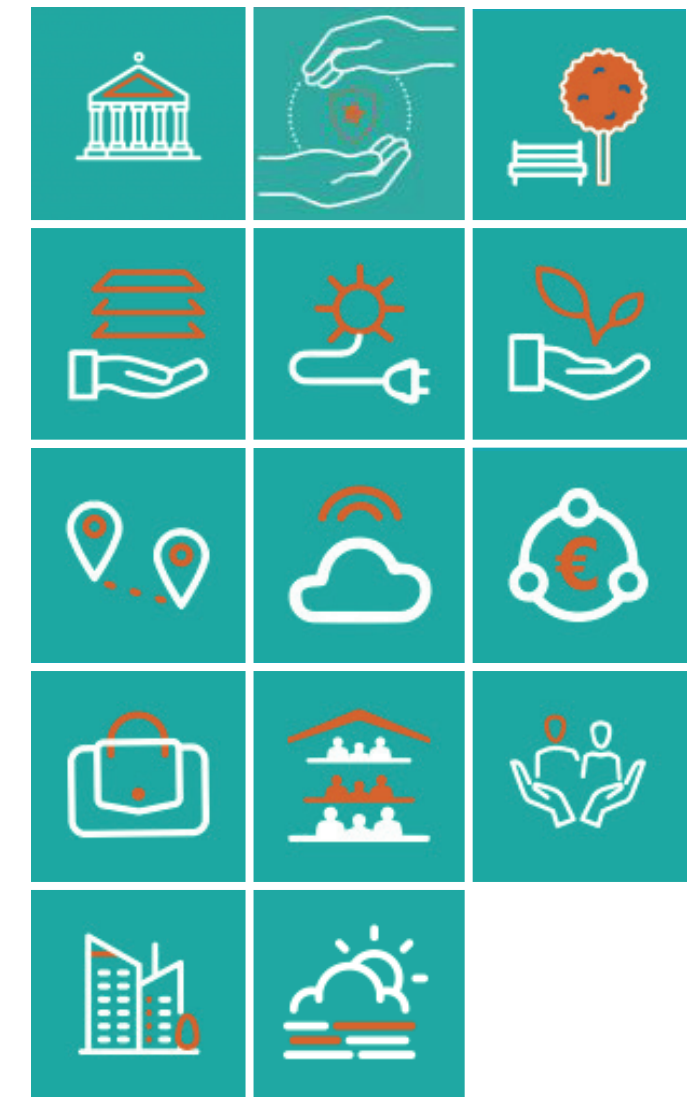
The Urban Agenda focuses on the three pillars of EU policy making and implementation

Better Regulations

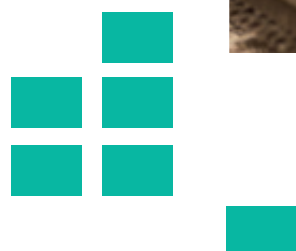
Better Funding

Better Knowledge

14 Partnerships have been defined so far under the Urban Agenda



- | | |
|------------------------------|--|
| 1. Culture/Cultural Heritage | 9. Circular Economy |
| 2. Security in Public Spaces | 10. Jobs and Skills in the Local Economy |
| 3. Sustainable Land Use | 11. Urban Poverty |
| 4. Public Procurement | 12. Inclusion of Migrants and Refugees |
| 5. Energy Transition | 13. Housing |
| 6. Climate Adaptation | 14. Air Quality |
| 7. Urban Mobility | |
| 8. Digital Transition | |



Each Partnership involves on a voluntary and equal basis, cities, Member States, the European Commission and stakeholders such as NGOs or businesses. Together they work on developing and implementing concrete actions to successfully tackle challenges of cities and to contribute to smart, sustainable and inclusive growth.

An information hub, One Stop Shop for Cities, provides an entry point to other EU policies with an urban dimension. Evidence-based policies in the EU are enhanced by the Urban Data Platform, which offers a wealth of information on European cities and regions.

URBACT

For about 15 years, the URBACT programme has been the European Territorial Cooperation programme aiming to foster sustainable integrated urban development in cities across Europe. URBACT's mission is to enable cities to work together and develop integrated solutions to common urban challenges, by networking, learning from each other's experiences and identifying good practices to improve urban policies. Following the success of the URBACT I and II programmes, URBACT III (2014-2020) has been developed to continue to promote sustainable integrated urban development and contribute to the delivery of the Europe 2020 strategy.

The URBACT III programme is organised around four main objectives

Capacity for Policy Delivery

To improve the capacity of cities to manage sustainable urban policies and practices in an integrated and participative way

Policy Design

To improve the design of sustainable urban policies and practices in cities

Policy Implementation

To improve the implementation of integrated and sustainable urban strategies and actions in cities

Building and Sharing Knowledge

To ensure practitioners and decision-makers at all levels have access to knowledge and share know-how on all aspects of sustainable urban development to improve urban development policies

URBACT III develops 3 types of interventions

Transnational Exchanges

Capacity Building

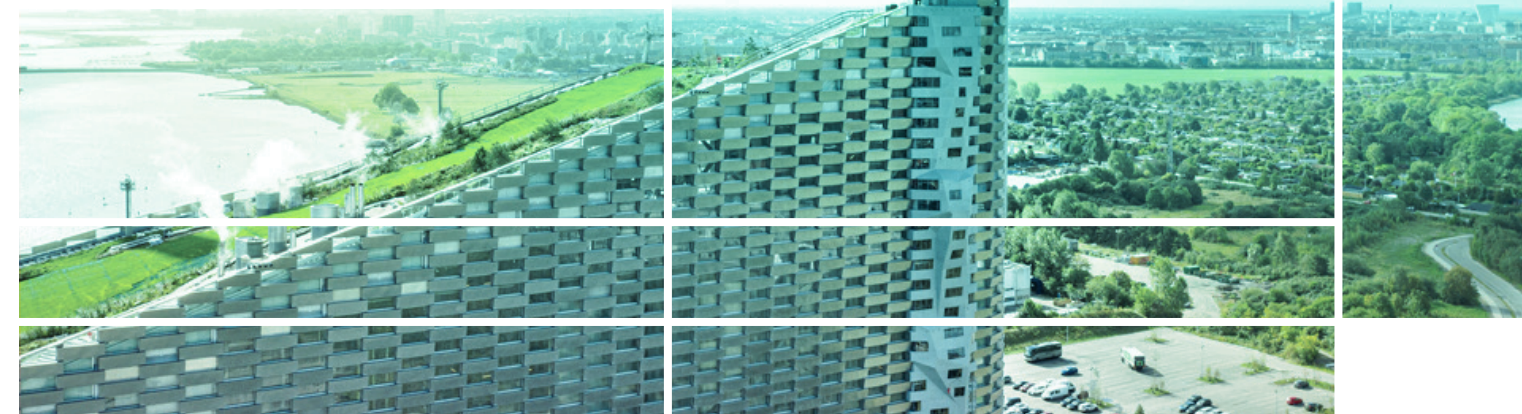
Capitalisation & Dissemination

The main target participants include practitioners, city managers, elected representatives and stakeholders from other public agencies, the private sector and civil society.

EUROCITIES: A Network of Major European Cities

EUROCITIES was founded in 1986 by the mayors of six large cities: Barcelona, Birmingham, Frankfurt, Lyon, Milan and Rotterdam. Today, they bring together the local governments of over 140 of Europe's largest cities and over 45 partner cities that between them govern 130 million citizens across 39 countries.

Photo: Amager Bakke Waste to Energy Plant



EUROCITIES Mission

We strive for a Europe where cities are genuine partners with the EU to create a better future where:

1. People take part in an inclusive society;
2. People progress in a prosperous local economy;
3. People move and live in a healthy environment;
4. People make vibrant and open public spaces;
5. City governments address global challenges;
6. City governments are fit for the future.

EU Best Practice

Amager Bakke: The Most Modern Waste to Energy Plant in the World

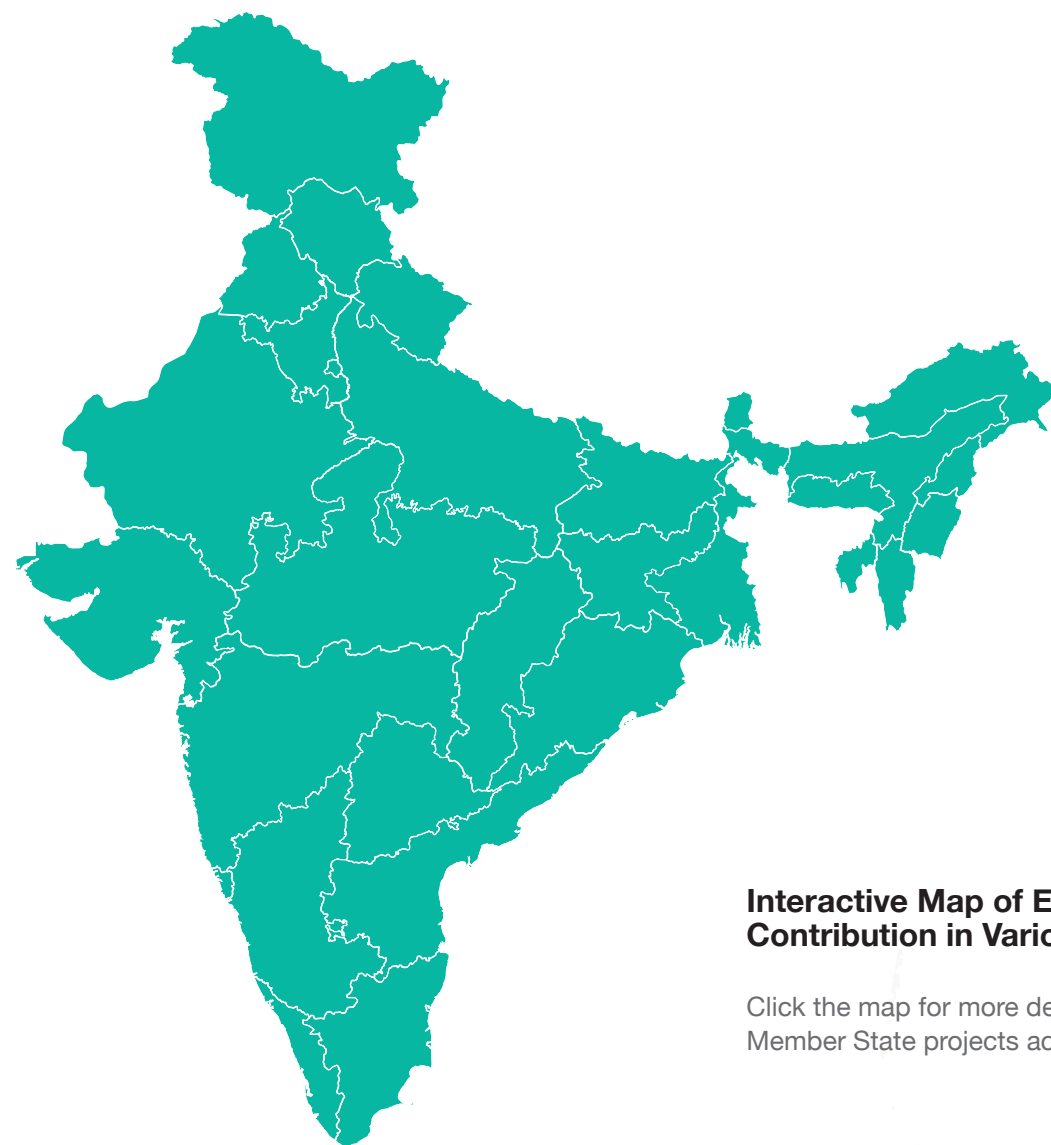
Amager Bakke (Amager Hill) also known as Amager Slope or Copenhill, is a combined heat and power waste-to-energy plant and sports facility in Amager, Copenhagen, Denmark. It opened in 2017, replacing the nearby old incineration plant. The plant burns about 400,000 tonnes of municipal solid waste annually. It also houses a sports facility that doubles as a year-round artificial ski slope, hiking slope and climbing wall, which opened to the public in October 2019. Technically, it is designed to change between operating modes, producing 0-63 MW electricity and 157-247 MW district heating, depending on the local heat demand and power price. It produces more clean water than it uses. Because of filtration and other technologies, sulphur emission is expected to be reduced by 99.5% and NOx by about 95% as well as dioxins and HCl. It is claimed to be the cleanest incineration plant in the world.

India-EU Urban Partnership

EU-India cooperation on sustainable urbanisation has matured since 2016 and reached a milestone at the last bilateral EU-India Summit in October 2017 where India and the European Union agreed on a Joint Declaration to set up a Partnership on Smart and Sustainable Urbanisation. Today it is one of the most active and high-profile sectors of

cooperation between the EU and India. This partnership aims to promote and strengthen cooperation between the EU and India by sharing policies, technologies, business solutions, financing mechanisms and cooperation on research and innovation to support smart and sustainable urbanisation. The partnership interlinks with other EU-India policy dialogues and provides opportunities in the field of inter-alia, water, air quality, resource efficiency and circular economy, clean energy, energy efficiency, greening urban transport, ICT solutions, and climate change mitigation and adaptation in cities.

Since 2016, the EU has commissioned several projects that augment India's smart and sustainable urbanisation efforts. These projects have provided capacity building and technical assistance at various levels and themes. Some projects are described in this brochure.



Interactive Map of EU and EU MS Contribution in Various Indian States

Click the map for more details on EU and Member State projects across the country

World Cities Programme

The aim of the World Cities programme was to provide technical assistance to Indian experts on issues of urban policy with the aim of fostering dialogue and exchange between the EU and India. The project focused on operational issues leading to concrete results involving multi-level stakeholders from both the EU and India. The key feature of the World Cities programme included selecting up to four European and Indian cities or regions each for implementing twinning schemes between 2015 and 2016.

The twinning involved the cities of **Mumbai, Navi Mumbai, Chandigarh and Pune** in India and the cities of **Lazio, Stuttgart, Copenhagen and Andalucía Smart city cluster**. The programmes provided Indian and European participants with valuable first-hand experience in regional development and sustainable urban development issues in both regions.

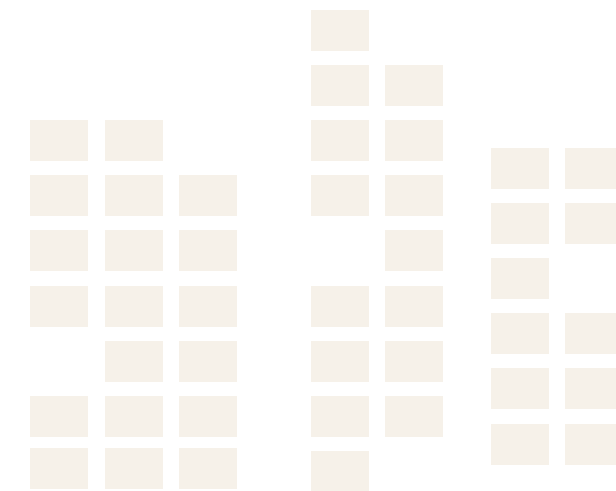


Photo: A European delegation visiting a wastewater treatment plant in Chandigarh

EU-Mumbai Partnership

The EU-Mumbai Partnership (MP) was established in 2013 to build a long-term cooperation platform between the EU, Mumbai First, government agencies and other stakeholders to address urban challenges in Mumbai. The partnership encouraged the exchange of best practices, examined the applicability of new policies, supported outreach activities, and promoted smart city development through conferences, working groups and policy analysis.

The partnership launch event was the Conference on 'The Challenges of Mumbai as a Mega-City – A Way Forward with the EU' in November 2013. The three key development issues of environment, energy/integrated transport and city planning were established through a series of working groups.

Overall, the Mumbai Partnership increased capacity, awareness and established closer ties between stakeholders from the EU and Mumbai. It enabled Indian participants and officials to have meaningful discussions with EU experts to examine new opportunities to develop the way forward for EU-India cooperation on sustainable urbanisation.



Photo: EU-Mumbai Partnership

International Urban Cooperation (IUC) India

The European Union launched the IUC programme in 2016, one of its primary commitments to the New Urban Agenda. The IUC programme thematically pairs European Union and non-European cities and regions; has a broad geographical scale – almost global – and a wide yet well-structured scope, based on the 2030 Agenda for Sustainable Development and the New Urban Agenda. While there are IUC projects for North America, Latin America and Asia, India is the only country that has its own IUC project. The project was commissioned in December 2016 for a duration of four years.

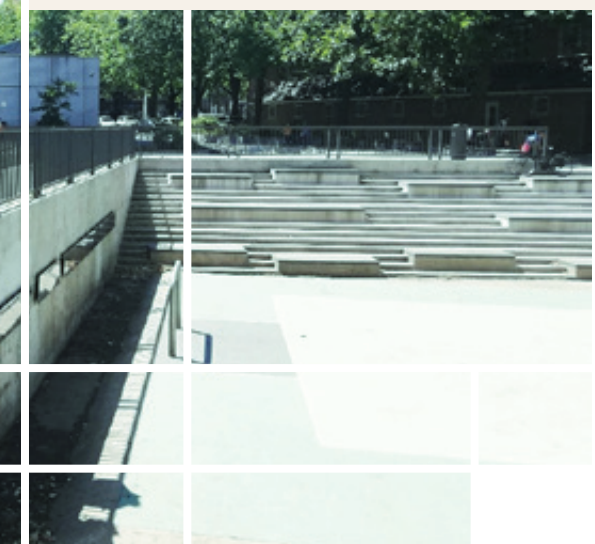
The IUC (India) currently supports twelve Indian cities develop Local Action Plans (LAPs) to address their immediate urban challenges, as well as seven Indian cities to develop their Climate Action Plans (CAPs) to combat climate change.



Photo: A delegation from the city of Surat visiting a water plaza in Rotterdam

Covenant of Mayors of Gujarat for Climate and Energy (CoMG)

Eight cities in Gujarat have so far joined the Covenant of Mayors of Gujarat (CoMG) network. CoMG was launched on 30 August 2019 in the presence of Nitin Patel, Deputy Chief Minister of Gujarat, and Henriette Færgemann and Edwin Koekkoek (Head of Section and Counsellor, respectively) from the Environment, Energy & Climate Change Section at the Delegation of the European Union to India. Through this network, cities will be able to connect and gain new perspectives on pressing climate change and sustainable development issues. It will create core competencies in local government to integrate climate change and energy resilience perspectives in their planning by generating strategic knowledge and partnerships. It will pioneer policy-driven research on the links between new and emerging risks, reducing vulnerability and realising a sustainable future for all by preparing a city to identify, articulate and propose pre-emptive forms of practice. The focus will be in consonance with National and State Action Plans on Climate Change.



At present, the lack of bankable projects and the matching of such projects to appropriate sources of financing is limiting the sustainable and climate resilient development of Indian cities. To address this, the IUC (India) project has developed a financing manual called 'Financing Sustainable and Climate Resilient Urban Development in India'.

The objective of the manual is to assist Indian urban local bodies:

- 1.** Navigate the complex financing and funding landscape;
- 2.** Identify suitable financial and funding instruments;
- 3.** Access and raise enough financing for sustainable urban development (infrastructure) and climate change projects;
- 4.** Develop the capacity to ultimately implement/ execute projects that are sustainably funded (bankable projects).



Photo: Launch of the financing manual by H.E. Ugo Astuto, Ambassador of the European Union to India, Praveen Pardeshi, then Municipal Commissioner of Mumbai and Narinder Nayar, Chairman Mumbai First (R-L)

Leuven and Gwalior Partnership on Heritage Cities

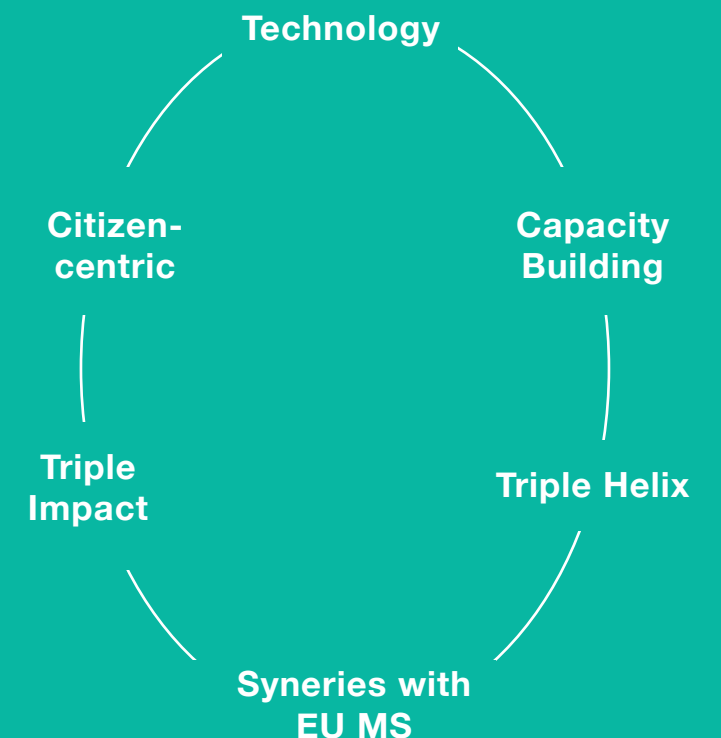
Gwalior, home to many heritage buildings, encounters several challenges when it comes to the upkeep and protection of such structures. The challenges include lack of policies, capacities, experiences and resources within the mandated departments. The pairing partner – Leuven has gained good experience in the conservation of heritage buildings. The objective of this partnership is to strengthen the capacity of the city administration and institutions in Gwalior to prepare policies and carry out necessary activities for the conservation of heritage buildings. By engaging in the programme, the city of Gwalior will develop its own local policy framework for the protection of heritage buildings and heritage will become an integral part in urban development. This will also lead to the efficient utilization of national and local funds designated for investment in the heritage sector.

India-EU Urban Partnership (IEUP)

From January 2020, the EU commissioned a three-year project called the India-EU Urban Partnership, whose overall objective is not only to strengthen EU urban diplomacy but also to demonstrate global leadership in implementing the New Urban Agenda and the Paris Agreement.

The IEUP project links experiences and best practices from past and current urban projects between the EU and India such as the EU-Mumbai Partnership, the International Urban Cooperation action, the ICT standardisation action, the Air quality Initiative and others, to feed their results into the national policy agenda. It will also allow engagement on new sub-sectors such as metropolitan planning, mobility, and waste management with a holistic approach.

IEUP: A Holistic Approach



The project activities will be implemented in Indian states and cities in partnership with key stakeholders, including:

Ministry of Housing and Urban Affairs (MoHUA), India

The MoHUA is the federal ministry with executive authority over the formulation and administration of the rules, regulations and laws relating to housing and urban development in India. Amongst others, it oversees some of the government's flagship programmes such as AMRUT, 100 Smart Cities Mission and Swachh Bharat.

National Institute of Urban Affairs (NIUA)

The NIUA is India's leading national think tank on urban planning and development. As a hub for the generation and dissemination of cutting-edge research in the urban sector, the NIUA seeks to provide innovative solutions to address the challenges of a fast urbanising India, and pave the way for more inclusive and sustainable cities of the future. Whilst helping bolster India's urban narrative at the global level, the NIUA is also committed to aligning its efforts in accordance with the UN Sustainable Development Goals, ensuring that global targets are achieved through locally adapted and integrated urban frameworks.

National Capital Regional Planning Board (NCRPB)

The NCRPB is the planning authority for the National Capital Region, a central planning region based in the National Capital Territory in India. It encompasses several districts surrounding it from the states of Haryana, Uttar Pradesh and Rajasthan. It has issued two regional plans, the 'Regional Plan 2001,

National Capital Region', approved in 1988, and the 'Regional Plan 2021, National Capital Region', approved in 2005.

Delhi Development Authority (DDA)

The Delhi Development Authority (DDA) was created in 1957 under the provisions of the Delhi Development Act 'to promote and secure the development of Delhi.' The DDA is responsible for the planning, development and construction of housing projects, commercial lands, land management as well as providing public facilities like roads, bridges, drains, underground water reservoirs, community centres, sports centres, and green belts within the area of the National Capital Territory of New Delhi, India. The DDA is currently in the process of developing a Delhi Master Plan 2041.

Mumbai Metropolitan Region Development Authority

The Mumbai Metropolitan Region Development Authority (MMRDA) is responsible for the infrastructure development of the Mumbai Metropolitan Region, an area spread over 4,355 sq. km. Since its inception, the MMRDA is engaged in long-term planning, promotion of new growth centres, implementation of strategic projects and financing infrastructure development. It prepares plans, formulates policies and programmes, implements projects and helps in directing investments in the region. It conceives, promotes and monitors key projects for developing new growth centres and brings about improvement in sectors like transport, housing, water supply and environment.

Rotterdam-Surat Partnership on a Water Plaza

Surat has been facing several challenges regarding water scarcity, lack of rainwater storage, depletion of ground water, and a lack of open green spaces. The city has partnered with Rotterdam to resolve and find solutions to some of these key challenges by way of cooperating with the city on specific areas of intervention. The main objective of this cooperation is to improve water resilience in Surat by showcasing pilot activities concerning the creation of a water plaza in selected areas of the city. The purpose is to store excess water during the monsoon season and utilise this as a recreation and community gathering point during the dry season. The project has multiple benefits ranging from improved water management, flood control, ground water recharge to the provision for a recreation area.

IEUP Dashboard

The EU has developed an online dashboard that provides an overview of the urban projects being implemented by the EU and its Members States in India.

The platform (<https://ieup.eu>) is a user-friendly dashboard that has the following features:

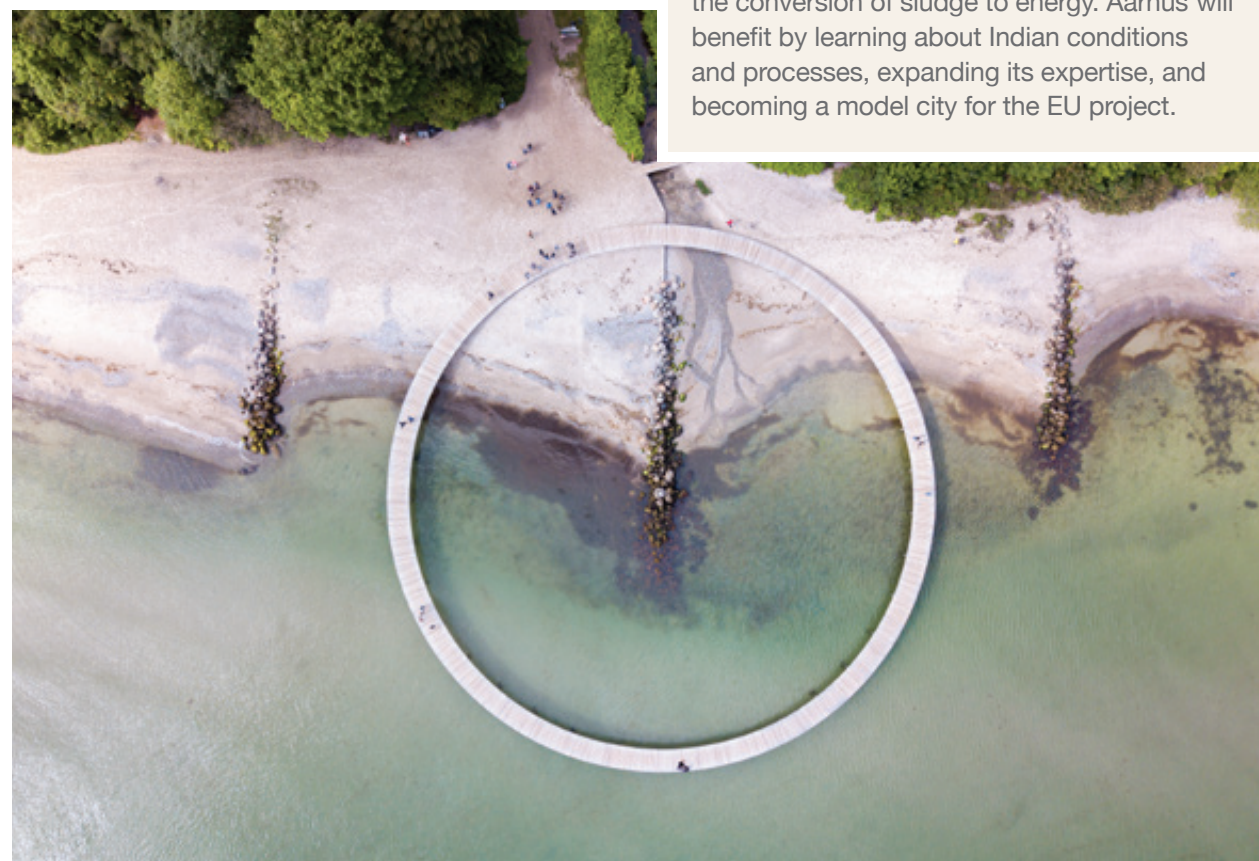
- » Login for the Delegation of the European Union, Member States and Development Agencies to update their projects;
- » Categorization of projects by key parameters, ie. dates, themes, regions, status and budget;
- » Announcing live call for proposals or open tenders;
- » Ensuring all information is publically available.

The platform will be further developed to include the following features such as:

- » An e-marketplace, resource libraries, and a jobs section;
- » Visualization tools to aid analysis;
- » Integrating with other international organizations such as the WB, ADB, USAID, JICA, etc.

Aarhus-Udaipur Partnership on Wastewater Treatment

Udaipur faces challenges concerning the availability of appropriate technology for wastewater treatment, scientific disposal and recycling. The objective of the partnership with Aarhus is to make Udaipur self-reliant in the treatment of wastewater, its safe disposal and also suggesting ways and means to recycle the treated water in an efficient manner. It is also expected that Udaipur should become independent in its energy requirements by adopting innovative technologies for the conversion of sludge into energy. The cooperation will support the preparation of a baseline report that will set the basis for a more detailed feasibility study that will follow. The cooperation will benefit the city by ways of providing a baseline estimation regarding the conversion of sludge to energy in Udaipur, critical review of various technical interventions and prioritisation, and preparation of the framework for a feasibility study concerning the conversion of sludge to energy. Aarhus will benefit by learning about Indian conditions and processes, expanding its expertise, and becoming a model city for the EU project.



Projects Directly Supporting the India-EU Urban Partnership

In addition to the above projects and initiatives that act as a testament to the growing bilateral interest in developing smart and sustainable urban solutions, the EU has supported several projects that have a direct linkage to urbanisation. The themes of these projects range from integrated urban mobility, air quality, water management, waste management and circular economy, metropolitan planning, to ICT standardisation and smart data management.

EU Projects Supporting the India-EU Urban Partnership

Resource Efficiency Initiative (REI)

- » To make resource consumption more efficient in India and contribute to the global agenda on sustainable consumption and production
- » To promote green economy and to boost jobs and growth in Europe

India-EU Water Partnership (IEWP)

- » To influence/support Indian policy making in the water sector, including through increased efforts on research and innovation, thereby facilitating progressive convergence by India towards relevant EU policies and standards on water management and learning from best practices

Clean Energy & Climate Partnership (CECP)

- » To reinforce dialogue in the areas of clean energy, energy efficiency and climate action to enhance the CECP partnership between India, the EU and EU Member States thereby ensuring a secure, clean, affordable and reliable energy supply for all and support the implementation of the Paris Agreement

India-EU Cooperation on ICT-Related Standardisation, Policy and Legislation

- » To support cooperation on future global ICT standards, thereby facilitating trade and increasing interoperability and the ease of doing business for companies

Business Support to the EU-India Policy Dialogues

- » To position the EU as a credible partner of India in priority sectors, and to contribute to an increased and diversified presence of EU companies in the Indian market by enriching EU-India policy dialogues

Smart and Sustainable Urbanisation Partnership

- » To further develop the partnership with the Ministry of Housing and Urban Affairs (MoHUA) and organise the EU – India Urban Forum and several thematic workshops

India-EU Joint Working Group on Smart and Sustainable Urbanisation

A G2G Joint Working Group (JWG) with delegates from the European Union and key officials from the Ministry of Housing and Urban Affairs (MoHUA) was convened in September 2019. The JWG builds a common understanding between EU and Indian counterparts of the drivers of and opportunities for growth in the urban sector and identifies areas of investment and collaboration. The JWG meets annually to monitor progress on the action plan and further chart the course for the India-EU Urban Partnership.



Photo: India-EU Joint Working Group on Smart and Sustainable Urbanisation



Photo: Panagiotis Karamanos, team leader of the IUC project leading the city pairing session

Joint Action Plan

The JWG works in a wide range of policy and governance issues cutting across priority areas based upon the EU Urban Agenda. This has led to the Joint Action Plan 2019-2020 between the MoHUA and the EUD and the subsequent signing of the India-EU Partnership for Smart and Sustainable Urbanisation by both sides.

India-EU Joint Action Plan Activities

- » Promoting smart and sustainable cities;
- » Promoting investments in sustainable urbanisation;
- » Promoting climate action and disaster risk reduction in cities;
- » Developing effective solid waste management and treatment, promoting circular economy;
- » Promoting involvement of European businesses in sustainable urbanisation;
- » Developing effective water supply and sewage treatment;
- » Innovation in housing;
- » Follow up of the action plan.

India-EU Urban Forum

The first India-EU Urban Forum was organized on 17th & 18th September 2019 in Delhi, jointly by the European Union and the Ministry of Housing and Urban Affairs, Government of India to discuss areas for further collaboration in the space of smart and sustainable urbanisation. The forum was designed to explore and examine various aspects of the Indian urban transformation journey, undergoing a paradigm shift due to the nature of India's growth story.

The focus of the forum was to discuss the existing success stories and lessons learnt from the India-EU partnership, and to explore potential business solutions for smart and sustainable urbanisation in India. The forum was structured as a multi-stakeholder platform, involving participation from policy makers, government officials, state representatives, leading professionals from business and industry, from both the EU and India. The inaugural forum was hosted in New Delhi and witnessed participation from across India and the EU.

A True European Urban Partnership with India

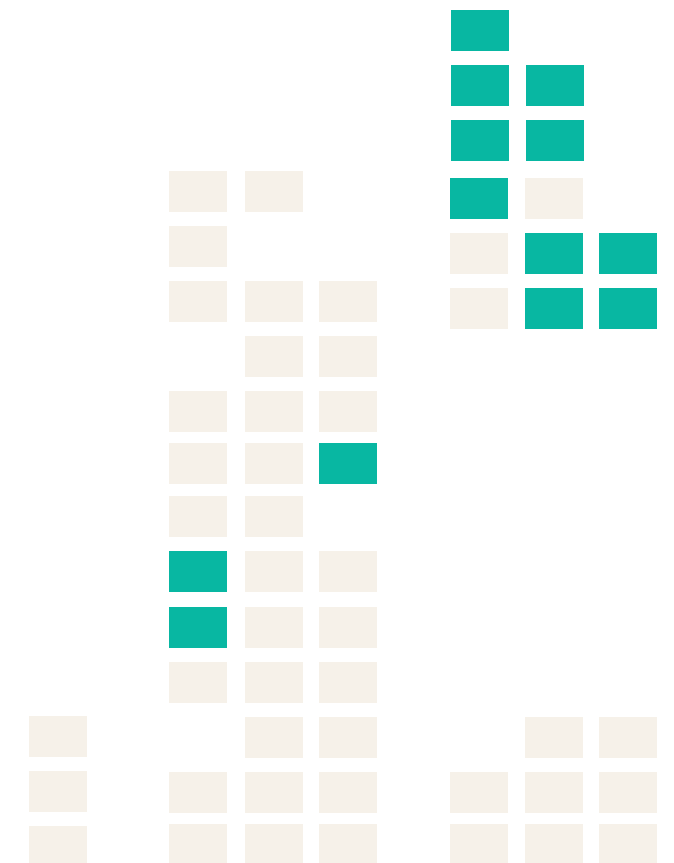
EU Member States are at the forefront of supporting India's current urbanisation and are implementing transformative projects in the country, providing the key ingredient of a true India-EU Urban Partnership. Along with their national governments' development agencies, the Member States are implementing transformative projects in India.

Austria



Austrian company, Efkon GmbH, through its Indian subsidiary, Efkon India Pvt. Ltd. is engaged in smart city projects. Having been established in the Indian market since 2001, Efkon India is one of India's leading providers of Intelligent Transportation Systems (ITS), Electronic Toll Collection (ETC), enforcement and traffic telematic solutions. Efkon has so far been involved with the execution of Integrated Traffic Management Systems for the cities of **Bhubaneshwar and Varanasi**. They are also executing an ICT contract for the Smart City of Tumakuru in addition to being the Master System Integrator for **Aligarh**. Efkon is implementing Electronic Enforcement systems in Kerala for the cities of **Thiruvananthapuram, Kochi and Calicut**.

Efkon India's Highway Traffic Management System (HTMS) for the Noida-Greater Noida Gautam Buddha Expressway project was awarded the 'Best Intelligent Transport System' by the Ministry of Urban Development in 2015.



Denmark



Denmark is actively supporting India's urbanisation efforts through engagement with specific Indian cities. A joint project on sustainable urban water management between the cities of **Udaipur and Aarhus**, under the Strategic Sector Cooperation of the Danish Ministry of Foreign Affairs has been commissioned. The objective of the project is to improve Urban Water Management including river rejuvenation and liveability, wastewater treatment, drinking water services and water quality as well as city partnerships.

Another unique collaboration between India and Denmark is the Urban Living Lab on Sustainable and Smart Cities being implemented by the Royal Danish Embassy and Imagine **Panaji Smart City** Development Ltd. The Vision for the Urban Living Lab is to have sustainable and liveable Smart Cities, integrating global sustainable solutions. The thrust areas include urban water body management, urban flood management, mobility and data-driven planning (crosscutting areas).

Innovation Centre Denmark (ICDK), Bengaluru has facilitated cooperation on Smart Cities in particular on digitization, education and renewable energy and an MoU was signed between the **Tumakuru Smart City and the City of Aalborg**.

France



A partner of India since 2008, the French Development Agency (Agence Française de Développement - AFD) works with Indian authorities through soft loans, as well as technical assistance programmes, to support sustainable urban development in India. Its total portfolio in the sector represents over €1.47 billion, amounting to 70% of its total activities.

The EU and AFD have partnered with the Government of India's Smart Cities Mission

through CITIIS (City Investments to Innovate, Integrate and Sustain). Under this programme, launched in 2019, 12 Indian smart cities were selected through a national challenge to receive funding as well as tailor-made mentoring to pilot flagship projects showcasing sustainability, impact, and stakeholder engagement. In addition to a €100 million ODA loan, the technical cooperation is financed through a €6 million grant from the EU's Asia Investment Facility. Sustainable mobility is also central to AFD's actions in India. AFD is contributing to the significant public investment effort in favour of clean, affordable and low-carbon public transport systems by financing the construction of the **Kochi, Nagpur, Bengaluru, Pune and Surat metros**, for a total amount of €1.1 billion. In addition to infrastructure financing, AFD launched the **Mobilise Your City** initiative with **Ahmedabad, Kochi and Nagpur** in November 2018. Mobilise Your City is a worldwide program, initiated by the French and German governments at COP21 in Paris and financed in India with support through a €3.5 million grant from the EU's Asia Investment Facility. It supports local and national stakeholders to improve urban planning practices and policies and reduce GHG emissions related to urban transport.

AFD's other focus investment areas include urban water and sanitation, to support India's drive to achieve universal access to drinking water and improve sanitation services for urban residents. Finally, through its green finance label SUNREF, AFD, with support from a €12 million grant from the EU, supports the National Housing Bank (NHB) as it increases the use of energy saving and environmentally friendly measures within the housing sector by adopting recognized Green Housing labels and strengthening the capacities of key actors, specially focusing on Affordable Green Housing targeting lower and middle income households.



Photo: Kochi metro financed by AFD



Photo: Women studying at the National Academy of Construction leave after a day's lessons. Public participation is key to the Amaravati smart city project and this skill development centre provides essential training to current residents of Amaravati so that the future city is able to employ workers from within the area

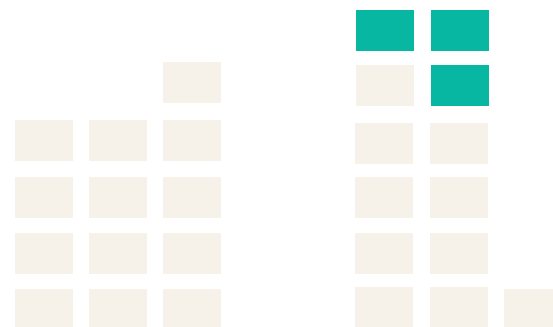




Photo: Exposure visit to a construction and demolition facility in Stuttgart

Germany



The German Climate Smart Cities project advises the MoHUA in its efforts to anchor climate friendly solutions in the Smart Cities Mission. At the national level, the project is supporting MoHUA's ambitious Climate Smart Cities Assessment Framework and its roll out in the 100 Smart Cities. In three partner cities, **Bhubaneshwar, Coimbatore, Kochi**, and their respective state governments of Odisha, Tamil Nadu and Kerala, focused efforts in selected fields of municipal services – waste management, storm water management, urban green cover and green buildings – are implemented and monitored. This will be upscaled to other Smart Cities. The German-Indian Joint Working Group on Urbanisation is also supported by this project, contributing to the achievement of national climate targets and urban SDGs.

Climate Smart Cities is a project of the International Climate Initiative (IKI) of the Federal Ministry of Environment, Nature Conservation and Nuclear Safety (BMU) in cooperation with the Federal Ministry of Interior, Building and Community (BMI), implemented by the GIZ (Deutsche Gesellschaft für internationale Zusammenarbeit) jointly with the Deutsches Institut für Urbanistik (DIFU), the Technical University of Berlin (TUB), Germany, and the National Institute of Urban Affairs (NIUA), India.

Link <https://www.giz.de/en/worldwide/75009.html>

Lithuania



Under the EU's IUC programme, the City of **Vilnius** is collaborating with the city of **Kochi** and actively contributing to the improvement of solid waste management of the Kochi metropolitan area. In this respect the two cities have been sharing best practices to streamline the waste management system in Kochi through the development of a Baseline Solid Waste Management Study for Kochi, considering the best practices used in Vilnius. Such a study will also allow the city to review various technical interventions and worldwide best practices suitable for the city. Further, Kochi officials will enhance their technical skills through capacity building workshops conducted by experts in solid waste management technologies from Vilnius.

Luxembourg



Boson Energy from Luxembourg has been selected by the **Clean Ganga Mission** (Namami Gange) to help conserve and rejuvenate the river Ganga and its basin by capturing, gassifying and converting into vitrified ash the Municipal Solid Waste (MSW) from the urban settlements along the river. The Project is at a planning and design stage to set up a full-scale demo plant in one of the nominated cities, namely Kanpur, Varanasi, Allahabad, Delhi or Kolkata. Their typical Waste to Energy plant would generate 2-8 MW electricity with 6-20 MW (Heat) or 2-10 MW (Cooling) per hour, from 150-300 TPD wet waste with a calorific value in the range of 1,700-2,500 kcal/kg at a given moisture level. The emission levels shall stay far below the EU's norms.

Spain



The Spanish firm IDOM has been supporting India's urbanisation by providing complex master planning, and architectural and engineering solutions to numerous mixed-use development projects. These include IICC Dwarka, a world class Exhibition and Convention Centre in New Delhi, the East Delhi Hub, the first Transport Oriented Development in India featuring over 30 towers.

East Delhi Hub T.O.D / New Delhi, India, 2015 - ongoing

Delhi's first transit-oriented hub in India, East Delhi Hub is an example of the integration of design and technology aiming to increase security, mobility, sustainability and quality public space in a high-density environment. This large mixed-use development sits in a 36Ha site in the Karkardooma area, in central East Delhi. Its 863,000 sq.m. include 31 towers over 12 hexagonal podiums, two metro stations, a civic park, retail, hotels and cultural facilities. The height of the towers ranges from 110 metres to 156 metres, including what will be the tallest tower in the city (height yet to be determined). East Delhi Hub is one of the smart city projects of the Ministry of Public Works of India in their ambition to find a balance between technology, human scale and the acute need for residential space.

India Convention and Expo Centre, Dwarka 2017 - current

Located near Indira Gandhi International Airport, the-state-of-the-art exhibition, convention centre and business complex undertakes the full regeneration of the 89.72Ha of Sector 25 in Dwarka. This mixed-use complex includes exhibition halls, a convention centre, an arena and mixed-land use area with retail space, commercial office space, hospitality and entertainment. Phase I is currently under construction and is due to open in 2022 in time for the G20.

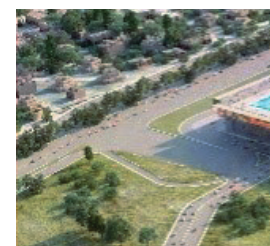


Photo: 3D model of the India Convention and Expo Centre, Dwarka



Photo: Transport-oriented Development in East Delhi



Sweden



Swedish companies have joined hands to provide a holistic solution to India's first net zero building. The building located in **Hyderabad**, is the office of the Confederation of Indian Industry's (CII) green energy centre of excellence – The Godrej Green Business Centre.

In a demonstration of innovative energy efficiency solutions, the Swedish company Regin installed equipment and control systems that automates the building, while PPAM Solkraft installed a 125 kw solar power system that uses double-sided solar panels in real life conditions and uses a tracker that follows the sun throughout the day. A monitoring system installed by the company Modio monitors the operations of the building.

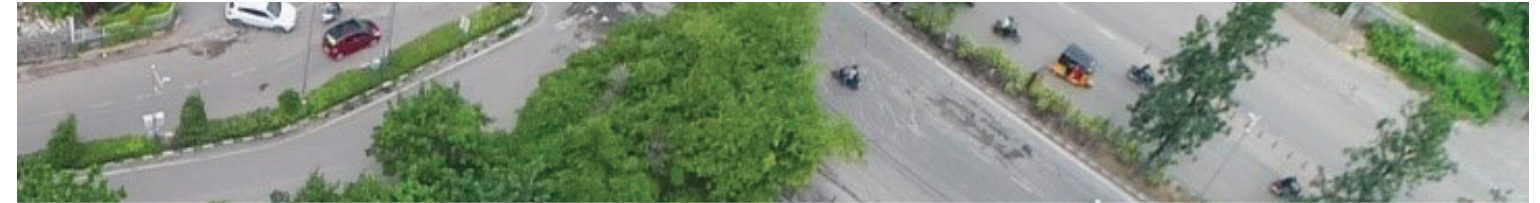
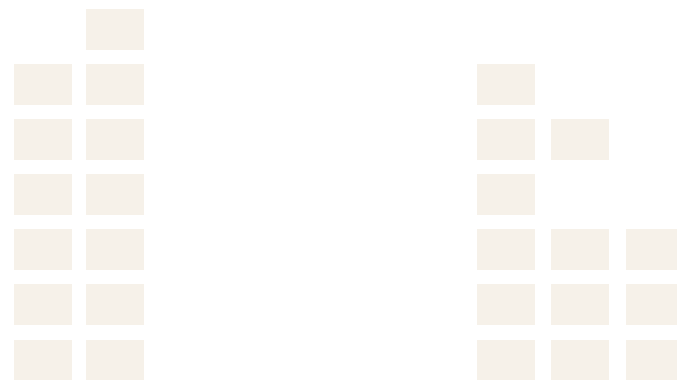


Photo: CII-Sohrabji Godrej Green Business Centre, Hyderabad

Co-creating Resilient Cities for Tomorrow

The EU and India's partnership on urban issues is relatively young. Yet, in a short span of time, it has grown from strength to strength and today is one of the main sectors of bilateral collaboration. The potential to develop the EU's collaboration with India on smart and sustainable urbanisation has only just begun.

The European Commission has already announced the continuation of the IUC programme, with a second phase due to begin in 2021. For the next phase, the programme will be further strengthened by building on the expertise of both the European Union and India in working with cities through thematic hubs and in integrating different levels of government. Furthermore, the methodology of innovation by Smart Specialization is an important approach in the programme and deserves to be more broadly introduced into collaboration between cities. In the European concept of Smart Specialization, regions and cities should prioritise complementarity between economic activities and find better ways to combine their strengths to create new industrial capabilities in areas with high growth potential.

While Indian cities are heterogeneous, European cities have traditionally been homogenous. However, this is changing due to rapid globalisation. Thus, together India and Europe can co-create cities that are planned and ready for the future by being resilient to natural and man-made shocks. Our shared experience and collaboration model can benefit not only cities in India and the EU, but also in other parts of the world.



Dubrovnik and Panaji Partnership on Smart Parking Solutions

Panaji is facing serious challenges regarding traffic congestion, improper parking, lack of civic amenities and a lack of discipline in the parking management of the city. Being a city attracting hordes of tourists, Dubrovnik has also faced similar experiences and has come up with a holistic solution concerning smart parking and traffic management in the city. The overall objective of the partnership between Panaji and Dubrovnik is to develop a smart and sustainable parking solution for the city of Panaji and to create awareness amongst citizens regarding traffic management. The cooperation will result in numerous benefits for the city of Panaji which will include reduction in traffic congestion within the city centre, organised and disciplined parking, reduction in GHG emissions, a safer and cleaner city for residents, and citizen-led engagement in a variety of city-related initiatives and events.

Delegation of the European Union to India and Bhutan
5/5, Shanti Niketan, New Delhi - 110 021, India

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