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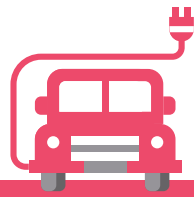
THE URBAN MOBILITY LAB: ENABLING A SHIFT TO SHARED, CLEAN, & PEOPLE-CENTRIC MOBILITY IN DELHI & PUNE
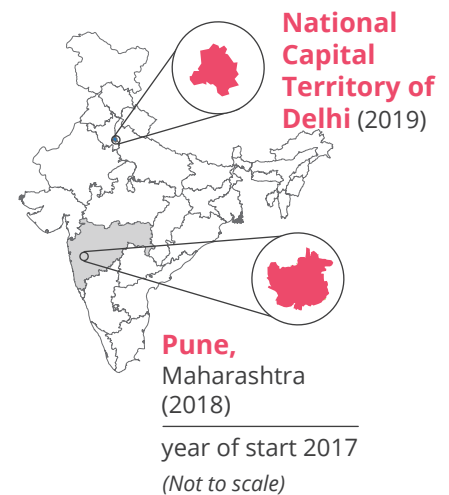
Project Highlights

- Partnered with the cities of Delhi and Pune to support their transition to a shared, clean, and people-centric mobility paradigm
- Facilitated the successful implementation of 25 electric buses, 35 shared electric vehicles (EVs), 250 shared cycles, and more in Pune
- Created commitment for 35,000 electric and accessible vehicles, at least 1,000 EVs for last-mile deliveries, and several hundred public charging and swapping stations by 2020 in Delhi

Background

The Urban Mobility Lab is a platform that partners with Indian cities to identify, integrate, and implement mobility solutions that transform how people and goods move. Rocky Mountain Institute (RMI) and NITI Aayog jointly developed the concept of Lighthouse Cities—early leading geographies for testing new mobility solutions—in India Leaps Ahead. The Urban Mobility Lab was created in November 2017 to support the development of Lighthouse Cities. It offers support for policymaking and pilot projects related to transformative mobility solutions. RMI leads the Urban Mobility Lab and works with central, state, and city government partners to implement the program.

Delhi and Pune are the first two host cities for the Urban Mobility Lab. The Dialogue and Development Commission of Delhi (DDC-D) and the Pune Municipal Corporation (PMC) are RMI's partners in each city.

National Capital Territory of Delhi (2019)

Pune, Maharashtra (2018)

year of start 2017
(Not to scale)

Project Objectives

To accelerate India's shift to shared, clean, and people-centric mobility by helping cities to:

- Identify, integrate, and implement mobility solutions
- Adapt projects to local needs and conditions
- Increase collaboration across public and private sectors
- Problem-solve on key regulatory and system-level barriers

Figure: Shared, clean, and people-centric are foundational elements of India's new mobility paradigm

Key Partners and Stakeholders

Advisors and partners

- Central government: NITI Aayog, Ministry of Housing and Urban Affairs
- Local government: Government of

Key stakeholders

- Government: Central, state, and urban local bodies
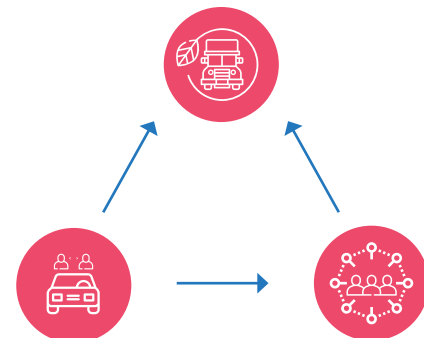- Industry: mobility solution providers

Maharashtra, Pune Municipal Corporation; Government of NCT of Delhi, Dialogue and Development Commission of Delhi

- Academia: universities
- Civil society: local non-governmental organizations and citizens

Approach

For each city, RMI and its partner conduct a process to support the identification, integration, and implementation of mobility solutions. This process includes four phases:

- Phase 1: Conduct a needs assessment: Assess the city's mobility needs and opportunities through literature review and stakeholder interviews
- Phase 2: Solution identification: Identify and shortlist solution providers to offer mobility solutions that align with the needs that were identified during the needs assessment
- Phase 3: Solutions Workshop: Convene a workshop to provide an open forum for the government, private sector, and civil society to codevelop solutions and implementation plans for mobility pilot projects
- Phase 4: Implementation Support: Support the public and private sectors in implementing solutions from the workshop and track and share progress and lessons learned

The Solutions Workshop is a core part of the Urban Mobility Lab process. It supports the aforementioned objectives through four key components:

- Solution development: Solution providers advance their solutions from ideas to implementable projects through a facilitated process
- Coaching and feedback: City- and state-level public agencies and industry experts provide coaching and feedback to the solution providers on how to customize their solutions to meet the city's needs and address implementation barriers
- Integration and networking: Solution providers engage with each other to identify system-level barriers that can benefit from collaborative action
- Vision setting: Policymakers provide a vision and call for action for transformative mobility solutions

Financial Structure

- RMI is an independent, nonprofit that currently offers the Urban Mobility Lab platform at no cost to partner cities thanks to philanthropic support.
- The Urban Mobility Lab seeks to connect cities and solution providers with public and private funding sources, such as fiscal incentives from the Central government (e.g., FAME II).

Achievements

Benefits

- Advanced progress on Delhi and Pune's mobility planning, policymaking, and goals.
- Identified opportunities to address system-level barriers and developed potential solutions.
- Shared lessons learned across levels of government to inform policymaking.
- Supported the implementation of several innovative mobility projects and created commitment for future project deployment.

Examples of implemented mobility projects in Delhi and Pune

Public transport

Pune's public transit agency, PMPML, closed a tender for 25 electric buses and charging infrastructure. RMI offered technical guidance on the charging infrastructure planning.

Electric vehicles

Lithium Urban Technologies launched 35 EVs at a Pune IT park.

Accessible transport

Ezy Mov Solutions developed several partnerships at the Delhi Urban Mobility Lab to bring its wheelchair accessible transport services to Delhi.

Charging infrastructure

Magenta Power Solutions installed 9 AC community chargers across Pune.

Non-motorized transit

YULU deployed 250 shared bikes at a Pune IT park.

Final-mile parcel delivery

RMI is supporting a multi-stakeholder pilot project to launch 1,000 electric goods carrier vehicles in Delhi. 270 vehicles are currently operating under the pilot.

Co-Benefits

- Building relationships and creating a collaborative environment for the public and private sector.
- Generating awareness of innovative mobility solutions and establishing proof points for new business models and operational practices.
- Conducting planning with a whole-systems approach.
- Contributing to improved local air quality and greater access. If Delhi achieves its 25 percent battery electric vehicle registration target by 2024, approximately 2,085 tonnes of PM2.5 tailpipe emissions can be avoided over the lifetime of the EVs deployed by 2024 (relative to an equal-sized internal combustion engine fleet; RMI internal analysis).

Success Factors

- Strong government leadership
- Shared commitment to a shared, clean, and people-centric mobility future
- Openness to collaboration from the public and private sectors
- Participation and coaching by urban local bodies

Long Term Impacts

- In urban road-based passenger mobility, shifting to a shared, clean, and people-centric mobility paradigm could save India 1 gigatonne of carbon dioxide emissions and US $330 billion in fuel imports by 2030, according to NITI Aayog and RMI's May 2017 report, India Leaps Ahead. This shift can also lead to improved local air quality (e.g., through avoided PM2.5 emissions) in cities and greater access to mobility options.
- Collaboration and coordination across levels of government can lead to more informed decision making and consistent application of policy.
- The Urban Mobility Lab is a replicable process that can be adapted to and performed by any city to support its specific mobility goals.

Limitations

- Although the Urban Mobility Lab aims to create an environment that supports implementation, the implementation responsibility resides with the public and private sector actors.

Future Prospects

- The Urban Mobility Lab will continue to work with Delhi and Pune to support the implementation of shared, clean, and people-centric mobility projects and policies.
- RMI is looking forward to partner with more cities in 2019 and beyond to cohost the Urban Mobility Lab.
- To scale the Urban Mobility Lab to more cities, RMI is developing thematic cohorts to create customized learning opportunities for multiple cities to advance their understanding of a specific topic and work towards developing and deploying sustainable mobility solutions in their respective cities.

Source: As received from RMI

For more Information

https://rmi.org/insight/urban-mobility-lab-pune/
https://economictimes.indiatimes.com/industry/transportation/shipping-/-transport/pune-selected-as-indias-first-lighthouse-city-for-urban-mobility-lab/articleshow/66226268.cms?from=mdr
https://www.financialexpress.com/industry/urban-mobility-lab-think-do-tank-plans-major-makeover-for-punes-transportation/1378884/