



# Under Reform

## UK Study Visit Report

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**Under Reform: Understanding Indian Urban Governance REFORM:  
A comparative analysis of the Smart City policy reforms and their impact on  
sustainable urban mobility  
[www.underreform.org](http://www.underreform.org)**

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# STUDY VISIT REPORT

## 1 Introduction

The *Under Reform* High Level Study Visit on Smart Mobility and Urban Governance was conducted for a span of one week, from 14<sup>th</sup> to 21<sup>st</sup> September 2019. The *Under Reform* project team was joined on this visit by state representatives of each of the four case study cities. The Visit involved delegation visits to London, West Yorkshire, West Midlands and Greater Manchester to discuss smart transport policy development and delivery.

The delegation included members from industry, academia, consultants and bureaucrats; this specific mix of members aided in developing a well-rounded conversation with each of the agencies we interacted with; attached in [Appendix A](#) is a list of all team members on the trip and officials we met on the Study Visit.

The visit started off with a brief half-day team meeting at our hotel in London. Each of the team members put forth their areas of interest and how they hoped to benefit from the city visits.

A few key areas of interest noted in this discussion were as follows:

- Understanding the planning process in these cities.
- How does the city get political buy-in for major projects that benefit the citizens?
- Decentralisation and how it is working.
- How do national and local government interrelate?
- Interaction with city-level advisory groups.
- Learning about the project implementation process.
- Funding processes for Smart City projects in the UK.

The team also discussed how the presence of Special Purpose Vehicles (SPVs) had changed project implementation in their respective cities. Manjula Vinjamuri suggested it had changed the level of planning and had helped the Government carry out detailed study and planning, and that at execution level contractors were involved. The SPV aids the Government in hiring technical experts at market rates for specific projects. Riby Matthew added to this that the SPV model of working has opened the system for planners, and now there is an increased recognition of the role of planners in the system. Sanjay Gupta also agreed that this has led to a holistic planning approach.

The discussion further went into looking at the long-term goals and how SPVs will pan out in India.

## 2 Day 1

The first day was planned with visits to national level organisations involved in policy and development of transport at national level. The day started early with a meeting at the Department for Transport, followed by a meeting with the Chartered Institution of Highways & Transportation.

### 2.1 Institutions

**Department for Transport (DfT):** DfT is a ministerial department supported by 24 agencies and public bodies. The DfT along with its agencies and partners supports the transport network and contributes towards improving mobility of businesses and people. DfT works towards planning and investing in transport infrastructure.



**Chartered Institution of Highways & Transportation (CIHT):** CIHT is a charity, learned society and membership body with 12 UK regions and a number of international groups. CIHT represents and provides training to professionals who plan, design, build, manage and operate transport and infrastructure.



The *Under Reform* Team with officials from DfT (left) and CIHT (right).

## **2.2 Agenda Points**

### **2.2.1 DfT**

The team discussed current policies for urban transport, projects for urban infrastructure development and data standardisation. The Department has published an Urban Strategy that shall be the guiding document which aims to guide future mobility plans for cities and a common narrative nationwide. This document gives importance to mobility over transport and provides guidelines on the promotion of Electric Vehicles. It also highlights the changing characteristics of urban demographics. DfT aims to bring in regulatory reforms in the area of Micro mobility vehicles, and how to trial them, Mobility as a Service, transport data, modernising busses, taxis and private hire vehicle legislation. The DfT also intends to support industry and local leaders in various aspects of transport policy including capacity-building and the funding of innovative modes of urban transport.

There was detailed discussion on data standards and the DfT's Future Mobility Zones initiative (FMZ). Under the FMZ the Government announced £90 million of capital funding, as a top-up to the Transforming Cities Fund (TCF), to create up to four Future Mobility Zones. The FMZ initiative is a competitive process that funds the winning cities' plans for innovative transport projects. We also discussed the interaction between the central and state government in the FMZ; with project development aided by advice from the DfT.

The government is also working towards creating an open data portal. Recent studies found that vast amounts of local authority data are currently closed and there are various technicalities that need to be addressed before the full benefits of open data can be realised, which the Government is working towards. The website [www.data.gov.org](http://www.data.gov.org) is already up and running, and efforts are now underway to publishing open data for accessible to all. DfT is also working on creating a common ontology system that will help scale up common data products created using the open data set

### **2.2.2 CIHT**

The Chartered Institution of Highways & Transportation discussed the importance of having agencies that work on ensuring professional standards and the need for capacity-building. The Institution offers training, information, professional development and support. It promotes the value added to society of the profession, as the focused voice to governments and other decision-makers on transportation expertise and knowledge. The Institute gave a brief overview of their work and their engagement with DfT. They also spoke about their apprenticeship programme in which institutions can develop their staff through the government's apprenticeship levy across England.

### 2.3 Relevance to the Smart City project

The FMZ project comes close in its process to India's Smart City Mission; open data is a key area of interest for all Smart Cities in India. The cities are working on creating open data platforms and the discussion helped us understand better how UK Government is handling this work at the central level.

From discussions we could draw a parallel between CIHT and the Indian Roads Congress (IRC) and how both institutes provide guidelines. It was discussed how IRC could also start initiatives for capacity building across its programmes.

### 2.4 Learnings

A few insights from the meeting are as follows:

- Having an Urban Strategy document provides a guidance document for all cities to plan future urban development.
- The importance of creating a framework to evaluate new innovative ideas to ensure their suitability in our cities specifically.
- Many parts of India are already looking at ways to incentivise procurement of innovations in the urban transport field. FMZ can be taken up as a case study for developing a model for incentivising procurement of innovations.
- The benefits of bringing together academia and practitioners to establish codes of practice informed by both sectors.

## 3 Day 2

After spending first day understanding the Central Government schemes, we proceeded to Leeds to look into how cities were responding to these government-aided projects and implementing them in their respective areas.

### 3.1 Institutions

**West Yorkshire Combined Authority (WYCA):** a combined authority for the 10 districts collectively known as the Leeds City Region. WYCA governs the transport policy and infrastructural development in the region, but importantly is also responsible for regional economic policy.

**Leeds City Council (LCC):** the Local Authority for the city of Leeds; governs the city's overall development.

## **3.2 Agenda Points**

### **3.2.1 WYCA**

The meeting consisted of two presentations that covered the institutional setup of WYCA and the major projects undertaken. There was a brief discussion about the budgetary allocation for transport projects by the city and how WYCA funds the progress of public transport in the districts under this project. It was discussed how WYCA is working in partnership with the Leeds City Region Local Enterprise Partnership on various projects. Local Enterprise Partnerships (LEP) are locally-owned partnerships between Local Authorities and businesses, and their institutional structure was discussed in detail, in particular. It was discussed in detail about the authority's functions and how it acquires its funding for various projects. We found similarities between the authority's roles and those of an SPV, although the authority is a governmental body. The authority receives the majority of its funding from national grants and project awards but also levies an annual charge through local taxation on all residents of the area. Regional authorities such as National Capital Region Planning Board (NCRPB) or National Capital Regional Transport Corporation (NCRTC) in Delhi could also benefit from a similar funding plan.

### **3.2.2 LCC**

Leeds City Council presented their transport proposals currently underway. There was discussion around the public transport planning in the city. It was discussed that there are over 38 private bus operators within the West Yorkshire area, while none of these can be directly controlled by Government due to legislative constraints. Across the United Kingdom public transport is operated by the private sector, which is completely opposite to what we see in India, where public transport is seen as service provided by the Government. They also presented the initiative under the Mobility as a Service proposal; it was interesting to see how the City had planned this project to provide services to fringe areas where public transport was not available right now due to lesser demand, and how the project will help residents to book bus services in advance for their travel. Also, the use of setting up LED screens powered by solar power for creating Passenger Information Systems based on static data is an innovative, cost-efficient option.

This was followed by a walk to Leeds Railway Station, led by Paul Foster, Head of Transport Strategy, Leeds City Council. Along the route Mr Foster explained the various transport initiatives implemented.



The *Under Reform* delegation with Paul Foster as he explains plans for the Leeds Station area.

### **3.3 Relevance to the Smart City project**

The institutional set up of WYCA was quite similar to that of a metropolitan planning authority, which governs the planning across the urban agglomeration. The session was more relevant with reference to learning from their projects.

### **3.4 Learnings**

A few insights from the meeting are as follows:

- The engagement between the Combined Authority and LEPs.
- The funding mechanism of the West Yorkshire Transport Fund.
- The Mobility as a Service project and how it is planned for Leeds City was an interesting project to learn about.
- The solar-powered passenger information system at bus stops.
- The way in which the public transport system is governed matters.

## **4 Day 3**

We attended the Smart Transport Conference in Birmingham. I specifically attended sessions on Shared Mobility, Automated Mobility and Electric Mobility.

It was interesting to see how the transport sector in the UK is in agreement that we need to focus on mobility for individuals for sustainable transport for the future.

## Key Learnings:

- On a weekday a maximum of 14% of the city's cars are on the road, but the city spends over £55 million to maintain an amenity used less than 3-4% of the day.
- The Automated Mobility Roadmap 2030; the Roadmap was detailed and addressed each sector's involvement in the progress of automated mobility over the years. The approach explained by Zenzic CEO, Daniel Ruiz was very articulate and detailed.



RevathyPradeep @pradeep\_revathy · Sep 18

On a weekday maximum of only 14% of the cars in the city are on the road actually being used.  
It requires over 55million for the case study city, 0a year to maintain an asset that it uses only 3-4% of the day.  
Is this Smart Transport?



Greg Marsden and 3 others



## 5 Day 4

Day 4 was spent meeting another Combined Authority implementing Future Mobility Zones and an innovation incubator working in the field of sustainable development.

### 5.1 Institutions

**The Energy Systems Catapult (ESC):** an innovation incubator which receives 1/3 of its funding from central government, and which is working towards developing innovation and opening new markets to capture the clean growth opportunity. They have several clean energy programmes and gave a quick overview of major initiatives being undertaken by the firm.



**Transport for West Midlands (TfWM):** the transport executive body for the West Midlands Combined Authority. This transport body is leading a pilot FMZ project.

### 5.2 Agenda Points

#### 5.2.1 ESC

We were able to learn about a few projects the Catapult is carrying out in the field of urban development. The team spoke in depth about the India Smart Cities

Innovations Hub and how it is working towards helping cities make data-driven decisions. It was interesting to hear about the Local Area Energy planning project done by the firm, for which three pilots have been undertaken. It was interesting to see how much energy can be saved by planning for heating systems at an area level. We also discussed the projects undertaken by the firm in the field of electric vehicles, and a multi-disciplinary project in India, which is a “two-year programme to harness innovation and expertise from the private sector and academia in India and the UK, to support the development of Electric Vehicle (EV) Integration and Clean Air Innovations.” The project is still in its initial stages but has numerous partners in India including Lithium, c40 cities, IISc and Shakti. This sparked an important conversation on electric vehicle fleets for logistic needs.

### **5.2.2 TfWM**

At Transport for West Midlands we primarily spoke about the projects being undertaken for the Future Mobility Zones project. The Common Mobility Card, Mobility as a Service and Automated Vehicles were a dominant part of the presentation and discussions. It was interesting to see that TfWM has taken steps to identify possible issues that may arise while implementing such innovative projects. It would help them better prepare for possible roadblocks. In our innovations lab experience in Kochi, under the Station Access and Mobility Program (STAMP), it was seen that numerous projects were focused on smartphone users, and it is important to have inclusive plans that can be used by all. TfWM pointed this out in their very first presentation. Similar to discussions in DfT, TfWM also highlighted the need for data for transport innovations. The team explained how travel data is used to create a specific set of *personas* and how this can be used for making transport modelling more user-specific. The industry-academia partnership seen in the cities for upcoming projects is something that can be replicated in India as well. The final presentation of the day gave us an insight into the actual planning process that goes on after data collection. This remains a challenge – there are still large amounts of data which are unused or, as yet, unusable.

### **5.3 Relevance to the Smart City project**

After seeing a number of projects being undertaken in the UK it was interesting to see how an organisation such as ESC is utilising the learnings from these cities support cities in India initiating similar projects. TfWM was very forthcoming in explaining the work that is going into planning, developing and implementing new transport solutions.

### **5.4 Learnings**

The key insights from the day are as follows:

- The use of autonomous vehicles to provide last-mile connectivity and on-demand services could be the future of shared mobility.
- Using travel data to create *personas* that feed into travel demand modelling.
- Energy planning and how it is related to the booming electric vehicle sector.
- Industry-academia partnership and how it has helped the city produce exceptional results.

## 6 Day 5

The final day of the Study Visit was in Manchester. We had the entire day planned to get a first experience of projects we had been hearing and learning about. The projects were similar to what the other two cities were planning and developing, but in Manchester we were able to get a first-hand experience of what is happening on the ground, and what the roadblocks are in the implementation phase of these projects.

### 6.1 Institutions

**The University of Salford:** the public university supporting Transport for Greater Manchester in developing and testing innovative transport solutions.

**Transport for Greater Manchester (TfGM):** the transport authority responsible for delivering Greater Manchester’s transport strategy and commitments.

### 6.2 Agenda Points

#### 6.2.1 University of Salford

The morning was spent discussing the Transport Strategy for Greater Manchester, which won the Best European Transport Strategy Plan award. The plan suggests using autonomous vehicles for public transport, where building trams is costly. Manchester’s strategy focuses on creating integrated transport systems. The Transport Strategy for Greater Manchester involved creating a seamless transit experience throughout the city and also improving research and harnessing future technologies. The city aims at having 40% of all its trips be completed by walking, cycling and public transport by 2040. It was interesting to see that the TfGM team, similar to TfWM, is also using travel data to



create *personas*, and using this to improve travel demand modelling. TfGM had come up with six personas (professionals, young professionals, suburban family, private transport users, limited mobility, public transport reliant). The University of Salford presented the Automated Vehicle trial results, the university has been testing an autonomous vehicle within its campus over a short trajectory of 0.3 miles. The University is yet to receive registration for the vehicle, as automated vehicles are still not a part of legislation, hence it is only run within the University campus roads (private roads). Once registered it is proposed to be used on a 3-mile long route connecting Salford Train Station with the University campus and within the Media City Campus. As part of the session, the team also visited the Automated Vehicle testing lab within the University and took a ride in the test vehicle.



### **6.2.2 TfGM**

The second half of the day was spent at Media City, which is a 200-acre mixed-use property along the Salford Canal developed by Peel Land and Property Group. It houses the iconic BBC offices and the complex is built such that it provides office space along with housing units. The property was developed by the Peel Group for BBC, and the BBC has leased out office spaces and studios from the developer. Media City houses The Landing and Open Co-Working space for start-ups, providing them opportunity to use the facility free of cost until they take off. By last year over 250 companies had graduated from The Landing, and many have moved into office space within Media City.

This was followed by a presentation on Smart City proposals for Greater Manchester. The team discussed CityVerve Manchester, which is planning for an integrated travel plan for the city. Under this project, in partnership with other agencies, evidence-based transport planning is done for the city. Two fascinating case studies shared were the CityVerve Cyclist trial using connected bike lights, and using VR experiences for citizens' engagement to try the proposed cycling infrastructure. The data

received through these trails is analysed and used towards planning better infrastructure. We also discussed the Mobility as a Service (MaaS) project. As part of the proof of concept study a group of 25 people were selected and asked to record their daily travel pattern. The 25 participants were given access to an app for travel booking and planning. It was seen that 20% shifted to active modes of transport and 22% would give up personal cars if they could avail of a MaaS-type system.

### **6.3 Relevance to the Smart City project**

Industry-academia partnership is important for any innovations in the field of transport and the visit to TfGM has been relevant to understand how beneficial these engagements can be, and also to understand its institutional framework. Apart from this, TfGM's strategic planning for creating a sustainable transport network by 2040, in essence, coincides with the vision of the Smart City Mission.

### **6.4 Learnings**

Key insights from the visit are as follows:

- The use of travel data to create *personas* that feed into travel demand modelling has made transport modelling much more relevant to recently-changing demographics.
- Given a set route, automated vehicles could work as an option for last-mile connectivity in urban fringes.
- It is important to test and evaluate various futurist travel options before they are implemented at full scale. This helps in improving the technology before it reaches the masses.

## **7 The way forward**

The week-long study visit came to an end with our final visit being Media City. The group parted ways at Manchester Piccadilly Station. It was a great learning experience for all. As intended, the delegation were able to:

- ✓ Understand the relationship between Central and local Government. In addition to this we also got to understand about Combined Authorities and the LEP.
- ✓ Obtain a clear understanding of the institutional framework and funding of Combined Authorities. Since these are politically-led organisations it is easier to get political buy-in on regional projects.

- ✓ Understand the technicalities of implementing autonomous vehicles as a public transport service, and ride an autonomous vehicle in a safe environment.
- ✓ We also received insights into FMZ projects from the central as well as city level. It was a complete walk-through from conception to implementation.
- ✓ We also got to experience the cycling and walking infrastructure created in all these cities.

Whilst the context of the SCM is very different, the ability to explore different mechanisms which were being used by the various cities to trial, develop, demonstrate and deploy smart transport systems was very important learning. It was clear, from across the sites, that the smart innovations were all being seen and evaluated as part of wider strategies to deliver cleaner, healthier and more productive cities rather than as one-off innovations. This is something which requires further reflection for the SCM, where the cities are currently undertaking area specific plans.

## Appendix A

### Study Tour delegates:

Name	Role	Organisation
<b>Professor Greg Marsden</b>	Professor of Transport Governance	Institute for Transport Studies (ITS), University of Leeds, UK
<b>Dr Louise Reardon</b>	Lecturer, Governance and Public Policy	Institute of Local Government Studies (INLOGOV), University of Birmingham, UK
<b>Professor Sanjay Gupta</b>	Professor and HoD, Transport Planning	School of Planning and Architecture (SPA), New Delhi, India
<b>Professor Ashish Verma</b>	Associate Professor, Transportation Engg.	Indian Institute of Science (IISc), Bangalore, India
<b>Dr Morgan Campbell</b>	Research Fellow in Urban Governance	Institute for Transport Studies (ITS), University of Leeds, UK
<b>Ms Revathy Pradeep</b>	Senior Project Associate, Sustainable cities	World Resources Institute (India)
<b>Ms Manjula Vinjamuri</b>	Chair, Hubballi-Dharwad Smart City Limited	Bengaluru, India
<b>Mr Rajendra Vijayvargia</b>	Chief Town Planner	Rajasthan, Jaipur, India
<b>Ms Riby Mathew</b>	Architect-Urban planner	Cochin Smart City Mission Limited
<b>Mr Asheesh Singh</b>	Commissioner	Indore Municipal Corporation
<b>Mr Sandeep Soni</b>	Chief Executive Officer and Additional Commissioner	Atal Indore City Transport Services Limited and Indore Municipal Corporation.

UK Organisations and Hosts:

<b>Department for Transport (DfT)</b>	
Matt Coleman	Head of Data Policy
Anthony Ferguson	Head of Traffic & Technology
Francesca McMahon	Discovery support, Local Transport Data
James Padden	Discovery support, Local Transport Data
Juhi Verma	Policy Advisor, Centre for Connected and Autonomous Vehicles (CCAV)
<b>Chartered Institution of Highways and Transportation (CIHT)</b>	
Matthew Lugg	President 2018/2019
Sue Percy	Chief Executive Officer
Sue Stevens	Director of Education & Membership
<b>West Yorkshire Combined Authority (WYCA)</b>	
Ben Still	Managing Director
Kate Gifford	Head of Future Mobility
Liz Hunter	Head of Transport Policy
Jennie Holdstock	International Markets Development Manager, Leeds City Region Enterprise Partnership (LEP)
<b>Leeds City Council (LCC)</b>	
Paul Foster	Head of Transport Strategy
Joel Dodsworth	Urban Traffic Management & Control Manager
<b>Energy Systems Catapult (ESC)</b>	
Eveline Sleiman	Business Development Manager
Andrew Stokes	International Business Development Manager
<b>Transport for West Midlands (TfWM)</b>	
Keelan Fadden-Hopper	Senior Future Mobility Developer
Chris Lane	Head of Transport Innovation
<b>University of Salford</b>	
Mike Brown	Director, Industry Collaboration & Partnerships
<b>Transport for Greater Manchester (TfGM)</b>	
Sam Li	Senior Innovation Officer
Anna Craciun	Innovation Strategy Officer

Hannah Tune	Intelligent Transport Systems Engineer
Rafael Cuesta	Head of Innovation
Clara Dolce	Transport Strategy Projects Portfolio Manager
Nitish Bakshi	Future Mobility Implementation Manager



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