

Wheels of Change



India's urban centres are expanding at a tremendous pace and are taking the lead in the country's development in foreseeable future apart from being the largest contributors to the GDP. Urban transport systems are understandably the lifelines for these cities and are as important as communication connectivity is for urban life. In fact, the quality of life in these urban centres depends on the quality of these transport modes, which directly affects the well being of the citizens.

Indian Metro Rail System: Ushering a new era of growth and convenience

The development of metro systems in India started in a real sense with the inauguration of the Delhi Metro in 2002, though a single metro line

in Kolkata was operational since 1984 and had proven its utility. There is no looking back for urban transport in India after the Delhi Metro began operations and has now become an integral part of the city's culture. Four Indian cities already have an operational metro network and many more cities have big networks in the design and construction phase. All this development is ushering in a new era in urban transport systems across Indian cities. Bus Rapid transport is also gaining traction complimenting Metro networks. Multimodal integrated transport systems are emerging as the best solution to solve traffic woes of organically developed Indian cities. These new systems are showing positive and significant impact on cities from their planning to socio-economic-cultural lives of people.



Source- Tata Elxsi

Kochi Metro – Enriching lives



Among this sudden emphasis on metro projects in India, equipped with a progressive and proactive outlook, the Kochi Metro team has set itself a goal to establish a metro system focused on commuter satisfaction and contributing to improving the public transport in Kochi. The focus on becoming an enabler to enrich the quality of life of Kochi residents is its driving vision and mission.

It has become imperative today to create a multi-dimensional dynamic brand for any mass rapid transit system in India as the current transportation eco-system comes with its own set of unique challenges. The customer experience is the focus of all decisions leading to design and implementation of all the systems, sub-systems and features of the Metro and connected network.

The Kochi metro team aims to set benchmark in the urban transport design and operations in India, aligned to the growth aspirations of the city and its people.

Mobility project design and implementation in India emphasises on creating new infrastructure to meet the supply gap in urban transport while the softer aspects of improving service quality, accessibility and taking into account customer perception are either designed as after thoughts or given less priority. Successful mass transport systems worldwide like the London transport, MTA-New York and MTR (Hong Kong) or Portland have successfully implemented a user centric approach across multiple brand and customer touch points. This has not only resulted in the creation of a brand that has received iconic status but has seen unparalleled acceptance from all users alike, be it city dwellers or visitors. Such well thought out branding and customer experience initiatives have enabled authorities to monetise their systems faster and ensure sustainability of the project without burdening the government or holding company.

It is a common practice for measuring performance of public transport in terms of load factor, cost-per-vehicle-kilometer, operational efficiency, headways, capacity etc. But, user-oriented indicators like rider comfort, travel speed, reliability, affordability, integration and commuter satisfaction are important in developing public transport systems which make the system respond to the user demands and attract riders. Market research indicates that people preferring relaxed,

easy to navigate, flexible and personalized services.

Using Design Intervention to make Kochi Metro convenient and accessible

Design and technology plays a crucial role for any mass transport systems, and metros cannot be ignored. To enable Kochi Metro to realize its vision and take the brand across consumer touchpoints, Tata



Elxsi - a leading design, innovation and technology services company from the stable of Tata Group has been entrusted by the Kochi Metro to design the new branding and customer experience across the entire metro network and beyond. Tata Elxsi has partnered with Brash from Dubai for developing the new brand for Kochi Metro.

Over the past month the design team have been gathering insights and unearthing big opportunities for the brand whilst collaborating closely with the Kochi Metro team to evaluate and agree what the Metro stands for and the impact it hopes to make on the region. This forms the basis of the brand idea, which aims to build connections in the city to create new opportunities, and bring prosperity and new offerings. In short, create genuine impact through a compelling brand.

The Kochi Metro project team aims to change the people's perspectives and be a thought leader in the design and



implementation of urban mobility projects in India. With its visionary approach competently supported by the consultant's skills, the Kochi Metro team believes that urban transport projects in India should adopt a new approach in design and implementation. There is a need to move from feature, function and operational efficiency parameters to a user centric approach base on careful design and delivery of a transport system. Consumer touch points across branding, station spaces, wayfinding, information design and seamless integration of experience between Metro and other modes of transport are very important aspects of the system contributing to the rich and intuitive customer experience.

The transport service needs consistent effort to make itself into a credible brand which stand for the values and deliver on the user expectations. This can't be more pertinent in the case of branding Kochi's first rapid transit system – Kochi Metro.

A city that is known as the commercial capital of Kerala, it is also synonymous with tourism and rapid commercialisation backed by its long history of being a major

trading centre. Kochi also is one of the few cities in India that has multiple transportation modes with some of them (Bus service, ferry, etc) being current lifelines of the city. Creating an integrated transport system that is seamless and efficient is critical for the growth of one of the most densely populated cities.

A multidisciplinary team is working with Kochi Metro team to realize the latter's vision of a customer friendly urban transport system. The design team brings skills sets and prior experience of designing brands and their visual identity, wayfinding, environmental graphics, passenger information systems, furniture design, product design, user interface design for urban transport projects.

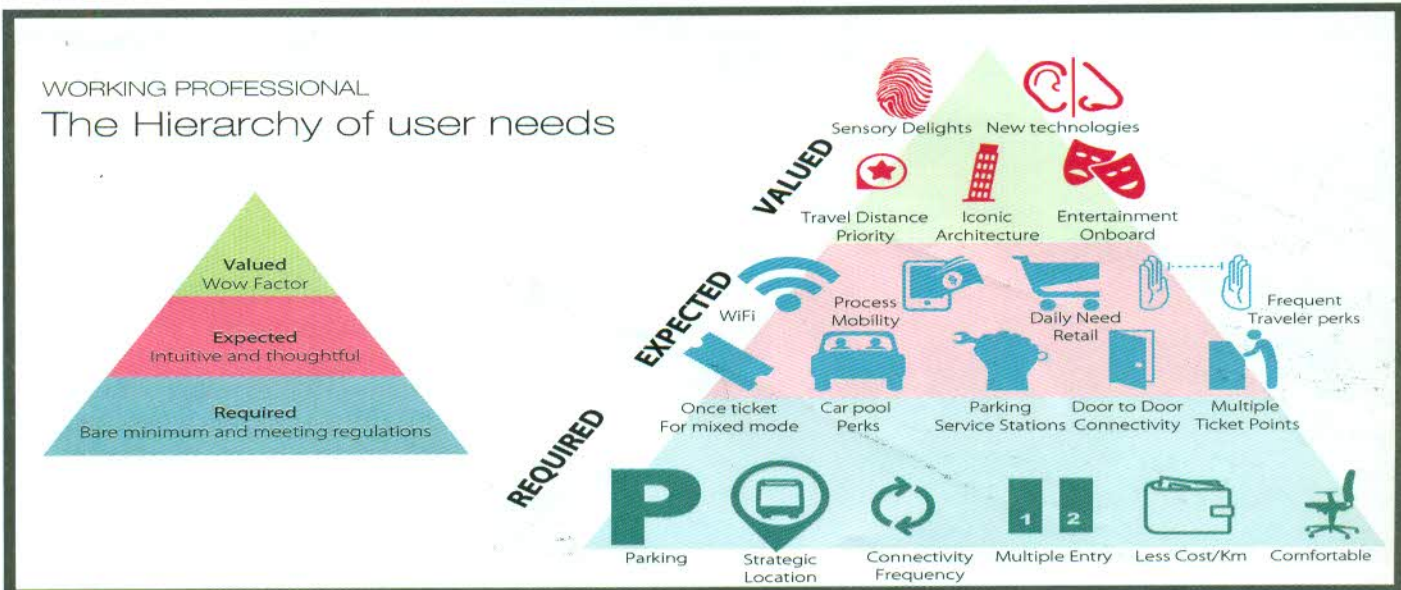
The project will place Kochi metro team as a torch bearer for the city of Kochi to create an all-inclusive urban mobility system. Though having started as a Metro corridor, it has already started looking into the aspects like TOD, developing water-ways & intermodal connectivity.

Establishing outline design criteria for every aspect of the system will be important to maintain a consistency

in the service delivery and user experience. The brand and experience connect starts from the moment a user decides to use the Metro or travel within the city.

Gone are the days when the transport systems were seen as monopolistic ventures leaving no choice to the users but to accept the available service with whatever shortcomings and in turn personally compromise on safety, efficiency and reliability. Moving away from such an ignorant approach is a sustainable model for the future.

Keeping the customer experience in focus, the study and research for design involves understanding the needs of various travelers and designing the system to fulfill their expectations. Working professionals, everyday travelers, women, school and college students, persons with disabilities, elderly senior citizens are the typical target users. Contextual to Kochi, tourists are also a prominent user groups and will be studied with special focus for their needs. Looking at more specialized needs, long distance travelers connecting to airports and railway stations would also be intervened to design the system for their comfort.



Hierarchy of user needs

Kochi Metro wishes to make the system inclusive and accessible. The facilities for the disabled will be high on priority. Audio signals, tactile paths and messaging would be used for helping the visually challenged and the entire system will be barrier free. Design for these features will be embedded as a guideline for all the sub-systems to address in their detailing and implementation.

The design team would focus on these customer journeys, generate experience maps, and generate insights for creating better experiences through all the touch points across the transport system.

For an example, if we consider women safety as a key idea, design of all sub-systems will be influenced by this thought to make it happen. The design architecture would ensure that there are no obscure, isolated or blind spaces and the lighting would be of brightly lit spaces with emergency backups. The trains will have priority zones not by physical isolation but through careful treatment of interiors to create a sense of place which is barrier

free and open yet defined. Thus, the inherent needs of users will be top priority, lending their influence on the design of sub-systems.

Similarly, for senior citizens with reduced mobility and limitations on reading. If they approach a ticket machine, the interface will become brighter; the typeface will be bigger and have better contrast for fast readability. Such intuitive ideas will be developed for implementation with the system wide detailed design consultants, contractors and suppliers.

With the spawning of gadgets and personal devices becoming an integral part of daily life, the train's interiors would have USB charging points making people comfortable and stay connected and carry out their tasks.

A Kochi Metro Mobile app would enable a user to buy tickets and also online purchases, apart from other features like an online trip planner, organizing for personal tourist assistance for guests, iconic and intuitive station building entrances

that are easily identifiable, assistance in buying a ticket at the vending machine, finding the right platform, sitting on a bench waiting for the train, calling a friend at a meeting point, taking a feeder service to your destination – all these features can be designed in an intuitive manner where the experience continues through visual design and the interaction within and beyond the metro system.

Words such as 'welcoming', 'friendly' and 'reliable' are entirely appropriate for a public transport service in today's world. The Kochi Metro team aim's to create a robust yet agile structure to ensure these customer focused ideas and interventions are implemented across all sub-systems, be it automatic fare collection, architecture, trains, interiors or information design, wayfinding etc. It is imperative that such ideas be implemented with detailed understanding of the more functional, practical requirements of the metro system and be workable, durable and cost-effective design solutions.

The design team working with Kochi Metro will create system-wide brand, service and design standards for implementing various user centered elements of metro infrastructure. The guidelines would encourage the use of best practices by all relevant stakeholders involved in the planning and design. The guiding principles aim to ensure that public transport infrastructure is designed with a consistent approach to provide high quality customer access, convenience, safety and comfort.

The Kochi Metro team is encouraging collaboration between various stakeholders by making a system wide standard which bridges the isolated working as well as would improve the quality and consistency in delivery of customer experiences by making the system adaptable and agile.



User Experience in focus