



ADVANCING  
PUBLIC  
TRANSPORT



EXECUTIVE SUMMARY

# STATIONS OF THE FUTURE: HOW TO MAKE STATIONS BETTER, MORE INCLUSIVE TRANSPORT HUBS

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*The role that stations play within our cities is undergoing a profound transformation, necessitating their adaptation to meet the evolving demands of modern society. The 'Stations of the Future' project, a collaboration between the International Association of Public Transport (UITP) and KONE, a global leader in the elevator and escalator industry, is setting out to review the role of public transport stations in our cities and to redefine what they contribute. The objective is to inspire public transport professionals and stakeholders to work to reimagine stations as connectors and centres of urban activities, places where people will come together. The project report will act as a catalyst for transformative thinking on the future of stations, and will invite readers to envision these spaces not merely as simple transit hubs but as vibrant centres for community life.*

## METHODOLOGY

The methodology employed for this project is a blend of intensive workshops and comprehensive desk research. We have delved into the complexities of station development and evolution in depth, by leveraging the collective knowledge and insights of industry experts and UITP member companies (including operators, authorities, manufacturers and other stakeholders involved in stations).

The stations discussed in this report are buildings that act as entry points into public transport systems, but at the same time also provide ancillary services and social activities. Although primarily focused on larger multimodal stations, our approach was rooted in understanding passengers' needs and desires, while analysing critical touchpoints throughout their journey within the station. This approach fostered a collaborative atmosphere, one which encouraged innovative ideas and practical solutions for future station development.

We would like to extend a special thank you to all those mentioned in the acknowledgements at the end of the report for their support and contributions.

## KEY TRENDS

Earlier projections had shown that demand for public transport was rising; however, the global pandemic disrupted this trend and the associated projections need to be re-evaluated. As well as the numerous uncertainties triggered by the global pandemic, there are some general factors that also need to be monitored. These include:

- **Societal changes:** The age of the population, the composition of households, remote work and education, increasing health awareness and changing customer expectations.
- **Technology & innovation:** This includes digitalisation and the growing offer of first- and last- miles modes.

- **Economic aspects:** These include increasing energy costs, ageing stations and - in some regions of the world - a scarcity of staff.

These trends may differ between regions; however, as they define our context, they can create both opportunities and challenges for the transport sector and for stations.

## CHALLENGES

The project examined the needs and expectations of various passenger groups, in order to identify the challenges that those involved in running stations must address to make them more attractive, appealing and inclusive for all. Key challenges identified includes:

- **Managing people flows** - Stations need to be resilient to changing passenger numbers, travel patterns and expectations. As a result, the careful planning of operations and management is increasingly important in ensuring a smooth and enjoyable experience when using stations. One of the primary challenges faced here is managing people flows with people moving at different speeds and in different directions.
- **Improving connectivity with the surrounding urban environment:** Another challenge is to improve the connectivity between stations and their surrounding urban environment. Seamless integration with the surrounding city and other modes of transportation can simplify door-to-door travel for commuters and attract more citizens to become regular public transport users.
- **Enhancing station amenities for greater user wellbeing:** In today's fast-paced world, transport stations are no longer simply places to wait for trains or buses. Instead, they are becoming social and economic hubs where people can shop, dine, pick-up or drop-off parcels, relax and enjoy various types of entertainment. This offers a unique opportunity to create spaces that both cater to passenger needs and appeal to the wider community, as well as to investors in the station and the surrounding areas.

## JOURNEY MAP

Measures to improve public transport stations and make them more attractive for passengers and residents have been organised in a journey map. This outlines the various points within a station that should be the focus of attention:



Beyond the physical infrastructure, the report identifies a number of contextual factors that may play an important role. In particular, digitalisation has brought about significant changes in passenger services.

- From online ticketing to personalised travel companion applications, digital solutions offer customer-tailored travel experiences, creating opportunities for enhanced connectivity and convenience with the station and its surrounding area.
- Technological advancements such as the IoT (Internet of Things), AI (Artificial intelligence) and ML (Machine Learning) are revolutionising station design and operation. Tools such as BIM (Building Information Modelling), GIS (Geographic Information Systems), Virtual Reality and 3D modelling - along with digital twins - are improving efficiency, safety and the customer experience.
- Data-driven decision making plays a pivotal role in optimising stations as well as passenger flow solutions in order to deliver seamless travel experiences.

Governance and Financing are important enablers for enhancing the attractiveness of stations.

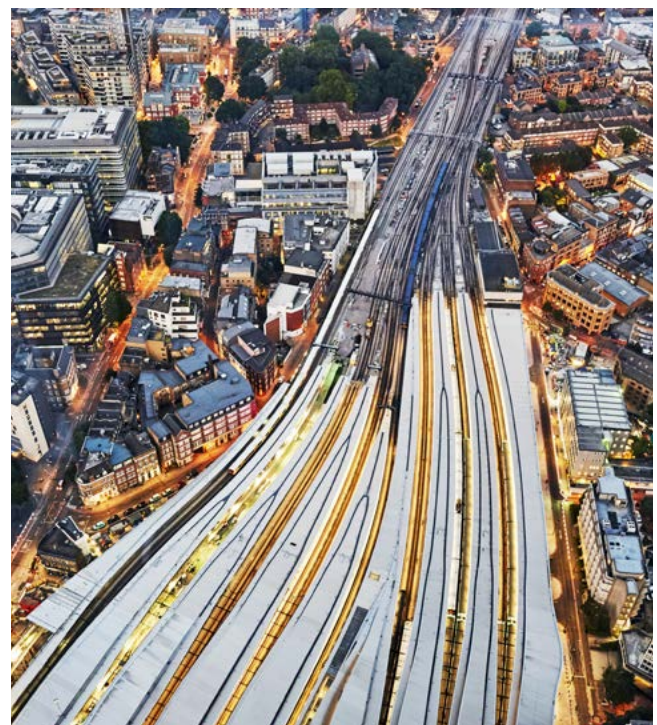
- Collaboration between stakeholders - specifically including non-transport stakeholders - can help broaden perspectives in station development. It can also aid understanding of the role stations can play in supporting community activities and enhancing urban development.

Collaboration transforms stations into lively destinations, while good governance ensures that these transformations are feasible and sustainable.

## RECOMMENDATIONS

The project identified several recommendations for enhancing the station experience and for catering to the diverse needs of current and future passengers:

- **Last-mile Connectivity** - Ensure seamless connections with other transport modes for the last mile, facilitating easy interchanges and transfers for passengers.
- **Visibility and Unique Identifier** - Stations should be easily identifiable and should stand out clearly, aiding wayfinding for passengers.
- **Accessibility** - Go beyond mere compliance with accessibility regulations; prioritise inclusivity in design and different people moving types/solutions to accommodate passengers with various needs.
- **Flow Optimisation** - Implement real-time wayfinding, separate passenger flows and manage bottlenecks strategically to improve station efficiency.
- **Atmosphere Enhancement** - Create a welcoming ambiance through proper lighting, waterproof entrances, soundscapes, vibrant colours and green spaces, designed to enhance the passenger experience.
- **Timely Information** - Provide relevant information to passengers at the right time, making their experience within the station smoother and more convenient.
- **Passenger Segmentation** - Recognise different passenger categories with distinct purchasing styles, preferences while waiting and entertainment needs; tailor services accordingly.



- **Connection with Surroundings** - Create a strong connection with a station's surroundings through architectural integration, event announcements, pop-up events and visualisations of the local surroundings.
- **Digital Concourse** - Use digital technologies to make the passenger services of the physical concourse accessible on a mobile device to enhance efficiency and improve the passenger experience.
- **AI and IoT Integration** - Implement AI and the IoT for planning and operations, to help optimise resource allocation and enhance station management.
- **Collaborative Initiatives** - Work with stakeholders on transit-oriented development, and introduce ticket options that combine events and public transport, making stations an attractive and efficient aspect of daily activities.
- **Preservation and Repurposing** - Consider repurposing historical stations to give them a new lease of life, preserving their heritage while meeting modern transportation needs.

By focusing on these recommendations, stakeholders can design and manage stations that not only meet functional requirements but also make them an enjoyable, efficient and inclusive experience for passengers.



## CONCLUSIONS

This executive summary offers a glimpse into the transformative journey of rethinking the role of public transport stations in our cities. However, to explore the intricate details and practical solutions, we invite our readers to consult the full report. This contains comprehensive insights, best practices and use cases from around the world which demonstrate effective approaches to station development and enhancement.

As we move forward, UITP welcomes an ongoing discussion on the future of stations, collaboration between stakeholders and innovative governance models that will help to realise the vision of vibrant and connected transportation hubs. The 'Stations of the Future' project is testament to our commitment to shaping the future of public transport and our cities, and we encourage all stakeholders to be part of this transformative dialogue. Together, we can create stations that serve as more than simply efficient transit points, making them vital centres of urban life.

Experience the passenger flow yourself on <https://stationsofthefuture.uitp.org> and check out all publications on [www.uitp.org/projects/stations-of-the-future](http://www.uitp.org/projects/stations-of-the-future).

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