



Strangers to the Network

In Dubai they account for nine out of ten residents. In the United States, one in three public transport commuters. Here we examine what foreign-born passengers need, and what an operator can do about it.

10 years

the adaptation window: in places where immigrants have been monitored over time, their travel behaviour converges with that of the native-born within a decade.

53% vs 76%

The share of Black and of White adults in England respectively holding a full driving licence, 2015-2019.

1 in 2

non-Europeans aged 25-54 who arrived in France within the past ten years do not hold a driving licence — rising to two out of three women.

Almost every network Keolis operates carries a large population of passengers who were born in another country, but few networks know how many, or who they are, or what those passengers need. In the Gulf region they make up the entire ridership: roughly nine out of ten residents of the United Arab Emirates were born abroad, and the Dubai Metro alone provided 294.7 million journeys in 2025. In North America, Europe and Australia, foreign-born passengers are a minority that takes public transport twice to three times more than the native-born and converges with local patterns over roughly ten years. Everywhere, they arrive with needs that other passengers do not have: a language they may read imperfectly, a new alphabet to the one they learned to read in, stop names referring to people and places they have never heard of, fares for a commute they do not make, and — for some — remarks and police stops that other passengers are spared. Every network in the world can cater to a tourist for three days. Very few harness that ability for the benefit of residents who will ride it for ten years.

KEY TAKEAWAYS

1 In some markets they are not a segment. They represent the whole network.

Around 89% of UAE residents were born abroad — Indian, Pakistani, Bangladeshi, Filipino, Nepali and Iranian nationals make up the largest groups. In a network where the majority of passengers read Malayalam, Urdu, Hindi, Bengali or Tagalog before they read English or Arabic, designing for the foreign-born passenger is not just inclusion policy: it is the core service specification.

2 Elsewhere, they take public transport more than the native-born — for about ten years.

Immigrants make up just under 14% of the United States population, but 32% of its public transport commuters. In Montreal, 48.6% of immigrants who had arrived within ten years commuted by public transport, compared with 20.9% of the Canadian-born; but after twenty years the gap closes. The clientele is won on its arrival, before being lost to integration.

3 It is not out of preference, but due to lack of an alternative.

In England, 76% of White adults hold a full driving licence, as against 53% of Black adults. In France, 48.1% of non-European nationals aged 25 to 54 who arrived within the past ten years did not hold a licence. Once income, licence holding, car ownership and neighbourhood are levelled up, the difference in mode choice very largely disappears. What remains is time spent travelling.

4 Public transport: read it before you ride it.

Three obstacles arise: a language that users may not read well, an unfamiliar alphabet, and places or stops named after local figures that mean nothing to a newcomer. Sixty interviews conducted for Keolis in Paris, Lille, Perpignan and London document what that means for a daily journey.

5 Networks cater for visitors, not residents.

Translated signage, multilingual apps, pictograms, visitor passes: networks already have the resources to welcome new users. They are designed for tourists. In the United States, adapting them for residents is not even optional — it is a legal requirement of a Title VI language assistance plan.

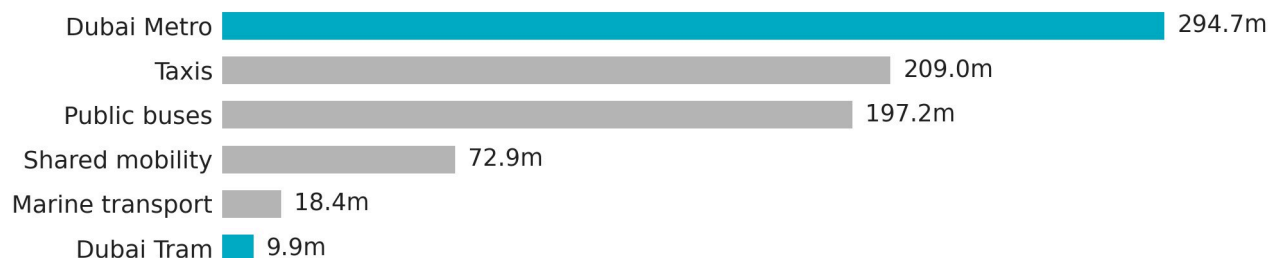
PART 1

Two kinds of network

Where foreign-born passengers are the entire ridership, and where they are a minority that rides more. Both need the same things.

In Dubai, designing for the foreign-born passenger is not an inclusion policy. It is the service specification.

Dubai: 802 million journeys in 2025



Source: Dubai Roads and Transport Authority, February 2026. In teal, the modes operated by Keolis-MHI — the Metro Red and Green lines and the Tram — under a nine-year contract since 31 January 2021. Daily average, all modes: 2.2 million riders.

The magnitude of this trend is clear. Dubai recorded 802.1 million journeys across public transport, shared mobility and taxis in 2025, an average of 2.2 million riders a day. The Metro carried 294.7 million of them, 37% of the total, and the Tram 9.9 million. Both are operated by the Keolis-MHI joint venture under a nine-year contract that began on 31 January 2021. On any given morning, the vast majority of the people on those platforms were born in another country, most of them in South Asia.

No operator in the region publishes ridership by nationality or by language, and this study found

1.1 Where they are the entire network

Start where the question is not a about being in a minority. Around 89% of the resident population of the United Arab Emirates was born abroad; there are estimated to be 4.3 million Indian nationals and 1.7 million Pakistani nationals, followed by Bangladeshi, Filipino, Iranian and Nepali communities. English is the working *lingua franca*, Arabic the official language, and the languages actually spoken at home across the passenger population include Hindi, Malayalam, Urdu, Bengali, Pashto, Tagalog, Persian and Russian. These are estimates: the federal government does not publish demographic data by nationality. Indeed, the two countries in this study with the least statistics about rider nationalities are the one where the foreign-born make up a tenth of the population and the one where they make up nine tenths.

no surveys either. This is precisely the point of the first recommendation below: in a market where the foreign-born make up all ridership, the questions of language, of script, of fare literacy and of first-week orientation are not equality add-ons to be considered after the timetable. They are the timetable's operating assumptions, and nobody has written them down.

1.2 Where they are a minority that rides more

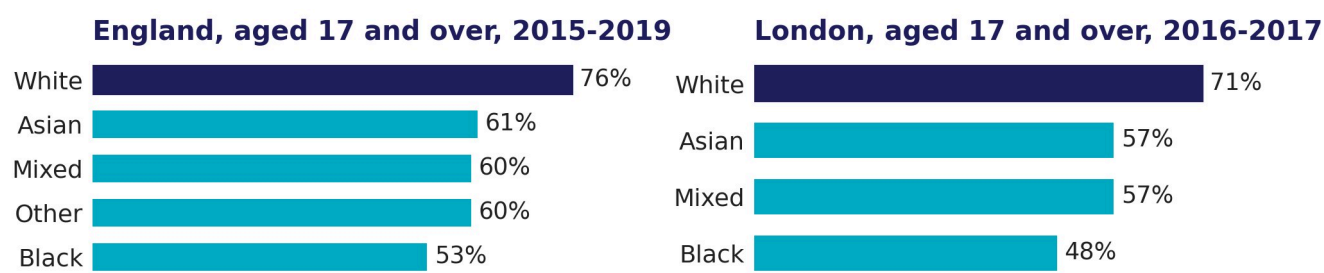
In the rest of Keolis's markets the arithmetic reverses but the finding holds true. In the United

States, immigrants accounted for a little under 14% of the population in 2019 and 32% of public transport commuters. In California they commute by public transport twice as much as the native-born and make up 47% of public transport commuters. Among immigrants who had arrived in the previous five years, 20.7% lived in a household with no car, versus 8% of those settled for ten years or more and 3.9% of the native-born.

In England, driving licence holding by ethnic group is an official statistic, published and updated by the government. Over 2015-2019, 76% of White adults held a full licence compared with 61% of Asian adults, 60% of people of mixed or other backgrounds and 53%

of Black adults; the accompanying note reads, with the detachment of a statistics office: “White people were consistently the most likely to have a driving licence and Black people the least likely to”, and that the gap was unchanged since 2011. In London, where KeolisAmey has operated the Docklands Light Railway since December 2014 and had its concession renewed for eight years in April 2025, Transport for London reports that 40% of the population belongs to a minority group, 54% of those Londoners hold a licence versus 71% of White Londoners, 73% of Black Londoners use the bus every week as against 56% of White Londoners, and that cost is cited as a barrier by 51% of the former compared with 36% of the latter.

Adults holding a full driving licence, by ethnic group



Sources: GOV.UK, Ethnicity facts and figures, “Driving licences” (National Travel Survey, DfT); Transport for London, “Understanding our diverse communities 2019”, p. 43 (LTDS 2016-2017).

Norway has known since 2008 that 50% of people born abroad hold a licence compared with 80% of the native-born. New Zealand knows that 25% of Pacific peoples cannot drive, as against 10% of other residents. Germany devotes an entire chapter of its 2023 national travel survey to people with a migration background, and concludes that they show “a slightly lower level of mobility, a lower rate of car ownership and a stronger orientation towards public transport”, which it attributes first to the urban environment, age and economic circumstances. In every case the direction is the same, and in every case the categories are different — which is why the figures in these pages describe one phenomenon and are not comparable with one another.

14% → 32%

immigrants as a share of the United States population, and as a share of its public transport commuters, 2019 (Migration Policy Institute)

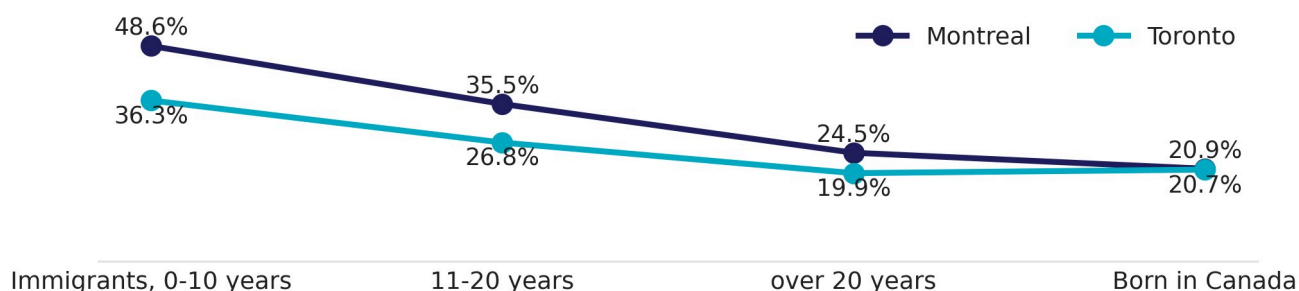
1.3 The ten-year window

The second finding is a curve, and it has commercial repercussions. In Montreal in 2001, 48.6% of immigrants who had arrived within the previous ten years travelled to work by public transport; this compares with 35.5% of those settled eleven to twenty years, 24.5% of those settled longer than twenty years, and 20.9% of people born in Canada. In Toronto, the figures

are 36.3%, 26.8%, 19.9% — versus 20.7% of the native-born. After twenty years, the immigrant is indistinguishable from their neighbour. Statistics Canada's authors show that

the overrepresentation remains significant even after accounting for income, location and household structure: new arrivals take public transport more, then gradually stop doing so.

Commuting by public transport in Canada, by length of residence



Source: A. Heisz, G. Schellenberg, "Public Transit Use Among Immigrants", Statistics Canada, 2004 — 2001 census.

In Melbourne, a study of South Asian families describes a "honeymoon period" in which all travel modes are seen as positive - "before car use begins to dominate". The most complete review of literature on the subject, compiling 48 studies published between 2004 and 2022 across ten countries, draws a conclusion of interest to operators: immigrants drive less and use other modes more than the native-born, but their behaviour converges towards the local norm over time — and networks that do not address them risk missing out on a growing market. A similar finding to that of an earlier Keoscopie study, where high-school students are customers by necessity until they pass their test, and are lost the same day if nothing is done to retain them. New immigrants are the adult version of the same paradox, with a 10-year window.



The ten-year window: the descent towards the car.

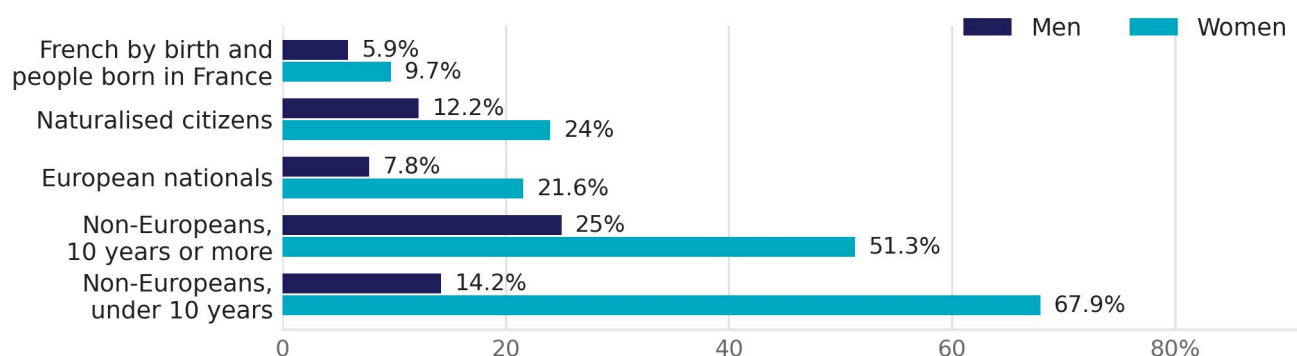
48.6% → 24.5%

share of public transport in the commuting trips of Montreal migrants, from under ten years' residence to more than twenty; people born in Canada: 20.9% (Statistics Canada, 2001 census)

1.4 The widest measured gap, and the one nobody had published

France is worth a mention here, because it displays the largest gap found by this study, and it was invisible until last year. No French official statistical output cross-references origin with driving licence holders: the national repository on immigration contains neither the word "transport" nor the word "licence". It took an unpublished note by Jean-Pierre Orfeuil in April 2025, taken from the 2019 National Travel Survey, for the figure to surface. Among people aged 25 to 54, 7.8% of people born in France do not hold a driving licence, compared with 38.6% of non-European nationals with ten years or more of residency and 48.1% who arrived in the past ten years. One in two. Among the women in the latter group: 67.9%, versus 14.2% of the men: a 54 point gap, where that between French-born women and men is four.

Adults aged 25-54 without a driving licence, by nationality and sex, France



Source: J.-P. Orfeuil, « Mobilité, détention du permis de conduire et emploi », April 2025, table 5 (2019 National Travel Survey, Insee/SDES). Population: people aged 25 to 54, France.

Orfeuil provides a few caveats: these gaps exist also in education, living standards and neighbourhood, and “ten years’ residency” is a cohort, not a trajectory. Laurent Gomez’s work on the same survey completes the picture and settles the question of preference. Once income, licence holding, household car ownership and place of residence are factored in, the differences in distance and mode choice between immigrants and native-born largely disappear. What survives is time: all other things equal, people born in Africa spend 10.6% longer travelling. Gomez concludes that these inequalities “appear to be endured rather than chosen”. Nothing in the data supports a community preference for the bus. These are people without a driving licence, without a car, and often with only one mode available.

PART 2

What they need

The same four obstacles in Dubai, London, Frankfurt, San Francisco and Paris: script, travel chain, missing human presence and consideration by others.

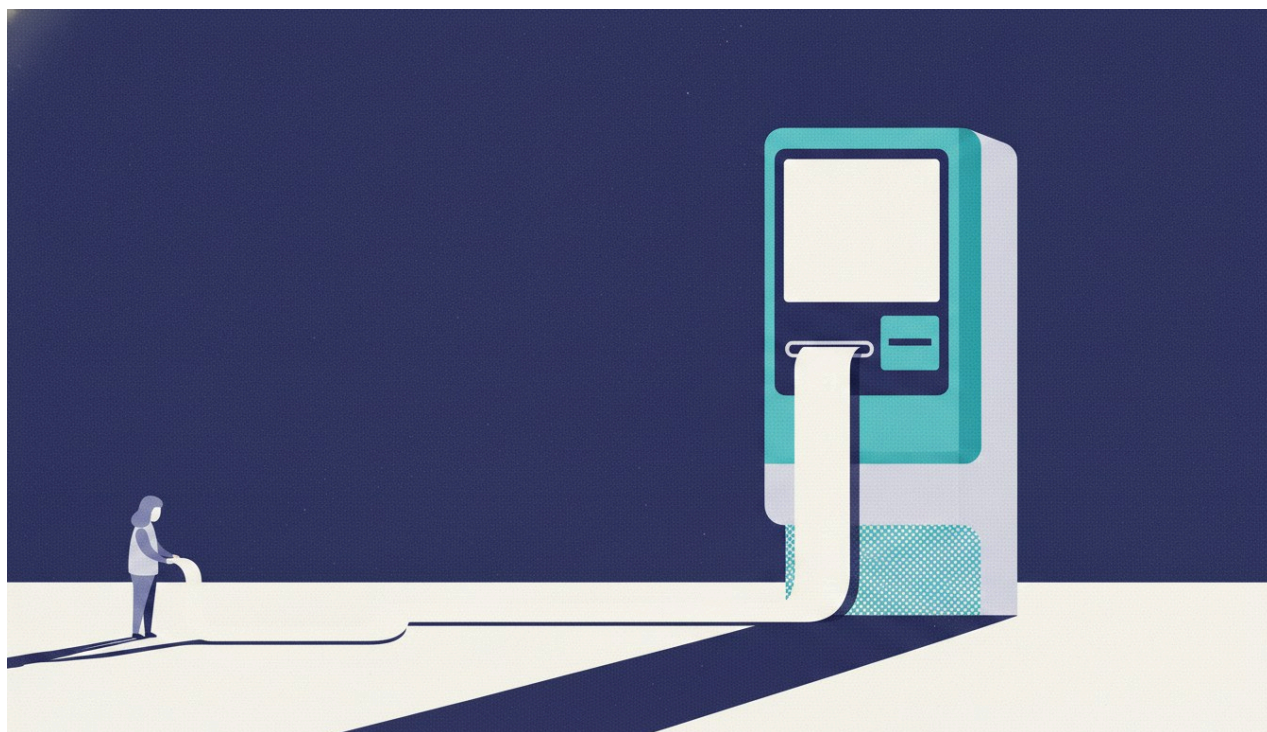
A network can cope with welcoming a visitor for three days. It does not yet know how to welcome a resident for ten years.

The needs described below come from a study Keolis commissioned from four students of the master’s programme ‘Governing the Large Metropolis’ at SciencesPo, conducted from September 2025 to June 2026 among first and second generation North African women in four urban areas: Greater Paris, Lille, Perpignan and Greater London. More than sixty interviews, either prearranged or in the street, often with a mother and daughter together. It is European fieldwork, and it is used here for its qualitative findings rather than for any national figure. Every obstacle it identifies is corroborated by other research in Frankfurt, Offenbach, the San Francisco Bay Area, Berlin and Stockholm and every one of them applies, unchanged, to a network whose ridership is majority foreign-born.

2.1 Reading the network before riding it

The emblem of the study is an object: a folded sheet of paper. A first-generation Moroccan woman interviewed in Paris never travels without

it. A relative has written out the journey, line by line: line number, direction, number of stops, connection, and the few hundred metres to walk at the other end. She consults it discreetly in the station. The map on the wall, with its colours and its terminus names, is of no use to her.



The endless instructions: what the network assumes you already know.

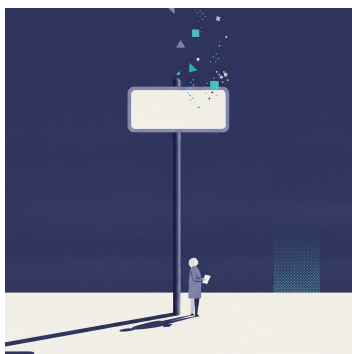
“For me the transport system is complicated. I cannot find my way by reading the signs or the information, so I rely on a piece of paper where I have written down my daily journeys, and I am lost as soon as I step outside that routine.”

First-generation Moroccan woman, Paris

A script that is not theirs. Before a station name can be understood it has to be deciphered. For someone who learned to read in Arabic, Malayalam, Devanagari or Cyrillic, the Latin alphabet is not a reflex: it is a system to be decoded letter by letter, amid the stress of a platform and a timetable. It is the same experience a British traveller might have in Moscow or Doha when the signage is not also in English — they stop reading and start matching shapes. The difference is that it only

lasts three days for these tourists. In the Gulf region, the problem is compounded rather than reversed: a network signed in Arabic and Latin script, serving passengers who mostly read neither with ease.

Meaningless names. Station and street naming everywhere is built on local figures and local history. A newcomer in Paris learns nothing about their location from 'Jules Ferry' or 'Franklin D. Roosevelt'; a newcomer in London learns nothing from Mudchute or Canary Wharf; a newcomer in Boston learns nothing from Ruggles or Yawkey. What is, for the regular passenger, a mnemonic shortcut — you roughly know where you are when you hear the name — becomes a string of syllables to memorise. The landmark becomes a mental load.



"A lot of words": what the sign does not say.

The underground requires an abstract interpretation of the network: anticipating a connection, an unpronounceable station name, deciphering a spoken announcement. The bus offers nonstop landmarks — a bakery on the corner, a bridge, an illuminated sign — you get off when you see it. In London, the women interviewed say there are "a lot of words" in the Underground. And this is not a migrant problem amplified; it is a general problem: Keoscopie has measured, across all passengers and native speakers included, that *in situ* 64% of people cannot find, or struggle to find, a requested destination on a map, and that fewer than 7% find the information immediately.



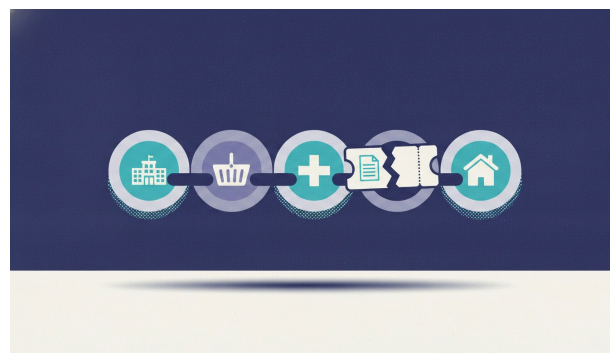
Franklin D. Roosevelt station, Paris line 1: the station name translated into Japanese, Chinese, Russian and Arabic. Photograph Sciences Po — Keolis, 2026.

The tourist mirror. The Paris metro displays this station name in four foreign scripts. It is a welcoming sign, displayed just where visitors pass. The question this study puts is one of symmetry, and it is the same question in every market. What a network is able to do for a passenger in transit — translate a few signs, illustrate, simplify, publish a map that can be understood by someone new to the city, train staff to answer in another language —

— it does not not do, or barely, for residents who will be using it every day for ten years. It is not a question of means: the engineering already exists, but was designed for a different audience.

2.2 Journeys in chains, fares in straight lines

The journeys described bear no resemblance to the home-to-work commute for which networks and their fares were designed. They are chains: school, then the market, then the pharmacy, then the benefits office, then school again. A ticket valid for less than an hour, a product that does not allow an connection, a grouped ticket where every validation counts: the fare structure mechanically penalises the mobility of care and family logistics. It similarly penalises shift workers changing modes twice on the way to a workplace.

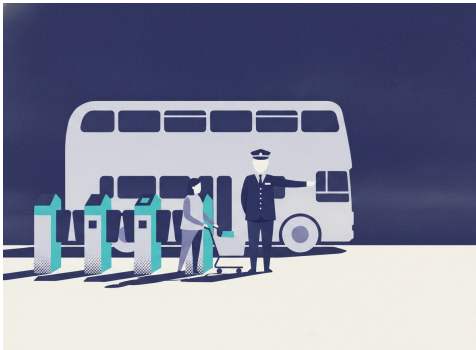


Journeys in chains, a fare that breaks the chain.

Concessionary fares exist almost everywhere, and almost nowhere are they known about. In Frankfurt, only 23% of asylum seekers surveyed were aware of social fares. In the San Francisco Bay Area, a survey of 1,247 passengers at 44 sites found that 60% of low-income immigrants would use public transport at least one more day a week if the fare were more affordable, that 23% of them found information unavailable in their language compared with 14% of the native-born, and that fewer than half held a season ticket versus roughly 60% of other groups. A fare that exists but is out of reach is a fare that does not exist.

2.3 A real human presence

What the women interviewed in London value most is neither frequency nor price. It is information and security staff “systematically standing next to the ticket gates, available and physically accessible”; one observer watched a member of staff help a disabled woman down the stairs without being asked. In Paris, the authors note, the member of staff is sometimes there, but behind a window. This is the cheapest finding in the study and the one most often designed out: a staff member standing where people get lost answers a question the passenger did not know how to ask.



Standing, present and visible staff: the first step.

It is also the finding that can be applied most directly. Much education happens away from the network: in Paris, a Berber cultural association teaches French using metro and bus maps and rehearses journeys in class. Whether the partner is a language school, an employer bussing workers to a site, or a settlement agency, the principle is identical — the operator is absent from the moment its future passengers are learning to use it.

2.4 Levels of apprehension

The fear felt by many people about public transport is often out of proportion to actual risk: Keoscopie measures that 40% of passengers report feeling unsafe and 45% of young people say they have been apprehensive at one point during the year. The women interviewed share that vigilance: wariness of empty spaces and crowded ones, avoidance of certain stations and night services; but with an

extra factor that other passengers do not experience. For women wearing a hijab, the study's authors write, the feeling of insecurity “is less a fear of physical or sexual assault, though that is present too, than the anticipation of Islamophobic remarks or insults.”



The platform at night: waiting does not come at the same price for everyone.

“I take the train to go to university and work, and I also use it at night sometimes, where I have already seen other hijabi women subjected to racist verbal abuse.”

Young woman from Lebanon, London

Men of foreign origin, meanwhile, fear a different risk: police stops and searches. In 2009, a study of 525 identity checks at two Paris interchanges established that people perceived as Black were stopped six times more often than people perceived as White, and people perceived as Arab close to eight times more often; the French ombudsman's 2025 survey of 5,000 people finds young men perceived as Black, Arab or North African four times more likely to have been stopped than the rest of the population. In Germany, a study combining the national travel survey with 29 interviews finds that migrants in large cities “make compromises in their everyday mobility to protect themselves from situations perceived as unsafe”, beyond what car ownership or neighbourhood explain. In Sweden, anonymised tracking of 320,000 mobile phones across three metropolitan areas measured that residents of majority native-born neighbourhoods have close to nine times more jobs within reach of public transport than residents of majority foreign-born neighbourhoods. Unequal opportunities do not stop at the front door; they also take the bus.

PART 3

**Obligation, practice,
market**

In the United States it is the law. In London it takes the form of a published report. In the Gulf it is simply the customer base.

These needs are not an identity issue. They are service specifications — and in one of our markets they are a legal requirement.

3.1 Already an obligation

An American reader does not need convincing that this is a legitimate subject, because federal law has settled it. Under Title VI of the Civil Rights Act and Federal Transit Administration Circular 4702.1B, any transit agency receiving federal funds must include, in its Title VI programme, a plan for providing language assistance to passengers with limited English proficiency. The circular sets out the method: a four-factor analysis covering the number of such passengers and the languages they speak, the frequency with which they come into contact with the service, the importance of the service to them — established, ideally, through facilitated community meetings — and the resources available. A safe-harbour threshold defines when written translation is required: a language group of at least a thousand people, or 5% of the population served, whichever is lower; below it, competent oral interpretation is still expected where needed and reasonable.

This is worth stating plainly, because it turns the usual framing on its head. In the United States, the questions this study asks are not an inclusion initiative that has to justify itself; they are a

compliance obligation with a defined method, an evidence base and a documented plan. Keolis Commuter Services has operated the MBTA commuter rail network in Boston under a contract extended into 2027, and is shortlisted for the next one. The four-factor analysis is a better template than anything this study could invent — and it is the one instrument in this field that already exists in a form an operator can take and apply elsewhere.

3.2 A published choice

London: measure, then staff. Transport for London publishes a regular report, “Understanding our diverse communities”, which details every year how much each group uses the network — driving licence holders, weekly bus use, cost as a barrier. This leads to decisions: where staff stand, which fares are promoted, which barriers are worked on. London has not solved the question; it has found the instruments to address it. KeolisAmey operates London's Docklands Light Railway with a contract until 2033, and Manchester Metrolink to 2027, and took over the Luas in Dublin in September 2026. On all three networks, these methods could be replicated at low cost.

Toronto: access before price. Recent work, still at preprint stage and to be handled with care, tracked around a hundred immigrants in Toronto and Montreal by GPS for a year and put stated-choice scenarios to them. Initial results are that their value of travel time is around two thirds lower than that of the native-born, and to retain them, improving access time to stops is “roughly three times more effective” than a fare reduction. For a passenger whose time is worth little and whose money is worth less, it is the walk to the stop that counts.

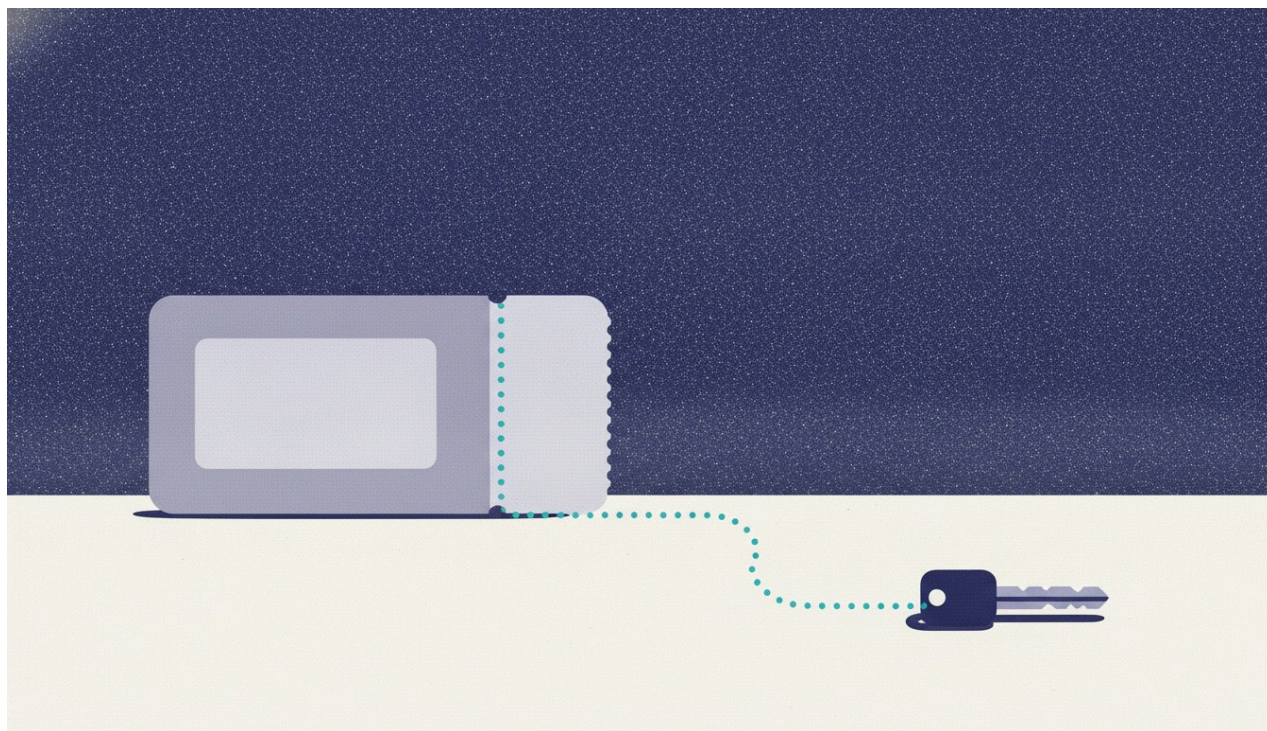
Berlin: the welcome fare. The European MAPURBAN project, comparing immigrants' access to urban infrastructure in Berlin, Stockholm and London, notes that “ticket prices are relatively high, meaning that disadvantaged groups are constrained in their mobility”, and cites the

Berlin Pass, a reduced fare open among others to refugees, as an access facilitator. It also observes that “young men are very mobile, whereas elderly people, children or mothers are more likely to stay in the neighbourhood”.

California: the licence as road safety. In 2015 California issued more than 600,000 driving licences to undocumented immigrants under the AB60 law. The evaluation, published in the Proceedings of the National Academy of Sciences, measures no increase in accidents per capita and a 7 to 10% fall in hit-and-run incidents—around 4,000 fewer a year. An operator that helps a passenger obtain a driving licence is not losing a customer; it is buying the right to keep them on the network for the trips where it is the better mode.

3.3 Simply the market

In the Gulf region, the argument needs no equality framing at all. If nine passengers out of ten were born abroad, then signage that can be read without requiring fluency in English or Arabic, fares that remain valid through a chain journey, staff who can answer in the languages actually spoken on the platform, and guidance for people in their first weeks in the country are not just social policy. They are the specifications of a mass-market service, and the operator that writes them down first will be the one that can prove its case at the next tender. The Dubai Metro carries 294.7 million journeys a year on that basis today, without a single published figure on who those passengers are.



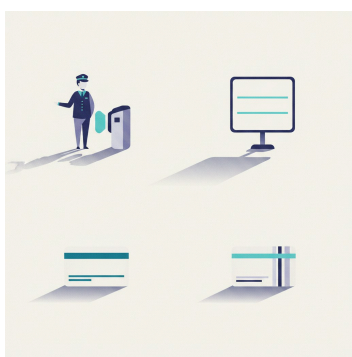
Captivity has an expiry date.

PART 4

Six levers

What an operator can do, from the cheapest to the most structural.

The Sciences Po report sets out a central finding that remains valid from Perpignan to Dubai: some groups remain on the margins of transport not because the service does not exist, but through a lack of knowledge, access to information and support. Here are six proposals. None of them requires additional resources.



Four of the six levers: the member of staff, the sign, the fare, the driving licence.

1. Measure before acting. Add country of birth and language spoken at home to network customer surveys and to Keoscopie Planet, Keolis's eleven-country passenger survey, which has neither today. Two questions, not legally questionable anywhere Keolis operates, and the American four-factor analysis as a ready-made method. It would make Keolis the only operator able to compare foreign-born passengers' mobility across eleven countries with a single questionnaire. Without it, these passengers stay invisible in our own data and every decision about them remains an intuition.

2. Deploy a standing human presence. Liaison officers in connecting stations positioned in the concourse rather than behind a window, able to explain concessionary fares and support schemes, and trained for the diversity of the public: language, literacy, disability, vulnerability. With multilingual tools and pictograms. It is the lever passengers cite

first, and the Docklands Light Railway and Manchester Metrolink are the natural places to demonstrate it.

3. Make the signage legible without reading.

Standardised line numbers, destinations and interchanges; visual landmarks at stops; colours and numbers in addition to station names; and, where a language group is large enough, translated signs. The goal is not a multilingual network. It is a network legible to someone who is counting stops.

4. Generative AI assistants for non-native speakers.

Generative AI can answer in dozens of languages while tolerating spoken input and unorthodox spelling, which is exactly the gap left by a written multilingual app. It is being deployed in various states of advancement across Keolis networks, and it is the only lever in this list whose marginal cost per additional language is close to zero.

5. A fare for chain journeys, and a fare people know exists.

A 90-minute or two-hour multimodal product with interchanges included; and access to concessionary fares that does not depend on a document the target public does not hold. Two thirds of the potential gain measured in San Francisco come not from lowering the fare but from making the existing one easier to obtain.

6. Teach the network where people are already learning.

Partnerships with language providers, settlement agencies and large employers — “using the network” workshops, escorted journeys, an annotated map given out in the first week. It costs little, it replaces the folded sheet of paper directly, and it is the entry point to a new-arrival offer inside the ten-year window.

Conclusion

On the metros, trams, buses and trains that Keolis operates in the United Arab Emirates, the United Kingdom, Ireland, the United States, Australia and France, a large population of passengers was born somewhere else. In one of

these markets they make up all the ridership; in the others they are the segment that rides most and complains least. They did not choose the network: fewer driving licences, fewer cars, and often a single mode available. On board they encounter obstacles the operator does not see — a script to be deciphered, station names that mean nothing, a fare that breaks the chain of errands, a desk that asks for an unobtainable document, a platform at night where some people feel less secure than others.

None of these obstacles is specific to migration. They are usability problems, and an operator knows how to address them. It addresses them already, for other audiences: maps legible to visitors, translated signs in tourist stations, staff trained to answer in English, discovery passes for people who do not know the city. All this exists.

What is lacking is its adaptation for the people who live here and cannot yet read the network.

Nor does any of it require ethnic statistics. Country of birth and language spoken at home are ordinary survey variables, mandatory in the American framework and routine in the British, Canadian and German ones. If these needs remain invisible, it is first because nobody has decided to look at them — and in its own surveys, an operator does not have to ask for anyone's permission to take that decision.

The window is ten years. That is a long time for a concession, and a short time for a policy.



The driving licence: a door cut in half.

Method

This study is the international edition of a French study, *Étrangers au réseau*, published by Keoscopie in September 2026. It draws on three bodies of work. **One.** An unpublished analytical

paper by Jean-Pierre Orfeuil, April 2025, drawn from the 2019 French National Travel Survey and cited with the author's permission, providing all French driving licence figures for people aged 25 to 54. **Two.** The exploratory study *Plural mobilities*, a Capstone project of the Governing the Large

Metropolis master's programme at Sciences Po in partnership with Keolis, September 2025 to June 2026, by Célimène Marchand, Angèle Selemani, Sasha Sterin and Oorvi Dhotre: more than sixty interviews across Greater Paris, Lille, Perpignan and Greater London, thematically coded. No percentage cited in this study comes from that fieldwork. **Three.** A corpus of 76 international sources assembled for the study, together with published operator and regulator material for the United States, the United Kingdom and the United Arab Emirates.

Four caveats should be noted. Countries do not use the same categories — ethnic group in the United Kingdom, immigrant status and year of arrival in Canada and the United States, migration background in Germany, nationality or country of birth in France — so the figures quoted here describe one phenomenon and are not directly comparable with one another. The UAE population figures are estimates: the federal government does not publish demographic data by nationality. The Canadian and American assimilation data are from the 2001 censuses; the slope is confirmed by subsequent sources, but the measurements are dated. And the Alsaleh, Farooq and Patterson preprint has not been peer-reviewed; it is cited as a lead, not as evidence.

The interviews quoted here were translated from the French report; the London interviews were conducted in English and their original wording should be substituted before publication. Illustrations were produced by assisted generation from prompts written for the series,

in line with the Keoscopie graphic identity; charts are built from the tables cited as sources.

Bibliography

- Dubai Roads and Transport Authority, ridership results for 2025, February 2026. Keolis, "UAE: Keolis begins operations of its new contract for Dubai Metro and Tram network", 2021. Population estimates for the United Arab Emirates: compiled estimates, no official publication by nationality.
- Federal Transit Administration, Circular 4702.1B, Title VI Requirements and Guidelines for FTA Recipients (Language Assistance Plan, four-factor analysis, safe harbour provision), US Department of Transportation.
- GOV.UK, Ethnicity facts and figures, "Driving licences" (National Travel Survey, DfT), 2015-2019 and 2021. Transport for London, Travel in London: Understanding our diverse communities, 2019.
- Heisz A., Schellenberg G., Public Transit Use Among Immigrants, Statistics Canada, 2004. Preston V., McLafferty S., Maciejewska M., TESSG, 2022. Alsaleh N., Farooq B., Patterson Z., Mobility Behaviour of Immigrants in Canada, arXiv preprint, 2025.
- Tal G., Handy S., The Travel Behavior of Immigrants and Race/Ethnicity Groups, UC Davis ITS, 2005. Blumenberg E., Evans A., Journal of Public Transportation, 2010. Migration Policy Institute, "Movement after Migration", 2021. Barajas J., Agrawal A., Chatman D., Journal of Public Transportation, 2018. Hainmueller J., Lawrence D., Lueders H., PNAS, 2017 (AB60).
- Delbosc A., Shafi F., "What do we know about immigrants' travel behaviour?", Transport Reviews, 2023. Shafi F., Delbosc A., Rose G., Transportation, 2023 (Melbourne). Welsch J., Conrad K., Wittowsky D., Transportation, 2018 (Offenbach). Geis I., European Transport Research Review, 2019 (Rhine-Main). infas/DLR, Mobilität in Deutschland 2023, chapter 13. Transportøkonomisk institutt, Norway, 2008. Shaw C., Tiatia-Seath J., Journal of Transport Geography, 2022.
- MAPURBAN, Migrant Access to Public Urban Infrastructures: Berlin, Stockholm, London, 2023. George S., Salomo K., Pfaff T., Journal of Ethnic and Migration Studies, 2025. Liao Y. et al., npj Sustainable Mobility and Transport, 2025.
- Orfeuil J.-P., Mobilité, détention du permis de conduire et emploi, April 2025 (2019 National Travel Survey, Insee/SDES), cited with the author's agreement. Gomez L., Région et Développement no. 59, 2024. Marchand C., Selemani A., Sterin S., Dhotre O., Mobilités plurielles, Sciences Po – Keolis, 2026. Goris I., Jobard F., Lévy R., Open Society Justice Initiative, 2009. Défenseur des droits, 2025.
- Keolis, Derrière les Apparences no. 2 and no. 4 "Quand le genre dicte la mobilité" and "Smells like teen transit".