

Undressing the Addressable Market

Alto's demand case, read against the corridor's roadside counts, its current population path, and the international reference class

Independent, non-partisan research · 6 July 2026

KEY FINDING

95 M → ~25 M

Alto's 95-million intercity-trips claim against the market a fast train can actually serve

In its April 2026 commentary, Alto writes that “ninety-five million intercity trips take place each year between the cities Alto will serve.” But that figure counts every intercity trip, by every mode, over every distance, across the whole corridor. The market a high-speed line can realistically serve — the longer, station-to-station journeys where rail competes with air and car — is roughly a quarter of it, about 25 million a year; the rest is short, regional, and off-corridor travel no train could carry.

1 The claim

In an April 2026 commentary published on its own website (altotrain.ca/en/news/highspeed-rail-not-leap-faith-why-it-matters-canadas-growth), Alto's chief executive set out the demand case for the Toronto–Québec City high-speed line. Its central figures are a headline market of ninety-five million intercity trips a year across the corridor, rising to one hundred and forty million by 2049; a population of eighteen million reaching twenty-two million within fifteen years; and a target of twenty-four million annual passengers by 2055, presented as consistent with international outcomes. The piece is framed to reassure; its very title insists that high-speed rail is no leap of faith.

This brief tests that claim on its own terms. It does not dispute that the corridor is large, that it is growing, or that its intercity system is under strain, all three are true. It disputes the inference the commentary draws from them: that a twenty-four-million forecast is therefore measured, modest, and safe. Read against three independent bodies of evidence — the corridor's roadside traffic counts, the population path Statistics Canada now projects, and the international record of what comparable high-speed lines actually carry — the demand case rests on optimistic framing rather than measurement. Where the commentary offers large round numbers and a single favourable analogue, the evidence points to central ridership near a third of the headline, and to a growth story built on a population Canada has already walked back.

There is an old tale about a grand procession admiring a suit of clothes that was not there, until a child said the emperor was wearing nothing at all. The ninety-five-million figure has had something of that quality: cited across government and press as though its size alone settled the demand question, and admired precisely because no one had undressed it to ask what it counts. This brief undresses it, and finds the addressable market beneath about a quarter the size.

2 What the evidence shows

Central independent ridership is near 8 to 9 million a year, rising toward 10 at maturity — not 24 million. The risk-adjusted floor from comparable car-dependent corridors is about 4 to 5 million. Alto's 24-million target sits above every published independent forecast of the corridor.

The demand builds from three real sources, not a 95-million abstraction. The market a fast service actually converts is measurable: the cars crossing the corridor, the air travellers on the competitive pairs, and the existing VIA riders it retains. Added together — roughly 2.8 to 3.5 million from car, 1.7 to 2.0 million from air, and about 3.3 million retained rail (VIA's directly reported 2025 Corridor East ridership) — they come to about 8 to 9 million, the same place the modal-shift model lands. The 95-million figure is an all-modes, all-pairs total that no service captures.

The demand-growth story reverses the per-capita trend. Ninety-five to one hundred and forty million over 2026–2049 is about 1.7 per cent a year, faster than the corridor's own population growth. The gap implies rising travel per resident, against the grain of hybrid work and videoconferencing.

The population base is the pre-cap one. Twenty-two million in fifteen years extrapolates the 2015–2025 immigration surge. Statistics Canada's January 2026 projection is lower; on the current path the corridor is about 6.3 million people smaller by 2055 than the counterfactual Alto's numbers assume.

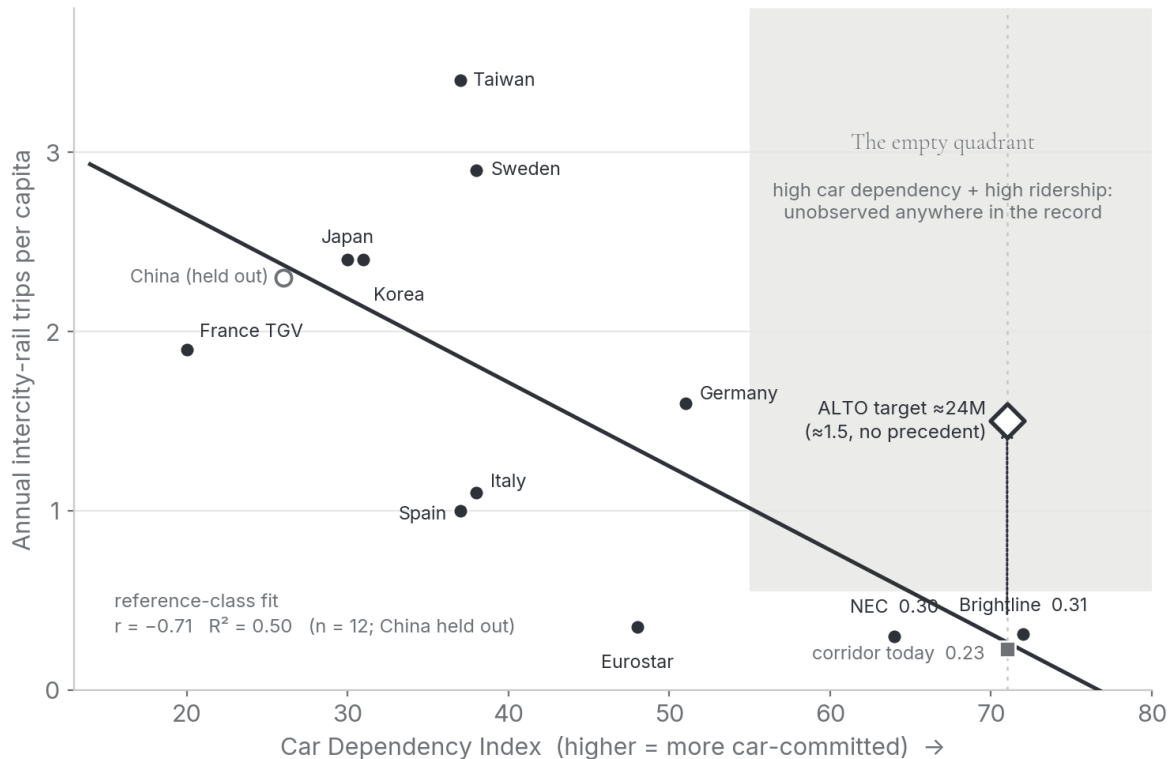
The one comparator offered is a best case. Madrid–Barcelona is among the strongest high-speed successes on record. The honest reference class, the full distribution of high-speed outcomes, many of which undershot their forecasts, brackets the answer far below 24 million.

3 Methodologies

The findings rest on four independent methods, each built to be reproducible from public data and to avoid the proprietary machinery that makes promoter forecasts hard to audit. A fifth lens is the standard appraisal treatment of optimism bias which governs how all four are read. We set them out in full.

3.1 The reference class — what comparable corridors actually do. Rather than model the corridor from assumptions, the reference-class method asks what corridors with similar car dependence, density, and trip lengths actually achieve once fast rail opens. Each candidate corridor is scored on a Car Dependency Index (CDI), a composite of car mode share, population density, and transit provision at the endpoints. The Toronto–Québec City corridor's high car dependence places it with reference cases that, rescaled to this line, carry the equivalent of roughly 4 to 5 million corridor trips a year at maturity (Figure 1). This is the risk-adjusted floor: what the evidence says the corridor is most likely to do before any speed, fare, or density assumption is layered on.

FIGURE 1 — THE REFERENCE CLASS: RIDERSHIP AGAINST CAR DEPENDENCY



Comparable intercity-rail corridors scored by their Car Dependency Index. The Toronto–Québec City corridor’s high car dependence places it with reference cases that, rescaled to this line, carry the equivalent of roughly 4 to 5 million corridor trips a year — the risk-adjusted floor.

3.2 The modal-shift model — ridership built from four factors. The bottom-up estimate builds annual ridership as a product of four independently estimated terms, $R(t) = P(t) \times \mu \times s \times \varphi(t)$: served population, intercity trips per resident, the rail modal share, and the fraction of mature ridership reached by year t . Population P is the census-metropolitan population the line serves, on the Statistics Canada path below. Trip generation μ is about 1.7 intercity trips per resident per year, derived from roughly 25 million addressable person-trips across the corridor’s principal and secondary city pairs. Modal share is built from the bottom up: for each city pair and each competing market, rail’s capture follows a saturating logistic in journey-time savings and fare, and the per-pair, per-market shares are volume-weighted into an aggregate near 0.27 under a moderate-fare regime. The ramp φ follows a Brightline-anchored profile that reaches maturity over about a decade. Carried through at central values, the model puts corridor ridership near 8 to 10 million a year at maturity, far below 24 million.

3.3 The demand-side build-up — the three markets, counted not modelled. The model can be checked against the markets a fast service actually competes for, each measurable from public data. The car market is read at the Highway 401 screenline where it crosses into Québec, after Ottawa-bound traffic has left via Highway 416 and Cornwall-local traffic has loaded, stripped of the 30 to 35 per cent commercial-truck share and short regional trips: roughly 8.8 to 11.0 million end-to-end car person-trips a year across the triangle at an occupancy of 2.0. Applying the road-market capture rates converts these into the rail ridership the car market alone would yield.

TABLE 1 — RAIL RIDERSHIP DRAWN FROM THE CAR MARKET

Leg	Annual car person-trips	Rail capture of road market	Corresponding rail pax / year
Toronto–Montréal	3.7–4.4 M	~33%	1.2–1.5 M
Ottawa–Toronto	2.5–3.2 M	~34%	0.9–1.1 M
Ottawa–Montréal	2.6–3.4 M	~27%	0.7–0.9 M
Triangle total	8.8–11.0 M	~31%	2.8–3.5 M

Capture rates are road-market shares from the modal-shift analysis at a moderate-fare regime; they express rail's share of the combined car-and-rail market. Only Toronto–Montréal is confirmed by roadside counts; the Ottawa legs are demand-sized.

The car market, though, is only one of three. A fast corridor service also draws from the air travellers on the same city pairs, and it retains the passengers already riding the train. The corridor air market on the competitive pairs — Toronto–Montréal, Toronto–Ottawa, and the smaller Ottawa–Montréal — is on the order of 2.5 to 3.0 million point-to-point passengers a year, of which a fast train on these distances captures about two-thirds. Existing conventional rail is now reported directly in VIA's 2025 annual results: 3.34 million passengers a year on the Corridor East service group — Québec City–Montréal–Ottawa–Toronto — within a Québec City–Windsor corridor total of 4.18 million, essentially all retained by a faster, more reliable service. The three sources sum to the corridor's central ridership.

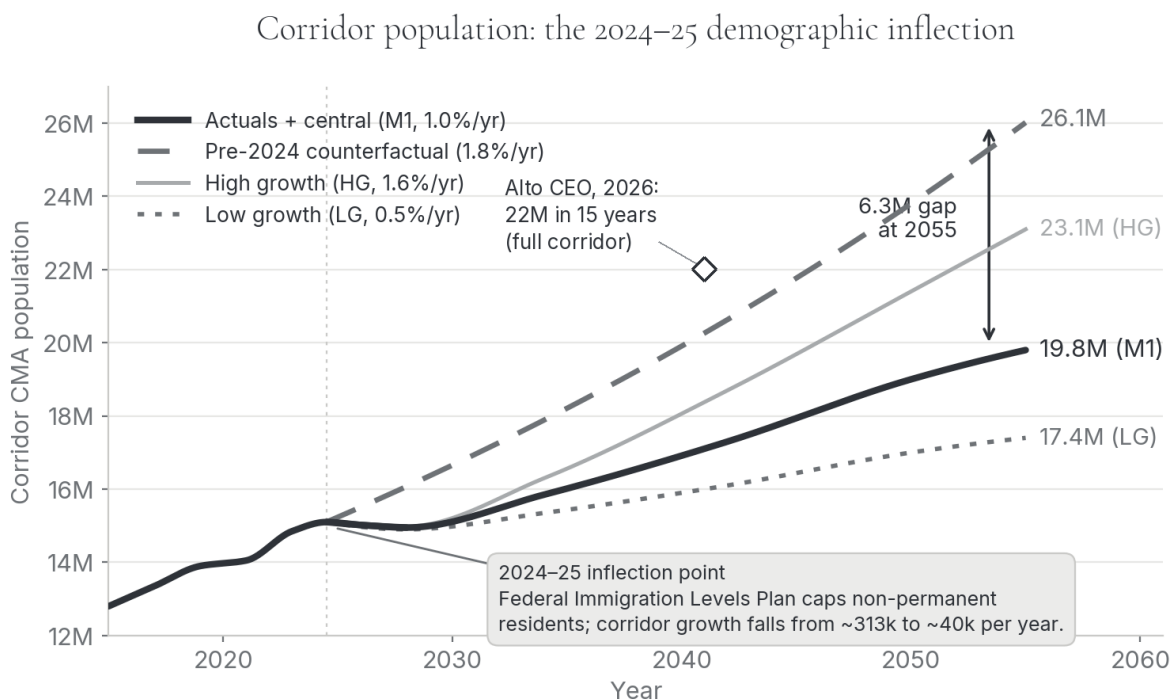
TABLE 2 — WHERE THE CORRIDOR'S RAIL RIDERSHIP COMES FROM (CENTRAL)

Source market	Basis	Rail pax / year
Diverted from car	Road-market capture of the 8.8–11.0 M car market (Table 1)	2.8–3.5 M
Diverted from air	~two-thirds of the ~2.5–3.0 M triangle air market	1.7–2.0 M
Existing rail retained (VIA)	VIA Corridor East service group, directly reported, 2025	~3.3 M
Central total	Reconciles to the modal-shift model	~8–9 M

Car, air, and existing-rail travellers are distinct current populations, so the three sources add without double-counting. The rail line uses VIA's Corridor East service group directly, rather than deriving a triangle share of the wider Québec City–Windsor total. The car line folds in trips induced by faster service. The total is the central case around 2055; it rises toward 10 million at maturity as the ramp completes, and remains far below 24 million. Air volumes are point-to-point on the competitive pairs (airport-authority and Statistics Canada air-passenger data); VIA from its 2025 corporate results.

3.4 The population basis — the denominator every forecast rests on. Every ridership figure scales with the population beneath it, so the choice of population path is decisive. We use Statistics Canada's January 2026 projection (catalogue 17-20-0003), which incorporates the 2024–25 federal Immigration Levels Plan. Against the pre-2024 growth path that older corridor forecasts — and the commentary's twenty-two-million figure — assume, this is materially lower: the corridor reaches about 19.8 million by 2055 on the current path, versus 26.1 million on the counterfactual, a deficit of 6.3 million (Figure 2). A demand forecast built on the higher path is, to that extent, forecasting a country current policy no longer projects.

FIGURE 2 — CORRIDOR POPULATION: THE 6.3-MILLION DEFICIT



The pre-2024 counterfactual (~1.8%/yr) reaches 26.1 million by 2055; Statistics Canada's post-cap January 2026 projection (~1.0%/yr) reaches 19.8 million — a 6.3-million gap that every ridership figure scales with. The open diamond marks Alto's own forecast of 22 million within fifteen years; it is stated on the full Québec City–Windsor corridor (~18 million today, about 3 million above the served-CMA population the trajectories track), and its implied ~1.35%/yr growth runs above the current path.

3.5 The optimism-bias lens — how promoter forecasts are read. Finally, the claims are read through the standard megaproject-appraisal lens. Large transport forecasts made by project promoters are systematically optimistic — a pattern documented across hundreds of projects by Flyvbjerg and colleagues, embedded as reference-class forecasting in the UK Treasury Green Book, applied in practice by firms such as Oxford Global Projects, and confirmed for high-speed rail specifically by the UK National Audit Office's reviews of HS2. The appraisal response is not to accept promoter demand figures at face value but to adjust them toward the reference class. Read this way, a twenty-four-million forecast presented as conservative is the signal to look harder, not the reassurance the commentary intends.

4 The commentary's figures, examined

4.1 The denominator is broad; the addressable market is a fraction. Ninety-five million trips across roughly eighteen million residents is about 5.3 intercity trips per resident per year — several times the ~1.0 all-mode end-to-end rate the roadside evidence supports, and three times the model's addressable 1.7. A number that large can only be an all-modes, all-pairs total sweeping in short regional and off-corridor trips high-speed rail cannot serve. The same shape is visible in the passengers already choosing rail: VIA's 2025 audited subsidy figures for Corridor East — 48.51 dollars per passenger over 0.22 dollars per passenger-mile — imply an average trip of about 355 kilometres, roughly a third of the end-to-end corridor distance. The three markets a fast service does convert — car, air, and existing rail — sum to about 8 to 9 million (\$3.3). The figure is also unsourced. It is stated in the commentary without citation, and does not appear in

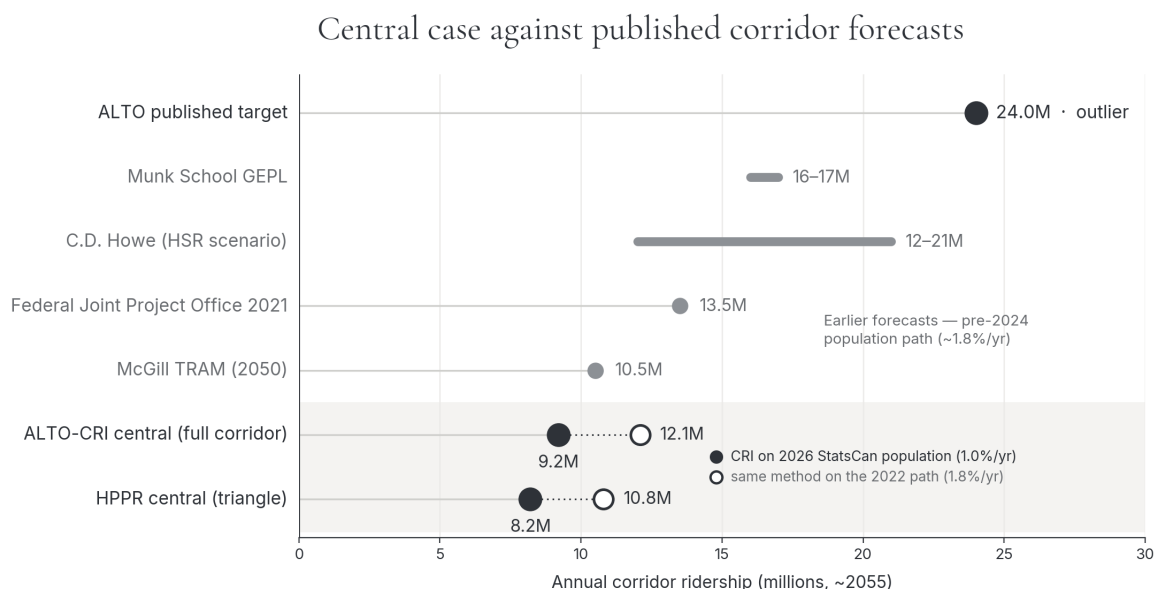
Alto's own explanatory document Fast Forward (March 2025), in the Corporate Plan Summary 2024-25 to 2028-29, or in the June 2026 What We Heard consultation report; no independent analyst has adopted it. The denominator that anchors the modest-quarter framing is not just broad but unpublished. Framing 24 million as a quarter of 95 million makes it look modest; against the market that actually exists it is more than double what the demand supports.

4.2 The growth rate outruns population and reverses the per-capita trend. Ninety-five to one hundred and forty million over twenty-three years is about 1.7 per cent a year. The commentary's own population growth — eighteen to twenty-two million in fifteen years — is about 1.35 per cent a year. The difference is an implicit assumption that each resident will travel more over time, precisely as remote and hybrid work, videoconferencing, and an ageing population push the other way. The modal-shift model holds trips per resident flat-to-declining for exactly this reason.

4.3 The population base has already been revised down. The twenty-two-million figure extrapolates the 2015–2025 surge. On Statistics Canada's current projection the corridor is about 6.3 million people smaller by 2055 than that path implies (§3.4). Because ridership scales with population, a forecast on the old path is inflated by roughly the same proportion the population has been cut, before any question of mode share or capture even arises.

4.4 The target is an outlier against every independent estimate. The one international comparator offered, Madrid–Barcelona, is among the best outcomes in the global record; presenting it as the norm is reference-class forecasting run backwards. Set beside the full band of independent corridor estimates, Alto's 24 million stands alone above every one (Figure 3).

FIGURE 3 — INDEPENDENT CORRIDOR RIDERSHIP ESTIMATES AGAINST ALTO'S TARGET



Annual corridor ridership around 2055. Alto's 24-million target stands alone above every independent forecast — the Munk School, C.D. Howe, the Joint Project Office, and McGill — and above the Initiative's own central case (filled markers). The open markers plot the Initiative's method on the pre-2024 population Alto's numbers assume; even then it stays within the published band, so the distance is population basis, not method.

5 What the evidence supports

The methods converge. The three real demand sources sum to about 8 to 9 million a year, rising toward 10 at maturity; the bottom-up model lands in the same place; and the reference class puts a floor near 4 to 5 million, with no independent method reaching 24 million. This is not an argument against fast rail in the corridor. It is an argument for building to the demand that exists. The Initiative's High-Performance Rail framework (HPR) carries materially the same central ridership — about 10 million a year at maturity — by upgrading and adding to existing corridors rather than building roughly a thousand kilometres of new dedicated track, at a fraction of the capital and subsidy. Downside demand risk, which the evidence says is real, threatens the case for a \$143-billion megaproject; it does not threaten the case for a right-sized one.

6 Recommendation

Three things follow. First, Alto's demand model should be released for independent audit: a forecast that anchors an alignment and a multi-decade capital commitment cannot responsibly remain unpublished. Second, that model should be adjusted toward the reference class, as standard appraisal requires, and re-based on Statistics Canada's current population rather than the pre-2024 path. Third, the corridor decision should be sized to the audited, reference-class-adjusted demand — not to a ninety-five-million headline or a twenty-four-million target that no independent method reaches. High-speed rail need not be a leap of faith. But the demand case as currently stated is closer to one than the corridor's own numbers allow.

7 Basis, assumptions, and limitations

The reference-class floor is an equivalence, not a point forecast. The modal-share rates are at a moderate-fare regime and scale with fare and service quality. In the demand-side build-up, only Toronto–Montréal is confirmed by roadside counts and the Ottawa legs are demand-sized; the air market is point-to-point on the competitive pairs; existing rail is VIA's Corridor East service group total, directly reported and essentially all retained; and the three sources are distinct current populations, added without double-counting, with induced travel folded into the car line. Population is the January 2026 vintage; a future policy change would move it. The optimism-bias treatment is directional. Every figure here is reproducible from public data; the full ridership methodology, figures, and per-pair modelling are set out in the companion research report.

8 Sources

Every figure in this brief is drawn from the public sources or companion analyses set out below and is reproducible from them. Sources are grouped by the claim or quantity they support.

The claim examined. Imbleau, M., President and Chief Executive Officer of Alto.

"High-speed rail is not a leap of faith: why it matters for Canada's growth." Commentary, altotrain.ca, April 2026,

at <https://www.altotrain.ca/en/news/highspeed-rail-not-leap-faith-why-it-matters-canadas-growth>. The source of the ninety-five-million and one-hundred-and-forty-million intercity-trip figures, the eighteen-to-twenty-two-million population claim, and the twenty-four-million passenger target for 2055 examined throughout. The ninety-five-million and one-hundred-and-forty-million figures do not appear in Alto's own explanatory document *Fast Forward: Shaping Canada's Future with a High-Speed Rail Network* (March 2025), in the VIA HFR – VIA TGF Inc. Corporate Plan Summary 2024-25 to 2028-29, or in the June 2026 *What We Heard* consultation report on the corridor study area, all at altotrain.ca; nor are they cited in independent analyses of the corridor (C.D. Howe Institute, Munk School Global Economic Policy Lab, Transportation Research at McGill, Schabas Senate submission on Bill C-15). No supporting derivation of either figure has been published.

Traffic and travel-demand data. Ministry of Transportation of Ontario, Provincial Highways Traffic Volumes — annual average daily traffic on Highway 401, sections between the Highway 416 interchange and the Québec boundary. VIA Rail Canada, 2025 Annual Report (Montréal, March 2026): 4.40 million passengers system-wide and 986 million passenger-miles; 4.18 million on the Québec City–Windsor corridor and 3.34 million on the Corridor East service group (Québec City–Montréal–Ottawa–Toronto). The report’s audited service-group subsidy figures — 48.51 dollars per Corridor East passenger and 0.22 dollars per Corridor East passenger-mile — imply an average Corridor East trip of about 355 kilometres. Prior-year system totals in the five-year summary: 4.39 million (2024), 4.12 million (2023), 3.30 million (2022), 1.51 million (2021); pre-pandemic peak above 5 million in 2019. Statistics Canada, Air passenger traffic at Canadian airports (annual, table 23-10-0253), together with airport-authority passenger statistics for Toronto Pearson, Montréal–Trudeau, and Ottawa Macdonald–Cartier — Toronto–Montréal and Toronto–Ottawa rank among Canada’s busiest domestic city pairs. Transport Canada, Transportation in Canada (annual report): the automobile carries roughly 90 per cent of intercity person-trips.

Population. Statistics Canada, Population Projections for Canada, Provinces and Territories, January 2026 vintage (catalogue 17-20-0003), which incorporates the 2024–25 federal Immigration Levels Plan; and Census of Population, 2021, for the corridor’s census-metropolitan-area populations. These underpin the 19.8-million (post-cap) and 26.1-million (pre-2024 counterfactual) 2055 corridor figures and the 6.3-million deficit.

Comparator corridor forecasts. Transport Canada and the EcoTrain consortium, Updated Feasibility Study of a High-Speed Rail Service in the Québec City–Windsor Corridor (2011). Federal Joint Project Office and the VIA High Frequency Rail baseline (2021). Transportation Research at McGill (TRAM), corridor demand modelling. C.D. Howe Institute (2026), high-speed-rail scenario. Munk School of Global Affairs and Public Policy, Global Economic Policy Lab, corridor demand. These supply the independent ridership band of Figure 3, against which Alto’s 24-million target is an outlier.

Forecasting method and optimism bias. B. Flyvbjerg, “Survival of the Unfittest: Why the Worst Infrastructure Gets Built — and What We Can Do About It” (Oxford Review of Economic Policy, 2009), and related work establishing reference-class forecasting; B. Flyvbjerg and D. Gardner, How Big Things Get Done (2023). HM Treasury (United Kingdom), The Green Book and its supplementary guidance on optimism bias in appraisal. Oxford Global Projects, reference-class forecasting datasets and practice. UK National Audit Office, successive reports on High Speed 2 (HS2) documenting systematic optimism in demand forecasts and cost escalation. Together these establish the appraisal principle that promoter demand forecasts are adjusted toward the reference class rather than accepted at face value.