

SUBMISSION TO PUBLIC CONSULTATION

ALTO Ridership Projections: The Madrid–Barcelona Comparator, the Canadian Car-Culture Gap, and the VIA Rail Reliability Crisis

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PURPOSE OF THIS SUBMISSION

ALTO has publicly committed to 24 million annual passengers by 2055 and 43 million by 2084, without disclosing the demand modelling methodology, sensitivity ranges, or baseline assumptions. This submission documents three independent grounds for concluding that both projections are materially inconsistent with the evidence:

- the structural conditions enabling Madrid–Barcelona’s ridership success are significantly absent in Canada;
- the only disclosed independent academic modelling (Munk School GEPL) projects approximately 9.44 million by year 20 for the Toronto–Montréal segment alone, less than 40% of ALTO’s 24 million target; and
- Canada’s existing intercity rail network has demonstrated sub-50% fleet availability in winter conditions with modern equipment, undermining the European reliability assumption on which demand models are calibrated.

Section 1 — The Seven-to-One Gap: Starting-Point Reality

The Madrid–Barcelona corridor carried 14.6 million passengers in 2024, growing from 2.56 million in 2010 after sixteen years of operational maturity and open-access competition that drove economy fares from €80–100 to €40–72. VIA Rail’s entire Montréal–Ottawa–Toronto corridor is the busiest intercity rail route in Canada and carried just over 3.1 million passengers in 2024. That figure encompasses all stations and intermediate stops across the full corridor, not a single city pair.

The Canadian corridor’s present ridership is approximately one-seventh of the Spanish corridor’s 2024 volume. For further context, VIA’s total national ridership, all routes and all of Canada, was 4.1 million passengers in 2024; the Madrid–Barcelona single route now carries more than three times that figure annually.

SCALE CHECK ON ALTO’S PROJECTIONS

- 24 million by 2055 = 8× current corridor ridership achieved in ~12 years of full operation.
- 43 million by 2084 = more than Spain’s entire 2024 national HSR network (47 cities, 3,100 km, ~39 million passengers), on a single corridor.
- Neither figure has been publicly supported by a disclosed demand modelling methodology, sensitivity ranges, or baseline assumptions.

CEO Confirms 24M Projection Publicly Without Disclosing Methodology — CBC Ottawa Morning, March 25, 2026

ALTO's CEO restated the 24 million projection publicly on CBC Ottawa Morning on March 25, 2026, the day before the consultation closed. When asked how the ridership figure was derived, Imbleau described the methodology in generic terms only: "There's a science based on train services everywhere on the planet. Canada is not unique. It's called ridership study. So you look at the behaviour, the number of options, the population, the economic options, and then you do your forecast. That's how Italy, France, Spain, UK, China, South Korea, everywhere on the planet use the same methodology."

No study name, author, institution, model, sensitivity range, or baseline assumption was cited. The host noted there are only seven stops and pressed on how people would reach them; Imbleau acknowledged this is "the trick" of HSR but offered no adjustment to the 24 million figure. This public restatement of an undisclosed projection confirms that, as of one day before the consultation closed, ALTO's CEO had not published — and was not prepared to describe in any specificity — the demand modelling that underlies the project's central ridership claim.

Source: CBC Ottawa Morning with Rebecca Zandbergen, March 25, 2026. [cbc.ca/listen/live-radio/1-100-ottawa-morning/clip/16205093](https://www.cbc.ca/listen/live-radio/1-100-ottawa-morning/clip/16205093)

Section 2 — Why the Structural Conditions for Madrid–Barcelona Are Absent in Canada

2.1 Suburban car-culture and last-mile problem

Using 2016 Census data, research classified Canadian metropolitan populations as 67% automobile suburbs and 8% exurbs, with only 13% in active cores. The population in low-density auto suburbs and exurbs is growing five times faster than inner cities across Canada. In the Toronto CMA, a resident can reach 4.5 times as many jobs by car as by public transit in 30 minutes; 81% of Toronto employment is located outside the downtown core. Highway 401 is the world's busiest freeway at one Toronto stretch (442,900 daily vehicles). Suburban residents in corridor communities spend an average of 1 hour 23 minutes per day in the car, with 81% making at least one car trip per day.

Canadian car dependency is not declining, it is accelerating decade by decade. This suburban inertia matters because HSR ridership is strongly correlated with origin-destination density, transit connectivity at both ends of the journey, and the ability to complete the trip without a car, conditions the majority of ALTO's potential corridor riders do not have. Even in Spain, with a mature HSR network, research found that the private car represented over 84% of the modal split in domestic tourist trips, because for family leisure travel the car remains economically competitive.

2.2 No open-access competition under the Cadence concession model

The Madrid–Barcelona corridor's post-2020 ridership surge was substantially driven by open-access competition from three operators (Renfe/AVLO, Ouigo, Iryo). Economy fares fell 25–50%, ridership increased 33% in a single quarter, and some newly competitive corridors showed 96% year-on-year growth. On the Madrid–Valencia corridor, where all three operators competed for the first time, average fares fell to approximately €22. Revenue per passenger-kilometre fell by nearly 40% as lower fares induced substantially greater volumes.

ALTO's Cadence consortium operates under an integrated design-finance-operate-maintain concession with no structural provision for open-access competition and no regulatory framework for competitive entry. A single operator with incentives to maximize yield from the existing willing market, rather than expand the market through demand-inducing price reductions, is a fundamentally different commercial proposition. Applying Madrid–Barcelona's 2024 ridership level as a Canadian near-term benchmark without adjusting for the complete absence of the competitive mechanism that produced that ridership is a category error.

2.3 Corridor structure and passenger mix

The Toronto–Ottawa–Montréal corridor has real business travel (approximately 108 flights within the triangle every working day), but the leisure and tourism segments tell a different story. Unlike Madrid–Barcelona, which captures substantial international tourism flows along a compact corridor, the Canadian corridor traverses a region where tourist traffic is dispersed, largely car-dependent, and oriented toward cottage-country, national parks, and rural heritage sites that HSR cannot serve. No stations are proposed between Toronto and Ottawa under ALTO’s current mandate, meaning all Eastern Ontario communities receive the construction and operational burden without the tourism-generation mechanism that drives HSR’s leisure ridership case.

Section 3 – Independent Academic Modelling vs. ALTO’s Projections

The only independent academic modelling exercise for a Toronto–Montréal HSR corridor with a disclosed methodology is the Global Economic Policy Lab (GEPL) analysis from the Munk School of Global Affairs, University of Toronto. That analysis projected 9.44 million annual passengers by year 20 and 10.45 million by year 30 on the Toronto–Montréal segment, which GEPL identified as generating 57% of total corridor ridership. Scaling to the full corridor implies approximately 16–17 million by year 20, well below ALTO’s 24 million target for a roughly comparable timeframe.

Metric	ALTO Official Projection	GEPL Independent Model (Toronto–Montréal only)	Reference-Class Adjusted (Flyvbjerg –65%)
Annual passengers by year ~20 of operation	24 million (2055)	9.44 million (year 20)	~8.4 million
Annual passengers by year ~40 of operation	43 million (2084)	10.45 million (year 30)	~15 million
Corridor scope	Toronto–Québec City (full)	Toronto–Montréal segment only (57% of corridor)	Full corridor adjusted
Methodology disclosed?	No	Yes (Munk School GEPL)	Flyvbjerg rail dataset
Sensitivity ranges disclosed?	No	Yes	N/A

The gap between the GEPL figure and the ALTO projection is a factor of 1.5 to 2.5, not a rounding difference. It is the difference between a corridor that generates meaningful fare revenue and one that requires structural federal subsidy for its operational lifetime. At a CAD \$79.8 billion capital cost baseline, the revenue implications of a 60% ridership shortfall are financially catastrophic in net present value terms and would fundamentally alter the public interest case for the project.

Section 4 – The Reliability Prerequisite: Canada Has Never Achieved European HSR Standards

4.1 VIA Rail’s on-time performance crisis

VIA Rail’s on-time performance was 59% in fiscal year 2023, worse than Air Canada’s 63% OTP, which itself earned last place among the ten largest North American airlines. Following CN Rail’s imposition of speed restrictions on VIA’s Siemens Venture trainsets in late 2024, corridor OTP fell from 72% in Q1 2024 to just 30% in Q1 2025. On the Ottawa–Québec City segment, fewer than 6% of trains arrived on time. On the Montréal–Toronto run, only 17% of trains were on time in February

2025, compared to 72% the previous February. Transport Minister MacKinnon acknowledged before Parliament in February 2026 that “the service has not been as customer-friendly, reliable or as punctual in recent years as it has needed to be.”

4.2 Siemens Venture fleet availability below 50% in winter 2026

ON RECORD — VIA RAIL SIEMENS VENTURE WINTER 2025–2026 FAILURE

Fleet availability for VIA Rail’s Siemens Venture trainsets dropped below 50% during winter 2026, well below the 90% industry standard, leading to at least seven consecutive days of cancellations beginning February 7, 2026. The failure mechanism was cold-weather specific: snow entering equipment bays caused trainsets to shut down. In December 2025, more than 100 passengers spent approximately 10 hours stranded overnight on a disabled train near Brockville, Ontario. VIA’s own internal documents confirmed passengers switched to other modes as a result. The Siemens Venture trainsets are modern rolling stock ordered new and delivered from 2022, designed for North American conditions, operated at conventional speeds. Sources: Transport Action Canada; Trains Magazine, February 8–9, 2026; Transport Canada, Recent VIA Rail Service Disruptions.

European HSR demand models are calibrated against operational reliability of 95% or above, a prerequisite for the business traveller modal shift that drives revenue. A business traveller who cannot rely on train punctuality stays on the plane or drives. VIA’s own internal documents confirmed passengers switched modes due to unreliability on the very corridor ALTO proposes to serve. If brand-new rolling stock on conventional tracks at conventional speeds is failing at 50% availability in a Canadian winter, the cold-weather engineering demands on a 300 km/h electrified HSR system operating on open-country dedicated infrastructure through Eastern Ontario’s freeze-thaw cycle are qualitatively more severe. The demand model cannot assume European reliability on infrastructure that will face fundamentally different winter operating conditions.

4.3 Ticket price unknown; operational profitability asserted without basis

On CBC Ottawa Morning on March 25, 2026, Imbleau was asked directly how much a ticket would cost. He replied: “We don’t know for sure... I don’t know yet.” When pressed specifically on Montréal to Ottawa pricing, he repeated: “I don’t know.” In the same interview, Imbleau asserted that operations would be profitable, stating: “24 million people using this. When you look at the forecast and the operation cost that we have a feeling with today, definitely it’s going to be profitable from an operation standpoint. No doubt.”

This is a logical circularity. Revenue equals ticket price multiplied by riders. Imbleau acknowledged the ticket price is unknown; he justified the operational profitability claim using the 24 million ridership projection alone. But a ridership projection that is 2.5 times higher than the only independent academic model, applied to an unknown ticket price, does not constitute a financial case for operational viability. The government’s own December 2021 business case — released under the Access to Information Act in November 2025 — found the cheaper HFR predecessor had a net present value of $-\$21.1$ billion over 30 years. Imbleau’s “no doubt” assertion was made without citing that analysis, without publishing a replacement, and without knowing the ticket price that would determine whether the revenue case holds.

Source: CBC Ottawa Morning with Rebecca Zandbergen, March 25, 2026. [cbc.ca/listen/live-radio/1-100-ottawa-morning/clip/16205093](https://www.cbc.ca/listen/live-radio/1-100-ottawa-morning/clip/16205093)

Section 5 — Structural Comparison: Madrid–Barcelona vs. Toronto–Montréal

Demand Factor	Madrid–Barcelona	Toronto–Montréal Corridor
Annual HSR passengers (2024)	14.6 million	3.1 million all modes, full corridor
Population in auto suburbs/exurbs	Lower; dense urban cores dominant	67–80%+ of CMA populations in auto suburbs
Urban transit at destination	Excellent (Madrid Metro 300+ km; Barcelona Metro)	Moderate in core only; poor beyond downtown
Employment geography	Dense city centres, high transit-accessible density	81% of Toronto jobs outside downtown
Car competitiveness	Congested cities; parking expensive	401 corridor normalized; suburban parking free; car culturally dominant
Established rail culture	AVE operational since 1992; 30+ years of travel behaviour change	VIA Rail chronically underfunded; no HSR precedent
Operator competition	3 operators post-2021; fares fell 25–50%	Single operator (Cadence); no open-access framework
Post-pandemic fare range	€40–72 economy Madrid–Barcelona; €22 on newly competitive routes	VIA Rail fares risen in real terms
Ridership induced by competition	+33% in single quarter; +96% on some routes	No mechanism under concession model
Winter on-time performance	>95% punctuality; thermally mild corridor	17% OTP Feb 2025; fleet availability <50% winter 2026
Cold-weather equipment record	AVE Velaro reliable at 300 km/h in temperate climate	Siemens Venture failed in snow; overnight stranding Dec 2025
Reliability impact on demand	High reliability sustains business traveller modal shift	VIA documents confirm passengers switched modes due to unreliability

Section 6 — Formal Requests

1	<p>Publish the full demand modelling methodology, including Canadian structural adjustments</p> <p>ALTO must publish the complete demand modelling methodology underlying the 24 million and 43 million projections, including: the modal-shift assumptions applied to Canadian conditions; the elasticity parameters used; the sensitivity of projected ridership to car-culture and suburban-structure adjustments; and how the absence of open-access competition is reflected in the demand model. Absent this transparency, the revenue projections cannot be independently validated.</p>
2	<p>Apply reference-class forecasting and publish a stress-tested ridership range</p> <p>ALTO must publish a reference-class ridership forecast applying Flyvbjerg's finding that projected ridership on passenger rail projects is on average 65% above actual patronage. The result, approximately 8.4 million by 2055 and 15 million by 2084, should be presented as the central reference-class estimate, with the official projections treated as the optimistic scenario. This is the standard applied by HM Treasury Green Book guidance to major UK infrastructure projects.</p>
3	<p>Commission an independent demand audit before any public financial case is finalized</p> <p>An independent demand audit must be commissioned, conducted by an organization with no commercial relationship with ALTO or the Cadence consortium, and publicly released before any financial case for the project is presented to Parliament or to provincial governments. The audit must address all five structural adjustment factors: car culture entrenchment; last-mile transit inadequacy; leisure tourism dispersal; absence of HSR travel behaviour in Canada; and Eastern Ontario's complete exclusion from the station network.</p>
4	<p>Address the reliability prerequisite explicitly in demand modelling</p> <p>ALTO's demand model must include explicit assumptions about operational reliability, including: the on-time performance standard assumed; the fleet availability standard assumed; how service interruptions suppressing ridership are modelled; and how the model is adjusted if Canadian winter operations cannot achieve European reliability benchmarks. Given that modern rolling stock on conventional tracks has demonstrated sub-50% availability in a Canadian winter, these assumptions are not technical footnotes, they are central to the revenue case.</p>

Key Sources

VIA Rail 2023 OTP: 59% overall; CBC News / Tasker, J.P. (November 2024). "Via Rail's performance has gone from bad to worse."

VIA Rail Q1 2025 OTP: 30% corridor-wide; Ottawa–Québec City 6%; Montréal–Toronto 17%. Canadian Press, March 14, 2025.

Siemens Venture fleet availability <50% winter 2026; 7 consecutive cancellation days beginning February 7, 2026. Transport Action Canada / Trains Magazine, February 8–9, 2026.

December 2025 Brockville overnight stranding: 100+ passengers, ~10 hours. VIA Rail / Transport Canada.

Transport Minister MacKinnon: "The service has not been as customer-friendly, reliable or as punctual." CP24 / Canadian Press, February 24, 2026.

Madrid–Barcelona 14.6 million passengers (2024): High Speed Rail Canada (2025); International Railway Journal, January 2024.

VIA Rail corridor ridership 3.1 million (2024): Statista / VIA Rail Canada.

Spain open-access competition: Albalate, Campos and Jiménez (2023). Intercity Railfares After HSR Liberalisation in Spain. *Multimodal Transportation*, 5(2).

Post-liberalisation ridership: +33% in single quarter; +96% on Madrid–Valencia. *International Railway Journal*, January 2024.

Spain national HSR ~39 million passengers 2024: Wikipedia / Transportation Deployment Casebook, 2025.

GEPL Munk School: 9.44M by year 20, 10.45M by year 30 (Toronto–Montréal segment = 57% of corridor).

Flyvbjerg: average projected ridership 65% above actual for rail projects. Cited in *Washington Examiner* / McShane, 2025.

Gordon, D.L.A. (2018). Canadians increasingly live in auto-dependent suburbs. *The Conversation*. (67% auto suburbs; suburban population growing 5× faster than urban.)

McGill Policy Association (2024). Challenges to Urban Densification in Canada. (4.5× more jobs by car than transit in 30 minutes; 81% Toronto employment outside downtown.)

Statistics Canada / Turcotte, M. (2008). Dependence on cars in urban neighbourhoods. (81% suburban residents make at least one car trip per day; 1 hr 23 min daily in car.)

Guirao et al., cited in Albalate et al. (2015). High Speed Rail effects on tourism: 84% of Spanish domestic tourist trips by car even after HSR.