

Policy Brief for Urban Lab 2

Breaking the Car-Dependency Cycle in Teivo-Mäkkylä

Integrated Mobility and Land-Use
Strategies for a Climate-Smart Suburb



April 2026

Team Horizon

The Challenge

How can Teivo–Mäkkylä break free from car dependency and become a transit-ready, socially inclusive, and environmentally resilient district?

Teivo–Mäkkylä is marketed as Ylöjärvi's flagship climate-smart district. It is planning to be a 5,000-resident community framed around a future tram, walkable streets, and ridge nature. Yet the current planning trajectory risks reproducing the same car-centric patterns that have defined Ylöjärvi for decades. Road widening, ample parking provision, and the long-delayed tram decision (possibly operational ~2035), all create conditions in which new residents will arrive, establish routines, and lock in car-dependent behaviors before sustainable alternatives are available.

"A tram line alone does not create sustainable mobility; land use must be reshaped accordingly. Otherwise, the tram may remain a costly but underutilized piece of infrastructure."

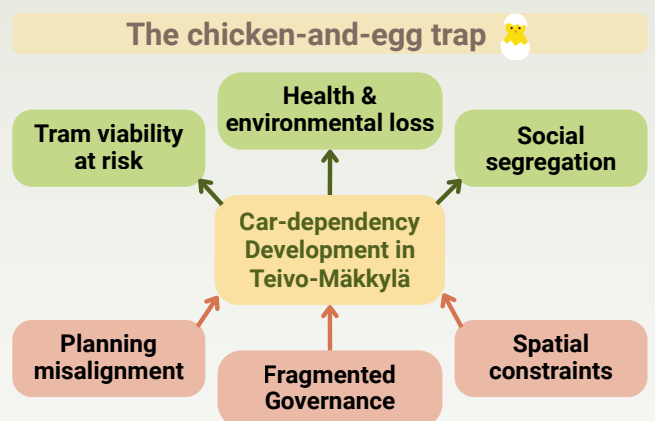
— Antti Haukka, Tampere Tramway Ltd., January 2026

Background and context

Ylöjärvi's historical development logic is based on detached housing and road-oriented growth. In the local context, Vaasantie is a defining corridor and has normalized car use at the municipal level. Traffic on Vaasantie currently runs at 19,000–20,000 vehicles/day at 70–80 km/h. On-site measurements (March 6, 2026) confirmed noise levels exceeding 70 dB near traffic routes which is well above the 55 dB guideline and this is while

Our analysis identifies three structural root causes:

- **Planning misalignment:** MAL5 regional commitments to transit-oriented growth conflict with local detailed plans still prioritizing road capacity and parking.
- **Fragmented governance:** Ylöjärvi, Tampere, regional bodies, and private actors (Teivo Trotting Centre, developers, small existing community groups) operate with divergent visions and no binding/existing coordination mechanism.
- **Spatial–ecological constraints:** The protected Teivaalanharju ridge concentrates development along Vaasantie, risking a linear, highway-dominated urban form poorly suited to public transport.



Green arrows = Consequences; Red arrows = Root causes

active mobility infrastructure and public transport presence remain scarce.

The tram's viability depends on a planning threshold of at least 3,000 residents or employees within 600 m of each stop (WSP, 2024). Preliminary land-use scenarios project roughly 2,900 (Mäkkylä stop) and 3,500 (Teivo stop). This barely meets the threshold under optimistic assumptions.

If early development proceeds in a car-centric way, with residential self-selection by car-dependent households (Stevens, 2017; Selzer & Lanzendorf, 2022) and behavioral lock-in, we could see that ridership base to be further eroded before the tram ever arrives.

The governance picture complicates this further. Stakeholder mapping has revealed us visible misalignment: the Teivo Trotting Centre's masterplan includes entertainment facilities absent from Ylöjärvi's official plan, and the school shown in the city plan is missing from the trotting centre's vision.

This shows that key actors are not working from a shared spatial framework (Ingstrup et al., 2020).

70+ dB

Noise near Vaasantie
(guideline: 55 dB)

2035

Earliest tram date
(residents arrive first)

€18.7M

Estimated land value
uplift from tram (5%
premium)

Methods

Our analysis draws on three complementary approaches:

- **On-site empirical measurement:** Air quality (Atmotube PRO) and noise levels measured at three locations in Teivo–Mäkkylä on March 6, 2026, providing ground-truth data on current environmental conditions.
- **Literature review:** Eight peer-reviewed sources covering TOD sequencing (Knowles & Nikitas, 2025), car-dependency systems (Mattioli et al., 2020),

behavioural lock-in (Selzer & Lanzendorf, 2022), noise planning (Morillas et al., 2018), land value capture (Kauria, 2021; Murray, 2016), smart growth and sustainable action (UN-Habitat, 2022), and Finnish segregation dynamics (Ruonavaara et al., 2025; Kurvinen et al., 2024).

- **Comparative benchmarking:** Analysis of Vauban (Freiburg) and Hammarby Sjöstad (Stockholm) as international cases of car reduced suburban development integrated with transit.

Benchmarking Evidence

Case	Key Outcome	Lesson for Teivo–Mäkkylä
Vauban, Freiburg	70% of households car-free; 57% of car-owning movers sold their car on arrival; tram built before residents moved in.	Tram-first sequencing + parking restrictions = lasting behavioral shift.
Hammarby Sjöstad, Stockholm	Integrated transit, housing and services from Day 1; cycling and walking made dominant daily mode.	Co-designed mobility and land use is the minimum threshold for success.
Jokeri LRT, Helsinki	Apartments within 800 m of stops appreciated 5% more even before operations began.	Early LVC mechanism can fund interim transit investment.

Policy Recommendations



Tram-Ready Land Use from Day One Apply TOD principles now, before tram arrival. Concentrate density ($\geq 3,000$ residents/employees within 600 m of planned stops), mix uses at ground floor, and restrict surface parking. Align Mikkolantie as the primary active mobility spine with actions like safe year-round cycling, efficient and safe pedestrian routes, and school-route designation integrated into street design from the first construction phase.

🕒 Immediate, can be done as a detailed plan revision by 2027



Interim Mobility Network Since the tram will not arrive until ~ 2035 , the district needs high-quality interim alternatives to prevent car lock-in. Commission a dedicated BRT/Superbus service along the Vaasantie–Lielahiti corridor from the year of first occupancy if tram hasn't arrived yet. Establish mobility hubs at each planned tram stop: bike-share, city bike rental stations, parcel lockers, and possible shared car/van. All clusters must be connected via protected, direct cycling routes that are maintained properly in winter.

🕒 Operational with first residents, possibly around 2030–2032



Land Value Capture for Tram Funding Implement a Land Value Capture (LVC) mechanism. Comparable tram projects have generated 3.3–7.1% property price uplifts within 400–800 m of stops. For Teivo–Mäkkylä, this translates to an estimated €18.7M real estate value increase. Capturing 30% through a developer contribution levy would generate over €5.6M to co-finance tram infrastructure. This helps with reducing political risk and breaking the financing deadlock and makes it more enticing for City of Ylöjärvi.

🕒 Establish legal mechanism and frameworks by 2028 to have it ready for first developers



Joint Governance Platform Create a mandatory coordination body like a joint Teivo–Mäkkylä Steering Group with binding representation from Ylöjärvi, Tampere, Tampere Tramway Ltd, and key private stakeholders including the Trotting Centre. Use a shared GIS-based planning dashboard (modelled on existing services like Helsinki's open service map) to align spatial plans, expose contradictions in real time, and enable citizen participation.

🕒 Establish ASAP or latest by end of 2026



Integrate Teivaalanharju as a Mobility Asset Reframe the ridge from a planning constraint into an active driver of climate-smart mobility and place identity. Formalize and protect hiking and cycling routes through the ridge. Position Teivaalanharju as the district's defining public space. This fosters place attachment (Razem, 2020) that supports sustainable daily habits. Link ridge access directly to mobility hub points.

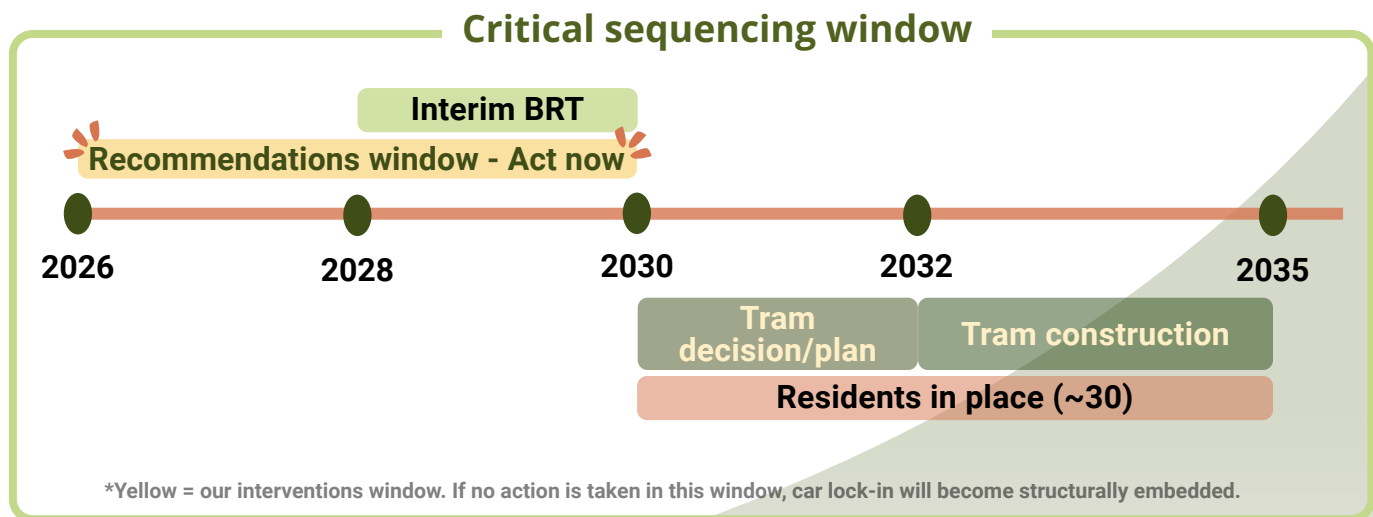
🕒 Nature management plan revision by 2027



Parking Reform & Mobility Incentives Reduce minimum parking requirements to match compact European norms. This can be done by drawing on Vauban's model of peripheral consolidated parking priced at cost recovery. Use released land for compact housing and services. Introduce a 'mobility budget' for new residents: public transport season tickets, bike-share memberships, or city bike access as part of welcome packages. This directly counters behavioral inertia (Mattioli et al., 2020) by making the sustainable option the default from Day 1.

🕒 Parallel to planning process, 2026–2030

Discussion and Implications



Short-term (1–3 years): Governance platform established, detailed plan revised to apply TOD density minimums and parking reform. Mikkolantie designated as active mobility corridor. LVC legal mechanism in development.

Medium-term (5-8 years): First residents arrive with a functioning interim BRT service, mobility hubs, and a protected cycling network in place. Tram decision made with LVC co-financing secured. Land values rising near planned stops which confirms the investment logic.

Long-term (2035+): Tram operational; Teivo–Mäkkylä demonstrates that transit-first suburban development is achievable outside dense city centres. Car use structurally residual rather than dominant. If successful, the area could serve as a national model for peri-urban sustainable development.

Limitations and Future Research

On-site data was collected at three locations in a single session (March 6, 2026) outside peak traffic hours limiting representativeness. Multi-day, multi-season measurements at more locations are needed, along with noise modelling for different built-form scenarios.

The governance analysis is based on publicly available plans and stakeholder presentations leading to private negotiation dynamics remaining opaque. A formal stakeholder alignment audit by a neutral regional body would provide more precise mapping of coordination failures.

The LVC financial projection relies on conservative international comparisons (5% uplift). A site-specific real estate valuation study, commissioned jointly by Ylöjärvi and Tampere, would sharpen the economic case for early tram investment.

Social sustainability analysis is underdeveloped in current planning documents. An explicit distributional analysis addressing who will afford to live in Teivo–Mäkkylä, and under what tenure arrangements is needed to prevent income-based sorting in new low-rise suburbs (Kurvinen et al., 2024; Ruonavaara et al., 2025).

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Cover image source: Teivon-Mäkkylän osayleiskaava etenee valtuustoon, kaupunginhallitus hyväksyi ravikeskuksen uudet vuokrasopimukset. (2024, May 27). Ylöjärvi. <https://www.ylojarvi.fi/teivon-makkylan-osayleiskaava-etenee-valtuustoon-kaupunginhallitus-hyvaksyi-ravikeskuksen-uudet-vuokrasopimukset/>