◆ GLOBAL TRANSIT FRAUD BENCHMARK · 2026

The fraud rate you're measuring is probably wrong.

A short, data-led benchmark on transit fare evasion — built from an Acorel expert webinar with fare-policy analyst Véronique Amourette, checked against public audits from six countries.

A quick-read benchmark for local authorities, transit operators & fare-policy teams

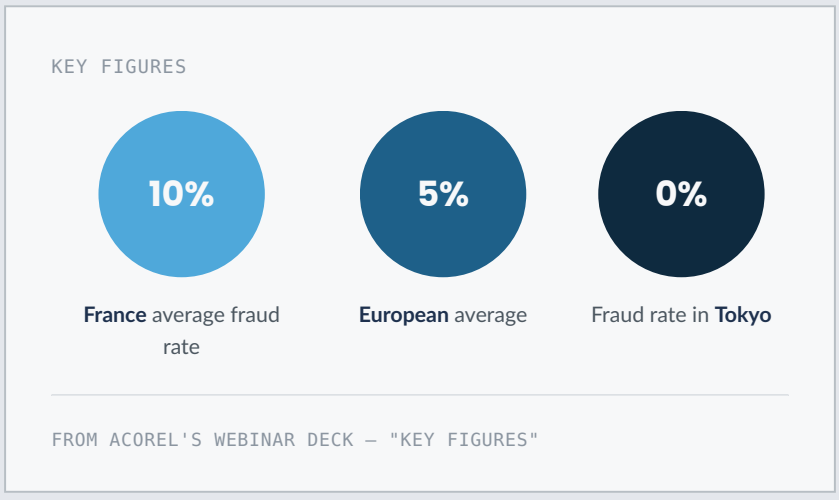
NATIONAL AVERAGE, FRANCE	WORST SPECIFIC LINES	COMBINED COST, 5 USD NETWORKS
8–10%	**45–60%**	**$1.2B+**
Measured non-validation rate — UTP	Line-level extremes, French networks	Plus £130–190M/yr in London

00 EXECUTIVE SUMMARY

A single "fraud rate" is the least useful number a network can report.

Every network with a farebox has a fraud problem. Almost none can say, with confidence, how big it is. This report argues that the tools most agencies use to measure fraud are structurally unable to see it clearly — and the fix is continuous, automated measurement, already deployed today.

- **The average lies.** France's fraud rate averages 8–10% nationally — but ranges from single digits to 45–60% on specific lines. [1,2]
- **The cost is real.** France loses an estimated €700M/year — 1,500 buses' worth. Five major international networks report over $1.2B combined.[1,3]
- **Enforcement alone doesn't fix it.** Independent audits in San Francisco and New York found manual enforcement often costs more than it recovers, and misses the profile actually driving losses.[7]
- **Measurement is the lever.** Continuous, anonymous passenger counting cross-referenced with ticketing — Acorel's approach — is what turns a guess into a targeted, cost-effective response.[1]



Figures marked [1] and [2] come from Acorel's webinar "Solutions pour réduire la fraude dans les transports publics" (Véronique Amourette & Vanessa Carabétien). All other figures are independently sourced — see p.11–12.

01 FRAMEWORK

Three ways to measure fraud — only one is real

Comparing fraud rates measured two different ways is, as Véronique Amourette puts it, "like comparing the price of petrol to diesel — both are fuel prices, but they don't mean the same thing."[1]

APPARENT RATE

What inspectors catch

Set by inspection strategy, not reality. Check peak-hour suburban buses only, and the numbers look clean.

Flaw: self-biased

SURVEYED RATE

What riders admit to

A one-week field survey. Declarative, partial, and stale the moment the season changes.

Flaw: self-reported

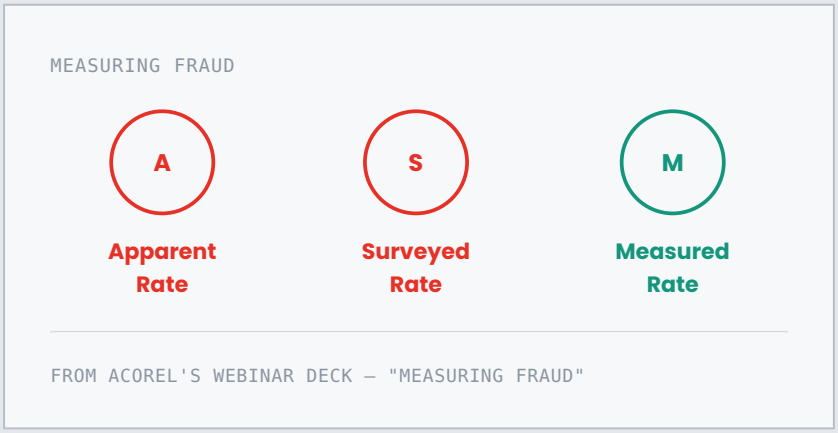
MEASURED RATE

Sensors + ticketing, continuously

Automated passenger counts cross-referenced with validations. Objective, granular, always current.

Basis for Vision Mobility

- Fraud also varies by **network type** (open bus/tram networks evade more than gated metro/RER), **size** (large urban and Île-de-France networks worse than small ones), **time** (higher at night, weekends, holidays), and **rider demographics**.[1]
- TfL and TTC both moved toward continuous, network-wide monitoring for the same reason: periodic manual counts couldn't keep up.[4,6]



02 SCOPE

A national average hides a ten-fold gap

France's own numbers make the case — and the same shape repeats on every network in this benchmark.

€700M	up to 20%	3–5%	2/3
Estimated annual cost of fare evasion in France — UTP	Major urban networks, south of France	Berlin (3–5%) and London (~3.5%); Tokyo ≈ 0%	Of French riders view fare evasion as acceptable — IFOP/UTP

NETWORK	REPORTED ANNUAL LOSS	EVASION RATE / DETAIL	SOURCE
MTA, New York	**~$1.0B (2024)**	Subway 14%→10%; bus 50%→45% (Jun–Dec 2024)	CBC / MTA[3]
TfL, London	**£130–190M/yr**	Network-wide 3.4–3.5%; trams 7.2%, down from 8%	TfL[4]
TTC, Toronto	**$123.8M (2023)**	Weighted avg. 11.9% — streetcars 29.6%, subway 6.3%	TTC[6]
BART, San Francisco	**$5.7–9.5M (est.)**	Independent re-estimate vs. BART's own $25M figure	Policing Equity[7]
Melbourne PT	**~$85M (2010–11)**	Network-wide 13.5% (H1 2011)	Victorian Auditor-Gen.[8]
Singapore PT	**$5.2M (FY2017)**	7,618 cases — 62% non-payment, 26% underpayment	PTC / Torque[9]

Five USD-reporting networks above total over **$1.2 billion**/year — plus London's £130–190M. In three cases, the agency's own headline number was later revised or disputed.[3,6,7]

03 TYPOLOGY

Five profiles, one blind spot

Blanket enforcement treats every non-paying rider the same. Fare-policy analyst Véronique Amourette's typology is why that underperforms.[1]

01	02	03	04	05
Involuntary	**Opportunistic**	**Economic**	**Political**	**Systematic**
Broken machine, crashed app, forgotten card.	Calculates the odds of inspection.	Ticket vs. another essential cost.	Protest against fares or service quality.	Smallest group, costliest to the network.

- **Fare policy is itself a risk factor.** Complex eligibility for social fares causes vulnerable riders to give up and default into fraud — a "labyrinth effect," not a compliance choice.[1]
- **Contagion cuts both ways.** Open evasion in front of other riders invites imitation; visible validation reinforces it — even Swiss tourists, rarely fare-dodgers at home, are more likely to skip payment in France.[1]
- BART's 2025 independent audit found only 6–12% of citations were ever paid, and 43.5% of people stopped were Black riders — disproportionate to ridership.[7]
- A 2024 NYC subway study found no statistical link between fare-evasion arrests and reduced crime nearby.[12]

04 POLICY DEBATE

Why "just make it free" isn't a fix

High fraud pushes some politicians toward eliminating the fare entirely. France's Court of Auditors urges caution.[2]

COUR DES COMPTES, SEPT. REPORT

Free fare doesn't move drivers out of cars. It moves pedestrians onto buses.

Fully free networks rarely shift drivers from cars — instead they add short, marginal trips, risking overcrowding on busy lines. Free transit isn't free either: lost revenue falls on local taxpayers or a higher transit tax.[2]

- Full gratuité usually follows one of three triggers: revenue already marginal, strong political will, or fraud judged uncontrollable.[2]
- Cour des Comptes' verdict: no gratuité decision without solid measurement *before*, *during*, *and after* — data is no longer optional, it's a governance requirement.[2]
- When ticketing disappears, so does the ridership signal — Rio de Janeiro's free Olympic tram line replaced it with 500+ automated counting sensors, independently verified at 99% accuracy.[10]

WHAT THE COURT OF AUDITORS SAYS

1. Evaluate before deciding.
2. Anticipate the risk of saturation and service degradation.
3. Rely on reliable data (ex-ante / ex-post).

Source: "The contribution of users to financing urban public transport" (Cour des Comptes, Sept. 2025)

FROM ACOREL'S WEBINAR DECK — "WHAT THE COURT OF AUDITORS SAYS"

05 COUNTERMEASURES

What the rest of the world is trying

No single fix works alone. Four approaches, at a glance — none of them useful without knowing where to point them.

Manual enforcement

Hits a structural ceiling: slows boarding, and can cost more than it recovers. **6–12%** of BART citations were ever paid.[7]

Gate hardening

Tall pneumatic gates replacing waist-high turnstiles. BART cut witnessed evasion by **>50%** in year one; MTA pilots report 20–70%.[13,14]

Computer vision

AI on existing CCTV. Barcelona's FGC cut evasion **70% +** at one station in weeks; TfL's Willesden Green trial ran 44,000 alerts with automatic face-blurring.[15,17]

Biometrics

Facial-recognition gates hit **~98%** accuracy in Santiago — powerful, but with real consent and data-governance trade-offs anonymous counting avoids.[18]

This is the gap Acorel's approach sits in: anonymous head-count sensing cross-referenced against ticketing — the targeting precision of computer vision, without collecting or storing any personal or biometric data.

COUNTING: MANUAL OR AUTOMATIC?

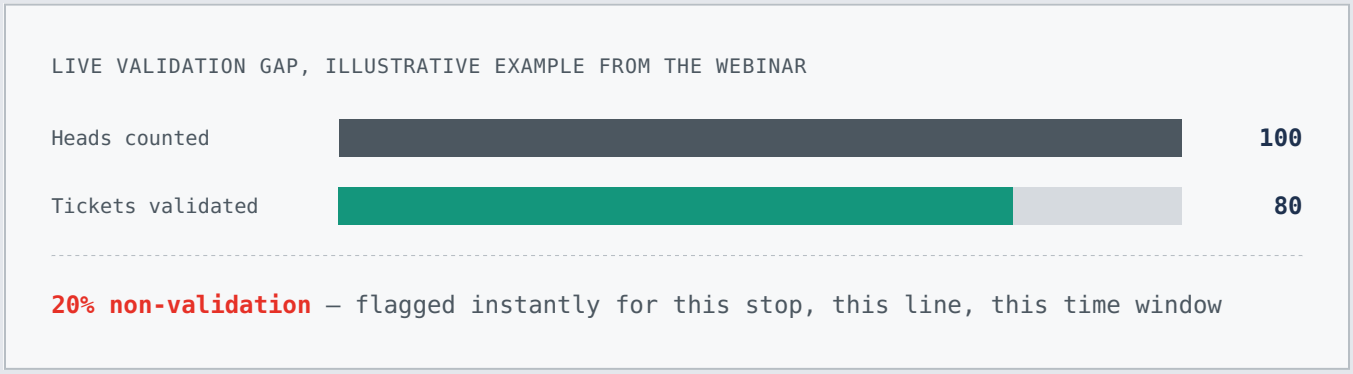
	Manual counting	Automatic counting
FREQUENCY	One-off	Continuous
SCOPE	Sample	Entire network
GRANULARITY	Sampled lines & times only	Entire network
DELAY	Delayed results	Real time
SHELF LIFE	Obsolescence / seasonality	Cumulative history, trend

FROM ACOREL'S WEBINAR DECK — "COUNTING: MANUAL OR AUTOMATIC?"

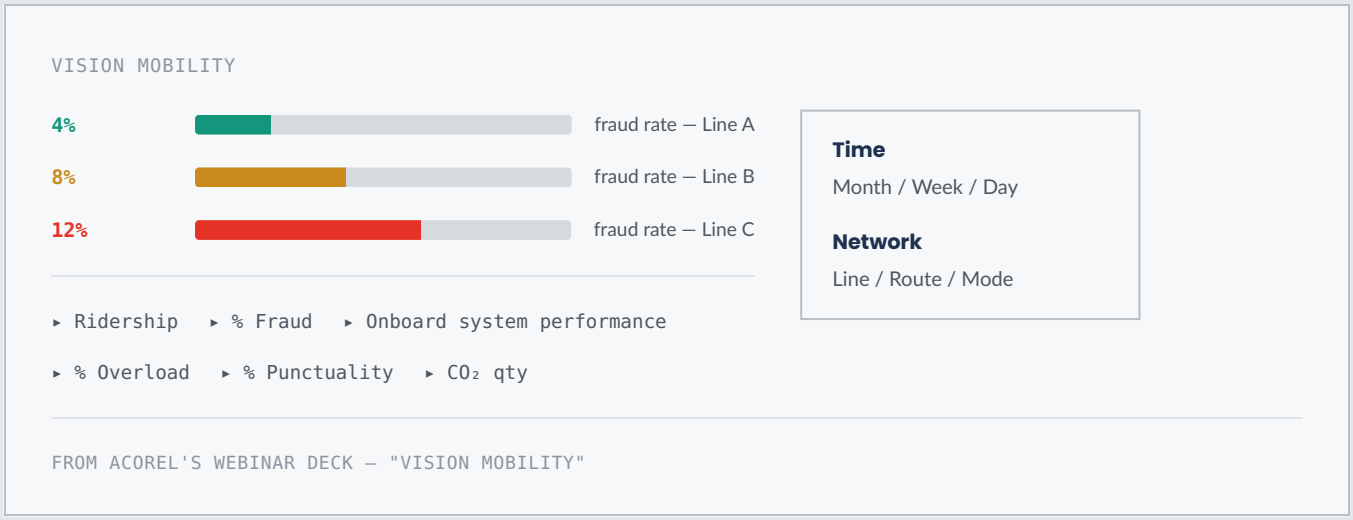
06 THE MECHANISM

How Vision Mobility closes the gap

"A manual campaign gives you three photos of the match. Vision Mobility gives you the video."
— Vanessa Carabétien, Acorel[1]



- **Anonymous by design:** overhead head-counting, no facial recognition, GDPR/CNIL-compliant.[1]
- **Predictive, not noisy:** cross-referenced with weather, calendar and events — flags only real, persistent spikes (rain + football match → risk on line 362), not every fluctuation.[1]
- **Two clicks, on a phone:** controllers see live non-validation spikes and go straight to the line and stop that needs them.[1]
- **Onboard nudges:** automated reminder messages triggered by a validation dip — sets a tone without singling anyone out.[1]



07 PROOF

What this looks like once it's running

GRENOBLE, FRANCE

€1M spent to protect €45M in revenue

Grenoble's smart ticketing and counting system costs ~€1M/year to run — and secures €45M in annual commercial revenue. A 45:1 ratio any collectivité can use to size its own case.[1]

€1M
Annual system cost

€45M
Revenue secured

BARCELONA · FGC RAIL NETWORK

70%+ drop

Evasion fell within weeks of an overhead computer-vision pilot. Third-party deployment, cited for context.[15]

NORTH EUROPEAN METRO · 44 STATIONS

99.2% accuracy

Acorel deployment across 125.6M annual passengers (2024) secures revenue integrity network-wide.[19]

08 THE TOOLKIT

Not a magic wand — a survival kit

"No magic wand against fraud. But smart counting puts a real toolkit in the hands of authorities and operators." — Vanessa Carabétien, Acorel[1]

1 **Targeted control**

Know exactly where fraud spikes, cross-referenced with real ridership — concentrate teams where they create impact.[1]

2 **Contextual onboard messages**

A reminder announcement won't eradicate fraud, but the right nudge at the right moment reaches opportunistic and habitual evaders alike.[1]

3 **Contextual analysis**

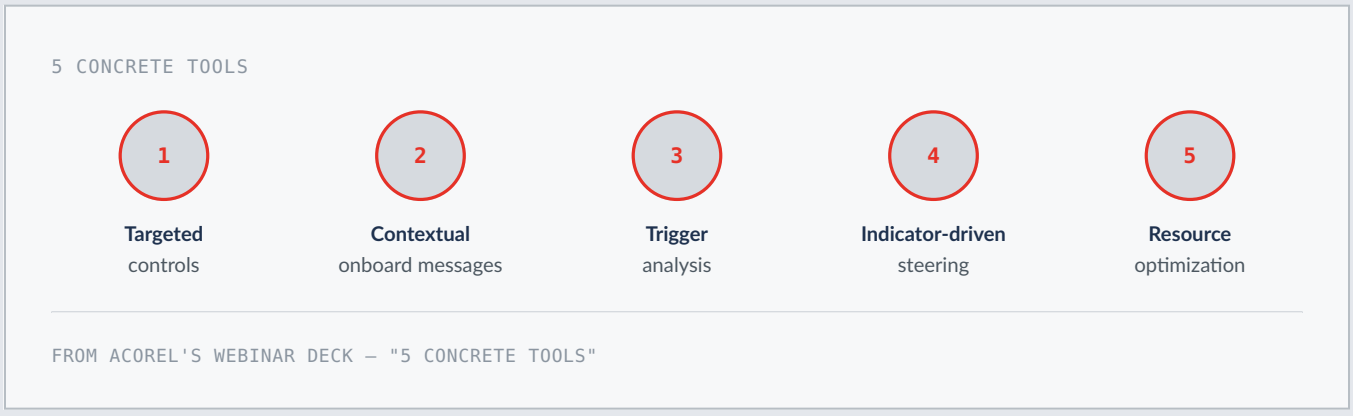
Surface the real triggers of fraud (weather, events, calendar) to anticipate controls and target communication campaigns.[1]

4 **KPI-driven steering**

Measure the effect of every action immediately, and adjust fast rather than waiting for the next annual campaign.[1]

5 **Resource optimization**

Put controllers and budget where the impact is greatest — instead of spreading them thin across the whole network.[1]



SOURCES & METHODOLOGY

Every figure traces to a named source

Figures marked [1]/[2] were presented live during Acorel's expert webinar and are attributed to the panelists' own sources (UTP, IFOP, Cour des Comptes). All other figures were independently verified against the primary report or disclosure listed below (July 2026). Where an agency's own estimate was later revised or disputed, both figures are shown.

Acorel & French sources

1. Acorel webinar — "Solutions pour réduire la fraude dans les transports publics," with Véronique Amourette (independent fare-policy & transit-financing expert) and Vanessa Carabétien (Acorel).
2. Cour des Comptes, "La contribution des usagers au financement des transports collectifs urbains" (Sept. 2025); Union des Transports Publics (UTP) national fraud-cost figures and IFOP rider-perception survey — all as cited in the Acorel webinar.

International audits & transit authorities

3. Citizens Budget Commission of New York, "No Fare: The Costs of MTA Fare and Toll Evasion" (Sept. 2025); MTA Blue-Ribbon Panel Report on Fare and Toll Evasion.
4. Transport for London, fare-evasion press materials; TfL Smart Stations FOI disclosure (ref. FOI-3208-2324).
5. Transport for London penalty-fare press release.
6. Toronto Transit Commission, "2023 Fare Evasion Study Overview" (Mar. 2024 board report).
7. Center for Policing Equity, "BART Fare Enforcement: Balancing Goals, Community Concerns, and Human Costs" (2025).
8. Victorian Auditor-General's Office, "Fare Evasion on Public Transport."
9. Torque, "Fare cheats robbed public transport system of $5.2 million"; Singapore Public Transport Council.
10. Rio de Janeiro VLT tram case, Acorel project archive — acorel.com/en/free-public-transport-and-passenger-counting/.
11. Parliament of New South Wales / NSW Audit Office, "Fare Evasion on Public Transport" follow-up audit; Transport for NSW fare-compliance data.
12. Data Collaborative for Justice, "Ticket Punch: The Consequences of Fare Evasion Enforcement in New York City Subways" (2024).

Technology pilots & case studies

13. BART, "New Fare Gates & Station Hardening."
14. amNewYork, "MTA officials say modern fare gates being piloted are dramatically stopping turnstile cheats."
15. AWAAIT Artificial Intelligence / Axis Communications, FGC Barcelona rail case study.
16. AWAAIT Artificial Intelligence, Dubai RTA bus fare-evasion detection pilot.
17. Transport for London, Smart Stations FOI request detail (Willesden Green).
18. Innovatrics, "Innovatrics and DTPM Pilot Face Biometrics for Faster Boarding on Santiago's Public Transport."
19. Acorel case study, "How a North European metro secured revenue integrity with 99.2% passenger counting accuracy," acorel.com/en/cases/.

acorel
PEOPLE FLOW MANAGEMENT

READY TO MEASURE YOUR OWN NETWORK?

See what a measured fraud rate looks like on your lines.

VK

Vanessa Karabetian

+33 7 84 24 61 24

vanessa.karabetian@acorel.com

VA

Véronique Amourette

+33 6 23 55 05 59

contact@vamourette-conseil.fr